



NOTICE

of

COUNCIL ASSESSMENT PANEL MEETING

Pursuant to the provisions of Section 56A of the Development Act 1993

TO BE HELD IN

**COUNCIL CHAMBERS
PLAYFORD CIVIC CENTRE
10 PLAYFORD BOULEVARD, ELIZABETH**

MEMBERS MAY PARTICIPATE BY ELECTRONIC MEANS

ON

MONDAY, 18 JANUARY 2021 AT 6:00PM

THIS MEETING WILL ALSO BE VIEWABLE AT
<https://www.youtube.com/user/CityOfPlayford>

A handwritten signature in blue ink, appearing to read "S Green".

**SAM GREEN
CHIEF EXECUTIVE OFFICER**

Issue Date: Thursday, 14 January 2021

MEMBERSHIP

MR GEOFF PARSONS – PRESIDING MEMBER

Mr Stephen Coppins

Mr Nathan Grantham

Mr Paul Mickan

Ms Olivia Franco (*Deputy*)

**City of Playford
Council Assessment Panel Meeting**

AGENDA

MONDAY, 18 JANUARY 2021 AT 6:00PM

1 ATTENDANCE RECORD

- 1.1 Present
- 1.2 Apologies
- 1.3 Not Present

2 CONFIRMATION OF MINUTES

RECOMMENDATION

The Minutes of the Council Assessment Panel Meeting held 21 December 2020 be confirmed as a true and accurate record of proceedings.

3 APPLICATIONS WITHDRAWN

4 DECLARATIONS OF INTEREST

5 APPLICATIONS FOR CONSIDERATION – PERSONS WISHING TO BE HEARD

Nil

6 APPLICATIONS FOR CONSIDERATION – NO PERSONS TO BE HEARD

- 6.1 The construction of a foam manufacturing plant (general industry) including warehouse and office, associated hardstand areas and a carpark, the erection of signage, the removal of two regulated trees, the placement of two above ground water tanks and the partial demolition of an existing warehouse and lean-to (Attachments).....6

Representors: Animal Welfare League of South Australia Inc.
Applicant: Sagle Constructions Pty Ltd

7 APPLICATIONS FOR CONSIDERATION - CATEGORY 1

Nil

8 OUTSTANDING MATTERS – APPEALS AND DEFERRED ITEMS

Nil

9 OTHER BUSINESS**9.1 STAFF REPORTS****Matters to be considered by the Committee Only***Matters delegated to the Committee.*

9.1.1	Standing Referral of Building Rules Assessment (Attachment).....	132
9.1.2	Delegations under the Planning, Development and Infrastructure Act 2016 (Attachment).....	136

10 CONFIDENTIAL MATTERS

Nil

11 DEVELOPMENT PLAN POLICY DISCUSSION FORUM

Nil

12 CLOSURE

APPLICATIONS FOR CONSIDERATION

APPLICATIONS FOR CONSIDERATION – NO PERSONS TO BE HEARD

6.1 THE CONSTRUCTION OF A FOAM MANUFACTURING PLANT (GENERAL INDUSTRY) INCLUDING WAREHOUSE AND OFFICE, ASSOCIATED HARDSTAND AREAS AND A CARPARK, THE ERECTION OF SIGNAGE, THE REMOVAL OF TWO REGULATED TREES, THE PLACEMENT OF TWO ABOVE GROUND WATER TANKS AND THE PARTIAL DEMOLITION OF AN EXISTING WAREHOUSE AND LEAN-TO

Snapshot

Author:	Megan Leverington
Proposal:	The construction of a foam manufacturing plant (general industry) including warehouse and office, associated hardstand areas and a carpark, the erection of signage, the removal of two regulated trees, the placement of two above ground water tanks and the partial demolition of an existing warehouse and lean-to
Development Number:	292/1790/2020
Date of Lodgement:	7 October 2020
Owner:	Joyce W C NSW Pty Ltd
Applicant:	Sagle Constructions Pty Ltd
Location:	12 Hewittson Road, Edinburgh North
Zone:	Urban Employment
Classification:	Merit
Public Notification Category:	2
Representation Received:	Yes
Development Plan:	Consolidated 30 April 2020
Request for Additional Information Made?	No
Recommendation:	To Grant Development Plan Consent

Attachments:	1 1 . Certificate of Title
	2 2 . Zone Map
	3 3 . Demolition Plan
	4 4 . Site and Landscaping Plan
	5 5 . Floor Plan
	6 6 . Elevation Plans
	7 7 . Traffic and Parking Report and Plans
	8 8 . Stormwater Management Report and Plans
	9 9 . Dangerous Goods and Hazardous Chemicals Assessment
	10 10 . Emission Testing Report
	11 11 . EPA Referral Response
	12 12 . Planning Consultant's Report
	13 13 . Representation Received
	14 14 . Response to representation Received

1. The Subject Land

The subject land is square in shape, with a slight fall from the east to the west and is located on the north side of Hewittson Road, in the suburb of Edinburgh North. The allotment features a frontage of approximately 207m and an average depth of 240m, with an overall area of approximately 49,890m² (Attachment 1).

The subject land is currently used for the processing of polyurethane foam; converting large foam blocks into smaller pieces, to suit various customer's requirements.

The site currently contains a foam block storage shed located towards the northern end of the allotment, a decommissioned foam machinery plant building on the eastern side of the allotment and a warehouse and scrap handling building located in the southern centre of the allotment. An office, staff and showroom building is located towards the southern front of the allotment and a foam cutting and conversion warehouse is located behind it, connected via a covered walkway.

Access to the site is currently obtained via a concrete crossover and driveway located centrally along the allotment frontage. A small number of concrete staff carparks are located closest to Hewittson Road, with additional informal staff and visitor car parking provided via a dolomite driveway and carpark area, located towards the south eastern corner of the allotment.

Landscaping is scattered throughout the allotment, with the majority found along the front and rear property boundaries. Two Regulated trees are located near the western boundary and a number of Council street trees exist along the Hewittson Road Frontage.

There are no easements, rights of way or Land Management Agreements that apply to the subject land.

2. The Locality

Based on the visibility of the allotment, the extent of the locality is considered to include the subject land, the allotments north of the subject land, the allotment east of the subject land, the allotments south of Hewittson Road and the allotment west of the subject land.

2.1 Locality Plan



The locality predominantly contains large industrial allotments with built form typically large in scale and in the form of industrial buildings, with ancillary and smaller scale administration buildings. Built form is generally well setback from primary and secondary road frontages, which provides for large areas of car parking, vehicle maneuvering and landscaping.

The locality also contains medium sized commercial allotments off Priority Court, with built form consisting of colorbond sheds of various sizes and minimal landscaping.

Land uses within the locality are of a mixed variety including industry, light industry, commercial, warehousing, service trade premises, car dismantling and an animal shelter and crematorium.

Road carriageways are wide to cater for larger vehicles, including B-double trucks which are common users to service surrounding businesses.

The nearest sensitive land use (residential) is located approximately 240m to the north-east of the nearest boundary of the subject site.

2.2 Zoning

The subject land is depicted on Zone Map Play/25 in the Mapping Section of the Development Plan (see attachment 2).

By virtue of its location, the land is entirely within the Urban Employment Zone.

3. Background

Joyce Foam Products has been manufacturing the largest range of polyurethane foam in Australia for over sixty years. The subject land previously contained polyurethane foam production machinery, which operated from 1974 to 2014 and produced conventional foam slabstock for a range of industries.

In 2016, Joyce Foam decided to cease foam manufacture in South Australia and decommissioned the ageing facility, resulting in the surrendering of its Environmental Protection Authority (EPA) Licence (No 15699).

Currently all foam product is manufactured in Moorebank NSW, with foam compressed and shipped to South Australia, where the foam is further converted to smaller pieces, to suit businesses' requirements.

More recently, Joyce Foam has committed to significantly invest in the construction of a state of the art foam production facility on the subject land, which incorporates a Variable Pressure Foaming (VPF) machine – the cleanest and greenest method of foam making (<https://www.joyce.com.au/sustainability>). As such, they are seeking a new EPA licence and new buildings to accommodate the machinery and associated production.

4. The Proposal

It is considered the proposal is best described as follows:

“The construction of a foam manufacturing plant (general industry) including warehouse and office, associated hardstand areas and a carpark, the erection of signage, the removal of two regulated trees, the placement of two above ground water tanks and the partial demolition of an existing warehouse and lean-to”.

The proposed operations will be contained within a single building, to be located on the western side of the subject land and configured to easily integrate with the existing Joyce Foam operations.

The proposed building will be 125.6m long, 61m wide and 13m tall to the ridge, with an overall area of approximately 7,661m² (see attachment 5 and 6). The building will be setback 30m from the southern boundary (Hewittson Road), 7m from the western side boundary, 84m from the northern rear boundary and 136m from the eastern side boundary (see attachment 4). It will be constructed of a combination of metal cladding in colorbond monument colour and precast concrete walls in colorbond surfmist colour, with a large canopy attached to the front façade. It will be linked to the existing buildings via a canopy to the workshop area and a pedestrian walkway to the main office areas.

The building will house a new Variable Pressure Foaming (VPF) machine which is considered to be the cleanest and most environmentally friendly method of foam making. The VPF machine is over 120m long and consists of a long tunnel whereby during the foam production process, all air emissions are captured and filtered through a charcoal system, virtually removing the release of any by-products into the atmosphere.

Large foam storage areas will be designated within the proposed building, to store the newly made foam. Once dried, the foam sections will be moved onto shuttle conveyor belts, located in the rear hardstand area of the warehouse and then transported to the adjoining existing building via forks. From here, the foam will be cut into smaller pieces ready for transport to various businesses, primarily within South Australia, where they will be delivered via a B-double truck, once a day.

It is anticipated that an additional six to nine staff members will be required to assist with the operations of the new machinery and foam processing. This will be in addition to the 11 existing staff members. The existing formal and informal on site car parking areas will be retained and continue to be used, which can accommodate the increase in the staff numbers proposed, however an additional area will be provided near the existing scrap handling building, for future car parking requirements and when required, will be constructed as per Australian Standard AS 2890.

Two signs depicting Joyce Foam Products business name and logo will be attached to the front façade of the proposed building – the larger sign being located above the proposed canopy and the smaller sign located adjoining the office entrance. The signage will have a white background, blue and grey front and a green leaf symbol and will not be illuminated.

Two Regulated trees located on the western side of the subject land will require removal in order to accommodate the proposed building. A 3m wide landscaping strip is proposed along the southern (front) boundary to compensate for the removal of these two Regulated trees, with four replacement trees proposed, in addition to other shrubs and ground covers. An additional 1m landscaping strip is also proposed adjoining the existing office buildings and along a portion of the western boundary. The proposed stormwater detention basin to the north of the allotment does not result in the removal of any trees at the rear of the allotment.

Two rainwater tanks will be placed on the subject land. One rainwater tank is proposed adjoining the existing office building, to capture water collected off the proposed building roof and the other rainwater tank will be a 500,000 litre fire sprinkler tank, to be located between the existing office and warehouse buildings. A large stormwater detention basin is also proposed at the rear of the site, to carefully manage stormwater disposal in an environmentally responsible manner and to cater for 1 in 100 year ARI storm events.

5. Procedural Matters

5.1 Classification

The proposed development is not assigned as *Complying* or *Non-Complying* either in Council's Development Plan or in the *Development Regulations 2008* (Regulations).

As such, the proposal has been dealt with as a *Merit* form of development.

5.2 Public Notification

Section 38(2a) of the Development Act (1993) states the assignment of a form of development to Category 1 under subsection (2)(a) cannot extend to a particular development if that development involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the Environment Protection Act 1993.

Due to the development involving chemical storage and chemical activities specified in Schedule 22 1(1) and 1(2) of the *Regulations*, it has been dealt with as a Category 2 development pursuant to Regulation 32(3)(b) of the *Regulations*.

Eighteen properties were notified of the application. One representation was received by Council (see attachment 13) and is summarised as follows:

Representor	Issues Raised
Dr Julie Bellamy Chief Executive Officer Animal Welfare League of South Australia Inc.	<ul style="list-style-type: none">the chemicals involved in the manufacture of foam; such as polyol and polyisocyanates are toxic to dogs and cats. Even in small amounts of these chemicals in the air may not be lethal, they can cause significant respiratory irritation to the dogs and cats in their care.
	Representation would be overcome by:
	<ul style="list-style-type: none">an independent written assessment of the risk of all the products used in the foam manufacturing plants and written confirmation that there will be no risk to any animal held on the AWL site, including evidence to support this assessment.

The Applicant's Planning Consultant, Andrew Humby from Humby Consulting, responded to the representation received (see attachment 14) and it is summarised as follows:

- Conventional foam production techniques cause greater external impacts than those associated with the newer production methods proposed in this application;
- Conventional foam slabstock was previously manufactured on the subject site from 1974 to 2014, with these activities occurring primarily in the long, narrow building which is located less than 10m from the western boundary of the AWL's site. The built form on the AWL's site was constructed in mid-2005, with a crematorium constructed at the rear of the site in mid-2017. During the time of the previous foam production, no formal complaints were received from the AWL in regards to odours or impacts on any animals residing on the AWL site;
- On the opposite boundary of the AWL site is another established foam manufacturing plant known as Foamex, which is located approximately 45m from the eastern boundary of the AWL site. It is understood that the operations of this site utilise conventional foam manufacturing production techniques and produce expanded polystyrene and extruded polystyrene products, which Julie has stated is toxic to dogs and cats;
- The proposed development will use a VPF machine which is considered to be the cleanest and most environmentally friendly method of making foam, due to all air emissions from the machine being captured and filtered through a charcoal system, virtually removing any bi-products into the atmosphere;
- The VPF machine will be over 190m from the eastern property boundary of the AWL site and enclosed inside a warehouse which will be a minimum of 140m away from the eastern property boundary of the AWL site;
- The Application was referred to the EPA, who have no objection to the proposed development and have stated that they consider the risk of environmental harm arising from the proposed chemical works and storage facility is low;

Although an independent written assessment has not been sought by the Applicant, a separate informal request was sought by the Applicant from the EPA, regarding the AWL's concerns about the toxicity of chemicals and impacts upon animal welfare.

A Senior Air Quality Advisor at the EPA consulted with SA Health and advised the following:

- SA Health have been consulted and have advised that they are unaware of any studies to suggest cats and dogs are more sensitive than humans to the air pollutants of interest.
- SA Health and EPA contend that without proof to the contrary, the level of environmental protection afforded by the Environment Protection (Air Quality) Policy 2016 (the "Air EPP") is expected to be sufficient to protect cats and dogs as much as it does the most vulnerable human beings (babies and the infirm).
- Literature regarding animal sensitivities to said pollutants in air were not presented.
- Specifically, we understand that the only information submitted by the AWL to date is a handwritten representation from their veterinarian Dr. Julie Bellamy. We await more scientific literature from AWL that demonstrates the proposition that

cats and dogs are more sensitive to the pollutants in question than human beings.

- Whilst there hasn't been any air pollutant dispersion modelling undertaken by the proponent for the development application to date, the information provided suggests that the ground level concentrations are expected to be considerably below the mandated levels in Schedule 2 of the Air EPP.
- Consequently, the EPA will continue to assess the proposal on the grounds of human protection unless more information to the contrary comes to light which requires our consideration.

The Applicant met with Dr Bellamy to discuss her representation and attempt to resolve her concerns, however this was not achieved.

5.3 Statutory Referrals

The application was referred to the EPA under Schedule 8 and 22 of the Regulations due to the storage or warehousing of chemicals exceeding 200 litres and the production of foam exceeding 100 tonnes per year. The EPA has 'direction' in respect to this application.

The EPA is in support of the proposal (see attachment 11). and has provided conditions and notes in relation to stormwater, chemical storage and pollution prevention, which are contained within the recommendation.

6. Key Issues

The following matters are considered pertinent in reaching a recommendation for the proposal:

- Whether the proposed development is consistent with the Desired Character of the Urban Employment Zone;
- Whether the proposed development is located and designed to minimise adverse impact and conflict between existing and desired land uses within the locality, and
- Whether the proposed development is of a high design standard and appearance.

7. Planning Assessment

7.1 Consistency with Desired Character of the Urban Employment Zone

The Urban Employment Zone is a zone that accommodates a range of industrial land uses, together with other employment and business activities, which generate employment and wealth for the State.

The zone will be a high quality enterprise and employment destination, attracting a specialised workforce and providing a focus for manufacturing, research and technology, logistics and transport services, intermodal operations and expansion of defence industries in particular.

Desirable land uses include a wide range of activities that generate employment; focusing on industry, indoor industrialised horticulture and associated processing and packaging, transport and technology-based activities that can operate on a twenty-four hour, seven day per week basis where appropriate.

The proposed foam manufacturing plant is considered an industrial land use and together with warehouse and office, is listed as an envisaged land use within the Urban Employment Zone.

Currently all Joyce's foam is manufactured in Moorebank NSW, then compressed and shipped to South Australia, where the foam is further converted to smaller pieces. More recently, Joyce Foam has committed to significantly invest in the construction of a state of the art foam production facility on the subject site, to manufacture foam in South Australia. The Applicant seeks to construct a warehouse to contain a Variable Pressure Foaming (VPF) machine, which is considered to be the cleanest and greenest method of foam making in the world.

This state of the art machine and facility will attract a specialised workforce and increase employment opportunities for the State, as it is anticipated that an additional 6 to 9 staff members will be required to assist with the operations. This is in addition to the existing 11 staff members currently employed.

Wealth for the State will also be increased, not only from the manufacturing of the foam itself, but also from the recycling of foam scraps and other materials used in the production process. No foam waste goes to landfill, as the foam scraps are rebounded and recycled into carpet underlay and any raw material containers and plastic wrappings are also recycled through supply chain partners.

Although the zone supports activities that can operate on a twenty-four hour, seven day per week basis where appropriate, the proposed development will only seek to increase its operating 'shifts' from its current 6.00am – 2.30pm to include an additional afternoon/evening shift from 2.00pm – 10.30pm. The new VPF machine will only operate during a foam production run, for approximately 2 hours between 9.00am and 1.00pm.

On this basis, the proposed development satisfies Objective 1, 3, 8 and Principle of Development Control 1 and 11 and is an appropriate land use that is consistent with the Desired Character of the Urban Employment Zone.

7.2 Minimal adverse impact and conflict between existing and desired land uses

Development should be designed and sited to minimise negative impacts on existing and potential future land uses. Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through the emission of odour, fumes, dust or other airborne pollutants, noise, vibration, hours of operation or traffic impacts.

The Variable Pressure Foaming (VPF) machine used in the production of the foam will be housed inside a warehouse building. This building is to be sited 30m from the southern boundary (Hewittson Road), 7m from the western side boundary, 84m from the northern rear boundary and 136m from the eastern side boundary. These distances are considered appropriate to minimise potential negative impacts on existing and future land uses, given the nearest sensitive land use (residential) is located approximately 240m to the north-east of the subject site and the AWL is located over 136m east of the subject site.

The VPF machine is also considered to be the cleanest and most environmentally friendly method of foam making, as it captures all emissions, requires no auxiliary blowing agents and produces virtually no Volatile Organic Compounds (VOC's). The VPF machine has 2 emission points, which pass through activated carbon capture systems, to ensure all emissions created during the manufacturing process are captured and filtered. This will virtually remove the release of any by-products into the atmosphere and ensure no odour, fumes or airborne pollutants affect the amenity of the locality.

The chemicals used in the foam manufacturing will also be stored and handled in an environmentally safe manner. The proposed development involves the storage of 200 litres of the chemicals Toluene Diisocyanate (TDI) and Methylene Bis Phenyl Isocyanate (MDI) used in the manufacturing of foam. These chemicals are proposed to be stored in tanks in a specified 'tank farm' room inside the front of the proposed building. This area will be bunded with 150mm bund, with an additional 30KL underground emergency holding tank also proposed. This is considered adequate by the EPA for the containment of any potential spillage from the four biggest chemical tanks.

The chemicals will be transported to the subject site via a road tanker and will be unloaded to the tank farm room via external fill points. These fill points will be located under the covered canopy at the front of the proposed building. This area will be constructed of reinforced concrete pavement and will be readily accessible to emergency vehicles. An unloading spill containment system of more than 10,000L from the largest unloading tanker will also be provided, with any potential spills to be contained within the small bunded area and drained to the underground tanks, reducing the risk of potential site contamination.

All vehicle manoeuvring areas are to comprise of concrete and cement treated rubble to ensure that vehicle traffic generates minimal dust on the site and will not cause adverse impacts upon adjoining allotments.

Noise impacts are also considered to be minimal with the two potential noise sources being the two VPF vacuum blowers, which will be located inside the proposed building. Electric motors will drive the pumps, conveyors and saws and are considered to be less noise obtrusive than traditional motor units. Due to being located inside the building and over 100m from the nearest adjacent boundary, the noise levels emitted will comply with relevant EPA industrial noise levels.

The hours of operation are not considered to be excessive, considering that the Urban Employment Zone allows activities that can operate on a twenty four hour a day, seven day per week basis, where appropriate. The proposed development will only seek to increase its operating 'shifts' from its current 6.00am – 2.30pm to include an additional afternoon/evening shift from 2.00pm – 10.30pm, whilst the new VPF machine will only operate during a foam production run, for approximately two hours between 9.00am and 1.00pm. These operating hours are considered to be consistent with the operating hours of other adjoining industrial land uses and will ensure that any noise, visual or traffic impacts will not have a detrimental impact on the amenity of the locality.

As such, it is considered that the proposed development satisfies Objective 1, 2 and 3 and Principle of Development Control 1, 2, 8 and 11 of the Interface Between Land Uses General Section and Objective 4 and Principle of Development Control 4, 15 and 16 of the Urban Employment Zone of Council's Development Plan.

7.3 Safe and convenient access and adequate off-street car parking provided

Development should provide safe and convenient access for all anticipated modes of transport, including emergency services and industrial/commercial vehicle movements should be separated from passenger vehicle parking areas. Development should also provide for the on-site loading, unloading and turning of all traffic likely to be generated and should provide off street vehicle parking to meet anticipated demand.

Access to the site is currently obtained via a driveway and crossover located centrally along the Hewittson Road frontage. Two additional crossovers are proposed as part of this development, to provide access for the industrial/commercial vehicle movements and ensure their separation from the passenger vehicle parking areas. The new crossovers will be located west of the existing crossover and will provide one way access to the proposed hardstand area in front of the proposed building. The main deliveries will occur through the new crossovers, with chemicals required for the foam manufacturing process

to be unloaded in front of the proposed tank farm. Relevant vehicle swept paths have been prepared by CIRQA (see Attachment 7) and have been deemed acceptable by Council's Traffic Engineer.

Although majority of the vehicle movements will occur within areas forward of the proposed building, a perimeter access route is proposed along the western and northern boundaries for emergency service vehicles.

The existing crossover will be widened to cater for improved ingress and egress and will provide access to the existing informal car parking area. This car parking area will be formalised with line marking and ensure compliance with the relevant Australian Standards, to provide 52 designated car parking spaces and an additional area designated overflow car parking.

Council's Development Plan stipulates the following parking requirements for an industrial development within the Urban Employment Zone:

- *2 spaces per 100 square metres of gross leasable floor area up to 200 square metres plus:*
 - (a) *1 space for every 75m² of gross floor area between 200m² and 2,000m², plus*
 - (b) *1 space for every 150m² of gross floor area greater than 2,000m², plus*
 - (c) *1 space per 30m² of gross leasable floor area utilised for offices.*

Based on the Development Plan rates above, the proposed development would result in a demand of 70 off street car parking spaces.

Due to the current nature of the activities, only 11 staff members are currently employed at the subject site. With the construction of the new manufacturing plant, it is anticipated that an additional 6 to 9 staff members will be required. This results in a total of 17 to 20 staff members on site at any one time, with the vast majority of the available car parking not being utilised.

Notwithstanding this, an area has been designated for future car parking should the need for additional car parking spaces arise and will be subject to an assessment at such time. Council's Traffic Engineer has reviewed CIRQA's Report and accepts the shortfall of 18 car parking spaces. In this instance, the Development Plan's demand of 70 spaces for the proposal is considered excessive, given the anticipated demand generated by the proposed development.

It is therefore considered that the proposed development satisfies Objective 2 and Principle of Development Control 10, 15, 16, 24, 25, 33, 36, 37, 38, 41 and 43 of the Transportation and Access General Section of Council's Development Plan.

7.4 Development of a high design standard and appearance

Buildings should reflect the desired character of the locality, while incorporating contemporary designs that have regard to building height, mass and proportion, external materials and colours, roof form and pitch.

In areas where a uniform street setback pattern has not been established, buildings greater than 6 metres in height should be setback a minimum of 10 metres from the primary road frontage.

Due to the character of the locality being industrial in nature, the urban landscape is of a moderate amenity, with built form typically of colorbond clad buildings, with landscaping forward of the built form and signage limited to information relating to the legitimate use of the associated land.

The proposed building will be of a contemporary design, constructed of a combination of metal cladding in colorbond monument color and precast concrete walls in colorbond surfmist color. This built form is considered to be an improvement to many of the existing buildings found along Hewittson Road and throughout the locality.

The building will be 125.6m long and 61m wide, with an overall area of approximately 7,661m² and will have a wall height of 10 metres, a maximum ridge height of 11.54 metres and a 5 degree roof pitch. To compensate for the large building height, the front façade incorporates a large canopy to provide an increased level of articulation and the building is proposed to be setback 30 metres from Hewittson Road. The proposed 30 metre setback exceeds the 10 metre minimum requirement as stipulated in Council's Development Plan and will ensure the proposed building is not a dominant feature in the locality.

To replicate the existing landscaping within the locality, a 3 metre wide landscaping strip is proposed along the Hewittson Road frontage, a 1 metre wide landscaping strip is proposed along the western allotment boundary and a 1 metre wide landscaping strip is proposed at the front of the existing office buildings. The combination of the existing and proposed landscaping will not only assist in screening the development from adjoining allotments but will assist in the development being a high design standard and appearance and will reflect the desired character of the locality.

The two signs proposed with this development are to consist of a larger sign to be located above the proposed canopy and a smaller sign to be located adjacent the office entrance, attached to the building. The signs will be limited to the legitimate use of the land and will display the company name, Joyce Foam products in legible script.

On this basis, the proposed development satisfies Objective 1 and 2 and Principle of Development Control 1, 4, 15, 16 of the Design and Appearance General Section, Objective 1 and 3 and Principle of Development Control 1, 2, 4 and 5 of the Advertisements General Section and Principle of Development Control 12 of the Urban Employment Zone of Council's Development Plan.

7.5 Adequate stormwater management

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.

The Applicant has engaged MLEI Consulting Engineers to provide expert advice on the management of stormwater generated by the proposed development (see attachment 8). The portion of the subject land where the development is proposed does not currently contain any built form and as such, rainfall is managed naturally as it drains into the soil.

As the proposed development will substantially increase the impervious areas, the development will need to ensure that stormwater is managed in an environmentally responsible manner.

The rainfall collected on the proposed building will all be collected within a large rainwater tank (approximate 290,500 litre) via a sealed stormwater system. The rainwater tank will be located adjoining the existing office building and screened by existing landscaping. Any excess rainwater will be discharged directly into the existing stormwater channel at the rear of the allotment via a sealed system.

Surface water collected in the front area of the subject land will be directed towards the hardstand area where this will act as a large detention basin with an approximate 123,000 litre surface area. Water will be collected and pumped to the rear of the allotment where it will be discharged into a new stormwater detention basin.

Stormwater collected from the hardstand areas to rear of the proposed building will also be collected and diverted to the stormwater detention basin.

The stormwater management system will provide for stormwater detention and treatment of the collected runoff with any excess discharged to the adjoining council channel. The system will carefully manage disposal in an environmentally responsible manner and cater for 1 in 100 ARI storm events.

It is considered that the proposed design will adequately manage stormwater of the proposed development and satisfies Objective 5, 6 and 7 and Principle of Development Control 1, 5, 7, 8, 9, 10, 11, 12 and 14 of the Natural Resources General Section of Council's Development Plan.

7.6 Development in balance with preserving regulated trees

A regulated tree should not be removed or damaged other than where it can be demonstrated that the tree is diseased and its life expectancy is short, the tree represents a material risk to public or private safety, the tree is causing damage to a building or development that is reasonable and expected would not otherwise be possible.

The two regulated trees proposed to be removed are a morton bay fig and a pine tree (see attachment 3). The two trees do not significantly contribute to the character or visual amenity of the locality, are not indigenous to the locality, and are not rare or endangered species or an important habitat for native fauna. Furthermore, these trees are sited where the warehouse building is being proposed and although attempts have been made to consider a revised design to accommodate the retention of these trees, their removal is required to facilitate the proposed development.

Due to the trees being located centrally within the subject land, it poses difficulties in constructing any type of built form and hinders development that is reasonable and expected within the Urban Employment Zone.

Landscaping has been identified on the site plan (see attachment 4) and the requirement to provide a detailed landscaping plan to Council, prior to the issuing of Development Approval, has been proposed as a Reserve Matter within the recommendation. Furthermore, a condition of approval for the planting of four trees to compensate for the proposed removal of the two trees is also included in the officer's recommendation and is considered to be consistent with the requirements prescribed in Regulation 117 of the *Development Regulations 2008*.

On this basis, the removal of the two regulated trees is considered appropriate as development that is reasonable and expected within the Urban Employment Zone would not otherwise be possible.

8. Conclusion

The proposed foam manufacturing plant is considered an industrial land use and together with warehouse and office, is listed as an envisaged land use within the Urban Employment Zone.

The siting of the proposed warehouse, location of the VPF machine within the building, the storage and handling of chemicals used, operating hours and traffic movements will not adversely affect the amenity of the locality or adjoining land users.

Although an independent written assessment on the impact of chemicals upon animal welfare has not been sought, the EPA has advised that there are no studies to suggest cats and dogs are more sensitive than humans to the air pollutants of interest and the level of environmental protection afforded by the Environment Protection (Air Quality) Policy 2016

(the "Air EPP") is expected to be sufficient to protect cats and dogs as much as it does the most vulnerable human beings (babies and the infirm).

Safe and convenient access for all anticipated modes of transport will be provided and despite car parking provisions not meeting the stipulated requirement in Councils Development Plan, sufficient on site car parking will be provided for anticipated demand, as well as potential future demand.

The built form of the development is considered to be of a high design standard and appearance that will be an improvement on the amenity of the locality and the proposed landscaping will reflect the desired character of the locality.

Having considered all the relevant Objectives and Principles of Development Control, the proposal is not considered to be seriously at variance with Council's Development Plan and warrants Development Plan Consent.

9. Recommendation

STAFF RECOMMENDATION

That pursuant to the authority to the Council Assessment Panel by the Council, it is recommended that the Council Assessment Panel:

- A. DETERMINES that the proposed development is not seriously at variance with the policies in the Playford Council Development Plan; and
- B. GRANTS Development Plan Consent, to the application by Sagle Constructions Pty Ltd for the construction of a foam manufacturing plant (general industry) including warehouse and office, associated hardstand areas and a carpark, the erection of signage, the removal of two regulated trees, the placement of two above ground water tanks and the partial demolition of an existing warehouse and lean-to at 12 Hewittson Road, Edinburgh North as detailed in Development Application 292/1790/2020 subject to the following conditions and reserve matter:

Reserve Matter

The following matter(s) have been reserved pursuant to section 33(3) of the Development Act 1993, and sub-delegated to Council planning staff for a determination, prior to the issue of Development Approval:

- A Construction Environmental Management Plan (CEMP) prepared by a site contamination consultant in accordance with the EPA Industry Guideline Construction Environmental Management Plan (CEMP) which:
 - identifies the environmental issues that may arise from the proposed work at the site (e.g soil management, including fill importation, stockpiles and prevention of soil contamination, including prevention of further groundwater contamination);
 - provides control measures to mitigate and/or manage any environmental impacts; and
 - includes an environmental assessment to ensure the site is suitable for its intended use.
- A detailed landscaping plan to be provided that details the species of plants to be incorporated along the southern and western boundary and adjoining the existing office buildings.

Council Conditions

1. The development must be undertaken, completed and maintained in accordance with the plan(s) and information detailed in this Application except where varied by any condition(s) listed below;

2. The hours of operation herein approved are as follows:

6.00am to 10.30pm

Any variation to these hours of operation will require a further consent.

Reason: To minimise the impact on adjoining properties.

3. No materials or equipment are to be stored outdoors.

Reason: To preserve and enhance the amenity of the site and locality.

4. All loading and unloading of goods and merchandise shall be carried out upon the subject land and no loading of any goods or merchandise shall be permitted to be carried out in the street in conjunction with the consent herein granted.

Reason: To minimise the impact on adjacent properties, roads, road users and infrastructure.

5. All driveways, parking and manoeuvring areas must be formed, sealed with concrete, bitumen or paving, and be properly drained. They must be maintained in good condition thereafter.

Reason: To ensure useable and safe car parking.

6. The signage, herein approved, must be maintained in good repair with all words and symbols being clearly visible at all times.

Reason: To ensure amenity of the site and locality.

7. The planting and landscaping identified on the site plan sheet no: A02 of 11 submitted with the application must be completed in the first planting season concurrent with or following commencement of the use of the manufacturing plant. Such planting and landscaping must not be removed nor the branches of any tree lopped and any plants which become diseased or die must be replaced by suitable species.

Reason: To maintain the amenity of the site and locality.

8. All vehicles must enter and exit the site in a forward direction.

Reason: To ensure safe and convenient access is provided.

9. Ensure stormwater from the subject site is directed safely to the legal stormwater discharge point, without increasing the risk of flood inundation of adjoining properties. The stormwater system installation shall meet the minimum requirements of City of Playford drawing: 10 Footpath Drainage outlet C.

Reason: To maintain consistency of the streetscape, protect the infrastructure within the road verge and adjoining properties.

10. On site stormwater detention must be constructed in accordance with the site works and stormwater management plans A2020 – 10517 and calculations produced by Mlei Engineers dated 10 December 2020 and 11 December 2020.

Reason: The stormwater drainage system in the area surrounding the subject land has limited capacity. The reason for this condition is to reduce the flow of stormwater off the subject land to a rate which does not exceed the system's capacity.

11. Four trees must be planted on the land to replace the trees herein approved for removal. Such trees shall not be a species specified under regulation 6A(5)(b) of the Development Regulations 2008. The plantings must be completed in the first planting season following the issuing of this consent and must be maintained in good condition thereafter.

Reason: To ensure compliance with the legislative requirement for the planting of replacement trees, pursuant to Section 42(4) of the Development Act 1993.

For the purposes of section 42(4) of the Act, the prescribed number of trees is—

(a) if the development authorisation relates to a regulated tree—2 trees to replace the regulated tree;

(b) if the development authorisation relates to a significant tree—3 trees to replace the significant tree.

EPA Conditions

12. All stormwater collected in the chemical storage bunded areas, cleaning wastes and spills must be collected, stored in bunded areas and disposed of via an EPA licensed facility for such wastes;
13. All chemicals must be stored, loaded/unloaded within the bunded areas suitable for preventing the escape of chemicals into the land and waters;
14. All bunded areas must be blind systems, without any connection to the stormwater system;
15. The whole processing building for the factory and polyol area must be adequately bunded to contain all spillages and potential emergency fire-fighting wastes;
16. The stacks are to be located at least 3m above the highest point within a 30m radius; and
17. The exit velocity of each stack will be a minimum of 9.9m/s with upward flow to be unimpeded by the installation of a rain protector or similar device.

EPA Notes

- The Applicant is reminded of its general environmental duty, as required by Section 25 of the *Environment Protection Act*, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm;
- An environmental authorisation in the form of a licence is required for the operation of this development. The Applicant is required to contact the Environment Protection Authority before acting on any approval granted by the Council to ascertain licensing requirements. Likely conditions of the licence would include (but would not be limited to) – providing a consolidated Environmental Management System (EMS) to be

developed to the satisfaction of the EPA;

- Information on applying for a licence (including licence application forms) can be accessed here:
http://www.epa.sa.gov.au/business_and_industry/applying_for_a_licence;
- A licence may be refused where the Applicant has failed to comply with any conditions of development approval imposed at the direction of the Environment Protection Authority;
- The Applicant is reminded that all reasonable and practical operational steps should be taken to reduce off site noise. This includes fitting all trucks and forklifts with broadband reverse beepers;
- The Applicant is reminded that construction will need to be undertaken in accordance with Division 1 of Part 6 of the *Environment Protection (Noise) Policy 2007* at all times. Activities, which include the operation of machinery, resulting in noise with an adverse impact on the amenity need to be restricted to between 7.00am and 7.00pm Monday to Saturday and if necessary, on Sunday between 9.00am and 7.00pm to minimise the potential for complaint from noise nuisance;
- The Applicant is reminded that if during any site works, contamination is identified which poses actual or potential harm to the health or safety of human beings or the environment that is not trivial, taking into account the land use, or harm to water that is not trivial, the Applicant may need to remediate the contamination in accordance with EPA guidelines. More information can be found at:
https://www.epa.sa.gov.au/environmental_info/site_contamination/assessment_and_remediation;
- EPA information sheets, guidelines documents, codes of practice, technical bulletins etc can be accessed on the following website:
<http://www.epa.sa.gov.au>



Product	Register Search Plus (CT 6017/178)
Date/Time	12/08/2020 03:03PM
Customer Reference	Humby Consulting
Order ID	20200812009751

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 6017 Folio 178

Parent Title(s)	CT 5187/731			
Creating Dealing(s)	SC 11016125			
Title Issued	28/08/2008	Edition	5	Edition Issued 10/02/2015

Estate Type

FEE SIMPLE

Registered Proprietor

JOYCE W C NSW PTY. LTD. (ACN: 120 602 477)
OF CARE 5-9 BRIDGES ROAD MOOREBANK NSW 2170

Description of Land

ALLOTMENT 6 FILED PLAN 107706
IN THE AREA NAMED EDINBURGH NORTH
HUNDRED OF MUNNO PARA

Easements

NIL

Schedule of Dealings

Dealing Number	Description
12199813	MORTGAGE TO BANK OF BARODA
12455795	MORTGAGE TO BANK OF BARODA (ACN: 125 314 249)

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G688/1991

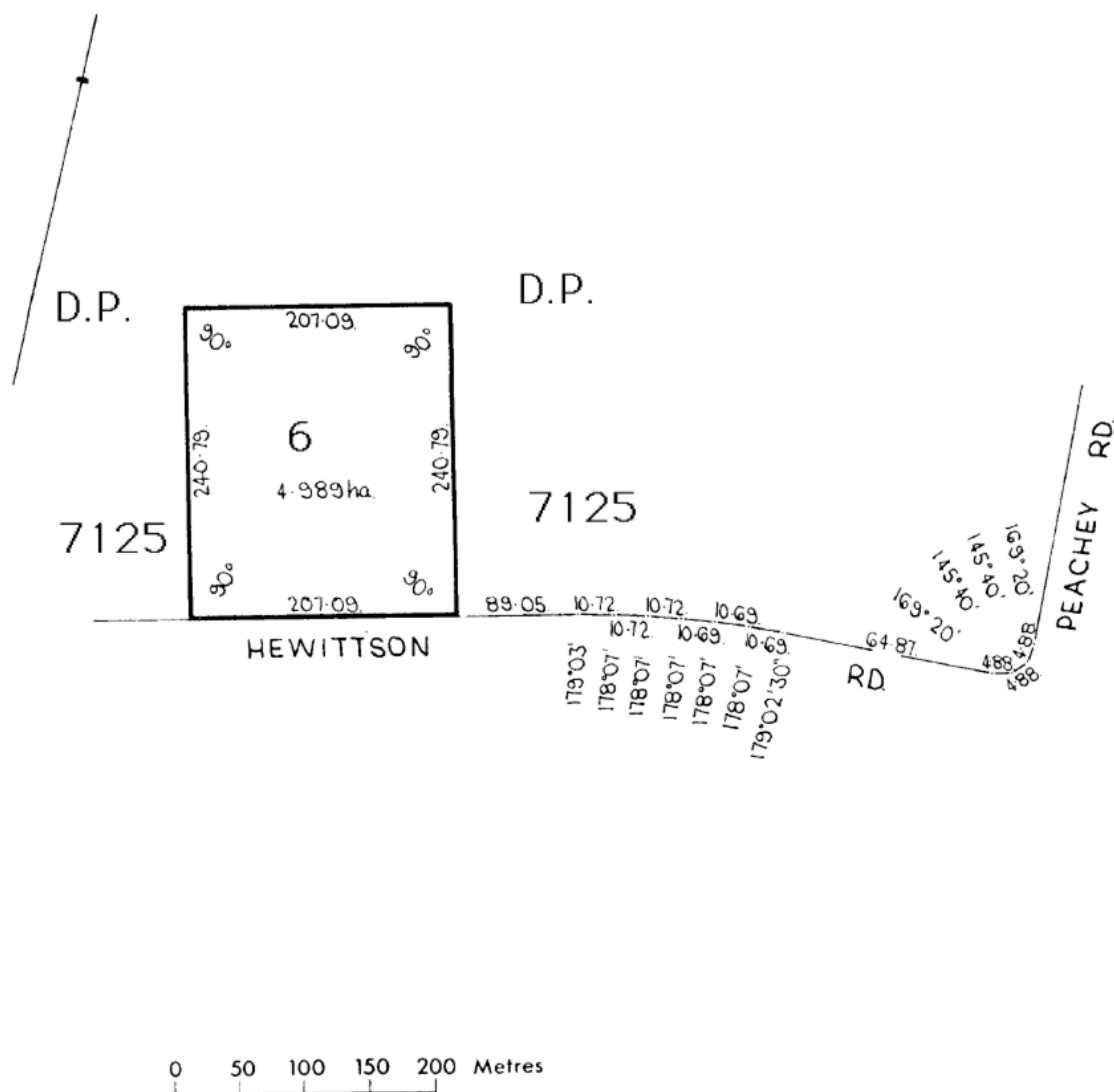
Administrative Interests	NIL
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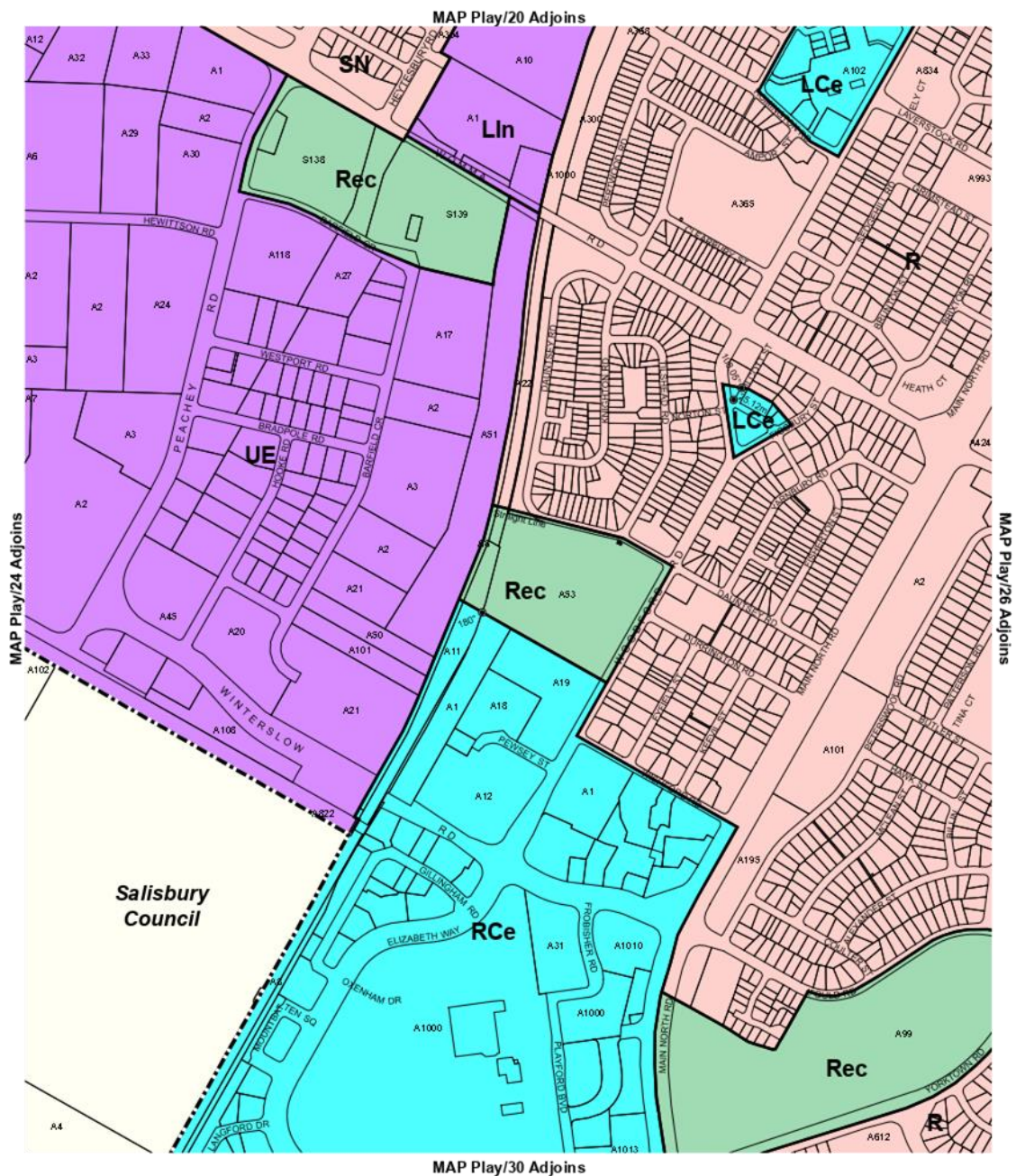
Product	Register Search Plus (CT 6017/178)
Date/Time	12/08/2020 03:03PM
Customer Reference	Humby Consulting
Order ID	20200812009751

This plan is scanned from Certificate of Title 4043/429

LAST PLAN REF : D.P. 7125



Note : Subject to all lawfully existing plans of division



Lamberts Conformal Conic Projection, GDA94

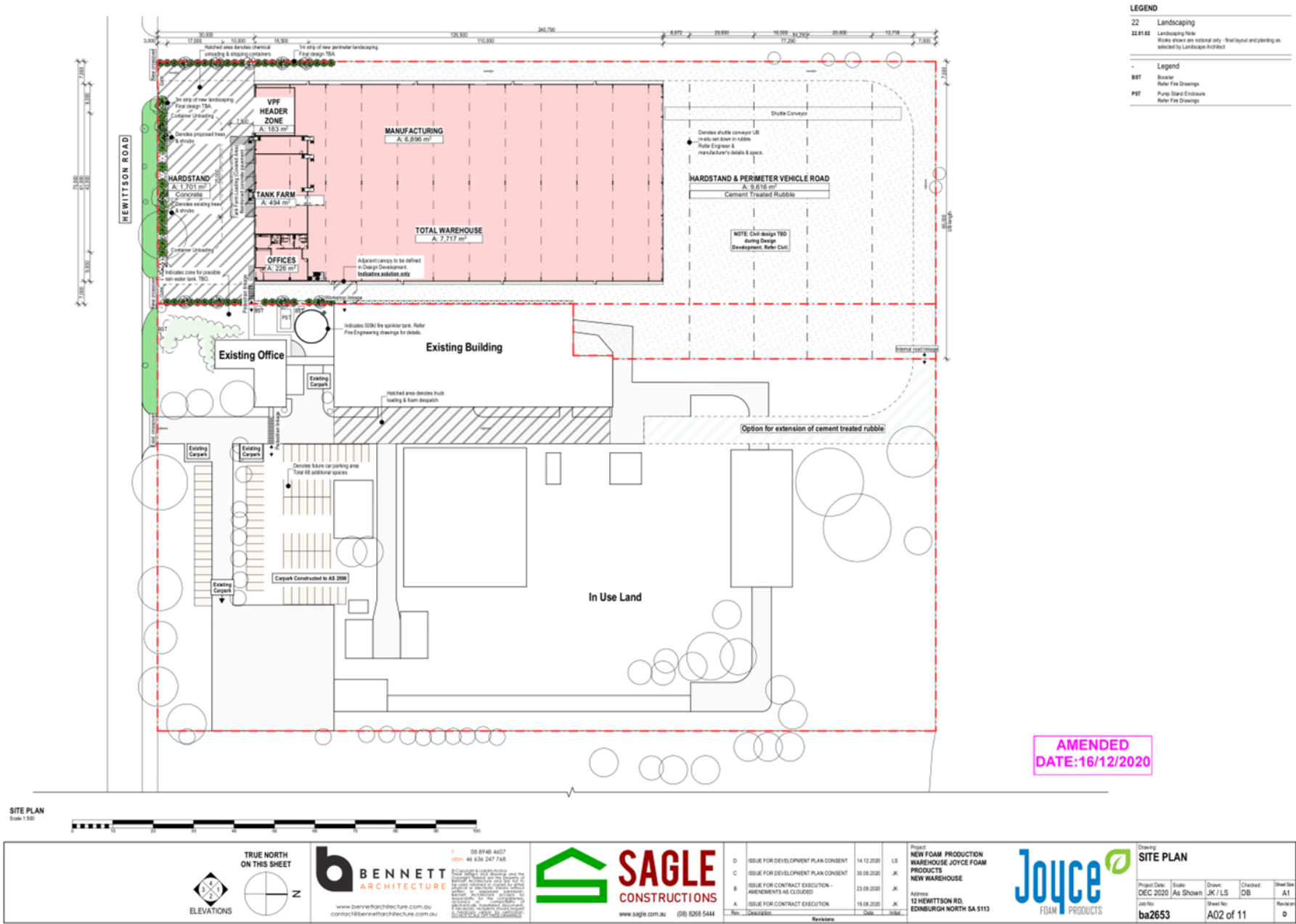
Zones

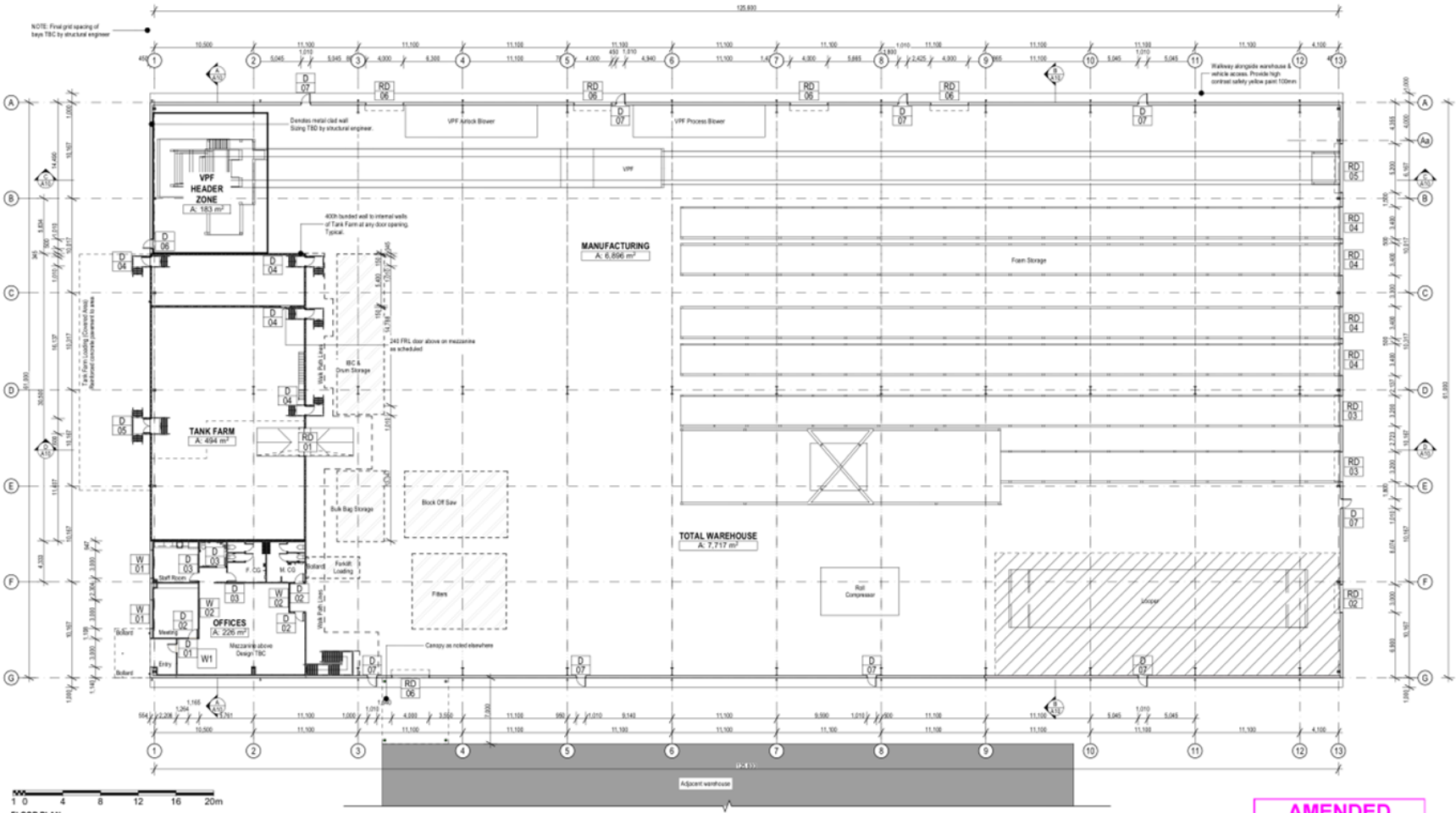
- Lin Light Industry
- LCe Local Centre
- Rec Recreation
- RCe Regional Centre
- R Residential
- SN Suburban Neighbourhood
- UE Urban Employment
- Zone Boundary
- Development Plan Boundary

Zone Map Play/25

PLAYFORD COUNCIL
Consolidated - 30 April 2020

Size
1
Medium
2





AMENDED
DATE:16/12/2020



TRUE NORTH
ON THIS SHEET



BENNETT
ARCHITECTURE

08 8948 4607
08 636 247 765

www.bennettarchitecture.com.au
contact@bennettarchitecture.com.au



SAGLE
CONSTRUCTIONS

www.sagle.com.au (08) 8285 5444

Rev	Description	Date	Drawn
D	ISSUE FOR DEVELOPMENT PLAN CONSENT	14.12.2020	LS
C	ISSUE FOR DEVELOPMENT PLAN CONSENT	30.08.2020	JK
B	ISSUE FOR CONTRACT EXECUTION - AMENDMENTS AS CLOUDED	23.09.2020	JK
A	ISSUE FOR CONTRACT EXECUTION	19.08.2020	JK

Project:
**NEW FOAM PRODUCTION
WAREHOUSE JOYCE FOAM
PRODUCTS
NEW WAREHOUSE**

Address:
**12 HEMTISON RD,
EDMUNBURGH NORTH SA 5113**



Joyce
FOAM PRODUCTS

Drawing:
OVERALL FLOOR PLAN

Project Date	Scale	Drawn	Checked	Sheet Size
DEC 2020	As Shown	JK / LS	DB	A1

Job No:
ba2653

Sheet No:
A04 of 11

Revision:
D



AMENDED
DATE:16/12/2020



BENNETT
ARCHITECTURE

1 88 89 48 4037
08 636 347 745

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D	ISSUE FOR DEVELOPMENT PLAN CONSENT	14.12.2020	LS
C	ISSUE FOR DEVELOPMENT PLAN CONSENT	30.09.2020	JK
B	ISSUE FOR CONTRACT EXECUTION - AMENDMENTS AS CLOUSED	23.09.2020	JK
A	ISSUE FOR CONTRACT EXECUTION	19.08.2020	JK

Project: **NEW FOAM PRODUCTION WAREHOUSE JOYCE FOAM PRODUCTS NEW WAREHOUSE**

Address: **12 HENNINGTON RD, EDINBURGH NORTH SA 5113**



JOYCE
FOAM PRODUCTS

Drawing: ELEVATIONS	
Project Date: DEC 2020	Scale: As Shown
Drawn: JK / LS	Checked: DB
Job No: ba2653	Sheet No: A03 of 11



JOYCE FOAM EXPANSION
12 HEWITTSON ROAD, EDINBURGH NORTH
TRAFFIC AND PARKING REPORT





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DOCUMENT CONTROL

Report title:	Joyce Foam Expansion, 12 Hewittson Road, Edinburgh North			
Project number:	20236			
Client:	Sagle Constructions Pty Ltd			
Client contact:	Jasmin Doyle-Tarrant			
Version	Date	Details/status	Prepared by	Approved by
Draft	28 Sep 20	For review	BNW	BNW

CIRQA Pty Ltd

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PO Box 144, Glenside SA 5065

150 Halifax Street, Adelaide SA 5000

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1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice for the expansion of the Joyce Foam manufacturing facility at 12 Hewittson Road, Edinburgh North. 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 Bennett Architecture (drawing no. db2653 Sheets A01 and A02, dated 30 September 2020, refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is bound by Hewittson Road to the south and other industrial properties to the north, east and west. The City of Playford's Development Plan identifies that the site is located within an Urban Employment Zone.

The subject site is currently occupied by the Joyce Foam manufacturing and storage facility and associated offices. Joyce Foam has advised that 11 staff are currently on site at any one time.

Access is provided via a two-way crossover on Hewittson Road, at which all turning movements are permitted. The site includes the provision of 52 parking spaces. Additional overflow parking areas are also provided, however, are unsealed and not formally marked. Aerial photography identifies a number of vehicles parked within these overflow areas, however it is understood that the vehicles were associated with an informal leased parking arrangement with the neighbouring Mitsubishi site (i.e. these spaces were used for vehicle storage and are not associated with the existing uses staff or visitors). This parking arrangement no longer occurs.

2.2 ADJACENT ROAD NETWORK

Hewittson Road is a local (industrial) road under the care and control of the City of Playford. Adjacent the site, Hewittson Road comprises a 10 m wide carriageway (approximate) with a single traffic lane. Traffic data recorded by Council indicates that Hewittson Road has an Annual Average Daily Traffic (AADT) volume in the order of 930 vehicles per day (vpd). A 50 km/h speed limit applies on Hewittson Road.



Figure 1 illustrates the location of the subject site with respect to the adjacent road network.

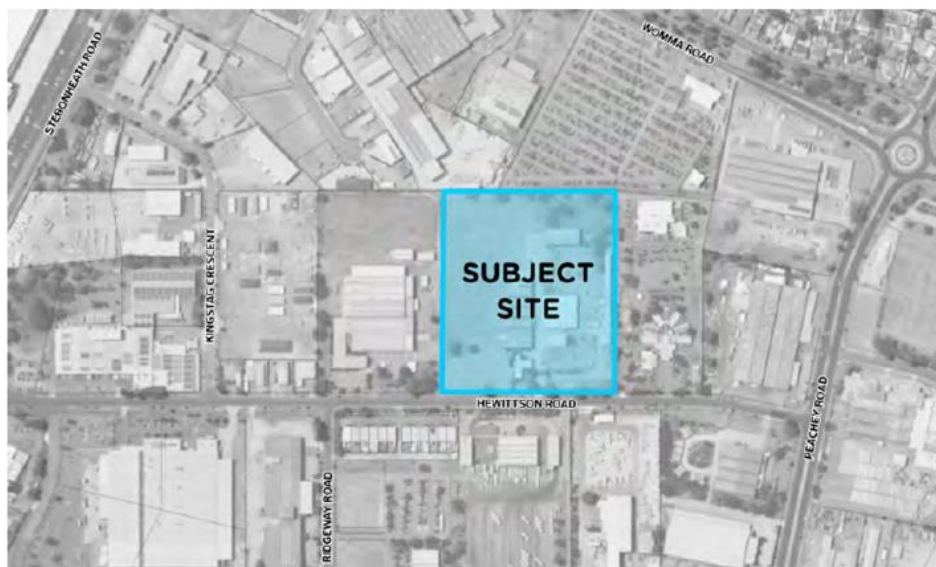


Figure 1 – Location of the subject site with respect to the adjacent road network

The Department for Infrastructure and Transport's (DIT's) RAVnet system identifies that Hewittson Road is gazetted (along its length) for use by Restricted Access Vehicles up to 26 m long B-Doubles in size. The eastern end of the gazetted connects to Peachey Road (which is also gazetted for the use of such vehicles). However, this is the only connection to the broader gazetted network (Stebonheath Road adjacent the western end of Hewittson Road is not gazetted). Therefore, all Restricted Access Vehicle movements associated with the site must enter and exit via the east (unless separate permit is provided by DIT).

2.3 ACTIVE AND SUSTAINABLE TRANSPORT

No formal pedestrian paths or cycling facilities are provided along Hewittson Road. However, worn desire lines along the northern verge suggest pedestrians and/or cyclists utilise the verge for access. Cyclists could also legally utilise the traffic lanes.

Public (bus) services operate on Peachey Road with stops approximately 400 m from the subject site. The stops are serviced by the 451 (Munno Para Centre Interchange to Elizabeth Interchange and 900 (Elizabeth Interchange to Salisbury) routes. These routes provide relatively frequent services (particularly during the am and pm commuter periods).



3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

The proposed development comprises the expansion of the manufacturing facility with a new building to be constructed on the (currently vacant) western portion of the site. The new building will comprise 7,717 m² of floor area (of which 145 m² will be office floor area with the remaining areas accommodating warehousing/manufacturing uses).

The new building will house specialist foam manufacturing equipment as well as foam storage areas. Due to the nature of equipment and storage areas, staffing levels associated with the new building will be low. Joyce Foam has advised that the proposed expansion would result in an additional six to nine staff being required on-site.

3.2 ACCESS AND PARKING DESIGN

It is proposed to construct two new access points for the facility. These will comprise an ingress at the western end of the subject site and a central egress point. This will allow vehicles associated with the new building to enter the site and either turn into the loading area in front of the new building or utilise a rear circulation road (which will connect to both the central egress and the existing circulation roads associated with the existing facility. There will be adequate sight distance provision at the proposed egress for exiting vehicles.

Given the low level of staffing, additional parking is not proposed within the site. Staff associated with the new building will park within the existing parking areas and utilise internal pedestrian connections to travel to/from the new building. Notwithstanding this, there is sufficient overflow parking within the overall site to accommodate additional demands (for instance, if the building occupant changed in the longer term and increased parking was required).

The new access points (ingress and egress) have been designed to accommodate the turning movements of the largest vehicles anticipated to utilise them (26 m B-Doubles). The plan provided in Appendix B identifies relevant vehicle turn paths for the access points.

4. PARKING ASSESSMENT

4.1 CAR PARKING

The City of Playford's Development Plan identifies the following parking requirements for industrial development within the Urban Employment Zone:

- 2 spaces per 100 m² of gross floor area up to 200 m²; plus



- 1 space per 75 m² of gross floor area between 200 and 2,000 m²; plus
- 1 space per 150 m² of gross floor area greater than 2,000 m²; plus
- 1 space per 30 m² of gross floor area utilised for offices.

On the basis of the above rates, the proposal has a requirement for 70 parking spaces.

As noted above, it is not proposed to provide additional parking on-site given staffing levels are well below the current on-site provision (including additional allowance for visitors). The proposal therefore does not meet the Development Plan requirement. However, the provision of additional parking to simply meet the Development Plan (when not required to accommodate likely demands) would be an undesirable outcome (i.e. increased impervious area with associated drainage and 'heat sink' implications). Given the staffing levels associated with the site and existing parking provision, it is considered the proposed arrangements are acceptable.

Nevertheless, it is also noted that more than adequate 'clear' (undeveloped) area will be retained on-site should it be required in the future to meet the Development Plan requirement. For instance, if Joyce Foam vacated the premises in the longer term and a tenant with higher parking demands occupied the site, additional parking could be accommodated on-site.

4.2 BICYCLE PARKING

The City of Playford's Development Plan does not identify bicycle parking requirements applicable to 'industry', 'store' or 'warehouse' uses.

However, Council's Development Plan states (Transportation and Access Principle of Development Control 23) that "*Pedestrian and cycling facilities should be designed and provided in accordance with the relevant provisions of the Australian Standards and Austroads Guides*". On this basis, Austroads' "*Cycling Aspects of Austroads Guides*" has been referenced.

Similar to Council's Development Plan, the Austroads' Guide identifies the following requirement applicable to 'general industry' development:

- employee – one space per 150 m² of gross floor area; and
- visitor – no bicycle parking rate is identified.

On the basis of the above rate, the proposed development would have a theoretical requirement for 52 bicycle parking spaces. Such a requirement is excessively onerous when considered against the staffing levels associated with



the proposal. In reality, demands would be very low given the location of the site. However, the provision of two bicycle parking spaces would equate to provision for 10% of staff to ride to/from the site. Such a provision would be more than adequate. While bicycle parking spaces have not been identified as part of the proposal, adequate area is available throughout the site to accommodate such a provision.

5. TRAFFIC ASSESSMENT

5.1 TRAFFIC GENERATION AND DISTRIBUTION

The RTA *"Guide to Traffic Generating Developments"* (the RTA Guide) and its subsequent updates are documents commonly used by traffic engineers to determine the forecast traffic generation of a variety of land uses. The RTA Guide identifies the following rates relevant to the subject proposal:

- **Office** – 1.6 am and 1.2 pm peak hour trips per 100 m² of gross floor area;
- **Warehouse** – 0.5 peak hour trips per 100 m² of gross floor area; and
- **Factory** – 1.0 peak hour trip per 100 m² of gross floor area.

On the basis of the above rates, the proposal is forecast to generate between 40 to 78 peak hour trips (depending on whether the industrial areas are assessed as warehouse or factory). Given the low staffing levels associated with the proposed facility, it is anticipated that volumes would be even lower than the range suggested by the theoretical rates.

In comparison, Joyce Foam has advised the new building will be associated with the following commercial vehicle movements:

- one 20T road tanker per day;
- one Intermediate Bulk Container (IBC)/200L drum delivery per day; and
- one B-Double with outgoing foam product per day.

On this basis, it is anticipated that there would typically be up to three commercial movements per day associated with deliveries and outgoing product. Allowing for additional servicing movements (waste collection), it is anticipated that there would be in the order of an average of five commercial vehicle movements per day.

Even if it is conservatively assumed that all commercial vehicles access the site in the peak hour (with both ingress and egress movements undertaken in this hour) plus allowance for all staff to drive to or from the site, there would be a peak



traffic generation of less than 20 movements. In reality, commercial vehicle movements will be distributed throughout various times of the day and the peak traffic generation will likely be closer to 10 peak hour movements.

Such volumes are very low and would be easily accommodated at the separate ingress and egress points (as well as the existing access) on Hewittson Road. Notably, the above volumes would not warrant the provision of separated left or right turn lanes based on the requirements of the Austroads' *"Guide to Traffic Management – Part 6: Intersections, Interchanges and Crossings Management"*. The low number of movements will be easily accommodated at the access points and on the broader road network.

6. SUMMARY

It is proposed to expand the existing Joyce Foam facility at 12 Hewittson Road, Edinburgh North. The expansion will comprise construction of a new manufacturing and warehouse building within the subject site. Given the existing parking provision within the site and low staffing levels associated with it, no additional parking is proposed as part of the development.

Vehicle access to the site will be provided via separate ingress and egress points on Hewittson Road (in addition to the existing access point). The new ingress and egress points have been designed to accommodate the largest commercial vehicles anticipated to be used within the site. The site layout will allow all vehicles to enter and exit the site in a forward direction.

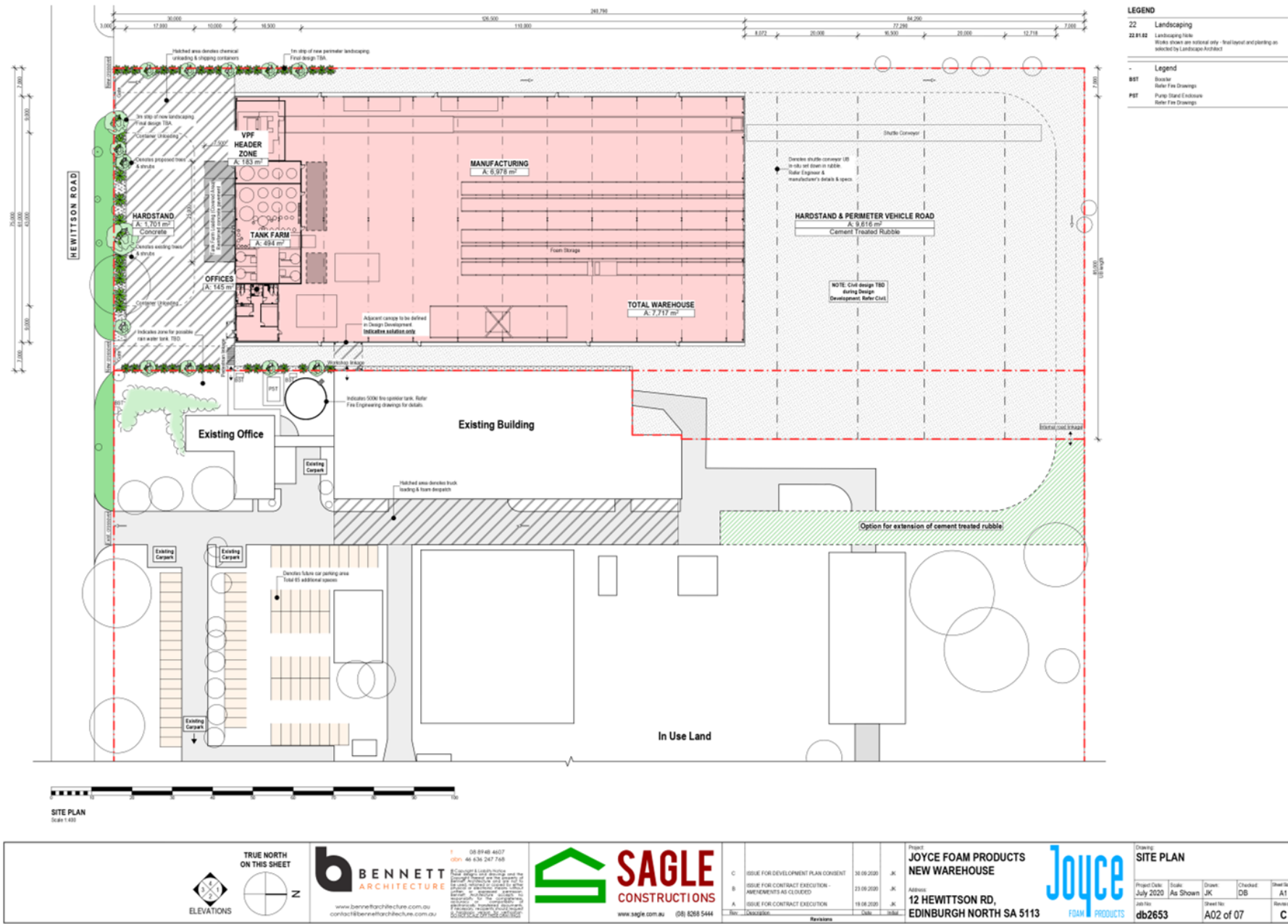
An assessment of the parking provision requirements of Council's Development Plan identifies that there will be a shortfall associated with the proposal. However, the staffing levels associated with the proposed use will generate much lower demands than theoretically identified by the Development Plan rates. It is considered that the existing parking provisions will be adequate to accommodate demands associated with the additional staffing levels (with additional allowance for visitors).

With regard to traffic impacts, based upon information provided by Joyce Foam and a first principles assessment, the proposed development is forecast to generate in the order of 10 peak hour trips. Assessment against the relevant Austroads' Guide indicates that separated turn treatments are not warranted at the site's access points. Accordingly, given the low traffic forecast to be generated by the proposal, such volumes will be accommodated on the adjacent road network with little impact.



APPENDIX A

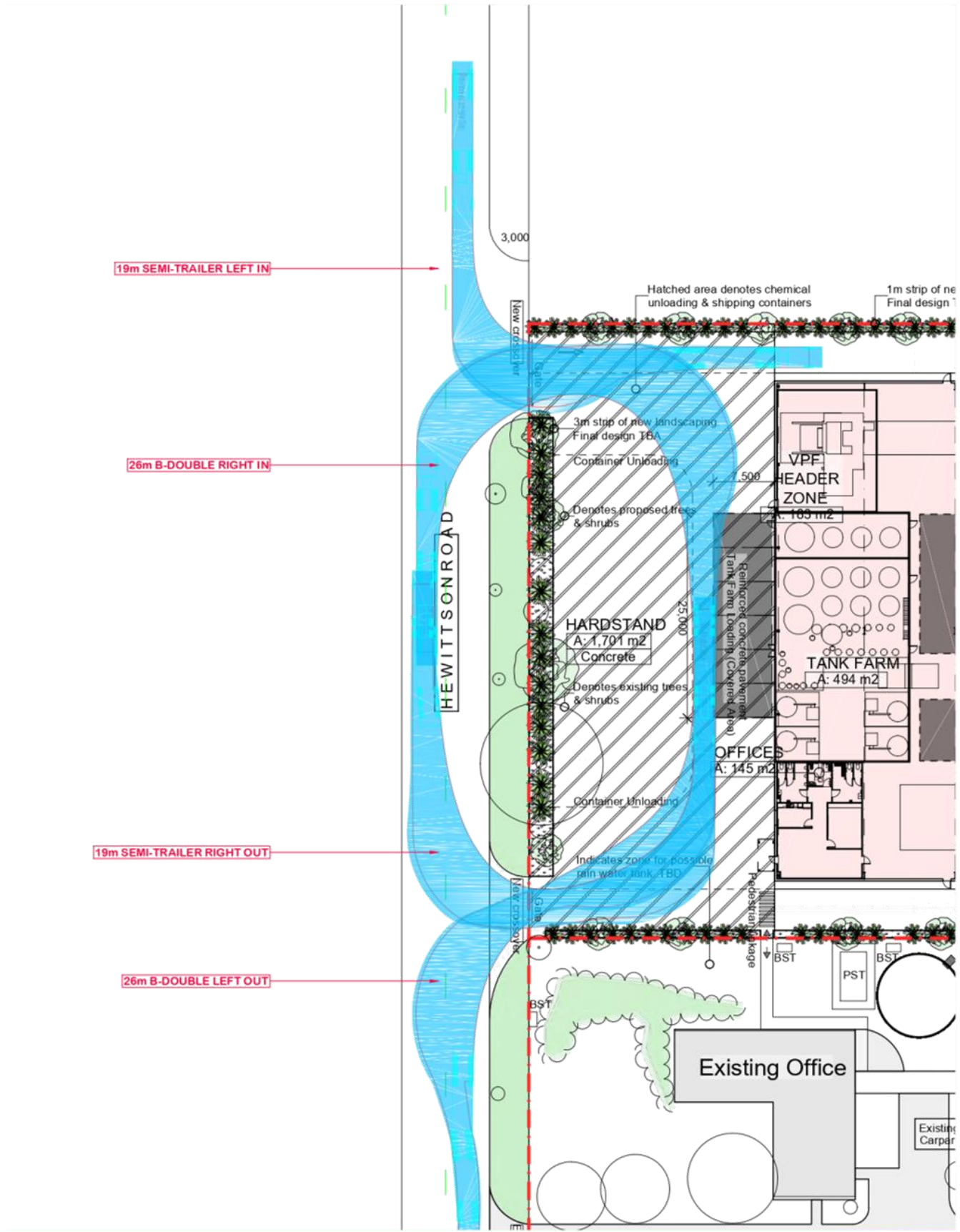
BENNETT ARCHITECTURE PLANS

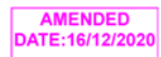




APPENDIX B

VEHICLE TURN PATHS





ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION



12 HEWITTSON ROAD					
EDINBURGH NORTH					
SITWORKS & STORMWATER MANAGEMENT PLAN 1 OF 3					
ISSUE NO.	ISSUED BY	APPROVED BY	DATE	PROJECT NO.	SCALE
			A2020-10517	C01	C

AMENDED
DATE:16/12/2020

C	11/12/20	ISSUED FOR APPROVAL	LZ	HP	CRG
B	02/11/20	ISSUED FOR APPROVAL	RD	HP	CRG
A	30/09/20	ISSUED FOR APPROVAL	RD	HP	CRG
DATE	DATE	DESCRIPTION	DESIGN	DESIGNED	APPROVED



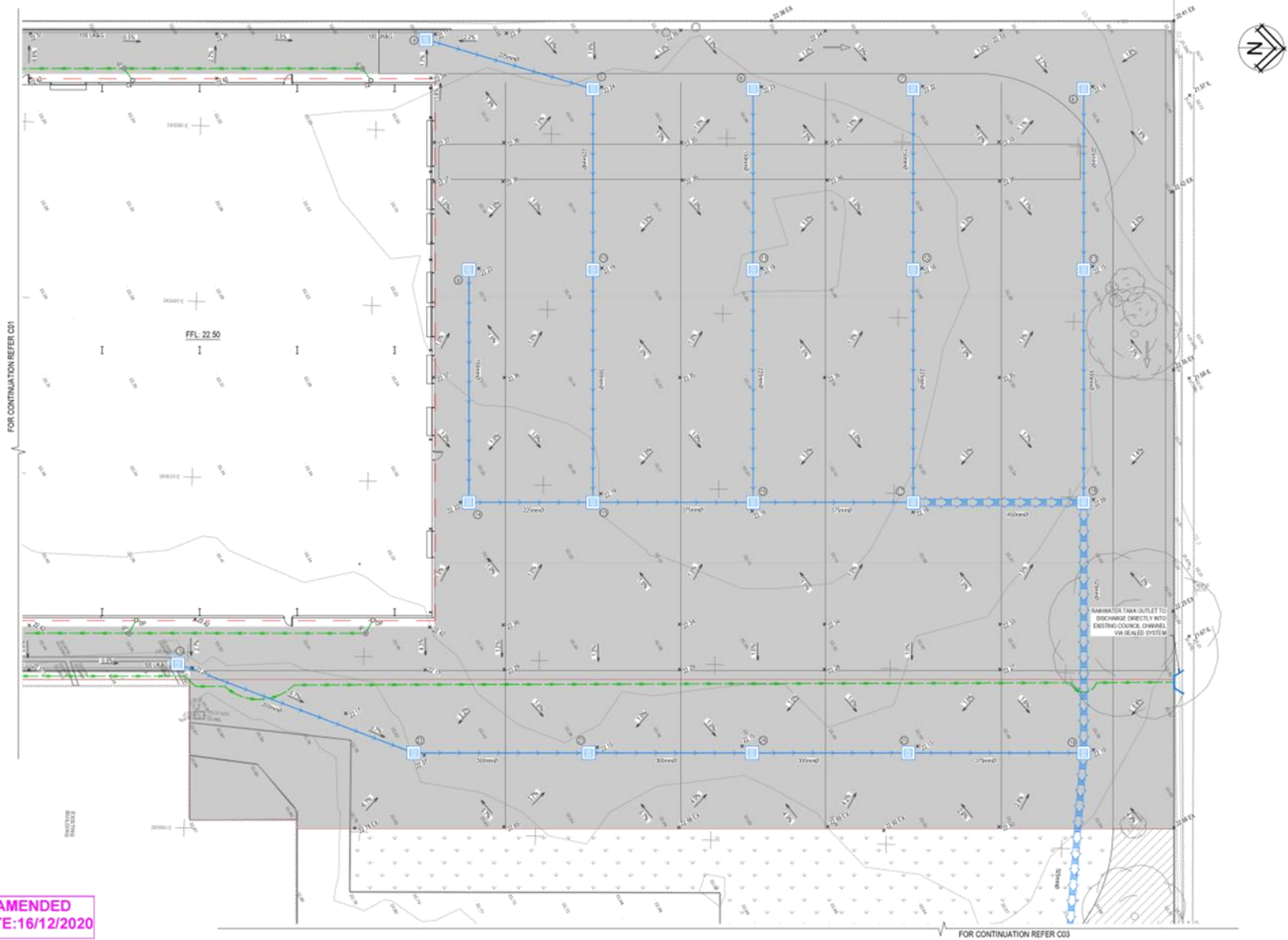
ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

JOYCE FOAM PRODUCTS

mlei
CONSULTING ENGINEERS
12 Hewittson Road, Edinburgh North, Scotland EH7 4JF

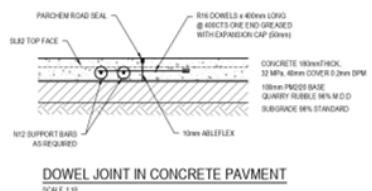
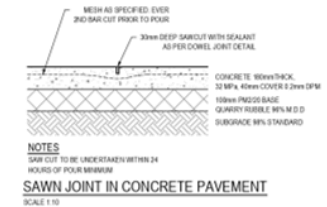
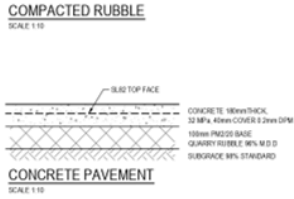
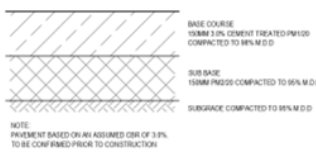
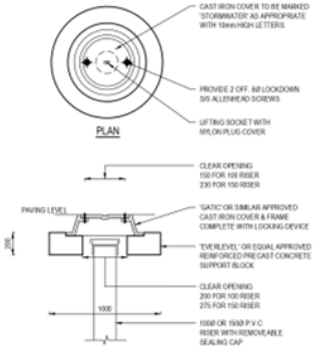
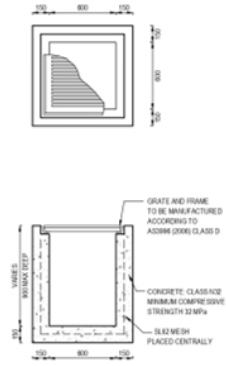
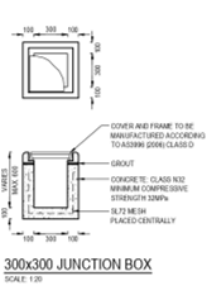
12 HEWITTSON ROAD
EDINBURGH NORTH
SITEWORKS & STORMWATER MANAGEMENT PLAN 2 OF 3

ISSUED FOR APPROVAL
A2020-10517 C02 C





Pit number	Type	Size	Finished surface level	Invert level	Depth (m)
1	GIP	600mm x 600mm	21.70	20.80	0.90
2	GIP	600mm x 600mm	21.70	20.70	1.00
3	GIP	600mm x 600mm	22.26	21.46	0.80
4	GIP	600mm x 600mm	22.17	21.34	0.83
5	GIP	600mm x 600mm	22.24	21.24	1.00
6	GIP	600mm x 600mm	22.23	21.48	0.75
7	GIP	600mm x 600mm	22.22	21.47	0.75
8	GIP	600mm x 600mm	22.18	21.35	0.83
9	GIP	600mm x 600mm	22.22	21.47	0.75
10	GIP	600mm x 600mm	22.19	21.13	1.06
11	GIP	600mm x 600mm	22.18	21.35	0.83
12	GIP	600mm x 600mm	22.16	21.33	0.83
13	GIP	600mm x 600mm	22.15	21.25	0.90
14	GIP	600mm x 600mm	22.22	21.33	0.89
15	GIP	600mm x 600mm	22.19	21.00	1.19
16	GIP	600mm x 600mm	22.18	20.91	1.27
17	GIP	600mm x 600mm	22.16	20.81	1.35
18	GIP	600mm x 600mm	22.09	20.71	1.38
19	GIP	600mm x 600mm	22.10	20.56	1.54
20	GIP	600mm x 600mm	19.97	19.37	0.60
21	JB	300mm x 300mm	22.07	21.77	0.30
22	GIP	600mm x 600mm	22.07	21.21	0.86
23	GIP	600mm x 600mm	22.15	21.05	1.10
24	GIP	600mm x 600mm	22.15	20.89	1.26
25	GIP	600mm x 600mm	22.13	20.74	1.39



AMENDED
DATE:16/12/2020

B	11/12/20	ISSUED FOR APPROVAL	L2	HP	CRG
A	02/11/20	ISSUED FOR APPROVAL	RD	HP	CRG
ISSUE	DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED



ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

JOICE FOAM PRODUCTS

mlei
CONSULTING ENGINEERS
407 Tullaghan Road, Tullaghan, Co. Antrim BT26 2BN

12 HEWITTSON ROAD
EDINBURGH NORTH
DETAILS

PROJECT NO: 2020010517
DRAWN: HP
CHECKED: CRG
DATE: 16/12/2020
C04
B



BUILDINGS

LAND DIVISION

INFRASTRUCTURE

**RESOURCES &
INDUSTRIAL**

DEFENCE

STORMWATER CALCULATIONS

Joyce Foam Products

EN 1991 - 4:2006 and AS 3774 - 1996

Reference A2020 - 10517

10 December 2020

Head Office 452 Pulteney Street
Adelaide, South Australia 5000
08) 8231 2832
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ADELAIDE + SYDNEY + MILDURA + PORT LINCOLN + DARWIN + MELBOURNE

AMENDED
DATE:16/12/2020



Project: 12 Hewittson Rd, Edinburgh North

Designer: HP

Date: 10/12/2020

Reference: A2020-10517

Checked by: CRG

Index: 1

CALCULATIONS	REF./COMMENT
<p><u>Council requirements:</u></p> <ul style="list-style-type: none"> - Site to be discharged to rear stormwater channel managed by Council - Restrict post 100 year flows to pre 10 year flows - Stormwater quality treatment in accordance with EPA guidelines - Based on discussions with Kean Fai Lau from City of Playford, the existing development area is currently entirely pervious with a centralised low point. Council have noted that a single discharge point with a rate of 20L/s to Hewittson Road would be considered. <p><u>Results:</u></p> <ul style="list-style-type: none"> - Pre-development time of concentration determined to be 38.9mins - Pre-development peak flow (total allowable flow) is 33.02 L/s - Total allowable flow portioned by surface area as follows: Roof allowable flow = 12.39 L/s (Catchment A1) Rear surface allowable flow = 13.79 L/s (Catchment A2) Side surface allowable flow = 3.18 L/s (Catchment A3) Front surface allowable flow = 3.65 L/s (Catchment A4) - Total detention volume of site is 799,717 L - Total detention volume portioned by surface area as follows: Roof detention volume = 300,173 L Rear surface detention volume = 334,021 L Side surface detention volume = 77,129 L Front surface detention volume = 88,395 L - Roof area to be detained using above ground rainwater tank. - Half of the side surface will be graded towards the front while the remaining half is to grade towards the rear and detention will be provided in these catchment areas. - Front surface detention area to facilitate front surface volume and half of side surface volume = 88,395 + (77,129/2) = 126,959.5 L - Remaining volume to be captured at rear basin = 334,021 + (77,129/2) = 372,585.5 L <div data-bbox="384 1760 686 1856" style="border: 2px solid magenta; padding: 5px; margin-top: 20px; text-align: center;"> <p>AMENDED DATE:16/12/2020</p> </div>	



Project: 12 Hewittson Rd, Edinburgh North

Reference: A2020-10517

Designer HP

Date:

18/09/2020

Checked by: CRG

Index: 2

CALCULATIONS	REF./COMMENT								
<p style="text-align: center;">TIME OF CONCENTRATION Friend's Equation</p> <table border="1" data-bbox="284 573 879 678"> <tr> <td>Overland sheet flow path length (m)</td><td>257.7</td></tr> <tr> <td><i>n</i> (Horton's surface roughness factor)</td><td>0.045</td></tr> <tr> <td>Slope surface (%)</td><td>0.3</td></tr> </table> <table border="1" data-bbox="284 707 879 741"> <tr> <td>Overland sheet flow travel time (min)</td><td>38.91</td></tr> </table> <p>Friend's Equation</p> $t = (107n L^{0.333})/S^{0.2} \quad (4.06)$ <p>where</p> <ul style="list-style-type: none"> <i>t</i> = overland sheet flow travel time (min) <i>L</i> = overland sheet flow path length (m) <i>n</i> = Horton's surface roughness factor <i>S</i> = slope of surface (%) <div style="border: 2px solid magenta; padding: 5px; margin-top: 20px; text-align: center;"> AMENDED DATE:16/12/2020 </div>	Overland sheet flow path length (m)	257.7	<i>n</i> (Horton's surface roughness factor)	0.045	Slope surface (%)	0.3	Overland sheet flow travel time (min)	38.91	
Overland sheet flow path length (m)	257.7								
<i>n</i> (Horton's surface roughness factor)	0.045								
Slope surface (%)	0.3								
Overland sheet flow travel time (min)	38.91								

Project: 12 Hewittson Rd, Edinburgh North

Designer: HP

Date:	10/12/2020
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Reference: A2020-10517

Checked by: CRG

Index: 3

STORMWATER DETENTION CALCULATIONS

REF./COMMENT

Council Requirements

	<i>Pre</i>	<i>Post</i>
ARI (years)	10	100
tc (min)	38.91	5.00

Site BOM IFDs

I(10/1) (mm/h)	24.6
Pre-dev I(10/38.91) (mm/h)	33.08
Post-dev I(100/5) (mm/h)	172

Council Specified Pre-Development Runoff Coefficient

No	n/a
----	-----

Pre-Development Flow

Site Surfaces	Area (m ²)	f
Roof	0	1.0
Concrete/Paved/Bitumen	0	0.9
Landscaped	19945.89	0.1

Total Area = 19945.89 m²
favg = 0.100

ARI (years)	Frequency Factor, F_y
1	0.8
2	0.85
5	0.95
10	1
20	1.05
50	1.15
100	1.2

$C(10/1) =$	0.100
$C10 =$	0.180

C10 = 0.180

Pre Development Flow, Q_{pre} = 33.02 L/s

5.3.2 Rational Method

(a) The Formula

(a) *The Formula*
As used in design, the formula of the Rational Method is:

$$Q_Y = 0.278 C_Y \cdot I_{t,Y} \cdot A \quad (5.1)$$

where Q_Y = peak flow rate (m^3/s) of average recurrence interval (ARI) of Y years

C_K = runoff coefficient (dimensionless) for

ARI of Y years

A = area of catchment (km^2)
 I = average rainfall intensity (mm/h) for

$I_{t_c, Y}$ = average rainfall intensity (mm/h) for design duration of t_c hours and ARI of Y years.

The value of 0.278 (or 1/3.6) is merely a conversion factor to balance the units used. If area is in hectares instead of km^2 , the conversion factor is 0.00278 (or 1/360).

$$\begin{aligned} C_{10}^{10} &= 0.1 + (0.7 - 0.1) \times ({}^{10}I_1 - 25)/(70 - 25) \\ &= 0.1 + 0.0133 \times ({}^{10}I_1 - 25) \end{aligned} \quad (14.12)$$

$$C_{10} = 0.9 \times f + C_{10}^I \times (1 - f) \quad (14.11)$$

$$C_v = F_v \cdot C_{10} \quad (14.13)$$

AMENDED
DATE:16/12/2020



Reference: 2020-10517

Project: 12 Hewittson Rd, Edinburgh North

Checked by: CRG

Designer: MF

Date: 10/12/2020

Index: 4

STORMWATER DETENTION CALCULATIONS			REF./COMMENT												
Post-Development Flow															
Unrestricted Flow: <i>Runoff considered to be undetained</i>															
<table><tr><th>Site Surfaces</th><th>Area (m²)</th><th>f</th></tr><tr><td>Roof</td><td>0</td><td>1.0</td></tr><tr><td>Concrete/Paved/Bitumen</td><td>0</td><td>0.9</td></tr><tr><td>Landscaped</td><td>0</td><td>0.1</td></tr></table>	Site Surfaces	Area (m ²)	f	Roof	0	1.0	Concrete/Paved/Bitumen	0	0.9	Landscaped	0	0.1			Post-Development Catchment Plan
Site Surfaces	Area (m ²)	f													
Roof	0	1.0													
Concrete/Paved/Bitumen	0	0.9													
Landscaped	0	0.1													
Total Area = <table><tr><td>0</td></tr></table> m ² favg = <table><tr><td>0.000</td></tr></table>			0	0.000											
0															
0.000															
C10 = <table><tr><td>0.100</td></tr></table> C100 = <table><tr><td>0.120</td></tr></table>			0.100	0.120			ARR Eq. 14.11 ARR Eq. 14.13								
0.100															
0.120															
Unrestricted Post Development Flow, Qun-post = <table><tr><td>0.00</td></tr></table> L/s			0.00			Qun-post = 0.00									
0.00															
Allowable Flow, Qall = <table><tr><td>33.02</td></tr></table> L/s			33.02			Qall = 33.02									
33.02															
Restricted Flow: <i>Runoff considered to be detained</i>															
<table><tr><th>Site Surface</th><th>Area (m²)</th><th>f</th></tr><tr><td>Roof</td><td>7487.16</td><td>1.0</td></tr><tr><td>Cement Treated Rubble</td><td>10255.23</td><td>0.75</td></tr><tr><td>Concrete area</td><td>2204.81</td><td>1</td></tr></table>	Site Surface	Area (m ²)	f	Roof	7487.16	1.0	Cement Treated Rubble	10255.23	0.75	Concrete area	2204.81	1			Post-Development Catchment Plan
Site Surface	Area (m ²)	f													
Roof	7487.16	1.0													
Cement Treated Rubble	10255.23	0.75													
Concrete area	2204.81	1													
Total Area = <table><tr><td>19947.2</td></tr></table> m ² favg = <table><tr><td>0.871</td></tr></table>			19947.2	0.871											
19947.2															
0.871															
C10 = <table><tr><td>0.797</td></tr></table> C100 = <table><tr><td>0.957</td></tr></table>			0.797	0.957			ARR Eq. 14.11 ARR Eq. 14.13 C100 = 0.957								
0.797															
0.957															
Total allowable flow = <table><tr><td>33.02</td></tr></table> L/s			33.02												
33.02															
Roof allowable flow = <table><tr><td>12.39</td></tr></table> L/s			12.39												
12.39															
Rear surface allowable flow = <table><tr><td>13.79</td></tr></table> L/s			13.79												
13.79															
Side surface allowable flow = <table><tr><td>3.18</td></tr></table> L/s			3.18												
3.18															
Front surface allowable flow = <table><tr><td>3.65</td></tr></table> L/s			3.65												
3.65															
Refer to attached detention calculations															
<div>AMENDED</div>															

AMENDED
DATE: 16/12/2020



Reference: 2020-10517

Project: 12 Hewittson Rd, Edinburgh North

Checked by: CRG

Designer: MF

Date: 10/12/2020

Index: 5

STORMWATER DETENTION CALCULATIONS

Detention Calculations

ARI = 100 years
 Area = 19947.2 m²
 tc = 5 min
 C100 = 0.957

Total detention volume =

799717 L

Roof volume =

300173 L

Rear surface volume =

334021 L

Side surface volume =

77129 L

Front surface volume =

88395 L

Storm Duration (min)	Intensity (mm/h)	In flow (L/s)	Target Outflow (L/s)	Detention Required (L)
5	172.0	911.7	33.0	292415
6	162.8	862.9	33.0	327589
7	153.6	814.2	33.0	356914
8	144.4	765.4	33.0	380388
9	135.2	716.6	33.0	398012
10	126.0	667.9	33.0	409786
11	121.2	642.4	33.0	431095
12	116.4	617.0	33.0	449351
13	111.6	591.5	33.0	464555
14	106.8	566.1	33.0	476707
15	102.0	540.6	33.0	485807
16	98.9	524.1	33.0	500398
17	95.8	507.6	33.0	513006
18	92.6	491.0	33.0	523629
19	89.5	474.5	33.0	532270
20	86.4	458.0	33.0	538926
21	84.3	446.6	33.0	550139
22	82.1	435.3	33.0	559992
23	80.0	423.9	33.0	568484
24	77.8	412.6	33.0	575616
25	75.7	401.2	33.0	581387
26	74.1	392.8	33.0	590260
27	72.5	384.3	33.0	598115
28	70.9	375.8	33.0	604953
29	69.3	367.3	33.0	610774
30	67.7	358.8	33.0	615577
31	66.7	353.4	33.0	625012
32	65.6	348.0	33.0	633794
33	64.6	342.5	33.0	641923
34	63.6	337.1	33.0	649399
35	62.6	331.6	33.0	656223
36	61.5	326.2	33.0	662394
37	60.5	320.7	33.0	667912
38	59.5	315.3	33.0	672777
39	58.5	309.9	33.0	676990
40	57.4	304.4	33.0	680550
41	56.4	299.0	33.0	683457
42	55.4	293.5	33.0	685712

AMENDED
DATE:16/12/2020

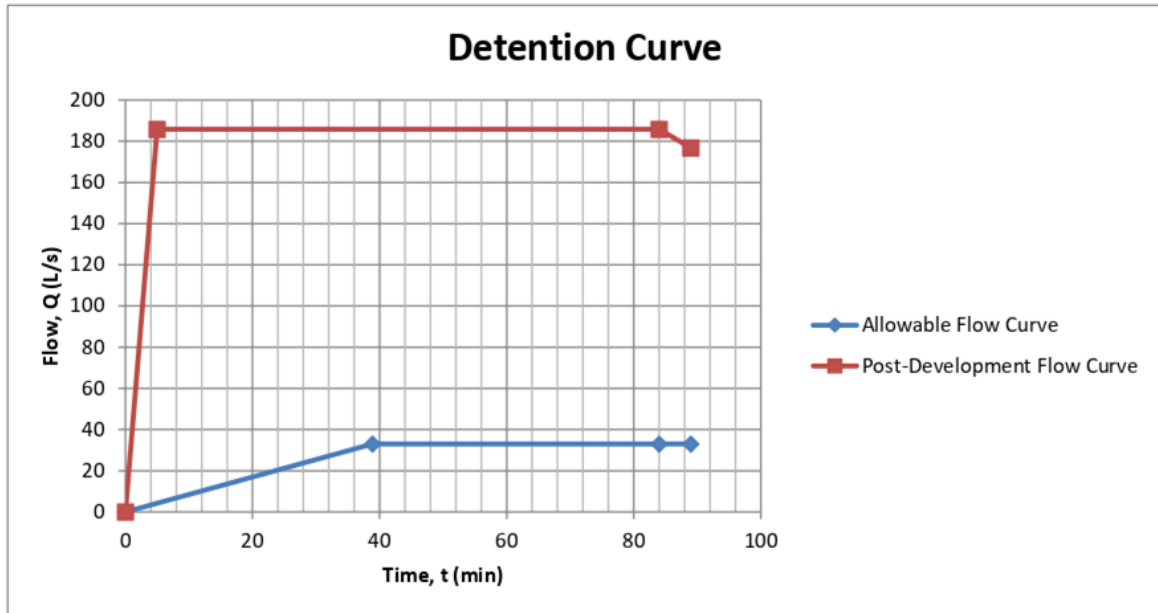
43	54.4	288.1	33.0	687314
44	53.3	282.7	33.0	688263
45	52.3	277.2	33.0	688560
46	51.7	274.0	33.0	694441
47	51.1	270.9	33.0	699941
48	50.5	267.7	33.0	705059
49	49.9	264.5	33.0	709796
50	49.3	261.3	33.0	714151
51	48.7	258.1	33.0	718125
52	48.1	255.0	33.0	721718
53	47.5	251.8	33.0	724928
54	46.9	248.6	33.0	727758
55	46.3	245.4	33.0	730206
56	45.7	242.2	33.0	732273
57	45.1	239.1	33.0	733958
58	44.5	235.9	33.0	735262
59	43.9	232.7	33.0	736185
60	43.3	229.5	33.0	736726
61	43.0	227.7	33.0	741860
62	42.6	225.9	33.0	746777
63	42.3	224.1	33.0	751475
64	41.9	222.2	33.0	755955
65	41.6	220.4	33.0	760217
66	41.2	218.6	33.0	764260
67	40.9	216.8	33.0	768085
68	40.6	215.0	33.0	771692
69	40.2	213.1	33.0	775080
70	39.9	211.3	33.0	778250
71	39.5	209.5	33.0	781202
72	39.2	207.7	33.0	783936
73	38.8	205.9	33.0	786452
74	38.5	204.0	33.0	788749
75	38.2	202.2	33.0	790828
76	37.8	200.4	33.0	792688
77	37.5	198.6	33.0	794331
78	37.1	196.8	33.0	795755
79	36.8	194.9	33.0	796961
80	36.4	193.1	33.0	797949
81	36.1	191.3	33.0	798718
82	35.7	189.5	33.0	799270
83	35.4	187.7	33.0	799603
84	35.1	185.8	33.0	799717
85	34.7	184.0	33.0	799614
86	34.4	182.2	33.0	799293
87	34.0	180.4	33.0	798753
88	33.7	178.6	33.0	797995
89	33.3	176.7	33.0	797019
90	33.0	174.9	33.0	795824

AMENDED
DATE:16/12/2020

Maximum Detention Volume (L)	Critical Storm Duration (min)	Peak Inflow (L/s)
799717	84	185.83

Detention Curve Data - Detention volume equal to area between curves

Allowable Flow Curve		Post-Development Flow Curve	
Time (min)	Flow (L/s)	Time (min)	Flow (L/s)
0	0	0	0
38.91	33.02	5.00	185.83
84	33.02	84	185.83
89	33.02	89.00	176.7



AMENDED
 DATE:16/12/2020

Project: 12 Hewittson Rd, Edinburgh North

Reference: A2020-10517

Designer: HP

Date: 10/12/2020

Checked by: CRG

Index: 6

CALCULATIONS					REF./COMMENT
Design Parameters					
ARI (years)	100				
tc (min)	5				
Site BOM IFDs					
I(10/1) (mm/h)	24.6				BOM IFD
I(100/5) (mm/h)	172				BOM IFD
Council Specified Runoff Coefficient					
No	n/a				
Post-Development Flow					
Site Surfaces	Area (m2)	f	C10	C100	
Roof area (A1)	7487.16	1	0.9	1	Catchment Plan
Cement treated rubble, rear (A2)	8331.42	0.75	0.7	0.84	
Cement treated rubble, side (A3)	1923.81	0.75	0.7	0.84	
Concrete area (A4)	2204.81	1	0.9	0.86	
Total Area =	19947.2	m2	ARR Table 14.6		
			ARI (years)	Frequency Factor, Fy	
			1	0.8	
			2	0.85	
			5	0.95	
			10	1	ARR Eq. 14.12
			20	1.05	ARR Eq. 14.11
			50	1.15	
			100	1.2	ARR Eq. 14.13
C(10/1) =	0.100				
Site Surfaces					
Roof area (A1)	358.01				
Cement treated rubble, rear (A2)	334.64				
Cement treated rubble, side (A3)	77.27				
Concrete area (A4)	90.14				
AMENDED					
DATE:16/12/2020					

Project: 12 Hewittson Rd, Edinburgh North

Reference: A2020-10517

Designer: HP

Date: 10/12/2020

Checked by: CRG

Index: 7

CALCULATIONS				REF./COMMENT
Design Parameters				
ARI (years)	10			
tc (min)	5			
Site BOM IFDs				
I(10/1) (mm/h)	24.6			BOM IFD
I(10/5) (mm/h)	118			BOM IFD
Council Specified Runoff Coefficient				
No	n/a			
Post-Development Flow				
Site Surfaces	Area (m2)	f	C10	
Roof area (A1)	7487.16	1	0.9	
Cement treated rubble, rear (A2)	8331.42	0.75	0.7	Catchment Plan
Cement treated rubble, side (A3)	4128.62	0.75	0.7	
Concrete area (A4)	2204.81	1	0.9	
Total Area =	19947.2	m2		
C(10/1) =	0.100			
ARR Table 14.6				
ARI (years)	Frequency Factor, Fy			
1	0.8			
2	0.85			
5	0.95			
10	1			ARR Eq. 14.12
20	1.05			ARR Eq. 14.11
50	1.15			
100	1.2			ARR Eq. 14.13
Site Surfaces	Peak flow (L/s)			
Roof area (A1)	221.05			
Cement treated rubble, rear (A2)	191.31			
Cement treated rubble, side (A3)	94.80			
Concrete area (A4)	65.09			
AMENDED				
DATE:16/12/2020				

Project: 12 Hewittson Rd, Edinburgh North

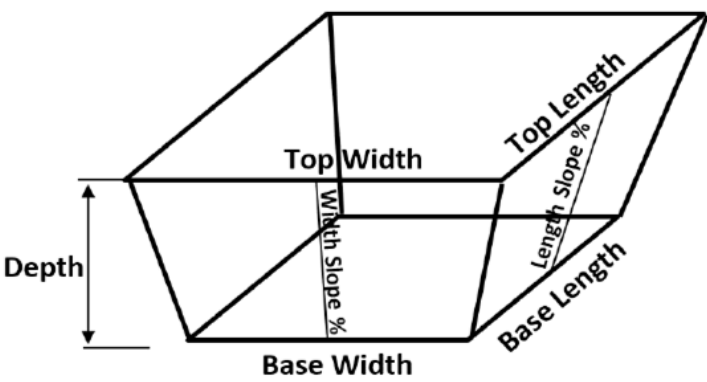
Reference: A2020-10517

Designer: HP

Date: 18/09/2020

Checked by: CRG

Index: 8

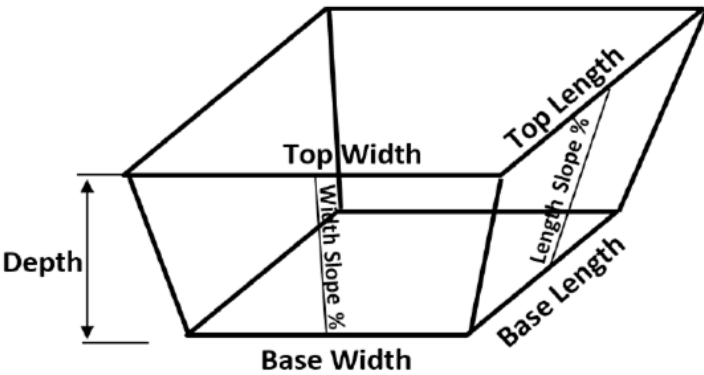
CALCULATIONS		REF./COMMENT																																							
<p><u>SURFACE RUNOFF BASIN - FRONT/SIDE AREAS</u></p> <p>Volume of Basin Calculated by Multiplying Average of Base and Surface Area by Depth</p>  <table border="1"> <tbody> <tr><td>Base Width</td><td>0.90</td><td>m</td></tr> <tr><td>Base Length</td><td>0.90</td><td>m</td></tr> <tr><td>Top Width</td><td>21.28</td><td>m</td></tr> <tr><td>Top Length</td><td>16.80</td><td>m</td></tr> <tr><td>Depth</td><td>0.370</td><td>m</td></tr> <tr><td>Surface Area at Base</td><td>0.81</td><td>m²</td></tr> <tr><td>Surface Area at Top</td><td>357.50</td><td>m²</td></tr> <tr><td>Perimeter at Base</td><td>3.60</td><td>m</td></tr> <tr><td>Perimeter at Top</td><td>76.16</td><td>m</td></tr> <tr><td>Volume</td><td>66.29</td><td>m³</td></tr> <tr><td></td><td>66288.09</td><td>L each</td></tr> <tr><td>Width Batter Slope</td><td>4.65%</td><td>%</td></tr> <tr><td>Length Batter Slope</td><td>3.63%</td><td>%</td></tr> </tbody> </table> <p>Total volume 132576.18 L</p> <p>AMENDED DATE:16/12/2020</p>			Base Width	0.90	m	Base Length	0.90	m	Top Width	21.28	m	Top Length	16.80	m	Depth	0.370	m	Surface Area at Base	0.81	m ²	Surface Area at Top	357.50	m ²	Perimeter at Base	3.60	m	Perimeter at Top	76.16	m	Volume	66.29	m ³		66288.09	L each	Width Batter Slope	4.65%	%	Length Batter Slope	3.63%	%
Base Width	0.90	m																																							
Base Length	0.90	m																																							
Top Width	21.28	m																																							
Top Length	16.80	m																																							
Depth	0.370	m																																							
Surface Area at Base	0.81	m ²																																							
Surface Area at Top	357.50	m ²																																							
Perimeter at Base	3.60	m																																							
Perimeter at Top	76.16	m																																							
Volume	66.29	m ³																																							
	66288.09	L each																																							
Width Batter Slope	4.65%	%																																							
Length Batter Slope	3.63%	%																																							

Project: 12 Hewittson Rd, Edinburgh North
 Designer: HP Date: 10/12/2020

Reference: A2020-10517

Checked by: CRG

Index: 9

CALCULATIONS	REF./COMMENT																																								
<p><u>SURFACE RUNOFF BASIN - REAR AREA</u></p> <p>Volume of Basin Calculated by Multiplying Average of Base and Surface Area by Depth</p> <div></div> <table><tr><td>Base Width</td><td>10.00</td><td>m</td></tr><tr><td>Base Length</td><td>10.00</td><td>m</td></tr><tr><td>Top Width</td><td>20.50</td><td>m</td></tr><tr><td>Top Length</td><td>20.50</td><td>m</td></tr><tr><td>Depth</td><td>1.442</td><td>m</td></tr><tr><td>Surface Area at Base</td><td>100.00</td><td>m^2</td></tr><tr><td>Surface Area at Top</td><td>420.25</td><td>m^2</td></tr><tr><td>Perimeter at Base</td><td>40.00</td><td>m</td></tr><tr><td>Perimeter at Top</td><td>82.00</td><td>m</td></tr><tr><td>Volume</td><td>375.12</td><td>m^3</td></tr><tr><td></td><td>375121.06</td><td>L</td></tr><tr><td>Width Batter Slope</td><td>27.47%</td><td>%</td></tr><tr><td>Length Batter Slope</td><td>27.47%</td><td>%</td></tr></table> <p>Total volume 375121.06 L</p> <div><p>AMENDED</p><p>DATE:16/12/2020</p></div>		Base Width	10.00	m	Base Length	10.00	m	Top Width	20.50	m	Top Length	20.50	m	Depth	1.442	m	Surface Area at Base	100.00	m^2	Surface Area at Top	420.25	m^2	Perimeter at Base	40.00	m	Perimeter at Top	82.00	m	Volume	375.12	m^3		375121.06	L	Width Batter Slope	27.47%	%	Length Batter Slope	27.47%	%	
Base Width	10.00	m																																							
Base Length	10.00	m																																							
Top Width	20.50	m																																							
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Width Batter Slope	27.47%	%																																							
Length Batter Slope	27.47%	%																																							

11/09/2020

Rainfall IFD Data System: Water Information: Bureau of Meteorology



Australian Government
Bureau of Meteorology

Location

Label: Not provided

Latitude: -34.7026 [Nearest grid cell: 34.7125 (S)]

Longitude: 138.6598 [Nearest grid cell: 138.6625 (E)]

AMENDED
DATE:16/12/2020

IFD Design Rainfall Intensity (mm/h)

Issued: 11 September 2020

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).
[FAQ for New ARR probability terminology](#)

Duration	Annual Exceedance Probability (AEP)						
	63.2%	50%#	20%*	10%	5%	2%	1%
1 min	71.8	83.0	121	151	182	227	266
2 min	63.6	73.3	107	132	159	199	231
3 min	56.6	65.3	95.1	118	142	177	207
4 min	51.1	59.0	86.1	107	129	161	188
5 min	46.8	54.1	79.0	97.9	118	148	172
6 min	43.3	50.0	73.2	90.7	109	137	160
10 min	34.0	39.3	57.5	71.3	86.2	108	126
15 min	27.4	31.6	46.4	57.5	69.5	87.0	102
20 min	23.3	26.9	39.4	48.8	59.0	73.8	86.4
25 min	20.4	23.6	34.5	42.8	51.7	64.6	75.7
30 min	18.3	21.1	30.9	38.3	46.2	57.8	67.7
45 min	14.2	16.4	23.9	29.6	35.8	44.7	52.3
1 hour	11.8	13.6	19.8	24.6	29.6	37.1	43.3
1.5 hour	9.06	10.4	15.2	18.7	22.6	28.2	33.0
2 hour	7.48	8.60	12.5	15.4	18.6	23.2	27.1
3 hour	5.69	6.53	9.45	11.7	14.0	17.5	20.4
4.5 hour	4.31	4.94	7.13	8.79	10.6	13.2	15.4
6 hour	3.53	4.05	5.82	7.17	8.61	10.7	12.5
9 hour	2.66	3.04	4.35	5.35	6.42	7.97	9.28
12 hour	2.17	2.48	3.53	4.34	5.20	6.43	7.48
18 hour	1.62	1.85	2.61	3.20	3.84	4.72	5.47
24 hour	1.32	1.49	2.10	2.57	3.07	3.76	4.35
30 hour	1.12	1.27	1.77	2.16	2.58	3.15	3.62
36 hour	0.980	1.10	1.54	1.87	2.23	2.71	3.11
48 hour	0.791	0.888	1.22	1.48	1.76	2.13	2.43
72 hour	0.583	0.650	0.881	1.06	1.25	1.49	1.69
96 hour	0.468	0.520	0.696	0.829	0.970	1.15	1.29

11/09/2020

Rainfall IFD Data System: Water Information: Bureau of Meteorology

120 hour	0.394	0.436	0.579	0.684	0.794	0.934	1.04
144 hour	0.342	0.378	0.498	0.584	0.672	0.786	0.876
168 hour	0.304	0.336	0.438	0.510	0.583	0.678	0.753

Note:

The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD.
Rather it corresponds to the 1.44 ARI.

* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD.
Rather it corresponds to the 4.48 ARI.

This page was created at **9:46 on Friday 11 September 2020 (ACST)**

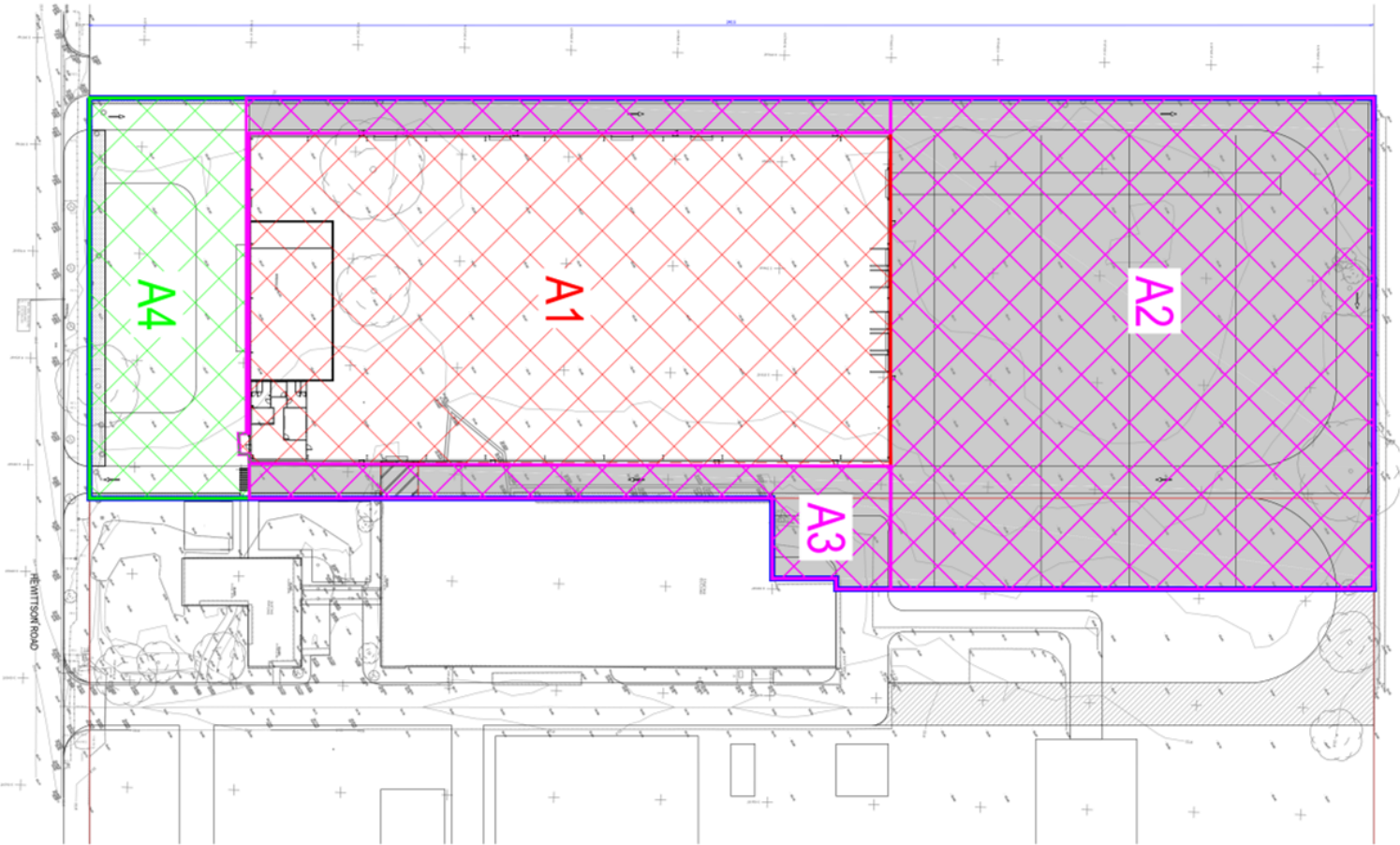
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AMENDED
DATE:16/12/2020

LEGEND

- CEMENT TREATED RUBBLE AREAS
ADOPTED $f = 0.75$
- ROOF AREA
ADOPTED $f = 1.0$
- CONCRETE AREA
ADOPTED $f = 0.9$

ROOF AREA, A1 = 7,497.10m²
REAR SURFACE AREA, A2 = 8,331.42m²
SIDE SURFACE AREA, A3 = 1,823.81m²
FRONT SURFACE AREA, A4 = 2,294.81m²



AMENDED
DATE: 16/12/2020

DATE	DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED



12107 XXX

mlei

CONSULTING ENGINEERS

107 Tullaghan Road, Malpas, Warrington, Cheshire, WA10 6AA

12 HEWITTSON ROAD

EDINBURGH NORTH

CATCHMENT PLAN

A2020-10517



Daniel Lees
General Manager
Sagle Constructions Pty. Ltd.
3 Princess Street, Findon
South Australia 5023

Date: 16 September 2020

Reference: Foam Production Facility -12 Hewittson Road, Edinburgh North, SA

Dear Daniel,

I am pleased to present to you my preliminary dangerous goods assessment brief for your client project at 12 Hewittson Road, Edinburgh North, South Australia.

This report brief includes all details and requirements to enable proper consideration of options available based on my advice, including any recommendations which have been based on the current Dangerous Substances Regulatory Regime for the safe storage and handling of dangerous substances operating in South Australia.

On review of this report, please feel free to contact me should you wish to discuss any queries which you might have as part of this project scope and my continual support to you.

This report is provided as an internal confidential document, to assist in achieving dangerous goods regulatory compliance. This report may contain comments, conclusions, and recommendations on areas of current non-compliance. To avoid any potential misuse of the information contained in this report, that could harm your client, this document should not be provided to any external private or government organisations, without prior consultation with the author.

Regards,

A handwritten signature in blue ink, appearing to read 'Peter Vitali', is positioned above the printed name.

Peter Vitali
Director & Principal Consultant

"Providing over 40 years experience in dangerous goods and hazardous chemicals"

ChemVit Consulting Pty Ltd, ABN 73 622 239 285, Postal Address: PO Box 4075, Essendon Fields, VIC 3041, Australia
Phone: 0411 258 266, Website: www.chemvit.com.au, Email: peter@chemvit.com.au

... ..

Technical Report

Title: Preliminary dangerous goods report brief.

Company: Joyce Foam Products

Premise: 12 Hewittson Road, Edinburgh North, SA

Contact Ref: Daniel Lees (General Manager)

Report Ref: Report/DG/Joyce foam products/SA

Report Author: Peter Vitali - Principal

Date: 16 September 2020

1. Title

Preliminary dangerous goods report brief, for Joyce Foam Product at 12 Hewittson Road, Edinburgh North, South Australia

2. Scope

The purpose and scope of this preliminary report brief is to provide dangerous goods technical guidance and advice, in good design concept in relation to a proposed site redevelopment for a new foam making plant, for Joyce Foam Products at the company 12 Hewittson Road, Edinburgh North, South Australia operating premise.

3. Executive Summary

In completing this report brief the following point summary I provide in relation to the development of the TDI & MDI Room, and associated tanker unloading area. I have also provided key details in relation the adjacent polyol tank storage and factory area.

- The TDI & MDI room will require a mechanical air extraction system that will also operate with a combined chemical scrubber system. This system needs to only operate when any person is inside the room or because of any TDI sensors that activate.
- The TDI & MDI room will require suitable provisions for spill containment. My calculations show that should we try to provide the full containment within the room we would likely have bunds or up to 600mm high. In this report I have provided a split option with smaller bund inside the room of some 150mm high and the remainder of some 30,000 L in an adjacent underground emergency dump holding tank or closed pit.
- This emergency dump or holding tank should be located close to the road tanker unloading area, as a double purpose use. For the tanker unloading 10,000 L being our capture requirement.
- The TDI & MDI room will need to be fully fire rated enclosure with all walls being of 240/240/240 FRL. This is a requirement as the TDI attracts a class 6.1 classification risk.
- The polyol storage and factory process area require a simple and standard floor level extraction to AS1940 requirements with no requirements for scrubbers etc.

- For the factory and polyol area, should we use the entire floor area for bunding requirements we will need bunds of at least 300mm high. Should we restrict to half of the building to the bulk polyol storage area we will have bunds of up to 600mm high
- The factory polyol storage area does not require any walls to be fire rated as only C2 combustible liquids being stored and handled.
- The factory polyol building only requires walls that are of any materials that are not classified as being combustible under the provisions of AS1530.
- For the road tanker unloading tank fill points, I have located these on the outside fire wall of the proposed TDI & MDI room, as this location would best provide the possible shortest distance to storage tanks and with the use of the 240/240/240 FRL fire wall will comply with the issue of not having the required 6m on site protected works distance.
- For this level of TDI storage, the 60m distance requirements to any off-site protected works can now be also complied with the use of fire walls.

I have in this report provided several drawings that clearly outline the technical details and what we need to design to comply with the relevant reference standards.

For this review I could not identify the need to provide on any hazardous area classification requirements, based on the type and nature of the dangerous goods to be stored and handled for this project development.

In summary this building in design can be easily built within practicable means and methods.

4. Introduction

ChemVit Consulting Pty Ltd has been engaged by Sagle Constructions Pty. Ltd, to assist and provide compliance requirements under current dangerous substances regulations, specific to their client Joyce Foam Products wanting to develop at their current operating site at 12 Hewittson Road, Edinburgh North, South Australia premise a new foam making manufacturing plant.

5. Methodology

The methodology in this compliance report brief has been based on adopting fully the requirements and recommendations in the current Dangerous Substances Act 1979 and the Dangerous Substances (General) Regulations 2004.

Risk assessments to key approved specific Australian Standards, Government and Industry Codes with suitable risk controls and methods have been adopted in this report, combined with over 40 years of knowledge and experience in this field of work by the author of this report.

Proposed foam building dangerous goods storage

The premises will be a holder of a dangerous substances storage licence under the requirement of the current Dangerous Substances (General) Regulations 2017.

Area	Storage Type	Product Name	Class	Sub Risk	Packing Group	Max Qty
TDI/MDI ROOM	3 x Bulk Tanks	TDI	6.1	-	II	100,000 L
	1 x Bulk Tank	MDI	C2	-	-	30,000 L
Polyol & PRODUCTION AREA	12 X Bulk Tanks	MDI	C2	-	-	320,000 L
Other areas	Package IBCs	Amine products	8	-	II	2,000 L

Note: Licence trigger being 50 which exceeds the licence factor of less than or equal to 1. The facility will also require suitable class labels.

This development will still attract the requirements to hold such a storage licence and at the appropriate time an application to require a new issued licence will need to be made.

This licence should not be made until the proper risk assessment and dangerous goods compliance report has been fully completed.

For this preliminary report, the proposed location of the three TDI and one MDI tanks, will be deemed to be the storage of class 6.1 dangerous goods in bulk within a tank chamber. For this review the appropriate reference standards being:

- AS/NZS 4452 The storage and handling of toxic substances.
- AS/NZS 4081 The storage and handling of liquid and liquefied polyfunctional isocyanates.

The remainder of the new building would best be considered as a process building that stores and handlings in the main C2 combustible liquids. For this review the appropriate reference standards being:

- AS 1940:2017 The storage and handling of flammable and combustible liquids (*Peter Vitali is the Chair for this current edition*)

Definition of terms

In this report:

- “The Act” being the current Dangerous Substances Act 1979
- “Dangerous substances and dangerous goods” being defined in “The Act”
- “The Regulations” being the Dangerous Substances (General) Regulations 2017.
- “The Code” being the approved code as defined in the Act & Regulations
- Approved standards as defined in the Act and Regulations.

The legislative framework

In South Australia, the Government regulates the safe storage and handling of dangerous goods and hazardous substances under the Dangerous Substances (General) Regulations 2017 with associated approved codes and standards.

6. Results and Discussion

The results from this review indicate that this development project can be easily built within practicable means and methods.

The main areas of concerns from experience in dealing with TDI is the level of requirements that will need to be provided in the TDI room chamber.

At this stage, the need to provide the fully enclosed fire rated room and combined with the need to for a mechanical air extraction system, with chemical or an alternative scrubber system as the two main engineering risk controls.

The issue in dealing with adequate spill containment for the TDI & MDI Room, Polyol and road tanker unloading area as being the next critical area that requires some degree of engineering.

Some very positive outcome that for this development, is that none of the dangerous goods proposed, attract any sub risk of being class 3 or 2.1 products, and therefore the need to provide for hazardous area classification, and resulting electrical equipment being a major regulatory reduction in design requirements.

The other good outcome being that for the storage handling of these products in the main being C2 combustible liquids, AS1940 makes very little requirements in fire systems, being in the main portable extinguishers, hose reels and possible access to local hydrant in street or on site.

7. Conclusions and Recommendations

In completing this preliminary report brief, my findings being this project can be easily developed.

In review of the requirements in this preliminary report, once the key matters that I have raised in the executive summary, are accepted in design, this project can proceed and will comply fully with the key reference standards.

8. References

Acts, Regulations and Codes

Dangerous Substances Act 1979
Dangerous Substances (General) Regulations 2017.
Storage and Handling of Workplace Dangerous Goods
NATIONAL CODE OF PRACTICE [NOHSC:2017(2001)]

Code of practice for the storage and handling of dangerous goods. Victoria 2013.

(Peter Vitali is the technical author of this code)

Australian Standards

AS 1940:2017 The storage and handling of flammable and combustible liquids- (*Peter Vitali is the Chair for this current edition*)

AS/NZS 1596 The storage and handling of LP gas*

AS/NZS 3833 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers

AS 4332 The storage and handling of gases in cylinders

AS/NZS 5026 The storage and handling of Class 4 dangerous goods

AS 2714 The storage and handling of organic peroxides

AS 4326 The storage and handling of oxidizing agents

AS/NZS 4452 The storage and handling of toxic substances

AS 3780 The storage and handling of corrosive substances

AS/NZS 4452 The storage and handling of toxic substances.

AS/NZS 4081 The storage and handling of liquid and liquefied polyfunctional isocyanates.

AS/NZS 4681 The storage and handling of Class 9 (miscellaneous) dangerous goods and articles

AS/NZS 60079.10.1 Explosive atmospheres - classification of areas - explosive gas atmospheres

(Peter Vitali has been either a contributor or committee member for these standards)

Appendices

Appendix 1 – Review of the TDI & MDI Chamber room

AS/NZS 4452 The storage and handling of toxic substances.

In review of this standard the applicable focus of this assessment being as detailed in Section 5. Storage and handling in bulk.

For this review these tanks will be within a tank chamber and not being an external tank farm.

5.1 Scope of section.

Noted this facility project is within the scope.

5.2 General.

Noted this room will be provided with suitable lighting and mechanical ventilation provisions.

5.3 Container types.

Within this room at this stage only suitable tanks to AS1692 or equivalent will be provided

5.4 Design and Construction.

In design the occupier will provide suitable bulk storage tanks to AS1692, of materials that are resistant to the product to be stored.

All tanks will need to be placed on stable ground, able to withstand fully the imposed static load when all tanks are filled.

Structural engineer will provide computations.

5.4.4 Supports

All bulk tanks will in design need to comply with AS1692 equivalent including all related tank supports.

5.4.5 Bearing area

Structural engineering computations will be provided to ensure that no excessive concentration of loads on the supportive portion of the bulk tank shell, legs, cradles or similar method of support, shall be attached in a manner that will prevent possible corrosion of the tank via moisture build up.

5.4.6 Vents

Where provided, vents shall be of sufficient design and capacity.

For this review, this will be covered at the later report with tank supplier.

5.4.7 Transfer points

At this stage, no details have been provided on the location of the transfer points, but it will need to be in open air position and for PG II products at least 6 m away from any protected works

At the more detailed review once the tank and piping details are available that area will be review further.

5.4.8 Liquid lines

Noted, when more details on tank design and layout are provided, this will need to be covered.

5.4.9 Overfill protection

Noted. At this stage no single bulk tank will exceed 50m³ in capacity and overfill protection is not required

5.4.10 Ancillary equipment for tanks

Noted, when more details on tank design and layout are provided, this will need to be covered.

5.5 Portable bulk containers.

At this stage no portable containers will be stored inside this room

5.6 Additional requirements for fixed tanks

Noted, when more details on tank design and layout are provided, this will need to be covered.

5.6.4 Tank lining

Noted, when more details on tank design and layout are provided, this will need to be covered.

5.6.5 Level indication

Suitable liquid level indication will be provided for all bulk tanks

Sight glass level indicators will not be used for any bulk tanks containing dangerous goods.

5.6.5 Nozzles

Any tank that is top filled will either has a drop-down fill pipe or a nozzle to side wall of tank to prevent splash filling.

5.6.7 Overfill systems.

All tanks will either be fitted with overfill protection system or overflow pipe to bund or separate holding collection tank.

5.7 Bunds and compound

For this project review, these tanks will be within a tank chamber and bunding spill containment will be provided.

As PG II products will be stored in this room, the bunding to contain the largest bulk tank being 40,000 L

If we try to capture 40,000 L of product within this chamber, we will end up with bund height of at least 550mm high. This situation will create steps and raised ramps.

The option to provide for a bund lip around the room of say 150mm high will capture initially up to 10,000L. The remainder of the 30,000 L can be captured in a spill pit of underground adjacent to the chamber.

5.8 Location of bulk containers

Noted. These tanks will be located within a fire rated chamber of 240/240/240 FRL and each tank will be no closer than 1m apart from another tank.

Separation distance for this review is not applicable as the tanks will be within a fire rated chamber.

5.9 Filling of bulk containers

Noted, when more details on tank design and layout are provided, this will need to be covered.

The bulk tank filling points will need to be located external.

A suitable road tanker unloading area near the chamber and external fill points needs to be provided.

Consider the class 6.1 to be unloading the spill containment system of at least 10,000 L from the largest unloading tanker should be provided for.

Section 6 Operational and Safety personnel safety

6.1 Scope of section

Noted this section applies

This section is outside the scope of this preliminary review, however key parts have been reviewed for this initial design review.

6.2 General precautions

Noted the occupier will manage and provide proper work procedures and control entry into this room.

6.3 Control of exposure

For this room chamber a mechanical floor level air extraction system will be provided, combined with suitable TDI sensors interlocked with the mechanical air extraction system.

This air extraction system will also require possible filters or chemical scrubbers.

6.3.2 Ventilation system.

To address in providing for a suitable mechanical air extraction system that will provide for safe atmospheric conditions, for any person that may enter or work within this room chamber, the following ventilation design model being required.

In my review of AS1668.2, this standard does not specifically address the risk profile associated with this type of storage area. This standard has a specific focus on general building design requirements as currently called up in the Building Code of Australia (BCA).

Reference will be made to the key Australian Standard AS1940:2017 (*I am the chair for this edition of the standard*)

Mechanical air extraction with scrubber

Option 1 – Mechanical air extraction without a scrubber.

- For this design model, every road tanker unloading of TDI & MDI product will be undertaken with a vapour return to the road tanker.
- The floor level mechanical air extraction system on activation will extract at least **250m³/min** from this room. (One complete room air change, every 4-5 minutes).
- This room will be fitted with at least 3 x (Toluene-2,4-diisocyanate) TDI sensors that will alarm at the following set points.
- An **audible and visual alarm** will activate at the **5% of the TWA for TDI - being 0.001mg/m³**
- A **fully automatic activation** of the mechanical air extraction system at the **10% of the TWA for TDI – being 0.002mg/m³**

Note: Toluene-2,4-diisocyanate. Cas no 584-84-9 TWA 0.02 mg/m³.
(Australia. Workplace Exposure Standards for Airborne Contaminants.)

Option 2 – All of the option 1 requirements, with the added system of a suitable scrubber system.

For this design option, the air extraction rate will need to be greatly reduced and balanced with the installed scrubber system to allow adequate time for any contaminated air to pass into the scrubber and be treated. Typical vapour scrubbing solution being:

The scrubber system should handle one room air volume change in no greater than 30 minutes.

A typical example being

Water -----50%

Triethanolamine-----34%

Trethylene diamine-----5%

Dipropylene glycol-----10%

Non-ionic surfactant---1%

Defoamer-----as required

6.4 House keeping

For this chamber room, my recommendation being that the scrubber system will be required as local EPA Authority would most likely make this a requirement.

6.5 Effluent Control.

Noted, the site occupier will manage this as part of their operational safety management systems.

6.6 Construction and maintenance work

Noted, the site occupier will manage this as part of their operational safety management systems.

6.7 Personnel training

Noted, the site occupier will manage this as part of their operational safety management systems.

6.8 Personnel protective equipment

Noted, the site occupier will manage this as part of their operational safety management systems.

6.9 First aid

Noted, the site occupier will manage this as part of their operational safety management systems.

Section 7 Emergency Management

Noted, the site occupier will manage this as part of their operational safety management systems.

Section 8 Fire protection

This section refers to AS1940:2017 as reference for fire protection systems. These products are not considered to be fire risk dangerous goods. The main risk is toxicity and therefore containment and safe treatment and clean-up being the proper method for any spill situation.

With reference to Section 11 in AS1940 dealing with fire protection systems. This room chamber will at most will store 130,000 L of C2 Combustible liquids.

Reference to part 11.12.5 Class C2 liquids. This standard only requires the normal fire protection system for a general building under BCA requirements as being sufficient.

In this case my recommendations being

- 2-3 portable fire extinguishers
- Access to a nearby fire hose reel with foam adaptor if required, having reach to all areas of the room chamber.

Unless advised otherwise by the relevant fire authority, such fire systems should not be located inside the room chamber.

Section 9 Waste storage and disposal

Noted, the site occupier will manage this as part of their operational safety management systems.

End.

Appendix 2 – AS/NZS 4081 The storage and handling of liquid and liquefied polyfunctional isocyanates.

For this report brief, this standard is also applicable and Section 3 dealing with bulk storage being the proper starting review section.

Section 3 Requirements for primary bulk storage installations.

3.1 Scope

Noted, this part applies.

3.2 Bulk storage systems

Noted, this is outside the scope of this preliminary report and will be covered at a later stage of the development.

3.2.2. Tank design and construction

Note, the occupier will use tanks constructed to any the following standards, AS 1692, API 650, API 620, or other equivalent standard.

3.2.3 Pipework

Noted, when more details on tank design and layout are provided, this will need to be covered.

3.2.4 Control of emissions

For all TDI & MDI tanks, the need to provide a dedicated vent line that shall be connected to a vapour removal system before the vapours are vented directly to atmosphere.

Where a wet scrubber absorption system is used, a reliable method of maintaining and verifying the relieving pressure shall be installed.

3.2.5 Vacuum relief system

AS1940:2017 will be our reference standard in providing suitable vacuum relief computations when tank design details are available.

Any vacuum relief should draw only dry air into the tank

3.3 Location and separation of tanks.

Noted. These tanks will be with the confines of a tank chamber that will have fully 240/240/240 FRL fire rated walls. All on-site or off-site protected works distances being complied with. Each tank will have at least 1 m distance between another tank and at least 1 m distance or more to any side wall in the chamber.

3.4 Bunds and compounds. Noted: In this report, bunding details have been provided.

3.5 Road Tanker loading from storage tanks

Noted. Road tanker unloading of TDI and MDI products into fixed storage tank will only be undertaken at this site.

When further details on tank and piping are available a further review of this section will need to be undertaken.

Section 4 Requirements for processing installations

4.1 Scope of section

This section applies as adjacent to the tank TDI & MDI tank chamber a processing plant is located with a capacity of more than 5000L

Note: No storage of either TDI or MDI is planned for this processing area.

This process area will in the main have polyol process holding tanks. At no time will the process involve any batch mixing of polyol and TDI or MDI in any reactor, tank or chamber that will exceed 100 L capacity.

The process review for this process area is outside scope of this preliminary report and can be further reviewed at a later stage as required by the occupier.

Section 5 Operational and personnel safety

Noted, the site occupier will manage this as part of their operational safety management systems.

5.2.1 Operating procedures

Noted, the site occupier will manage this as part of their operational safety management systems.

5.2.2 Control of entry: Noted, the site occupier will manage this as part of their operational safety management systems.

5.2.3 Clear access

Noted, the site occupier will manage this as part of their operational safety management systems.

5.2.4 Lighting

Adequate lighting will be provided to all areas where goods are kept, and people are likely to work.

5.3 Control of exposure

For this processing area it is unlikely that at any one time, TDI or MDI will be stored in this process area.

My understanding of many years in working with similar foam making plants, is that only via small pipeline is the TDI & MDI is delivered in a controlled metered method, into the pre-mix polyol and TDI small barrel for delivery of product to the foam making table as it will start to polymerise shortly after.

It is not in design planned, that this process in design should release free unreacted TDI or MDI product as once the polyol/TDI or polyol/MDI leave the mixing barrel, the mixture is secured and in its early stages of polymerization, to making finished foam product, which is stable and no longer classified as either a dangerous goods or hazardous substance.

This section of the standard only calls for a mechanical air extraction system to AS1940:2017 design requirements.

5.4 Personnel safety

Noted, the site occupier will manage this as part of their operational safety management systems.

5.5 Personnel Training

Noted, the site occupier will manage this as part of their operational safety management systems.

5.6 Personal protective equipment (PPE)

Noted, the site occupier will manage this as part of their operational safety management systems.

5.7 Safety Shower and Eye wash

A review in both the factory area and in or near the tank chamber for safety shower and several eye wash stations needs to be undertaken, during the internal design layout of both areas

5.8 First aid

Noted, the site occupier will manage this as part of their operational safety management systems.

5.9 Placarding

Suitable placarding of the factory, TDI & MDI chamber needs to be provided.

- DANGER: NO SMOKING, NO IGNITION SOURCES
- WARNING: RESTRICTED AREA, AUTHORIZED PERSONNEL ONLY

Other suitable information and safety signs for the site will be undertaken by the occupier.

5.10 Housekeeping

Noted, the site occupier will manage this as part of their operational safety management systems.

5.11 Inspection of plant and equipment

Noted, the site occupier will manage this as part of their operational safety management systems.

5.12 Construction and maintenance work

Noted, the site occupier will manage this as part of their operational safety management systems.

Section 6 Emergency Management

Noted, the site occupier will manage this as part of their operational safety management systems.

This will also be part of the current regulations and licensing requirements

Section 7 Fire protection

For this review, this process area will store and handle only C2 combustible liquids in bulk process tanks, in total not exceeding **320,000 L**.

AS1940:2017 in clause 11.12.5 Class C2 liquids.

This area will require bund spill containment for up to 80,000 L being 25% of some 320,000 L of C2 storage in this area.

For this C2 area only we would need a bund of some 600mm high.

If we use the entire factory this bund will reduce to 300mm.

Normal BCA building fire system requirements, being of this part of the factory process area

- Portable fire extinguishers
- Hose reels with foam adaptors
- Access to a street or on-site fire hydrant

Section 8 Waste storage and Disposal

Noted, the site occupier will manage this as part of their operational safety management systems.

Appendix 3 – Review of Separation distance for this process building and tank chamber

In review of both AS/NZS 4452 and AS/NZS 4081, these standards have also used the criteria as specified in AS1940 in relation to what separation distance requirement for both on-site and off-site protected places.

TDI & MDI ROOM

This bulk tank storage room based on 130,000L storage of C2 combustible liquids as per table 5.4, calls a distance at best of 6m to any off-site protected works. No distance is specified for any on site protected works.

AS4452 Clause 1.9.1 requires at least a 3m distance for PG II substances.
In clause 1.9.1 of this standard, refers to substances that are incompatible, polyol and TDI/MDI would require at least a 5m distance in separation.

Table 1.1 of this standard provides a distance for a cluster of 6.1 products in total of 130m³ Some 30m. This storage is in bulk storage, with inhalation hazard and a risk factor of 2 is applied

Our separation distance requirements can now be up to 60m

Summary

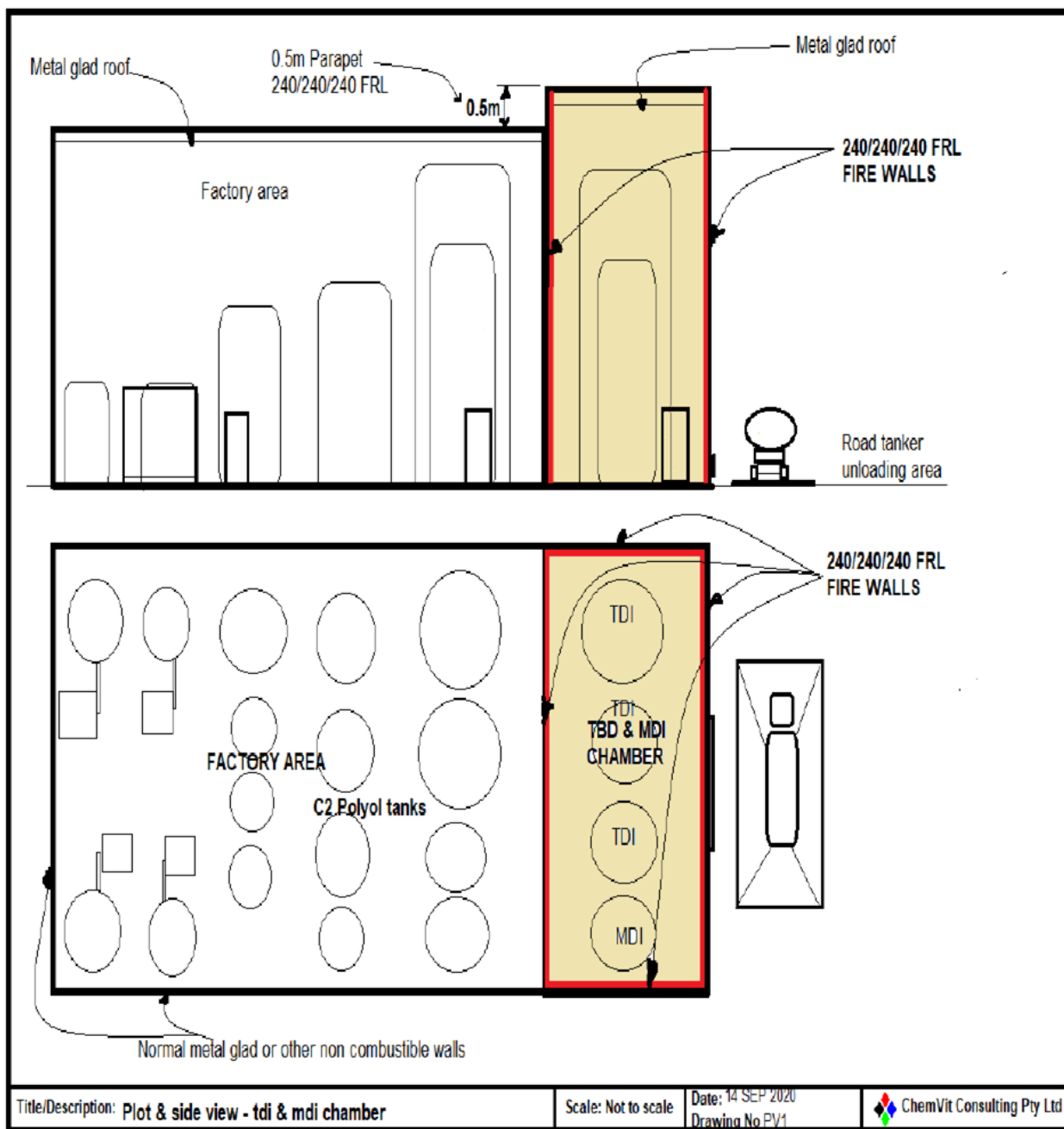
In this design model, for the TDI/MDI BULK tank storage chamber will need to be in an enclosed in a fully 240/240/240 FRL fire rated room as this required separation distance is not available.

END.

Appendix 4 – List of drawings

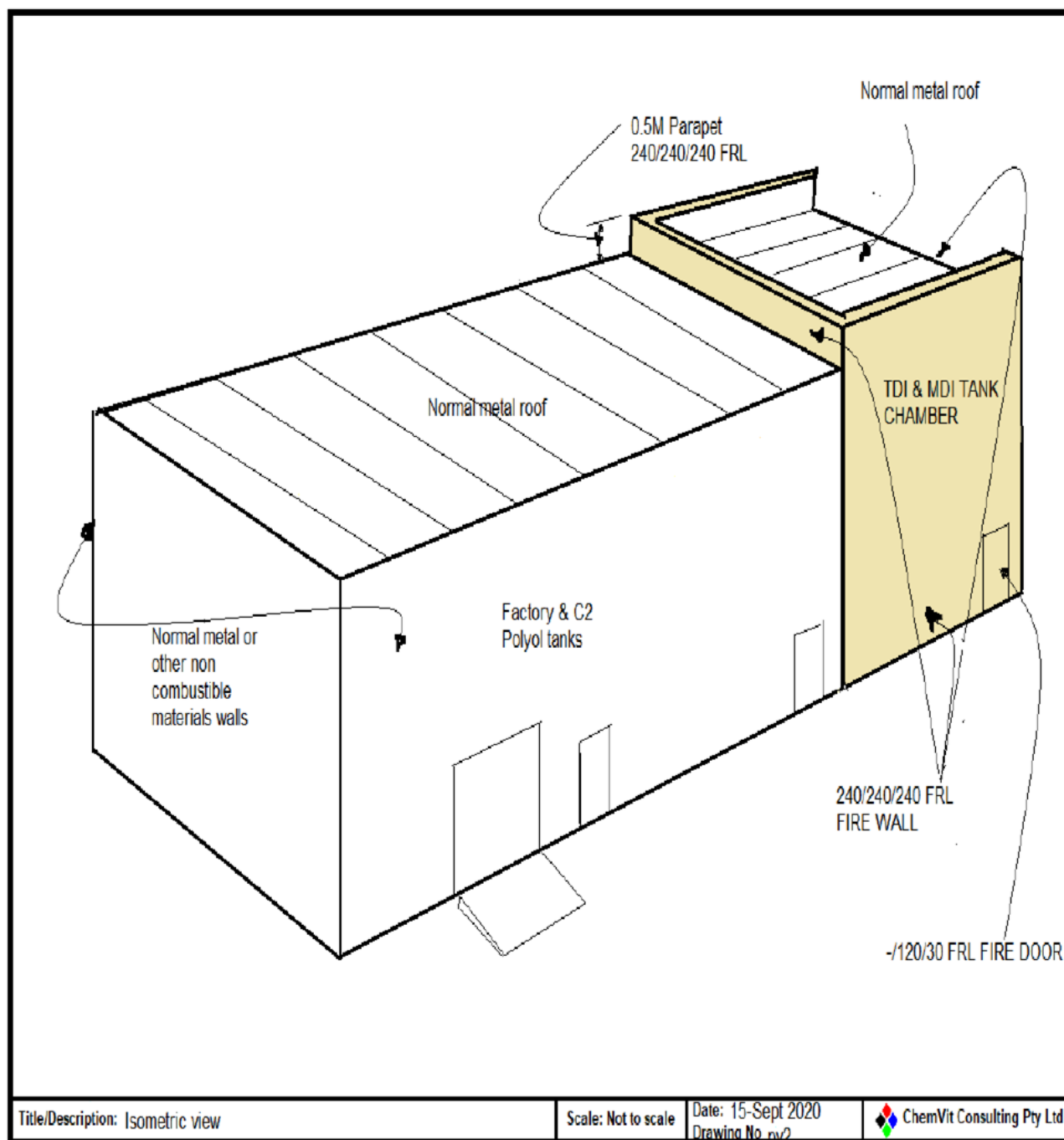
Drawing pv1 – Plot & side view – Fire walls focus

This drawing shows the required fire walls for the TDI & MDI room



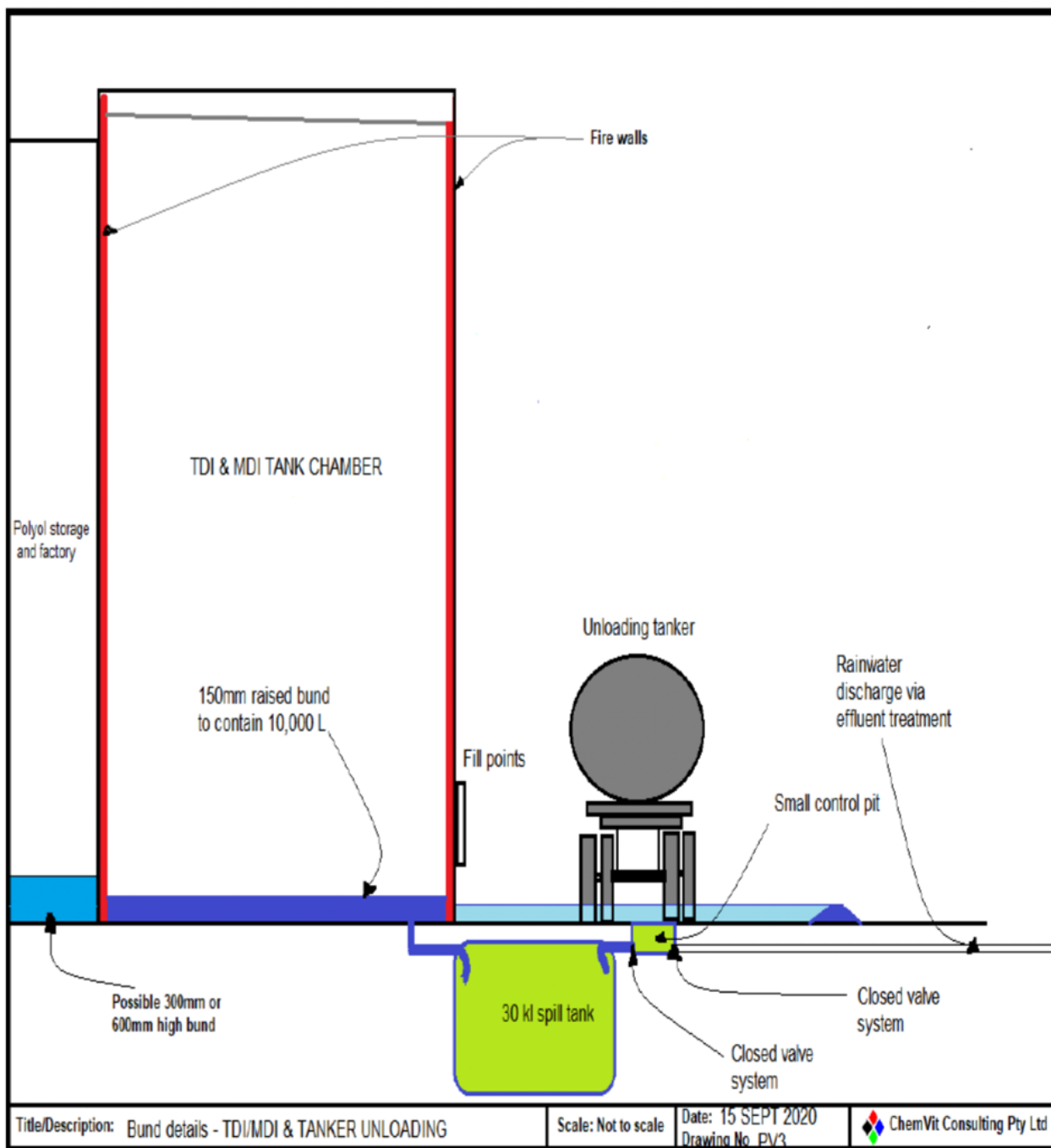
Drawing pv2 - Isometric view – General details

This drawing shows an isometric view of the fire walls required



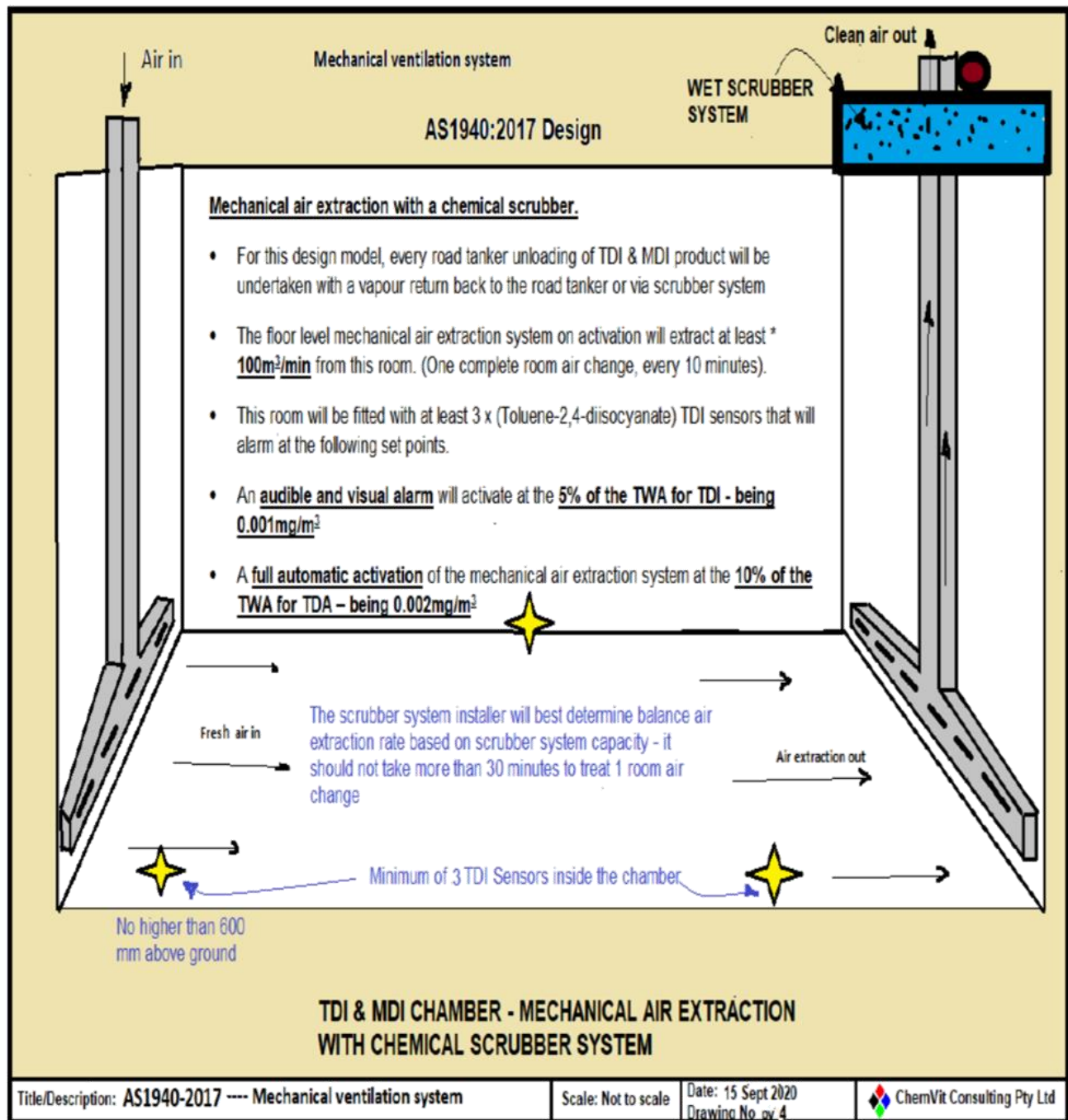
Drawing pv3 – Bund details

This drawing shows the bunding requirement and options in design



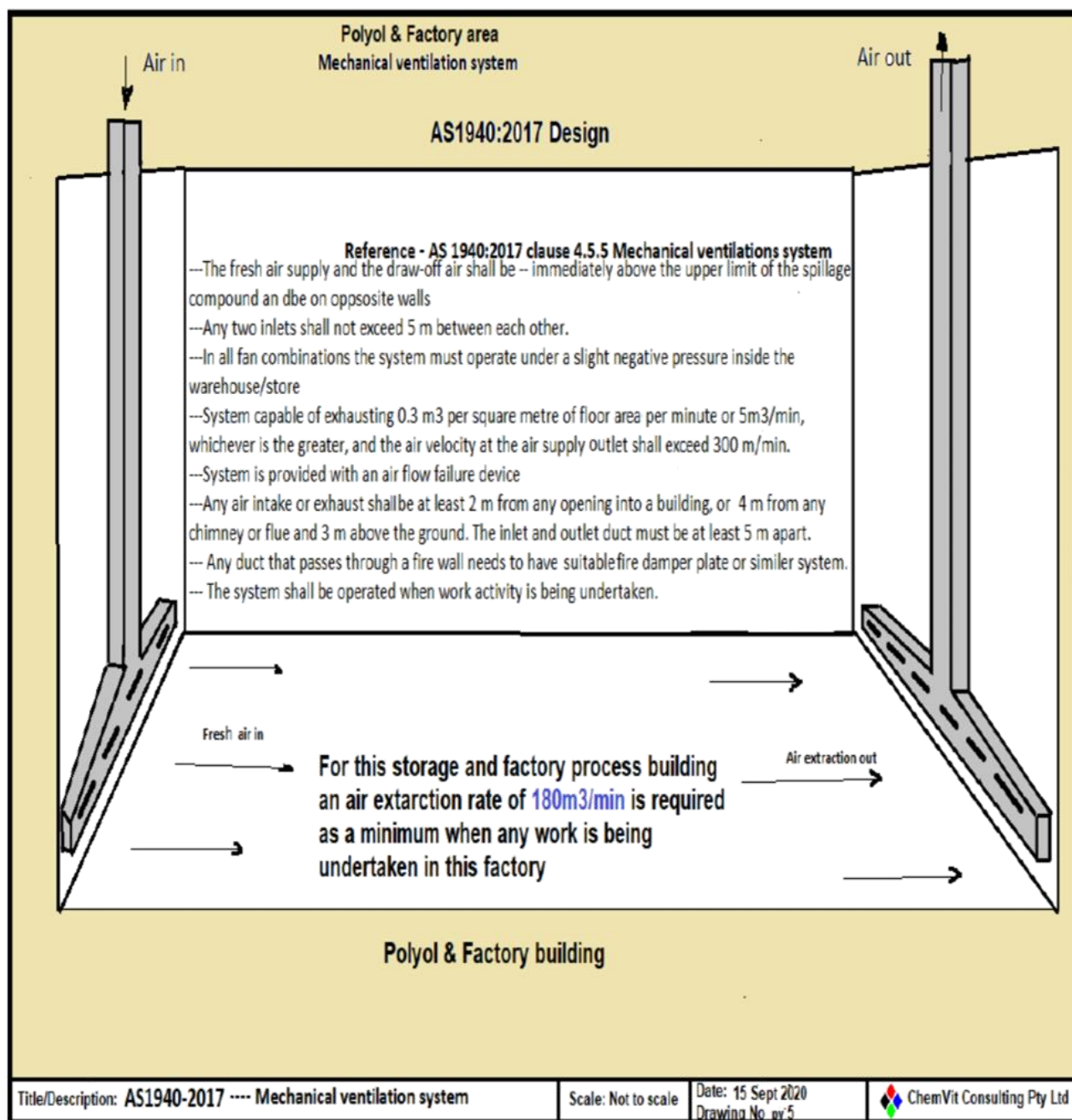
Drawing pv4 – Mechanical air system TDI & MDI Chamber

This drawing shows the mechanical extraction system requirement with chemical scrubber



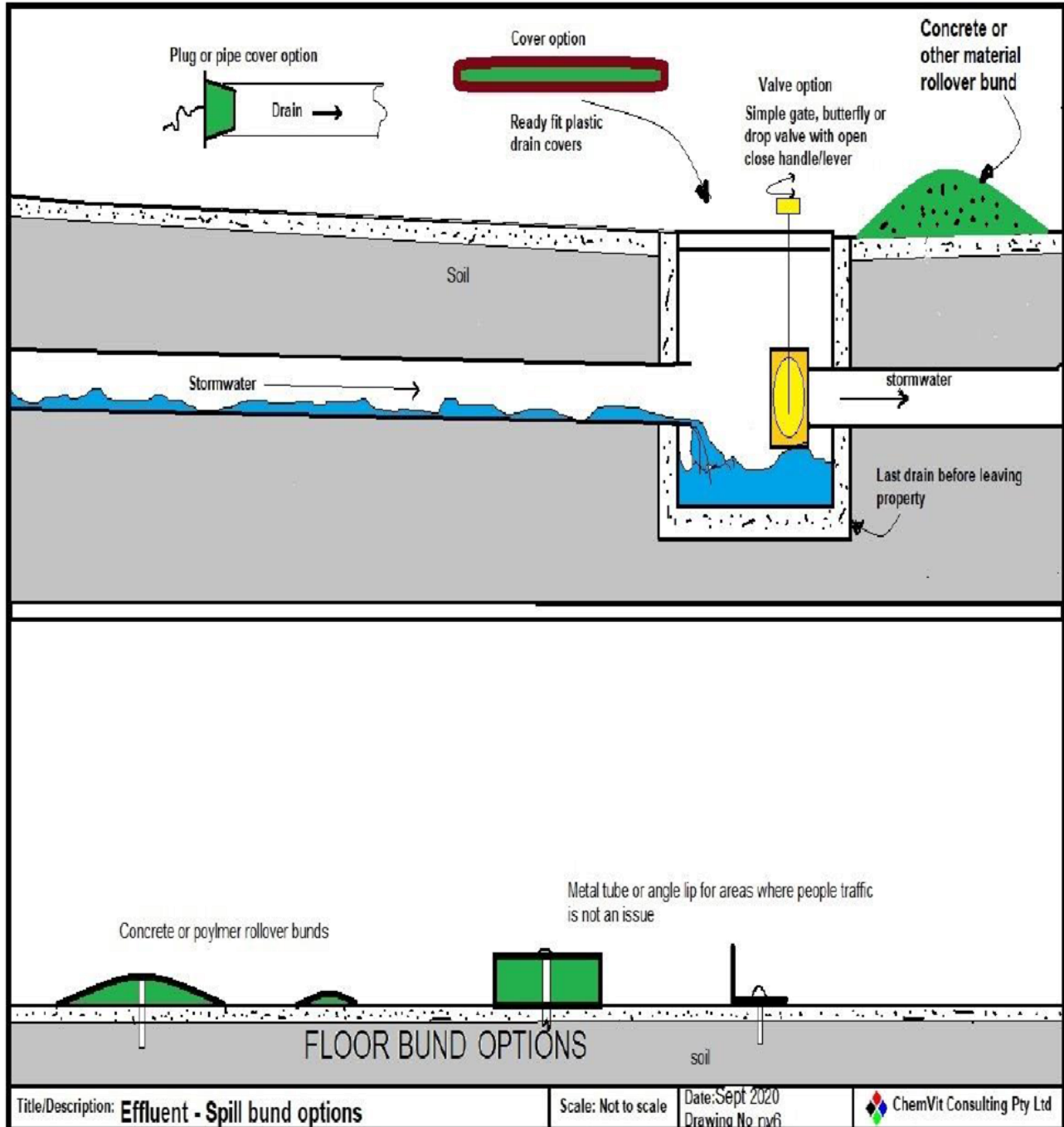
Drawing pv5 – Mechanical air system for Polyol factory area

This drawing shows the simpler common ventilation system requirements to AS1940



Drawing pv6 – Typical bund systems control methods

This drawing shows some common methods for spill and site containment.





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Report Number R006749
Emission Testing Report
Joyce Foam Products, Moorebank Plant

Ektimo

4 June 2019



Document Information

Client Name: Joyce Foam Products
Report Number: R006749
Date of Issue: 4 June 2019
Attention: Doug Jesse
Address: 5 - 9 Bridges Rd
MOOREBANK NSW 2170
Testing Laboratory: Ektimo Pty Ltd, ABN 86 600 381 413

Report Status

Format	Document Number	Report Date	Prepared By	Reviewed By (1)	Reviewed By (2)
Preliminary Report	-	-	-	-	-
Draft Report	R006749[DRAFT]	05/12/2018	JWe	SCo	ADa
Draft Report 2	R006749[DRAFT2]	18/04/2019	JWE/DBu	SCo	ADa
Final Report	R006749	04/06/2019	JWE/DBu	SCo	ADa
Amend Report	-	-	-	-	-

Template Version: 291018

Amendment Record

Document Number	Initiator	Report Date	Section	Reason
Nil	-	-	-	-

Report Authorisation

Steven Cooper
Client Manager



NATA Accredited Laboratory
No. 14601

Accredited for compliance with ISO/IEC 17025 - Testing. NATA is a signatory to the ILAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.



Table of Contents

1	Executive Summary	4
2	Licence Comparison Table.....	4
3	Results	5
3.1	EPA 2 – VPF Process Chamber	5
3.2	EPA 3 – VPF Air Lock Chamber.....	6
4	Plant Operating Conditions	7
5	Test Methods.....	7
6	Quality Assurance/Quality Control Information	7
7	Definitions	8



1 EXECUTIVE SUMMARY

Ektimo was engaged by Joyce Foam Products to determine emissions to air.

Monitoring was performed as follows:

Location	Test Date	Test Parameters*
EPA 2 – VPF Process Chamber	7 November 2018	Toluene diisocyanate (TDI)
EPA 3 – VPF Air Lock Chamber		

* Flow rate, velocity, temperature and moisture were also determined.

Due to the cyclic gas flow parameters encountered at EPA 3, the VPF Air Lock Chamber, velocity, temperature and differential pressure were logged every ten seconds for the entire duration of the TDI sample. Average gas flow parameters for this location were thus determined from this logged data.

All results are reported on a dry basis at STP.

Plant operating conditions have been noted in the report.

2 LICENCE COMPARISON TABLE

The following licence comparison table shows that all analytes highlighted in green are below and those highlighted in red are above the licence limit set by the NSW EPA as per licence 3099 (last amended on 10/07/18)

EPA No.	Location Description	Pollutant	Units	Licence limit	Detected values 7-Nov-18
2	VPF Process Chamber	Toluene 2,4 diisocyanate (TDI)	mg/m ³	-	<0.0007
		Toluene 2,6 diisocyanate (TDI)	mg/m ³	-	<0.0007
		Toluene 2,4 & 2,6 diisocyanate (TDI) combined	mg/m ³	0.01	<0.001
3	VPF Air Lock Chamber	Toluene 2,4 diisocyanate (TDI)	mg/m ³	-	<0.0007
		Toluene 2,6 diisocyanate (TDI)	mg/m ³	-	<0.0007
		Toluene 2,4 & 2,6 diisocyanate (TDI) combined	mg/m ³	0.01	<0.001

Ektimo

4 June 2019



3 RESULTS

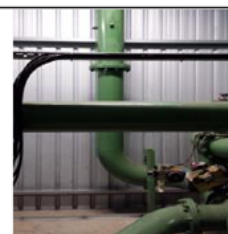
3.1 EPA 2 – VPF Process Chamber

Date	7/11/2018	Client	Joyce Foam Products
Report	R006749	Stack ID	EPA 2 - VPF Process Chamber
Licence No.	3099	Location	Moorebank
Ektimo Staff	Steven Cooper & Daniel De Sensi	State	NSW
Process Conditions	Please refer to 'Plant Operating Conditions' in this report.		

9022

Sampling Plane Details

Sampling plane dimensions	250 mm
Sampling plane area	0.0491 m ²
Sampling port size, number	1" BSP (x2)
Access & height of ports	Step ladder 4 m
Duct orientation & shape	Vertical Circular
Downstream disturbance	Exit 6 D
Upstream disturbance	Bend 8 D
No. traverses & points sampled	2 4
Sample plane compliance to AS4323.1	Ideal



Comments

The discharge is assumed to be composed of dry air and moisture

Stack Parameters

Moisture content, %v/v	1.3	
Gas molecular weight, g/g mole	28.8 (wet)	29.0 (dry)
Gas density at STP, kg/m ³	1.29 (wet)	1.29 (dry)

Gas Flow Parameters

Flow measurement time(s) (hhmm)	0930 & 1102
Temperature, °C	78
Temperature, K	351
Velocity at sampling plane, m/s	8.7
Volumetric flow rate, actual, m ³ /min	26
Volumetric flow rate (wet STP), m ³ /min	20
Volumetric flow rate (dry STP), m ³ /min	20
Mass flow rate (wet basis), kg/hour	1500
Velocity difference, %	3

Toluene Diisocyanate	Sampling time	Results	
		0930-1110	
		Concentration mg/m ³	Mass Rate g/min
Isocyanates 2,4-TDI		<0.0007	<0.00001
Isocyanates 2,6-TDI		<0.0007	<0.00001
2,4 & 2,6 TDI Combined		<0.001	<0.00003

Ektimo

4 June 2019



3.2 EPA 3 – VPF Air Lock Chamber

Date	7/11/2018	Client	Joyce Foam Products
Report	R006749	Stack ID	EPA 3 - VPF Air Lock Chamber
Licence No.	3099	Location	Moorebank
Ektimo Staff	Steven Cooper & Daniel De Sensi	State	NSW
Process Conditions	Please refer to 'Plant Operating Conditions' in this report.		

18 10 22

Sampling Plane Details

Sampling plane dimensions	300 mm
Sampling plane area	0.0707 m ²
Sampling port size, number	1" BSP (x2)
Access & height of ports	Step ladder 4 m
Duct orientation & shape	Vertical Circular
Downstream disturbance	Bend 3 D
Upstream disturbance	Bend 6 D
No. traverses & points sampled	2 4
Sample plane compliance to AS4323.1	Ideal



Comments

The discharge is assumed to be composed of dry air and moisture

Stack Parameters

Moisture content, %v/v	1.3	
Gas molecular weight, g/g mole	28.8 (wet)	29.0 (dry)
Gas density at STP, kg/m ³	1.29 (wet)	1.29 (dry)

Gas Flow Parameters

Flow measurement time(s) (hhmm)	0930 & 1110
Temperature, °C	50
Temperature, K	323
Velocity at sampling plane, m/s	20
Volumetric flow rate, actual, m ³ /min	83
Volumetric flow rate (wet STP), m ³ /min	70
Volumetric flow rate (dry STP), m ³ /min	69
Mass flow rate (wet basis), kg/hour	5400
Velocity difference, %	<1

Toluene Diisocyanate	Sampling time	Results	
		0930-1110	
		Concentration mg/m ³	Mass Rate g/min
Isocyanates 2,4-TDI		<0.0007	<0.00005
Isocyanates 2,6-TDI		<0.0007	<0.00005
2,4 & 2,6 TDI Combined		<0.001	<0.0001

Ektimo

4 June 2019



4 PLANT OPERATING CONDITIONS

Unless otherwise stated, the plant operating conditions were normal at the time of testing. See Joyce Foam Products's records for complete process conditions.

Joyce Foam Products - Liverpool Plant

Production Records 2018 VPF Line Date: 7th November 2018

Grades produced: (continuous slab production run)

H25-60PL Run 1075

Slab width 2235 mm

Conveyor speed: 4.5 m/min

Start Time: 08:55 am

Run time: 106 mins

Total Produced: 31.3 tonnes

5 TEST METHODS

All sampling and analysis was performed by Ektimo unless otherwise specified. Specific details of the methods are available upon request.

Parameter	Sampling Method	Analysis Method	Method Detection Limit	Uncertainty*	NATA Accredited	
					Sampling	Analysis
Sample plane criteria	NSW TM-1	NA	NA	-	✓	NA
Flow rate, temperature and velocity	NSW TM-2	NA	Location specific	8%, 2%, 7%	✓	NA
Moisture content	NSW TM-22	NSW TM-22	1.0%	19%	✓	✓
Toluene diisocyanate (TDI) and Methylene bis phenyl isocyanate (MDI)	Ektimo 350	Ektimo 350	0.0008 mg/m ³	19%	✓	✓ [†]

120303

* Uncertainty values cited in this table are calculated at the 95% confidence level (coverage factor = 2)

[†] Analysis performed by Ektimo, NATA accreditation number 14601. Laboratory analytical results were reported on 22 November 2018 in report number R006749-Isocyanates.

6 QUALITY ASSURANCE/QUALITY CONTROL INFORMATION

Ektimo is accredited by the National Association of Testing Authorities (NATA) for the sampling and analysis of air pollutants from industrial sources. Unless otherwise stated test methods used are accredited with the National Association of Testing Authorities. For full details, search for Ektimo at NATA's website www.nata.com.au.

Ektimo is accredited by NATA (National Association of Testing Authorities) to ISO/IEC 17025 - Testing. ISO/IEC 17025 - Testing requires that a laboratory have adequate equipment to perform the testing, as well as laboratory personnel with the competence to perform the testing. This quality assurance system is administered and maintained by the Quality Director.

NATA is a member of APLAC (Asia Pacific Laboratory Accreditation Co-operation) and of ILAC (International Laboratory Accreditation Co-operation). Through the mutual recognition arrangements with both of these organisations, NATA accreditation is recognised worldwide.



7 DEFINITIONS

The following symbols and abbreviations may be used in this test report:

~	Approximately
<	Less than
>	Greater than
≥	Greater than or equal to
APHA	American public health association, Standard Methods for the Examination of Water and Waste Water
AS	Australian Standard
BSP	British standard pipe
CARB	Californian Air Resources Board
CEM	Continuous Emission Monitoring
CEMS	Continuous Emission Monitoring System
CTM	Conditional test method
D	Duct diameter or equivalent duct diameter for rectangular ducts
D ₅₀	'Cut size' of a cyclone defined as the particle diameter at which the cyclone achieves a 50% collection efficiency ie. half of the particles are retained by the cyclone and half are not and pass through it to the next stage. The D ₅₀ method simplifies the capture efficiency distribution by assuming that a given cyclone stage captures all of the particles with a diameter equal to or greater than the D ₅₀ of that cyclone and less than the D ₅₀ of the preceding cyclone.
DECC	Department of Environment & Climate Change (NSW)
Disturbance	A flow obstruction or instability in the direction of the flow which may impede accurate flow determination. This includes centrifugal fans, axial fans, partially closed or closed dampers, louvres, bends, connections, junctions, direction changes or changes in pipe diameter.
DWER	Department of Water and Environmental Regulation (WA)
DEHP	Department of Environment and Heritage Protection (QLD)
EPA	Environment Protection Authority
FTIR	Fourier Transform Infra-red
ISC	Intersociety committee, Methods of Air Sampling and Analysis
ISO	International Organisation for Standardisation
Lower Bound	Defines values reported below detection as equal to zero.
Medium Bound	Defines values reported below detection are equal to half the detection limit.
NA	Not applicable
NATA	National Association of Testing Authorities
NIOSH	National Institute of Occupational Safety and Health
NT	Not tested or results not required
OM	Other approved method
OU	The number of odour units per unit of volume. The numerical value of the odour concentration is equal to the number of dilutions to arrive at the odour threshold (50% panel response).
PM ₁₀	Atmospheric suspended particulate matter having an equivalent aerodynamic diameter of less than approximately 10 microns (µm).
PM _{2.5}	Atmospheric suspended particulate matter having an equivalent aerodynamic diameter of less than approximately 2.5 microns (µm).
PSA	Particle size analysis
RATA	Relative Accuracy Test Audit
Semi-quantified VOCs	Unknown VOCs (those not matching a standard compound), are identified by matching the mass spectrum of the chromatographic peak to the NIST Standard Reference Database (version 14.0), with a match quality exceeding 70%. An estimated concentration will be determined by matching the integrated area of the peak with the nearest suitable compound in the analytical calibration standard mixture.
STP	Standard temperature and pressure. Gas volumes and concentrations are expressed on a dry basis at 0°C, at discharge oxygen concentration and an absolute pressure of 101.325 kPa, unless otherwise specified.
TM	Test Method
TOC	The sum of all compounds of carbon which contain at least one carbon to carbon bond, plus methane and its derivatives.
USEPA	United States Environmental Protection Agency
VDI	Verein Deutscher Ingenieure (Association of German Engineers)
Vic EPA	Victorian Environment Protection Authority
VOC	Any chemical compound based on carbon with a vapour pressure of at least 0.010 kPa at 25°C or having a corresponding volatility under the particular conditions of use. These compounds may contain oxygen, nitrogen and other elements, but specifically excluded are carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonate salts.
XRD	X-ray Diffractometry
Upper Bound	Defines values reported below detection are equal to the detection limit.



Ektimo

REPORT NUMBER R008403-1

**Emission Testing Report
Joyce Foam Products, Moorebank Plant
VPF Line**

www.ektimo.com.au

Reference: R008403-1
Date: 29/11/2019
Prepared for: Joyce Foam Products
Page: 2 of 9



Document Information

Client Name: Joyce Foam Products
Report Number: R008403-1
Date of Issue: 29 November 2019
Attention: Doug Jesse
Address: 5 - 9 Bridges Rd
MOOREBANK NSW 2170
Testing Laboratory: Ektimo Pty Ltd, ABN 86 600 381 413

Report Authorisation

A handwritten signature in black ink, appearing to read "Steven Cooper", is placed over a faint, circular official stamp.

Steven Cooper
Client Manager



NATA Accredited Laboratory
No. 14601

Accredited for compliance with ISO/IEC 17025 - Testing. NATA is a signatory to the ILAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document is confidential and is prepared for the exclusive use of Joyce Foam Products and those granted permission by Joyce Foam Products.

The report shall not be reproduced except in full.



Reference: R008403-1
Date: 29/11/2019
Prepared for: Joyce Foam Products
Page: 3 of 9



Table of Contents

1	Executive Summary	4
1.1	Background.....	4
1.2	Project Objectives.....	4
1.3	Licence Comparison Table	4
2	Results	5
2.1	EPA 2 – VPF Process Chamber	5
2.2	EPA 3 – VPF Air Lock Chamber	6
3	Plant Operating Conditions	7
4	Test Methods.....	7
5	Quality Assurance/Quality Control Information	8
6	Definitions	8



Reference: R008403-1
 Date: 29/11/2019
 Prepared for: Joyce Foam Products
 Page: 4 of 9



1 EXECUTIVE SUMMARY

1.1 Background

Ektimo was engaged by Joyce Foam Products to perform emission testing at their Moorebank plant.

1.2 Project Objectives

The objectives of the project were to conduct a monitoring programme to quantify emissions from two discharge points to determine compliance with Joyce Foam Products' Environmental Protection Licence, 3099.

Monitoring was performed as follows;

Location	Test Date	Test Parameters*
EPA 2 – VPF Process Chamber	7 November 2019	Toluene diisocyanate (TDI)
EPA 3 – VPF Air Lock Chamber**		

* Flow rate, velocity, temperature and moisture were also determined.

**Due to the cyclic gas flow parameters encountered at the VPF Air Lock Chamber, velocity, temperature and differential pressure were logged every ten seconds for the entire duration of the TDI sample. Average gas flow parameters for this location were thus determined from this logged data.

All results are reported on a dry basis at STP.

Plant operating conditions have been noted in the report.

1.3 Licence Comparison Table

The following licence comparison table shows that all analytes highlighted in green are within the licence limit set by the NSW EPA as per Environmental Protection Licence, 3099 (last amended on 10 July 2018).

EPA No.	Location Description	Pollutant	Units	Licence limit	Detected values 7-Nov-19
2	VPF Process Chamber	Toluene 2,4 diisocyanate (TDI)	mg/m ³	-	<0.0008
		Toluene 2,6 diisocyanate (TDI)	mg/m ³	-	<0.0008
		Toluene 2,4 & 2,6 diisocyanate (TDI) combined	mg/m ³	0.01	<0.002
3	VPF Air Lock Chamber	Toluene 2,4 diisocyanate (TDI)	mg/m ³	-	<0.0008
		Toluene 2,6 diisocyanate (TDI)	mg/m ³	-	<0.0008
		Toluene 2,4 & 2,6 diisocyanate (TDI) combined	mg/m ³	0.01	<0.002

Please note that the measurement uncertainty associated with the test results was not considered when determining whether the results were compliant or non-compliant.

Refer to the Test Methods table for the measurement uncertainties.



Reference: R008403-1
Date: 29/11/2019
Prepared for: Joyce Foam Products
Page: 5 of 9



2 RESULTS

2.1 EPA 2 – VPF Process Chamber

Date	7/11/2019	Client	Joyce Foam Products
Report	R008403	Stack ID	EPA 2 - VPF Process Chamber
Licence No.	3099	Location	Moorebank
Ektimo Staff	Scott Woods / Aaron Davis	State	NSW
Process Conditions	Please refer to Plant Operating Conditions.		

19/10/20

Sampling Plane Details

Sampling plane dimensions	250 mm
Sampling plane area	0.0491 m ²
Sampling port size, number	1" BSP (x2)
Access & height of ports	Step ladder 4 m
Duct orientation & shape	Vertical Circular
Downstream disturbance	Exit 6 D
Upstream disturbance	Bend 8 D
No. traverses & points sampled	2 4
Sample plane compliance to AS4323.1	Ideal

Comments

The discharge is assumed to be composed of dry air and moisture



Stack Parameters

Moisture content, %v/v	1.8	
Gas molecular weight, g/g mole	28.8 (wet)	29.0 (dry)
Gas density at STP, kg/m ³	1.28 (wet)	1.29 (dry)

Gas Flow Parameters

Flow measurement time(s) (hhmm)	0910 & 1015
Temperature, °C	89
Temperature, K	362
Velocity at sampling plane, m/s	9.9
Volumetric flow rate, actual, m ³ /s	0.49
Volumetric flow rate (wet STP), m ³ /s	0.36
Volumetric flow rate (dry STP), m ³ /s	0.36
Mass flow rate (wet basis), kg/hour	1700
Velocity difference, %	2

Toluene Diisocyanate	Sampling time	Results	
		0910-1010	
		Concentration mg/m ³	Mass Rate g/min
Isocyanates 2,4-TDI		<0.0008	<0.00002
Isocyanates 2,6-TDI		<0.0008	<0.00002
2,4 & 2,6 TDI Combined		<0.002	<0.00003

Reference: R008403-1
 Date: 29/11/2019
 Prepared for: Joyce Foam Products
 Page: 6 of 9



2.2 EPA 3 – VPF Air Lock Chamber

Date	7/11/2019	Client	Joyce Foam Products
Report	R008403	Stack ID	EPA 3 - VPF Air Lock Chamber
Licence No.	3099	Location	Moorebank
Ektimo Staff	Scott Woods / Aaron Davis	State	NSW
Process Conditions	Please refer to Plant Operating Conditions.		

19/10/29

Sampling Plane Details

Sampling plane dimensions
 Sampling plane area
 Sampling port size, number
 Access & height of ports
 Duct orientation & shape
 Downstream disturbance
 Upstream disturbance
 No. traverses & points sampled
 Sample plane compliance to AS4323.1

300 mm
 0.0707 m²
 1" BSP (x2)
 Step ladder 4 m
 Vertical Circular
 Bend 3 D
 Bend 6 D
 2 4
 Ideal



Comments

The discharge is assumed to be composed of dry air and moisture

Stack Parameters

Moisture content, %v/v	2	
Gas molecular weight, g/g mole	28.7 (wet)	29.0 (dry)
Gas density at STP, kg/m ³	1.28 (wet)	1.29 (dry)

Gas Flow Parameters

Flow measurement time(s) (hhmm)	0910 - 1010
Temperature, °C	44
Temperature, K	317
Velocity at sampling plane, m/s	19
Volumetric flow rate, actual, m ³ /s	1.3
Volumetric flow rate (wet STP), m ³ /s	1.1
Volumetric flow rate (dry STP), m ³ /s	1.1
Mass flow rate (wet basis), kg/hour	5200

Toluene Diisocyanate	Sampling time	Results	
		0910-1010	
		Concentration mg/m ³	Mass Rate g/min
Isocyanates 2,4-TDI		<0.0008	<0.00005
Isocyanates 2,6-TDI		<0.0008	<0.00005
2,4 & 2,6 TDI Combined		<0.002	<0.0001

Reference: R008403-1
Date: 29/11/2019
Prepared for: Joyce Foam Products
Page: 7 of 9



3 PLANT OPERATING CONDITIONS

The below plant operating conditions have been supplied by Joyce Foam Products personnel.

Joyce Foam Products	Liverpool Plant	VPF Line	Date: 7th Nov 2019
Grade produced:	H25-60PL (continuous slab production run)		
Run	1222		
Slab width	2235 mm		
Conveyor speed:	4.6 m/min		
Start Time:	9:10am		
Run time:	86 mins		
Total Produced:	25.2 tonnes		

4 TEST METHODS

All sampling and analysis performed by Ektimo unless otherwise specified. Specific details of the methods are available upon request.

Parameter	Sampling Method	Analysis Method	Uncertainty*	NATA Accredited	
				Sampling	Analysis
Sample plane criteria	NSW TM-1	NA	NA	✓	NA
Flow rate, temperature and velocity	NA	NSW TM-2	8%, 2%, 7%	NA	✓
Moisture content	NSW TM-22	NSW TM-22	19%	✓	✓
Toluene diisocyanate (TDI) and Methylene bis phenyl isocyanate (MDI)	Ektimo 350	Ektimo 350	19%	✓	✓†

191030

* Uncertainty values cited in this table are calculated at the 95% confidence level (coverage factor = 2)

† Analysis conducted at the Ektimo Mitcham, VIC laboratory, NATA accreditation number 14601. Results were reported to Ektimo on 19 November 2019 in report number R008403-Isocyanates.



Reference: R008403-1
Date: 29/11/2019
Prepared for: Joyce Foam Products
Page: 8 of 9



5 QUALITY ASSURANCE/QUALITY CONTROL INFORMATION

Ektimo is accredited by the National Association of Testing Authorities (NATA) for the sampling and analysis of air pollutants from industrial sources. Unless otherwise stated test methods used are accredited with the National Association of Testing Authorities. For full details, search for Ektimo at NATA's website www.nata.com.au.

Ektimo is accredited by NATA (National Association of Testing Authorities) to ISO/IEC 17025 - Testing. ISO/IEC 17025 - Testing requires that a laboratory have adequate equipment to perform the testing, as well as laboratory personnel with the competence to perform the testing. This quality assurance system is administered and maintained by the Quality Director.

NATA is a member of APLAC (Asia Pacific Laboratory Accreditation Co-operation) and of ILAC (International Laboratory Accreditation Co-operation). Through the mutual recognition arrangements with both of these organisations, NATA accreditation is recognised worldwide.

6 DEFINITIONS

The following symbols and abbreviations may be used in this test report:

% v/v	Volume to volume ratio, dry or wet basis
~	Approximately
<	Less than
>	Greater than
≥	Greater than or equal to
APHA	American public health association, Standard Methods for the Examination of Water and Waste Water
AS	Australian Standard
BSP	British standard pipe
Disturbance	A flow obstruction or instability in the direction of the flow which may impede accurate flow determination. This includes centrifugal fans, axial fans, partially closed or closed dampers, louvres, bends, connections, junctions, direction changes or changes in pipe diameter.
EPA	Environment Protection Authority
NA	Not applicable
NATA	National Association of Testing Authorities
NIOSH	National Institute of Occupational Safety and Health
NT	Not tested or results not required
OM	Other approved method
OU	The number of odour units per unit of volume. The numerical value of the odour concentration is equal to the number of dilutions to arrive at the odour threshold (50% panel response).
PM ₁₀	Atmospheric suspended particulate matter having an equivalent aerodynamic diameter of less than approximately 10 microns (µm).
PM _{2.5}	Atmospheric suspended particulate matter having an equivalent aerodynamic diameter of less than approximately 2.5 microns (µm).
STP	Standard temperature and pressure. Gas volumes and concentrations are expressed on a dry basis at 0°C, at discharge oxygen concentration and an absolute pressure of 101.325 kPa, unless otherwise specified.
TM	Test Method
TOC	The sum of all compounds of carbon which contain at least one carbon to carbon bond, plus methane and its derivatives.
USEPA	United States Environmental Protection Agency
VDI	Verein Deutscher Ingenieure (Association of German Engineers)
Velocity Difference	The percentage difference between the average of initial flows and afterflows.
Vic EPA	Victorian Environment Protection Authority
VOC	Any chemical compound based on carbon with a vapour pressure of at least 0.010 kPa at 25°C or having a corresponding volatility under the particular conditions of use. These compounds may contain oxygen, nitrogen and other elements, but specifically excluded are carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonate salts.
Upper Bound	Defines values reported below detection are equal to the detection limit.
95% confidence interval	Range of values that contains the true result with 95% certainty. This means there is a 5% risk that the true result is outside this range.



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Environment Protection Authority
GPO Box 2607 Adelaide SA 5001
211 Victoria Square Adelaide SA 5000
T (08) 8204 2004
Country areas 1800 623 445

EPA Reference: 34909

30 December 2020

Ms Megan Leverington
City Of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Dear Ms Leverington

DIRECTION - Activities of Major Environmental Significance

Development Application No.	292/1790/2020
Applicant	Sagle Constructions Pty Ltd (Humby Consulting)
Location	A6 FP107706 HD Munno Para, 12 Hewittson Road, Edinburgh North SA 5113
Activity of Environmental Significance	Schedule 8 Item 11; Schedule 22 Part A Activities, Item 22-1(1), 22-1(2)
Proposal	The construction of a foam manufacturing plant (general industry) including warehouse and office, associated hardstand areas and a carpark, the erection of signage, the removal of two regulated trees, the placement of two above ground water tanks and the partial demolition of an existing warehouse and lean-to.
Decision Notification	A copy of the decision notification must be forwarded to: Client Services Officer Environment Protection Authority GPO Box 2607 ADELAIDE SA 5001

I refer to the above development application forwarded to the Environment Protection Authority (EPA) in accordance with Section 37 of the *Development Act 1993*. The proposed development involves an activity of major environmental significance as described above.

The following response is provided in accordance with Section 37(4)(b)(ii) of the *Development Act 1993* and Schedule 8 Item 11 of the *Development Regulations 2008*.

In determining this response the EPA had regard to and sought to further the objects of the *Environment Protection Act 1993*, and also had regard to:

- the General Environmental Duty, as defined in Part 4, Section 25 (1) of the Act; and
- relevant Environment Protection Policies made under Part 5 of the Act.

Please direct all queries relating to the contents of this correspondence to Stephen Both on telephone (08) 8204 2129 or facsimile (08) 8124 4673 or email Stephen.Both@sa.gov.au.

THE PROPOSAL

The proposal involves the expansion of a former foam manufacturing plant (Joyce Foam), and includes a new warehouse building which is to be constructed on the (currently vacant) western portion of the site with associated hardstand areas, office, driveways and landscaping. A large stormwater detention basin is also proposed to the rear of the allotment and has been designed to manage stormwater disposal and to cater for 1 in 100 ARI storm events.

The proposed building will provide a total floor area of 7,717 m² and will accommodate a new Variable Pressure Foaming (VPF) machine, which comprises a 120 metre long steel vacuum chamber with multiple tanks for the storage of various raw chemicals required for the production of foam. The building also includes areas for the storage of newly made foam produced by the VPF machine.

The proposal also seeks to increase existing operating 'shifts' from the current 6:00am - 2:30pm shift to include an additional afternoon/evening shift from 2:00pm - 10:30pm. The EPA understands that the new VPF machine will only operate during a foam production run, which is to average 2 hours a day between the hours of 9:00am and 1:00pm.

SITE DESCRIPTION

The site of the proposed development is located at 12 Hewittson Road Edinburgh North, which is more particularly described as Allotment 6 in Filed Plan 107706 Certificate of Title Volume 6017/Folio 178, Hundred of Munno Para. The Certificate of Title indicates that there are no existing easements, rights of way or Land Management Agreements that apply to the subject land.

The subject land is also located within the Urban Employment Zone as depicted on Maps Play/24 and Play/25 of the *Playford Council Development Plan (consolidated 30 April 2020)*.

The subject land comprises a large square shaped allotment with a 207 metre frontage to Hewittson Road and a depth of 240.8 metres to provide a total site area of approximately 4.989 hectares. Access to the subject land is currently obtained via an existing driveway and crossover located centrally along the Hewittson Road frontage.

The wider locality has an industrial character with existing allotments noted as being substantial in size with built form typically large in scale and comprising a predominance of large industrial buildings with ancillary and smaller scale administration buildings. Existing built form is generally well setback from primary and secondary road frontages.

The EPA's GIS mapping identifies the nearest sensitive receivers (dwellings) as being located approximately 240 metres to the north-west from the boundary of the subject site, and at

least 400 metres from the location of the proposed warehouse building.

CONSIDERATION

Advice in this letter includes consideration of the location with respect to existing land uses and is aimed at protecting the environment and avoiding potential adverse impacts upon the locality.

When assessing DAs referred to the EPA in accordance with the requirements of the *Development Act 1993*, section 57 of the *Environment Protection Act 1993* ('the EP Act') states that the EPA must have regard to, and seek to further, the objects of the EP Act and have regard to the general environmental duty, any relevant environment protection policies and the waste strategy for the State adopted under the *Zero Waste SA Act 2004* (now the *Green Industries SA Act 2004*).

In its assessment of the application, the EPA considered the following information provided with the application including (but not limited to):

- *Planning Report for 12 Hewittson Road Edinburgh North prepared by Humby Consulting, dated 2 October 2020*
- *Further Information Response prepared by Humby Consulting, dated 2 October 2020*
- *Traffic and Parking Report entitled Joyce Foam Expansion 12 Hewittson Road Edinburgh North prepared by CIRQA Traffic Consultants, dated 30 September 2020*
- *Preliminary Dangerous Goods Report for Joyce Foam Products 12 Hewittson Road Edinburgh North prepared by ChemVit Consulting, dated 16 September 2020*
- *Emission Testing Report marked R006749 prepared by Ektimo Pty Ltd, dated 4 June 2019*
- *Emission Testing Report marked R008403-1 prepared by Ektimo Pty Ltd, dated 29 November 2019*
- *Locality Plan for Joyce Foam Products marked Drawing Number A2020-10517 Sheet C01 Revision (A) dated, 25 September 2020*
- *Siteworks & Stormwater Management Plan for Joyce Foam Products (comprising 3 plans) marked Drawing Number A2020-10517 Sheet C02 Revision (A) dated, 25 September 2020*
- *Site Plan entitled Joyce Foam Products New Warehouse marked Job Number db 2653 Revision (C) prepared by Bennett Architecture, dated July 2020*
- *Locality Plan entitled Joyce Foam Products New Warehouse marked Job Number db 2653 Revision (C) prepared by Bennett Architecture, dated July 2020*

In addition to the above, the Site Contamination Branch of the EPA reviewed the following relevant information relating specifically to the subject site:

- *A Section 83A notification of site contamination that affects or threatens underground water (61542);*
- *A notification that details serious or material environmental harm caused or threatened in the course of an activity (10094); and*
- *EPA authorisations (571 and 15699).*

It should be noted that the referral trigger to the EPA is for 'chemical works' and 'chemical storage and warehousing' pursuant to schedule 21 and 22, of the Development Regulations, 2008. The EPA has therefore only provided an assessment relating to potential air quality and water quality impacts relating to the proposed activities.

The 'Discussion Relating to Advice' and 'Advice' sections of the following response are provided in accordance with section 37(4)(b) of the Development Act and Schedule 8 Item 11 of the Development Regulations.

The 'Other Comments' section of this response is to assist the relevant authority undertake an environmental assessment of those parts of the application outside the scope of the activity of environmental significance that triggered the referral to the EPA.

The site has not been inspected during the EPA's consideration of this application but has been viewed using mapping information available to the EPA, including recent aerial imagery, and considered according to existing knowledge of the site and the locality.

ENVIRONMENTAL ISSUES

DISCUSSION RELATING TO DIRECTION

Air Quality

If not designed and managed appropriately, the proposed facility may result in excess dust from:

- the delivery and handling of chemicals that is extremely dusty and easily becomes mobile during handling operations
- on-site vehicle movements, including forklifts
- bulk loading and unloading of product.

In relation to dust related concerns, the EPA is satisfied that general site management and appropriate housekeeping will provide enough control of dust from the site, particularly as the separation distance to the nearest sensitive receivers is noted as being 240 metres from the boundary of the subject site and approximately 400 metres from the location of the proposed warehouse building.

The EPA notes that the variable pressure foaming chamber will be equipped with 2 stack emission points, both passing through activated carbon capture systems. The activated carbon capture systems are expected to have a 10-15 year life before replacement, with emission testing to occur annually. Main pollutants captured by the activated carbon filters would be TDI, MDI and Polyol, all of which slowly react with water vapour to become urea. Consequently, activated carbon filters are not totally depleted and remain active for 10-15 years. The proposed stack testing and maintenance regime is considered acceptable to the EPA given the low risk of depletion and breakthrough, and noting that such testing and maintenance is likely to become an EPA licence requirement assuming the development is approved and constructed.

The EPA notes that stack tests undertaken at a similar facility indicate that the level of organics released to the atmosphere are below detection limits which, when considered in the context of simple modelling, indicate that the ground level concentrations are expected to be considerably below the mandated maximum prescribed within Schedule 2 of the Environment Protection (Air Quality) Policy 2016. This is acceptable to the EPA.

Conditions are directed below to ensure that each stack measures at least 3metres above the highest point within a 30metre radius and achieves a minimum unimpeded exit velocity of 9.9m/s.

Noise

Noise sources associated with a development of this nature may include trucks, front-end loaders and forklifts.

The EPA understands that the proposed hours of operation would be from 6:00am to 10:30pm. Whilst the operational hours proposed for the subject site do include some hours that are considered "night time" (i.e. 10pm-7am), as defined within the Noise EPP, the EPA notes that the noisiest activities to be undertaken at the subject site are only expected to take place between 9:00am and 1:00pm.

It is also noted that the typical hours for deliveries to the subject site would be between 7:00am to 2:00pm, which does not cover the night time hours. In addition, the EPA further notes that all activities of highest noise potential are to be undertaken within the confines of the proposed new warehouse building, which is to be located 400 metres from the nearest sensitive receivers (dwellings).

The EPA is satisfied that noise from the proposed activity on the subject land is unlikely to unreasonably impact on the nearest sensitive noise receivers which is expected to be less than other noise generating industries located within the locality (i.e. vehicle wreckers and industrial processing activities) which would likely have a higher noise impact on the nearest sensitive receivers when compared to the noise to be generated from the subject site.

Water Quality

The *Environment Protection (Water Quality) Policy 2015* requires that all reasonable and practicable measures must be taken to prevent or minimise the pollution of ground and/or surface waters, including public stormwater systems. Further, pollutants must not be discharged into any ground and/or surface waters or placed onto land from which it is reasonably likely to enter any waters (including by the processes of seepage, infiltration, rain, stormwater or the rising of the water table).

Stormwater

In respect to the management of stormwater, the EPA notes that rainfall collected from the proposed building will all be collected within a large rainwater tank (approximate 290,500 litre) via a sealed stormwater system, with excess rainwater to be discharged directly into the existing stormwater channel located at the rear of the allotment via a sealed system.

Surface water collected to the front of the subject land will be directed towards a dedicated hardstand area which will act as a large detention basin with an approximate 123,000 litre surface area. Water would then be collected and pumped to the rear of the allotment where it will be discharged into a new stormwater detention basin. The EPA further notes that stormwater collected from the hardstand areas to the rear of the proposed building, would also be collected and diverted to the stormwater detention basin. This is acceptable to the EPA.

As the key chemical work processes are to be undertaken within the confines of the building where chemicals are to be held within a series of chemical storage tanks, the EPA expects that the prescribed activity (chemical works) would have a limited impact on stormwater. Provided the development is established and operated in accordance with the proposal plans, the EPA is satisfied

that the development would not result in any unacceptable surface water and ground water impacts.

Bunding

Information provided with the application indicates that the storage of TDI and MDI will be undertaken within a specified room which is to be bunded with 150mm bund, with an additional 30kL underground emergency holding tank also proposed. This is considered adequate for the containment of any potential spillage from the four biggest TDI & MDI storage tanks, with further maintenance requirements to be managed by the EPA licence during ongoing operations.

In relation to the road tanker unloading tank, the EPA notes that the fill points are to be installed outside of the building, with a suitable road tanker unloading area near the chamber and external fill points are to be provided. An unloading spill containment system of more than 10,000L from the largest unloading tanker would be provided, with any potential spills to be contained within the small bunded area and drain to the underground tanks. This is acceptable to the EPA.

The majority of the bunded areas are to be located inside the building and under cover. Minimal rainwater ingress to the system is therefore expected. Notwithstanding, the loading/unloading points with the spill containment system may have impacts from stormwater ingress. Further information received by the EPA confirmed that all bunded areas are to be constructed to drain to a blind system. This is satisfactory to the EPA.

Whilst the proposed bund and spill management is considered acceptable, it is worth noting that the whole building is to be bunded with the capacity of 320KL, which is well over 120% of the largest tank. The EPA is satisfied that this will provide additional containment capacity for any emergency management (for example, fire fighting wastes).

The proposed stormwater system which is to include a large detention area and a new detention basin will also provide additional containment to minimise potential off-site discharge, with a final cut off valve and stormwater containment system to provide the final measures to minimise potential off-site impacts. Whilst these measures are acceptable to the EPA, conditions are directed below regarding bunding and spill management.

Environmental Authorisation

The operation of a "chemical works" requires an Environmental Authorisation (EPA Licence) pursuant to the EP Act. A note is recommended below to remind the applicant of the need to obtain a licence.

OTHER COMMENTS

Site Contamination

The EPA understands that the subject site has historically been used for the manufacture of foam, and several Underground Storage Tanks (USTs) were historically present at the site for bulk storage of chemicals and wastes. Consequently, this Potentially Contaminating Activity (PCA) has resulted in the existence of on-site contamination.

Information held by the EPA details elevated concentrations of methylene chloride (or dichloromethane (DCM)) and trichlorofluoromethane (TCFM) within the groundwater monitoring wells

at the site. The presence of DCM and TCFM is likely to be derived from the historical use of foam manufacturing on-site. The EPA notes that a risk assessment was completed in 2016 which concluded that there was a low risk to human health for a range of different exposure scenarios (for industrial use). The site of the development is also noted as being impacted by minor concentrations of petroleum hydrocarbons in groundwater arising from an offsite source (Allotments 1, 2 and 3 Hewittson Road, Edinburgh North).

The EPA notes the most recent investigations undertaken at the site were in 2016, and underground conditions can change over time. Therefore, the planning authority should ensure that it is satisfied the subject site can be developed for the intended use.

To ensure that the known site contamination is adequately managed, the EPA recommends that the planning authority require the preparation of a Construction Environmental Management Plan (CEMP) prior to the commencement of any works.

The CEMP should:

- be prepared by a site contamination consultant in accordance with the EPA *Industry Guideline Construction Environmental Management Plan (CEMP)*
https://www.epa.sa.gov.au/files/12330_guide_cemp.pdf
- be prepared by a Certified Practitioner in accordance with the EPA *Site contamination policy: certification of practitioners* July 2018
- identify the environmental issues that may arise from the proposed work at the site (eg. soil management, including fill importation, stockpiles and prevention of soil contamination, including prevention of further groundwater contamination);
- provide control measures to mitigate and/or manage any environmental impacts; and
- include an environmental assessment to ensure the site is suitable for the intended use.

The planning authority is also reminded that for the development or continuation of an existing commercial, industrial or similar use, the health, safety and environmental implications of site contamination must be given due consideration. The planning authority must therefore be satisfied that the site is suitable for the proposed use.

In addition, if at any stage contamination is identified which poses actual or potential harm to water that is not trivial, a notification of contamination which affects or threatens groundwater (pursuant to section 83A of the EP Act) must be submitted to the EPA. A note in this regard is advised below.

CONCLUSION

Provided the proposed development is constructed and operated in accordance with the details provided in the development application documentation, the EPA considers the risk of environmental harm arising from the proposed chemical works and storage facility is low.

Notwithstanding, any operational issues that may arise can be managed via the required EPA licence.

DIRECTION

The planning authority is directed to attach the following conditions to any approval:

1. All stormwater collected in chemical storage bunded areas, cleaning wastes and spills must be collected, stored in bunded areas and disposed of via an EPA licensed facility for such wastes.
2. All chemicals must be stored, loaded/unloaded within the bunded areas suitable for preventing the escape of chemicals into the land and waters
3. All bunded areas must be blind systems, without any connection to the stormwater system.
4. The whole processing building for the factory and polyol area must be adequately bunded to contain all spillages and potential emergency fire-fighting wastes.
5. The stacks are to be located at least 3m above the highest point within a 30m radius.
6. The exit velocity of each stack will be a minimum of 9.9m/s with upward flow to be unimpeded by the installation of a rain protector or similar device.

The following notes provide important information for the benefit of the applicant and are requested to be included in any approval:

- The applicant is reminded of its general environmental duty, as required by Section 25 of the *Environment Protection Act*, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm.
- An environmental authorisation in the form of a licence is required for the operation of this development. The applicant is required to contact the Environment Protection Authority before acting on any approval granted by the Council to ascertain licensing requirements. Likely conditions of the licence would include (but would not be limited to):
 - providing a consolidated Environmental Management System (EMS) to be developed to the satisfaction of the EPA.
- Information on applying for a licence (including licence application forms) can be accessed here: http://www.epa.sa.gov.au/business_and_industry/applying_for_a_licence
- A licence may be refused where the applicant has failed to comply with any conditions of development approval imposed at the direction of the Environment Protection Authority.
- The applicant is reminded that all reasonable and practical operational steps should be taken to reduce off site noise. This includes fitting all trucks and forklifts with broadband reverse beepers.
- The applicant is reminded that construction will need to be undertaken in accordance with Division 1 of Part 6 of the *Environment Protection (Noise) Policy 2007* at all times. Activities, which include the operation of machinery, resulting in noise with an adverse impact on amenity need to be restricted to between 7:00am and 7:00pm Monday to Saturday and, if necessary, on Sunday between 9:00am and 7:00pm to minimise the potential for complaint from noise nuisance.
- The applicant is reminded that if during any site works, contamination is identified which poses actual or potential harm to the health or safety of human beings or the environment that is not trivial, taking into account the land use, or harm to water that is not trivial, the applicant may need to remediate the contamination in accordance with EPA guidelines. More information can be found at:
https://www.epa.sa.gov.au/environmental_info/site_contamination/assessment_and_remediation

- EPA information sheets, guidelines documents, codes of practice, technical bulletins etc can be accessed on the following web site: <http://www.epa.sa.gov.au>

Yours faithfully

Phil Hazell

Delegate

ENVIRONMENT PROTECTION AUTHORITY

2 October 2020

City of Playford
12 Bishopstone Road
Davoren Park SA 5113

Att: Matt Dineen



PO Box 7434
Hutt Street SA 5000
0402 832 226
andrew@humbyconsulting.com.au
humbyconsulting.com.au

**CONSTRUCTION OF FOAM MANUFACTURING PLANT INCLUDING WAREHOUSE,
HARDSTAND AREAS, OFFICE, LANDSCAPING AND REMOVAL OF TWO
REGULATED TREES**

12 HEWITTSON ROAD, EDINBURGH NORTH

INTRODUCTION

Humby Consulting has been requested by the applicant, Joyce Foams Pty Ltd to assist in the preparation, assessment and lodgement of a development application for the construction of a foam manufacturing plant, including a warehouse, hardstand areas, office, landscaping and removal of two Regulated trees at 12 Hewittson Road, Edinburgh North.

In undertaking an assessment of the proposal, I have both reviewed and assisted in the preparation of the proposed plans whilst reviewing the most pertinent provisions of the Playford Council Development Plan.

I have also inspected the subject land and its locality and discussed with both Council administration and the Environmental Protection Authority (EPA) the merits of the application. I provide my views and opinions on this matter below.

BACKGROUND

Joyce Foam Products is the market leading foam manufacturer in Australia. For over sixty years Joyce Foam Products has been manufacturing the largest range of polyurethane foam in Australia, supplying a range of industries including bedding, furniture, medical, and specialist industrial applications.

Joyce Foams employs over 150 people and operates in five locations throughout Australia and one in New Zealand, with its headquarters situated in Moorebank, New South Wales.

The existing facility at 12 Hewittson Road, Edinburgh North previously contained a polyurethane foam production machinery that operated between 1974 and 2014 and produced conventional foam slabstock. Joyce Foam decided to cease foam manufacture in SA and decommissioned this ageing facility in 2016, resulting in the surrendering of its EPA Licence (No 15699).

Currently all foam product is manufactured in Moorebank with foam compressed and shipped to Joyce branches (including the SA facility) where they are further converted to smaller pieces to suit customer's requirements.



More recently, Joyce Foams has committed to significantly invest in the construction of a start of the art foam production facility on its Edinburgh North site that incorporates a Variable Pressure Foaming (VPF) machine – the cleanest and greenest method of foam making.

SUBJECT LAND AND LOCALITY

The subject land comprises Allotment 6, Filed Plan 107706 of Certificate of Title Book Volume 6017 Folio 178.

The square shaped allotment is located on the northern side of Hewittson Road and a site area of approximately 4.989 hectares. The subject land contains a frontage to Hewittson Road of 207.09 metres and a depth of 240.79 metres and it located approximately midway between Peachy Road and Kingstag Crescent.

The subject land contains the majority of the existing structures located centrally within the allotment. As previously discussed, the existing buildings were used initially to operate foam production machinery with these now used to process existing foam blocks into sizes suitable for transportation to South Australian and interstate clientele.

Access to the subject land is currently obtained via a driveway and crossover located centrally along the Hewittson Road frontage. Offices and associated staff/visitor carparking is located closest to Hewittson Road with the main industrial activities located in the larger buildings behind. Additional car parking areas are found further to the east.

The subject land is for all intents and purposes relatively flat, with a slight fall from the east to the west. Landscaping is scattered throughout the allotment, with the majority found along the front and rear boundaries. Two (2) Regulated Trees are located near the western boundary. A number of Council street trees have recently been planted along the Hewittson Road frontage.

There are no easements, rights of way or Land Management Agreements that apply to the subject land.

Subject Land





View (North) from centre of vacant portion of land



View (South) from centre of vacant portion of land



View (North) from Hewittson Rd



View (South) closer towards Hewittson Road



View (East) from centre of vacant portion of land



View (North) along existing main access

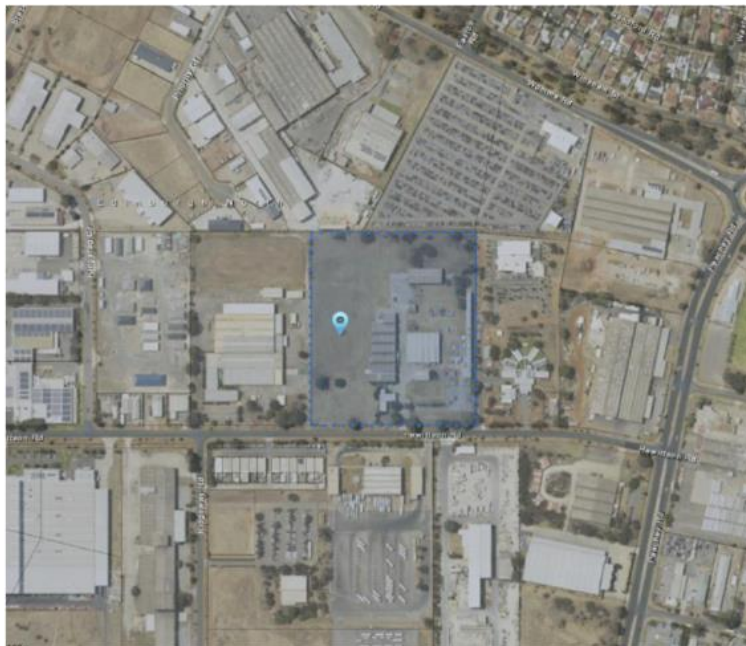


The subject land is located within an industrial precinct where all allotments are industrial in nature and contains a moderate amenity. Road carriageways are wide to cater for larger vehicles, including B-double trucks, that are common users to service surrounding businesses.

Allotments found within the locality are all substantial in size, with built form typically large in scale and in the form of large format industrial buildings with ancillary and smaller scale administration buildings. Built form is generally well setback from primary and secondary road frontages which provides for large areas of car parking, vehicle manoeuvring areas and landscaping.

Land uses within the locality are of an industrial nature, however of a mixed variety including industry, light industry, warehousing, service trade premises, car dismantling and an animal shelter.

Locality Plan



Source: SAPPA

PROPOSAL

The proposed development involves the construction of a foam manufacturing plant, including a warehouse, hardstand areas, office, driveways, landscaping and removal of two Regulated trees. The proposed operations will be contained within a single building located on the western side of the subject land and configured to easily integrate with the existing Joyce Foam operations.

The proposed building will contain a length of 126.5 metres, a width of 61 metres and a height of 11.54 metres, with a total area of approximately 7717 square metres. Setback 30.0 metres from the southern boundary (front), 7.0 metres from the side boundary (western) and 84.29 metres from the rear boundary (northern), the proposed building will be linked to the existing operations via a canopy to the workshop area and a pedestrian walkway to the main office areas. A larger canopy will be attached to the front façade of the building.



Constructed of a combination of metal cladding and precast concrete walls, the proposed building will accommodate a new Variable Pressure Foaming (VPF) machine – a state of the art process that is considered to be the cleanest and environmentally friendly method of foam making. The VPF machine is in excess of 120 metres long and consists of a long tunnel whereby during the foam production process all air emissions are captured and filtered through a charcoal system, virtually removing the release of any biproducts into the atmosphere – a far improvement from traditional foam making processes.

Large foam storage areas will be incorporated in the proposed building to store newly made foam produced by the VPF machine. Once dried, the foam sections will be moved onto shuttle conveyor belts, located in the rear hardstand area and then transported to the adjoining existing building, whereby the foam will be further cut into smaller pieces ready for transporting to various clientele, primarily across South Australia. No foam is proposed to be stored outside the proposed building.

Two (2) additional crossovers will be constructed to enable vehicles to enter and exit the proposed hardstand and unloading areas in front of the proposed building. The main deliveries will occur through the new crossovers with chemicals, required for the foam manufacturing process, to be unloaded in front of the proposed Tank Farm.

Although the majority of vehicle movements will occur within the areas forward of the proposed building (the hardstand area), a perimeter access route is proposed along the western and northern boundaries to enable the future use of vehicles to manoeuvre around the proposed building and connect with the existing industrial operations. In the short term, access will be restricted for 'one-off access', such as providing access for fire trucks.

The existing access to the offices and existing buildings will be retained and continue to be utilised as currently occurs. The crossover will however be widened to cater for improved access and egress.

Existing areas of on-site car parking will continue to be used with an additional area to be designated for future car parking requirements.

Two (2) signs are proposed along the front façade of the proposed building – the larger being located above the proposed canopy and the smaller sign located adjoining the office entrance.

A large rainwater tank is proposed adjoining the existing office building to capture water collected off the proposed building roof. A 500,000 litre fire sprinkler tank will also be located in the area, between the existing office and warehouse buildings. A large stormwater detention basin is also proposed at the rear of the allotment to carefully manage stormwater disposal in an environmentally responsible manner and cater for 1 in 100 ARI storm events.

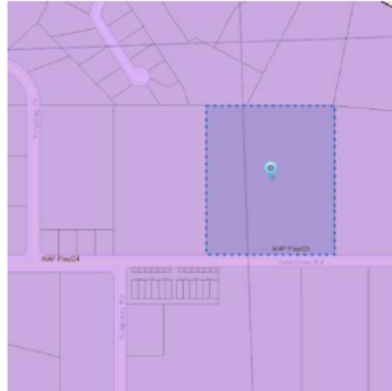
Two (2) Regulated Trees, located centrally within the vacant section of the subject land will be removed in order to facilitate the proposed building construction. A third Regulated Tree, located along the front boundary will be retained. A 3 metre wide strip of landscaping is proposed along the front boundary to compensate for the removal of the 2 Regulated Trees, with 4 replacement trees proposed (in addition to other shrubs and ground covers). An additional 1 metre strip of landscaping is also proposed adjoining the existing office buildings and along portion of the western boundary. The proposed stormwater detention basin does not result in the removal of any trees at the rear of the allotment.

It is anticipated that an additional 6 to 9 staff will be required to assist with the operations of the new machinery and foam processing. This will be in addition to the 11 existing staff. Existing car parking found throughout the subject land will be designated for staffing parking requirements.



PLANNING ASSESSMENT

The subject land is located within the Urban Employment Zone as depicted on Maps Play/24 and Play/25 of the Playford Council Development Plan, consolidated 30 April 2020.



Urban Employment Zone

KIND AND NATURE OF DEVELOPMENT

The proposed development is considered to fall within the classification of a 'Industry' pursuant to Schedule 1 of the *Development Regulations 2008*. Due to the large nature of the proposed building, it would not satisfy the Light Industry classification and due to the minimal external impacts, it is not to be considered as a Special Industry.

The proposed development should be assessed on its merits as it is neither listed as a complying or non-complying form of development in the subject Urban Employment Zone.

Within the Urban Employment Zone, Industry is listed as a Category 1 form of development for the purposes of public notification. However, the proposed activities involves a prescribed activity of environmental significant as defined by the *Environment Protection Act 1993* and an activity specified in Schedule 22 of the *Development Regulations 2008* (refer to discussion in main body of this report).

Regulation 32(3) of the *Development Regulations 2008* prescribes that for the purposes of public notification, the proposed development should be assessed as a Category 2 form of development.

Recent discussions with Council administration has confirmed this position.

INTENT OF ZONE AND LAND USE

The Urban Employment Zone is a mixed employment zone that primarily accommodates a range of industrial land uses together with other employment and business activities. Large floor plate enterprises, such as major logistics and manufacturing plants along with high technology facilities are actively encouraged.

Desirable land uses include a wide range of activities that generate employment, focusing on industry, transport and logistics and technology-based activities that can operate on a twenty-four hour, seven days a week basis.



The proposed industrial activities is a land use clearly encouraged within Principle of Development Control 1 of the Urban Employment Zone with the proposed development to both complement the existing Joyce Foam operations while providing a new state of the art foam production facility to increase employment and economic opportunities.

The large floor plate proposed to accommodate the VPF and warehousing activities is clearly supported with both the Objectives and desired character of the Zone that encourage high quality enterprises of an industrial nature that attract a specialised workforce.

The majority of operations will occur indoors where the potential for off-site impacts, such as odour and noise, will be limited, with the potential for other storage, deliveries and incidental activities (consistent with those currently occurring on the subject land) compatible with existing land uses with the immediate locality.

Although the Zone supports activities that operate on a twenty-four hour basis, the proposed development will only seek to increase its operating 'shifts' from its current 6:00am - 2:30pm to include an additional afternoon/evening shift from 2:00pm – 10:30pm. The new VPF machine will only operate during a foam production run – averaging 2 hours a day and usually between 9am and 1pm.

As such, it is our opinion that the proposed development is an appropriate land use that is consistent with the desired character and satisfies the provisions of the Urban Employment Zone.

BUILDING HEIGHT AND DESIGN

Objective 5, Desired Character and Principle of Development Control 12 of the Urban Employment Zone require consideration of the built form design:

Obj 5 *A high standard of development which promotes distinctive building, landscape and streetscape design, with high visual and environmental amenity, particularly along arterial roads and the boundaries of adjoining zones.*

DC *High quality, innovative contemporary architecture that is both adaptable and flexible to accommodate multiple uses or changes in future land use where practical. Buildings will comprise low reflective materials and provide a variation in finishes, façade treatments and setbacks rather than appearing as large uniform buildings with blank facades.*

PDC 12 *In areas where a uniform street setback pattern has not been established, buildings should be set back in accordance with the following parameters:*

Building height (metres)	Minimum setback from the primary road frontage (metres)	Minimum setback from the secondary road frontage (metres)
6 metres	8 metres	4 metres
Greater than 6 metres	10 metres	4 metres

The proposed development contains a large floor plate building of a contemporary but practicable design that incorporates a range of materials and colours that is considered to be an improvement to many of the existing building designs found within Hewittson Road. The front façade incorporates two distinct building materials with a large canopy to provide an increased level of articulation.



The proposed building will contain a wall height exceeding 8.0 metres and maximum ridge height of 11.54 metres. To compensate for its increased building heights, it is proposed to be setback 30.0 metres from Hewittson Road with the large canopy protruding a further 7.5 metres. The 30.0 metre setback far exceeds the minimum requirement of Principle of Development Control 12 and will ensure that the built form is not a dominant feature in the immediate locality.

A 3.0 metre wide landscaping strip is proposed along the Hewittson Road frontage with a 1.0 metre wide landscaping strip proposed along the western allotment boundary. A further 1.0 metre wide landscaping strip is proposed adjoining the existing matured landscaping located at the front of the existing office buildings. The combination of existing matured trees and shrubs in addition to the new landscaping will assist to screen the proposed building and associated activities and serve to improve the amenity along Hewittson Road.

The proposed development is considered to satisfy the intent of the above mentioned criteria of the Development Plan and will assist to improve the overall amenity and character of the industrial estate.

INTERFACE BETWEEN LAND USES

The Urban Employment Zone and general modules contain a suite of policies to ensure that a high level of compatibility between land uses is obtained and a quality and attractive business environment is maintained.

The north-eastern corner of the subject land is located approximately 250 metres from the closest adjoining sensitive receiver (dwellings within a Residential Zone) with the proposed industrial facility to be sited approximately 400 metres from the same area.

Joyce Foams has been operating from the subject land (and closer proximity to the nearest dwelling) since 1974 and has not caused any undue impacts upon adjoining residential areas, by virtue of noise, odour, visual or hours of operation. It is important to note that between 1974 and 2014, conventional foam production techniques were being used that created greater external impacts than of the newer VPF technologies.

It is considered that the proposed activities will not cause any unreasonable impacts upon the residential areas, nor the adjoining industrial activities given that the foam production operations will be contained within the 7177 square metre facility.

As suggested above, the VPF process contains the newest technological advancements in foam production and is commonly known to the 'cleanest and greenest' method of foam making. All emissions created during the manufacturing process are captured within the VPF machine with air emissions tests conducted at the Joyce Foam operations in NSW far exceeding the environmental tests compared with traditional foam making processes. Any external odours (originating from outside of the proposed building) are considered to be minimal and consistent with activities expected from industrial activities.

Noise impacts are also considered to be minimal, with the two VPF vacuum blowers to be located within the proposed building. Electric motors will drive the pumps, conveyors and saws and are considered to be less noise obtrusive than other traditional motor units. Similar to the environmental emission testing of the NSW VPF machines, noise levels comply with relevant NSW EPA industrial levels and it is considered that this would also satisfy the South Australian EPA requirements.

All vehicle manoeuvring areas are to comprise of concrete in the front hardstand area and cement treated rubble along the sides and rear of the proposed building. This will ensure that minimal dust will be generated on site and will cause no adverse impacts upon adjoining operations.



The hours of operation are not considered to be excessive, given that the zone allows up to twenty-four hours a day, seven days a week and are considered to be consistent with the operating hours of adjoining industrial activities in the wider industrial estate. This will ensure that any noise, visual or other impacts will not have a detrimental impact upon the locality or indeed the residential areas located further to the north east.

As such, it is considered that the proposed development satisfies the relevant provisions contained within the Urban Employment Zone and Interface between Land Uses provisions of the Development Plan.

It is acknowledged that this application will require a referral to the EPA pursuant to Schedule 8 of the *Development Regulations 2008*. The applicants are confident that the proposed development will meet the EPA's environmental standards and are willing to provide any further documentation should this be required to satisfy this intent.

VARIABLE PRESSURE FOAMING (VPF) PROCESS

The static VPF foaming machine consists of a 120 metre long steel vacuum chamber with multiple storage tanks for the various chemical raw materials required for the production of foam. Storage tanks are located within a purpose built 'tank room' with specialised bunding to minimise the risk of environmental harm from potential liquid spills and leaks.

Most of the VPF process is computer/PLC controlled via a room in the VPF Header Room area with the manufacturing process consisting of the following steps:

- Various chemicals (including TDI, Polyol), water and various additives are mixed by the VPF machine according to a specific formula
- The chemicals begin to react immediately in the VPF chamber, and the foam begins to rise
- The mixture reacts and gels to form a self-supporting flexible rectangular block of foam inside a partial vacuum. Foam is produced in 23 to 60 metre blocks.
- The continuous block is then cut and conveyors transport the cut lengths outside the chamber into normal atmospheric conditions
- The foam blocks are stored inside the warehouse to cure, typically for 2-3 days
- After the foam is fully cured, it is retrieved from the storage racks, cut into 2m blocks or peel and shipped interstate or converted to smaller cut pieces for the local market

The Joyce Foam website (www.joyce.com.au) explains a number of methods that Joyce Foams seeks to achieve improved environmentally sensitive manufacturing, including a detailed YouTube video of the VPF process.

As previously advised, the VPF technology is considered to be the cleanest and greenest method of foam making. It is understood to exceed EPA requirements for emissions controls, producing no CFCs or Auxiliary Blowing Agents and minimal VOCs, thereby outperforming all other conventional methods of producing foam.



Installation of VPF machine (Moorebank NSW)



Control Area (VPF Header Room)



Storage Racks



Foam manufacture within VPF machine



ENVIRONMENT PROTECTION AUTHORITY REFERRAL

The existing facility at 12 Hewittson Road, Edinburgh North previously contained a polyurethane foam production machinery that operated between 1974 and 2014 and produced conventional foam slabstock. Joyce Foam decided to cease foam manufacture in SA and decommissioned this ageing facility in 2016, resulting in the surrendering of its EPA Licence (No 15699).

More recently, Joyce Foams has committed to significantly invest in the construction of a state of the art foam production facility on its Edinburgh North site that incorporates a VPF machine.

Although the previous EPA licence was for an 'Activity producing licensed waste', it is highly likely that the increased environmentally sensitive foam production techniques will result in a reduced extent of waste. Notwithstanding this, as it is anticipated that approximately 5,000 tonnes of foam will be manufactured by the VPF machine on-site annually, with its total processing capacity and the volume of chemicals stored on site will ensure that the development still involves a '*prescribed activity of environmental significance*' as defined by the *Environment Protection Act 1993*.

Given the storage of chemicals on site will exceed Part A, 1(1) – Chemical Storage & Warehouse Facilities and Part A, 1(2)(a)(i) – Chemical Works of Schedule 22 of the *Development Regulation 2008*, the proposed development is considered to be an Activity of Major Environmental Significance and require consideration by the EPA through a Schedule 8 referral.

Prior to the lodgement of this application, the applicants have engaged with the EPA as part of its pre-lodgement process. Preliminary discussions have provided an insight into the environmental requirements required as part of this process.

A separate package of information is attached to this report that can be provided to the EPA as part of its statutory referral. This includes initial correspondence provided to the EPA and responses to their initial queries.

STORMWATER

The applicants have engaged MLEI Consulting Engineers to provide expert advice on the management of stormwater generated by the proposed development. MLEI engineers have been working closely with Council's engineers to ensure that the proposed design satisfies Council engineering requirements and the overall intent of the Development Plan. The Stormwater Management Plan is to be read in conjunction to the planning report with a summary of the key issues below.

It is recognised that the development area does not contain any built form with all rainfall managed naturally. As the proposed development will substantially increase the impervious areas, a number of key measures have been proposed to ensure that stormwater is managed in an environmentally responsible manner.

The rainfall collected on the proposed building will all be collected within a large rainwater tank (approximate 290,500 litre) via a sealed stormwater system. The rainwater tank will be located adjoining the existing office building and screened by existing landscaping. Any excess rainwater will be discharged directly into the existing stormwater channel at the rear of the allotment via a sealed system.

Surface water collected in the front area of the subject land will be directed towards the hardstand area where this will act as a large detention basin with an approximate 123,000 litre surface area. Water will be collected and pumped to the rear of the allotment where it will be discharged into a new stormwater detention basin.



Stormwater collected from the hardstand areas to rear of the proposed building will also be collected and diverted to the stormwater detention basin.

The stormwater management system will provide for stormwater detention and treatment of the collected runoff with any excess discharged to the adjoining council channel. The system will carefully manage disposal in an environmentally responsible manner and cater for 1 in 100 ARI storm events.

It is considered that the proposed design will adequately manage stormwater of the proposed development and satisfies the relevant provisions within the Development Plan.

CARPARKING AND ACCESS

The applicants have engaged CIRQA Pty Ltd, qualified traffic engineers to provide expert advice on the potential traffic and car parking implications of the proposed development. The traffic and car parking assessment is to be read in conjunction to this planning report with a summary of the key issues listed below.

Table Play/3 – Off Street Vehicle Parking Requirements of the Playford Council Development Plan envisages that industrial development within the Urban Employment Zone should provide the following parking rates:

Industrial development in the Urban Employment Zone	2 spaces per 100 square metres of gross leasable floor area up to 200 square metres plus: <ul style="list-style-type: none"> (a) 1 space for every 75 square metres of gross leasable floor area between 200 and 2000 square metres (b) 1 space for every 150 square metres of gross leasable floor area greater than 2000 square metres (c) 1 space per 30 square metres of gross leasable floor area used for office space.
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The proposed industrial development includes 7717m² of floor area (145m² will be office area) therefore generating a requirement for 70 car parking spaces.

The existing site contains 52 designated car parking spaces with additional areas able to be used for overflow parking. It is however acknowledged that due to the nature of the land use activities occurring on site, the current operations only employs 11 staff, with the vast majority of the available car parking not being utilised.

As the proposed development incorporates mechanical processes with increased technological advancements that do not require large staff numbers to operate, it is anticipated that an additional 6 to 9 staff will be required. This results in an overall requirement of 17-20 staff at the Joyce Foams operations.

As such, it is considered that the Development Plan's car parking requirements is excessive for the anticipated car parking requirements generated by the proposed development. Notwithstanding this, an area has been designated for future carparking should, in the event of a need for additional car parking requirements, and can be used as dedicated parking area.

CIRQA's assessment concludes that given the staffing levels associated with the Joyce Foam operations and the existing parking provisions, that the proposed is considered to be an acceptable outcome and satisfies the general intent of the Development Plan.

CIRQA's assessment has also confirmed that the subject land's access (existing and proposed) has been designed to meet both the requirements of the relevant Australian Standards and Council's Development Plan. Adequate site lines are also achieved to enable vehicles to enter and exit the site in a safe manner.



It is recognised that a small street tree will need to be removed to accommodate the proposed eastern crossover. The applicants are willing to negotiate with Council an appropriate replacement tree in a location where it will not be affected by the proposed development.

The traffic generated from the proposed development – even at its fullest capacity – has also been reviewed and concluded that the estimated maximum daily vehicle movements can be safely accommodated without having a detrimental impact on Hewittson Road and the adjoining road networks.

It is recognised that portion of the existing site had been used in the past for the use of staff of adjoining industrial operations to park vehicles during standard hours of operation. This formed part of a verbal agreement between Joyce Foams and the adjoining land owners, however is a prior arrangement and not a long-term agreement that requires consideration as part of this application.

It is therefore considered that based upon the above car parking, traffic generation and access assessment, the proposed development could be reasonably expected to occur without having any detrimental impacts on the locality and satisfies the relevant provisions of the Development Plan.

REGULATED TREES

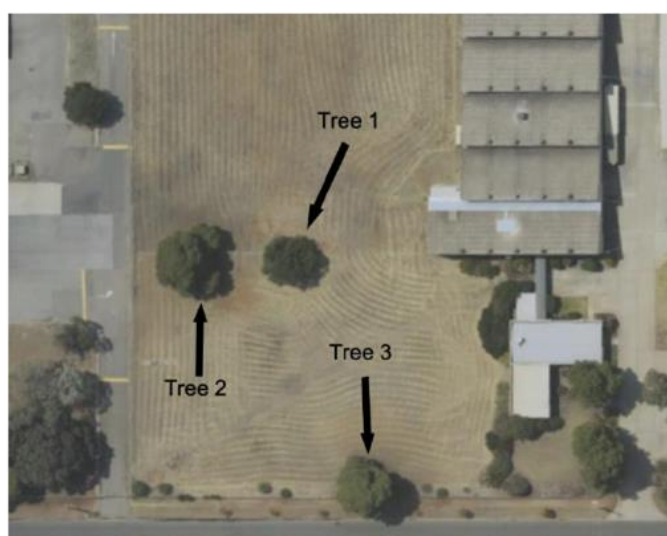
As detailed in the adjoining diagram, 3 trees are located within area proposed for the construction of the foam manufacturing plant and hardstand areas.

In accordance with the standard protocols, the tree trunk circumferences were measured 1.0 metre above natural ground level. All three trees contained single trunks when measured at the 1.0 metre height.

A number of trees are also located at the rear of the allotment, however are not considered to satisfy the Regulated or Significant Tree requirements.

Tree 1

This tree contains a circumference of approximately 2.1 metres. A number of small branches are included in this figure, however it was concluded that the tree is likely to be considered a Regulated Tree. Depicting similar characteristics to a Morton Bag Fig, this tree is sited where the main warehouse structure is being proposed. Although attempts have been made to consider a revised design to accommodate this tree, it is considered that in order to facilitate the proposed development, the subject tree is to be removed.



**Tree 2**

This Pine tree contains a circumference of approximately 2.5 metres and meets the criteria as a Regulated Tree. This Pine tree is sited where the main warehouse structure is being proposed. Although attempts have been made to consider a revised design to accommodate this tree, it is considered that in order to facilitate the proposed development, the subject tree is to be removed.

**Tree 3**

This Pine tree contains a circumference on approximately 2.6 meters and meets the criteria as a Regulated Tree. Unlike Tree 1 and 2, Tree 3 is being retained and suitable separation provided between the tree and any development. The proposed vehicular driveway is being located as far away as possible from the trunk and canopy to ensure that the tree remains a notable tree within the streetscape.



The Regulated Trees section of the Development Plan contains a number of provisions that provide guidance whether a Regulated Tree is worthy of retention. Of particular interest, Principle of Development Control 2 states:

- 2 *A regulated tree should not be removed or damaged other than where it can be demonstrated that one or more of the following apply:*
- (a) The tree is diseased and its life expectancy is short;*
 - (b) The tree represents a material risk to public or private safety;*
 - (c) The tree is causing damage to a building;*
 - (d) Development that is reasonable and expected would not otherwise be possible;*
 - (e) The work is required for the removal of dead wood, treatment of disease, or is in the general interests of the health of the tree.*

As the two trees are located centrally within the subject land, it poses difficulties in constructing any type of built form. As previously discussed, various design options have been considered to retain the two trees, however any type of development will be heavily constrained by the siting of these trees.

It is more than reasonable to expect that development that is clearly envisaged with the Zone will be constructed on the subject land. Notwithstanding this, the two trees are considered to provide minimal visual contribution to the locality nor form part of a remnant wildlife corridor.

The retention of the Regulated Tree (shown as Tree #3) provides a far greater contribution to the amenity of locality and will assist to screen the proposed development.

A landscaping plan has been prepared which adopts replacement shrubs and trees that will compensate for the proposed tree removal. This is considered to be consistent with the offset requirements prescribed by Regulation 117 of the *Development Regulations 2008*.

It is considered that the removal of the two Regulated Trees is suitable given the context of the site and the increased economic benefit that the proposed development will provide.



CONCLUSION

It is my opinion that the proposed construction of a foam manufacturing plant, including a warehouse, hardstand areas, office, driveways, landscaping and removal of two Regulated trees represents an appropriate form of development in the context and intent of the Urban Employment Zone and other relevant Objectives and Principles of Development Control in the Playford Council Development Plan.

The proposed development is an envisaged form of development within the Urban Employment Zone with the proposed built form being designed and sited to ensure that it does not have a detrimentally impact upon the amenity of the locality.

The significant investment in the construction of a state of the art foam production facility will provide for increased employment opportunities while ensuring that the main activities are located within the proposed built form to minimise any external impacts upon the immediate locality.

Vehicular access, off-street carparking and stormwater management systems have all been appropriately considered as part of this proposal and the overall design incorporating key elements to ensure that the development will not have any adverse impacts upon the immediate locality.

It is recognised that the proposal involves a prescribed activity of environmental significance as defined by the *Environment Protection Act 1993* and an activity specified in Schedule 22 of the *Development Regulations 2008*. The applicants are committed to working with the EPA through the Schedule 8 referral process to ensure that the necessary environmental standards are achieved.

Having regard to all the relevant provisions of the Development Plan, it is my opinion that Development Plan Consent for this application is warranted as a consent on-merit and Category 2 form of development.

Should you require any further information or clarification, I can be contacted on 0402 832 226.

Kind regards

Andrew Humby
Director
Humby Consulting
andrew@humbyconsulting.com.au

Megan Leverington

DEVELOPMENT ACT, 1993

STATEMENT OF REPRESENTATION

Pursuant to Section 38 of the Development Act, 1993

Development Application No: **292/1790/2020**

To: Chief Executive Officer
City of Playford
12 Bishopstone Road
DAVOREN PARK SA 5113

Name of Person(s) making representation:

Dr Julie Bellamy Burns

Postal address:

1 CORNACK ROAD WINGFIELD 5013

Contact telephone No.

0427505475

Nature of Interest / Affected by Development
(eg adjoining resident, owner of land in vicinity,
or on behalf of an organisation or company)

ADJOINING RESIDENT

Reasons for representation (please attach
additional sheet(s) if required)

IT IS AUL'S UNDERSTANDING
THAT FOAMS ARE MANUFACTURED USING CHEMICALS
SUCH AS POLYOL, POLYISOCYANATES, HCFC'S ETC. MANY CHEMICALS
ARE TOXIC TO DOGS & CATS EVEN IN VERY SMALL AMOUNTS
IN THE AIR AND EVEN IF THE DOSE IS NOT TOXIC, IT CAN
CAUSE SIGNIFICANT RESPIRATORY IRRITATION TO THE
DOGS & CATS IN AUL'S CARE. THIS IS A SIGNIFICANT ANIMAL WELFARE
CONCERN.

I support the proposal ☐

I do not support the proposal ☒

My representation would be overcome by:
(state action sought) (please attach additional
sheet(s) if required)

INDEPENDANT WRITTEN ASSESSMENT
OF RISK OF ALL PRODUCTS
USED IN THE FOAM MANUFACTURING PLANTS AND
WRITTEN CONFIRMATION THAT THERE WILL BE NO
RISK TO ANY ANIMAL HELD ON THE AUL SITE INCLUDING
EVIDENCE TO SUPPORT THIS ASSESSMENT. RESPIRATORY RISK
ASSESSMENT FOR ANIMALS IS ESSENTIAL FOR THIS WRITTEN
INDEPENDANT RISK ASSESSMENT.

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 ☐

(if more than one person is making the representation, the first named person will be taken to be the representative, unless otherwise specified in this form)

I WILL BE REPRESENTED BY ☐

Name: _____

Signed:



Date: 10TH NOVEMBER 2020.

4 January 2021

City of Salisbury
12 Bishopstone Road
Davoren Park SA 5113



PO Box 7434
Hutt Street SA 5000
0402 832 226
andrew@humbyconsulting.com.au
humbyconsulting.com.au

Att: Megan Leverington

RESPONSE TO REPRESENTATION

DA 292/1790/2020

12 HEWITTSON ROAD, EDINBURGH NORTH

INTRODUCTION

I refer to your correspondence dated 17 November 2020, providing a copy of one (1) public submission following the Category Two public notification of the above mentioned development application. I have been requested by the applicant, Sagle Constructions to review the representation and provide a response to Council.

I provide the following opinions and findings:

KEY ISSUE OF REPRESENTATION

One representation was received from the adjoining allotment at 4 Hewittson Road, Edinburgh North.

Dr Julie Bellamy, Chief Executive Officer of the Animal Welfare League of South Australia (AWL) lodged a submission in opposition to the proposed development with the following reason for the representation:

- Many chemicals are toxic to dogs and cats even in very small amounts in the air and can cause significant respiratory irritation. This is a significant animal welfare concern.

Dr Bellamy has advised that this representation would be overcome if an independent written assessment of the risk of all products used in the foam manufacture with confirmation that there will be no risk to any animal held on the AWL site.

Dr Bellamy has not confirmed if she wishes to be heard by Council's Assessment Panel.

The applicants have met with Dr Bellamy to discuss the nature of her submission and attempted to resolve her concerns, however AWL's submission has not been withdrawn. An independent written assessment has not been undertaken, however as shown below, it is my opinion that the proposed development will not have any unreasonable impacts upon nearby human or animal health.



Location of Representor



EXISTING OPERATIONS

Joyce Foams has been operating from the subject land since 1974 and has not caused any undue impacts upon adjoining land uses, by virtue of noise, odour, visual or hours of operation. The previous activities on site included a polyurethane foam production machinery that operated between 1974 and 2014 and produced conventional foam slabstock. Joyce Foam decided to cease foam manufacture in SA and decommissioned this ageing facility in 2016.

The foam manufacturing activities occurred primarily in the long, narrow building located less than 10 metres from the eastern boundary of the subject land.

The conventional foam production techniques are well known to have caused greater external impacts than those associated with the newer production methods.

It is understood that the built form located on the AWL site was constructed in mid 2005 with the activities to the rear of the AWL site constructed in mid 2017. During the time of the previous foam production, no formal complaints were received from AWL on the potential odour impacts upon any animals residing on the AWL site.

It is also recognised that on the opposite boundary of the AWL operations, located on the corner of Hewittson Road and Peachey Road is an established foam manufacturing plant – 'Foamex'. Located approximately 45 metres from the AWL boundary, the Foamex operations is understood to utilise conventional foam manufacturing production techniques and produces expanded polystyrene and extruded polystyrene products for a broad range of uses.



PROPOSED DEVELOPMENT

The proposed development involves the construction of a foam manufacturing plant and will be contained within a single building located on the western side of the subject land and configured to integrate with the existing Joyce Foam operations.

The proposed building will accommodate a new Variable Pressure Foaming (VPF) machine – a state of the art process that is considered to be the cleanest and environmentally friendly method of foam making. The VPF machine foam production process ensures that all air emissions are captured and filtered through a charcoal system, virtually removing the release of any bi-products into the atmosphere – a far improvement from traditional foam making processes.

The proposed building will be sited a minimum 140 metres from the eastern boundary of the subject land, with the VPF located a further 50 metres west (a combined 190 metres from the eastern boundary). This is a substantial separation from the adjoining AWL operations compared with the former foam production area sited less than 10 metres from the eastern boundary.

Noise impacts are also considered to be minimal, with the two VPF vacuum blowers to be located within the proposed building. Electric motors will drive the pumps, conveyors and saws and are considered to be less noise obtrusive than other traditional motor units.

All vehicle maneuvering areas are to comprise of concrete in the front hardstand area and cement treated rubble along the sides and rear of the proposed building. This will ensure that minimal dust will be generated on site and will cause no adverse impacts upon the adjoining AWL operations.

The hours of operation are not considered to be excessive, given that the Urban Employment Zone allows up to twenty-four hours a day, seven days a week and are considered to be consistent with the operating hours of adjoining industrial activities in the wider industrial estate. This will ensure that any noise, visual or other impacts will not have a detrimental impact upon the locality and in particular the AWL operations.

ENVIRONMENT PROTECTION AUTHORITY REFERRAL

The proposed development was referred to the Environment Protection Authority (EPA) for their review and assessment of the potential air quality, noise and water quality impacts. Of particular interest, the EPA's letter of 30 December 2020 provided no objection to the proposed development with the following comments provided:

'The EPA notes that stack tests undertaken at a similar facility (a Joyce facility in NSW – note my emphasis) indicate that the level of organics released to the atmosphere are below detention limits which, when considered in the context of simple modelling, indicate that the ground level concentrations are expected to be considerably below the mandated maximum prescribed within Schedule 2 of the Environment Protection (Air Quality) Policy 2017. This is acceptable to the EPA.'

The EPA also note that the proposed stack emission points and the testing/maintenance regime is considered appropriate that can reviewed in due time as part of future EPA licensing requirements.

The EPA's conclusion is clear that the proposed development is a suitable form of development with the potential for minimal risks upon the wider locality:

'... the EPA considers the risk of environmental harm arising from the proposed chemical works and storage facility is low.'



IMPACTS ON ANIMAL WELFARE

Separate to the formal EPA referral process, a separate informal request was sought from the EPA regarding the AWL's concerns about the toxicity of chemicals and impacts upon animals welfare.

A Senior Air Quality Advisor at the EPA provided the following response on 24 November 2020 during its assessment of the proposed development:

- *SA Health have been consulted and have advised that they are unaware of any studies to suggest cats and dogs are more sensitive than humans to the air pollutants of interest*
- *SA Health and EPA contend that without proof to the contrary, the level of environmental protection afforded by the Environment Protection (Air Quality) Policy 2016 (the "Air EPP") is expected to be sufficient to protect cats and dogs as much as it does the most vulnerable human beings (babies and the infirm)*
- *Literature regarding animal sensitivities to said pollutants in air were not presented*
- *Specifically, we understand that the only information submitted by the AWL to date is a handwritten representation from their veterinarian Dr. Julie Bellamy. We await more scientific literature from AWL that demonstrates the proposition that cats and dogs are more sensitive to the pollutants in question than human beings*
- *Whilst there hasn't been any air pollutant dispersion modelling undertaken by the proponent for the development application to date, the information provided suggests that the ground level concentrations are expected to be considerably below the mandated levels in Schedule 2 of the Air EPP*
- *Consequently, the EPA will continue to assess the proposal on the grounds of human protection unless more information to the contrary comes to light which requires our consideration.*

It is considered that the EPA's response; both in its email dated 24 November 2020 and its formal assessment dated 30 December 2020, provides suitable justification that the proposed development will not have a detrimental impact upon the adjoining land owners or the wider locality.

CONCLUSION

It is my opinion that the proposed development represents an appropriate form of development in the context and intent of both the Urban Employment Zone and other relevant Objectives and Principles of Development Control in the Playford Council Development Plan.

The proposed development is a form of development encouraged within the Urban Employment Zone with the proposed built form being designed and sited to ensure that it does not have a detrimentally impact upon the amenity of the locality.

Notwithstanding the concerns of the representor, the Environment Protection Authority has undertaken an assessment of the proposed development and concluded that the proposal will have a low risk of environmental harm. It is also recognised that the siting of the proposed facility is a substantially greater distance than provided by the former foam production activities and will incorporate improved environmental measures.

As such, the proposal is not in my opinion seriously at variance with the overall intent of the Playford Council Development Plan, and therefore warrants Development Plan Consent pursuant to Section 33 (1)(a) of the *Development Act 1993*.



Should you require any further information or clarification, I can be contacted on 0402 832 226.

A handwritten signature in blue ink, appearing to read 'Andrew Humby', with a long horizontal stroke extending to the right.

Andrew Humby
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STAFF REPORTS

MATTERS TO BE CONSIDERED BY THE COMMITTEE ONLY

***Matters delegated to the
Committee.***

9.1.1 STANDING REFERRAL OF BUILDING RULES ASSESSMENT

Responsible Executive Manager : Mr Derek Langman

Report Author : Mr Matt Dineen

Delegated Authority : Matters delegated to the Committee.

Attachments : 1 [↓](#). Local Government Association Advice for Referring Building Rules Assessments to Council

PURPOSE

For the Council Assessment Panel (CAP) to determine whether it seeks to implement a Standing referral of Building Rules to the Council under the *Planning, Development & Infrastructure Act 2016* (PDI Act).

STAFF RECOMMENDATION

1. The City of Playford Council Assessment Panel determines to act under Section 99(1)(b) of the Planning, Development and Infrastructure Act 2016 (the Act) in relation to all development applications received by it that involve the performance of building work.
2. Pursuant to Section 99(1)(c) of the Act, where the Panel has determined to act under Section 99(1)(b) of the Act, the City of Playford Council Assessment Panel refers the assessment of the development in respect of the Building Rules to the City of Playford.

EXECUTIVE SUMMARY

The PDI Act introduces changes to the planning and development system. The changes include a number of statutory functions of Council Assessment Panels.

The Panel is designated as a relevant authority in its own right under the Act. The implication of this change is that the Panel will also be the relevant authority for building consent, where the applicant has not nominated a building certifier (Accredited Professional).

The Local Government Association has provided advice for Panels to consider referring the building assessments to Council (see Attachment 1) so as to enable Council to then be the relevant authority for Building Rules.

1. BACKGROUND

The PDI Act was passed by the South Australian Parliament in 2016 as a part of the new planning and development system to build upon the recommendations made by the Expert Panel on Planning Reform in 2014. The introduction of the PDI Act is being implemented in stages and is proposed to be fully operational in quarter 1 of 2021.

The scheme established under the PDI Act will replace the scheme under the *Development Act 1993*. Section 93 of the PDI Act assigns Council Assessment Panels as a relevant authority in their own right, bringing about further responsibilities that would otherwise currently be the responsibility of Council. One such responsibility is the assessment of Building Rules for applications to which it is the relevant authority, and where the applicant has not nominated a building certifier.

Whilst delegations of the Panel under the PDI Act are being considered elsewhere within this agenda, the relevant proposed delegation under Section 99(1) within Instrument C would still retain the Panel as the relevant authority. As an alternative, Council's Assessment Panel is able to consider a standing referral to Council for Building Rules, therefore altering the relevant authority for such Building Rules considerations.

2. RELEVANCE TO STRATEGIC PLAN

1: Smart Service Delivery Program

Outcome 1.2 Improved service delivery

This report links to Council's Smart Service Delivery Program as it provides CAP with the ability to appropriately refer the Building Rules assessment of development applications to Council, to which assessment can then be undertaken by appropriately qualified staff within a timely manner. This provides continued service delivery to the community, internal and external stakeholders and Council.

3. PUBLIC CONSULTATION

There is no requirement to consult the public on this matter.

4. DISCUSSION

- 4.1** Section 93 of the Act prescribes relevant authorities. The Council Assessment Panel is designated as the relevant authority where development is to be undertaken within the area of Council, subject to prescribed exclusions. The exclusions include where:
- Another Panel has been appointed (e.g Local / Regional / Combined OR Panel under a Planning Agreement).
 - The regulations prescribe that an Assessment Manager or Accredited Professional acts as the relevant authority.
 - The State Planning Commission or Minister for Planning is assigned as the relevant authority.
- 4.2** Where the applicant does not nominate a building certifier for the building assessment, the Panel will be the relevant authority (section 99 of the Act). This will require Panel's to implement a series of administrative measures for the building assessment, including seeking and providing delegation to accredited professionals.
- 4.3** There does not appear to be any particular reason that Panels have been assigned the relevant authority in respect to building consent, given Panels are essentially established as authorities to assess planning matters – as reflected in the skills and experience requirements for Panel Members.
- 4.4** The Act provides that Panels may refer a proposed development which involves the assessment of the Building Rules to the council for the area in which the proposed development is to be undertaken. This is the practice anticipated to be adopted by Panels. The Local Government Association has prepared a resolution that will provide for a standing referral for all building rules assessments to Council. It is recommended that the Panel consider referring all proposed development which involves the assessment of the Building Rules to the Council.

5. OPTIONS

Recommendation

1. The City of Playford Council Assessment Panel determines to act under Section 99(1)(b) of the Planning, Development and Infrastructure Act 2016 (the Act) in relation to all development applications received by it that involve the performance of building work.
2. Pursuant to Section 99(1)(c) of the Act, where the Panel has determined to act under Section 99(1)(b) of the Act, the City of Playford Council Assessment Panel refers the assessment of the development in respect of the Building Rules to the City of Playford.

Option 2

The City of Playford Council Assessment Panel retains its authority for the assessment of development in respect of the Building Rules and considers referral of applications to the City of Playford on a case by case basis or delegation of this function.

6. ANALYSIS OF OPTIONS

6.1 Recommendation Analysis

6.1.1 Analysis & Implications of the Recommendation

The recommendation allows the CAP to refer the function of undertaking Building Rules assessment to the Council. It is proposed (within Instrument B) that Council then sub delegate this function to Council's Building Officers. This referral ensures that applications are considered in a timely manner and removes the need for additional ongoing administrative measures in seeking and providing delegation to accredited professionals from the Panel.

6.1.2 Financial Implications

There are no financial or resource implications specifically arising from referring this function.

6.2 Option 2 Analysis

6.2.1 Analysis & Implications of Option 2

This option allows for Council's Assessment Panel to retain its authority for the assessment of Building Rules and consider either referral of this function on a case by case basis, or delegation of this function. Delegation of this function would still result in the Panel being the relevant authority. The primary implication of this option is the ongoing administrative measures required in seeking and providing delegation to accredited professionals or seeking Panel members with appropriate accreditation in the consideration of Building Rules.

6.2.2 Financial Implications

There are no financial or resource implications specifically arising from delegating or referring this function. Comparative to Option 1, referral of Building Rules assessment on a case by case basis (without delegation) may however result in additional resource requirements. The extent of resource implications would be dependent upon the extent of cases within which the Panel seeks to consider undertaking the Building Rules assessment.

Draft

Information Sheet

Draft wording for a standing referral for Building Rules assessments from Panels to councils

As many councils will be aware, where an applicant does not nominate a private building certifier to determine their building consent, the relevant authority will not be the council, but the relevant assessment panel.

However, Section 99(1) of the Act enables assessment panels to refer Building Rules assessments on to the relevant council, at which point the council becomes the relevant authority for building consent.

For panels that do not propose to take an active role in *any* Building Rules assessments, a standing referral can be made in relation to all future Building Rules applications. Draft wording for such a referral is set out below.

Should any panel prefer to approach Building Rules assessment referrals on a case-by-case basis, this is also possible. Amendments to the below wording would be required.

Standing referral for CAPs:

1. The [insert name of Panel] determines to act under Section 99(1)(b) of the *Planning, Development and Infrastructure Act 2016 (the Act)* in relation to all development applications received by it that involve the performance of building work.
2. Pursuant to Section 99(1)(c) of the Act, where the Panel has determined to act under Section 99(1)(b) of the Act, the [insert name of Panel] refers the assessment of the development in respect of the Building Rules to the [insert name of the Council]

Standing referral or RAPs:

- 1) The [insert name of Panel] determines to act under Section 99(1)(b) of the *Planning, Development and Infrastructure Act 2016 (the Act)* in relation to all development applications received by it that involve the performance of building work.
- 2) Pursuant to Section 99(1)(c) of the Act, where the Panel has determined to act under Section 99(1)(b) of the Act, the [insert name of Panel] refers the assessment of the development in respect of the Building Rules to the council for the area in which the proposed development is to be undertaken.

Advice provided to the LGA by Norman Waterhouse Lawyers on 3 March 2020.

Further Information

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March 2020

9.1.2 DELEGATIONS UNDER THE PLANNING, DEVELOPMENT AND INFRASTRUCTURE ACT 2016

Responsible Executive Manager : Mr Barry Porter

Report Author : Mr Aaron Galanti

Delegated Authority : Matters delegated to the Committee.

Attachments : 1 [↓](#). Proposed Instrument of Delegation under the Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)

PURPOSE

For the Council Assessment Panel (CAP) to determine what powers and functions it will delegate under the *Planning, Development and Infrastructure Act 2016* (PDI Act).

STAFF RECOMMENDATION

1. In exercise of the power contained in Section 100 of the *Planning, Development and Infrastructure Act 2016* the powers and functions under the *Planning, Development and Infrastructure Act 2016* and statutory instruments made thereunder contained in the proposed Instrument of Delegation (annexed to the Report dated 18 January 2021 and entitled 'Proposed Instrument of Delegation under the Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)' and marked Attachment 1) are hereby delegated this 18 day of January 2021 to the City of Playford Assessment Manager subject to the conditions and/or limitations, if any, specified herein or in the Schedule of Conditions in the proposed Instrument of Delegation.
2. Such powers and functions may be further delegated by the City of Playford Assessment Manager in accordance with Section 100(2)(c) of the *Planning, Development and Infrastructure Act 2016* as the City of Playford Assessment Manager sees fit, unless otherwise indicated herein or in the Schedule of Conditions contained in the proposed Instrument of Delegation.

EXECUTIVE SUMMARY

With the continuing roll out of the PDI Act, CAP are able to delegate some powers and functions under the PDI Act to enable the City of Playford Assessment Manager to exercise the delegations on behalf of CAP.

A new Instrument of Delegation under the PDI Act has been created relating to:

- **Instrument C** - Powers of an Assessment Panel (Attachment 1)

The powers and functions contained in this Instrument of Delegation are able to be delegated under Section 100 of the PDI Act, and it is proposed that they are delegated to the City of Playford Assessment Manager. The Assessment Manager would then be able to sub-delegate to Council staff as they see fit in order for them to undertake their duties. The effective date of these delegations at the time of writing this report is not known. As a result, the proposed delegations will not be able to be exercised until the designated day determined by

the Minister. It is expected that the full roll out of the PDI Act and Planning and Design Code will occur for Phase 3 councils in quarter 1 of 2021.

1. BACKGROUND

The PDI Act was passed by the South Australian Parliament in 2016 as a part of the new planning and development system to build upon the recommendations made by the Expert Panel on Planning Reform in 2014. The introduction of the PDI Act is being implemented in stages and is proposed to be fully operational in quarter 1 of 2021.

The scheme established under the PDI Act will replace the scheme under the *Development Act 1993*. The PDI Act also provides for infrastructure planning, implementation and funding.

Delegations under the PDI Act were first delegated to the CEO in June 2017 (Resolution 2907) following receipt of the Instrument of Delegation under the PDI Act from the Local Government Association of South Australia (LGASA).

As per Resolution 3839, on 26 November 2019 Council revoked and re-delegated all delegations under the PDI Act to the CEO and Council's Strategic Planning Committee to implement the first changes of the roll out of the PDI Act. These changes were to transition from one Instrument of Delegation, delegated under Section 44 of the *Local Government Act 1999*, to two Instruments of Delegation (one delegated under Section 44 of the *Local Government Act 1999* and the other delegated under Section 100 of the PDI Act). The two Instruments of Delegation were:

- **Instrument A** - Powers of Council as:
 - a Council;
 - a Designated Authority; and
 - a Designated Entity; and
- **Instrument B** - Powers of a Council as a Relevant Authority.

The LGASA have advised of two additional Instruments of Delegation under the PDI Act. The two new Instruments of Delegation are:

- **Instrument C** - Powers of an Assessment Panel
- **Instrument D** - Powers of an Assessment Manager

Instrument C contains powers and functions able to be delegated by the CAP under Section 100 of the PDI Act. The commencement of these delegations was initially scheduled for 1 July 2020. On 7 February 2020 Minister Knoll announced that he would approve a Bill to remove the 1 July 2020 deadline for the full roll out of the Planning and Design Code. This was in order to provide councils and the community additional time to prepare for the new planning system. The deadline was proposed to be replaced with a date to be Gazetted by proclamation. It is anticipated that the Planning and Design Code and full PDI Act will commence in quarter 1 of 2021 (as City of Playford is a Phase 3 Council). The designated day of commencement has yet to be determined.

The *Planning, Development and Infrastructure (Commencement of Code) Amendment Act 2020* was assented on 2 April 2020 which replaced the 1 July 2020 deadline with "the designated day".

2. RELEVANCE TO STRATEGIC PLAN

1: Smart Service Delivery Program

Outcome 1.2 Improved service delivery

This report links to Council's Smart Service Delivery Program as it provides CAP with the ability to ensure delegations are appropriately provided to the City of Playford Assessment Manager in accordance with legislative requirements.

By endorsing the recommended Instrument of Delegation, the City of Playford Assessment Manager can sub-delegate to staff as required to provide continued service delivery to the community, internal and external stakeholders and Council.

3. PUBLIC CONSULTATION

There is no requirement to consult the public on this matter.

4. DISCUSSION

- 4.1 The LGASA have provided a new Instrument of Delegation under the PDI Act that includes powers and functions of the CAP. These powers and functions can be delegated by the CAP under Section 100 of the PDI Act to any person or body, or person occupying a particular office or position. It is recommended that the powers and functions in the Instrument of Delegation (Attachment 1) are delegated to the City of Playford Assessment Manager, whom can then sub-delegate to staff as they see fit.
- 4.2 Delegating to the City of Playford Assessment Manager allows delegations to be appropriately sub-delegated to relevant Council staff to ensure that they can be undertaken to meet operational needs. This also removes the need for all decisions and exercise of delegations to be undertaken by the CAP.
- 4.3 The Instrument of Delegation contains powers of the CAP under the:
 - 4.3.1 PDI Act;
 - 4.3.2 *Planning, Development and Infrastructure (General) Regulations 2017*;
 - 4.3.3 *Planning, Development and Infrastructure (Fees, Charges and Contributions) Regulations 2019*;
 - 4.3.4 Planning and Design Code;
 - 4.3.5 State Planning Commission Practice Direction 3 (Notification of Performance Assessed Development Applications) 2019;
 - 4.3.6 State Planning Commission Practice Direction (Appointment of Additional Members to Assessment Panel) 2019; and
 - 4.3.7 State Planning Commission Practice Direction (Scheme to Avoid Conflicting Regimens) 2019.
- 4.4 Despite the designated day being unconfirmed, the CAP is still able to delegate the powers and functions contained within Attachment 1. The delegations will not be effective until the designated day, hence, will not be able to be exercised until that day. This allows all appropriate delegates to undertake their duties under

delegation as of the designated day, removing the risk of there being no one other than CAP to make decisions under the attached Instrument of Delegation.

5. OPTIONS

Recommendation

1. In exercise of the power contained in Section 100 of the *Planning, Development and Infrastructure Act 2016* the powers and functions under the *Planning, Development and Infrastructure Act 2016* and statutory instruments made thereunder contained in the proposed Instrument of Delegation (annexed to the Report dated 18 January 2021 and entitled 'Proposed Instrument of Delegation under the Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)' and marked Attachment 1) are hereby delegated this 18 day of January 2021 to the City of Playford Assessment Manager subject to the conditions and/or limitations, if any, specified herein or in the Schedule of Conditions in the proposed Instrument of Delegation.
2. Such powers and functions may be further delegated by the City of Playford Assessment Manager in accordance with Section 100(2)(c) of the *Planning, Development and Infrastructure Act 2016* as the City of Playford Assessment Manager sees fit, unless otherwise indicated herein or in the Schedule of Conditions contained in the proposed Instrument of Delegation.

Option 2

1. In exercise of the power contained in Section 100 of the *Planning, Development and Infrastructure Act 2016* the powers and functions under the *Planning, Development and Infrastructure Act 2016* and statutory instruments made thereunder contained in the proposed Instrument of Delegation (annexed to the Report dated 18 January 2021 and entitled 'Proposed Instrument of Delegation under the Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)' and marked Attachment 1) are hereby delegated this 18 day of January 2021 to the City of Playford Assessment Manager subject to the conditions and/or limitations, if any, specified herein or in the Schedule of Conditions in the proposed Instrument of Delegation.
2. Such powers and functions may be further delegated by the City of Playford Assessment Manager in accordance with Section 100(2)(c) of the *Planning, Development and Infrastructure Act 2016* as the City of Playford Assessment Manager sees fit, unless otherwise indicated herein or in the Schedule of Conditions contained in the proposed Instrument of Delegation.

With the following amendments:

- Instrument of Delegation under the Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel' (Attachment 1), Item (X) Delegated_____.

6. ANALYSIS OF OPTIONS

6.1 Recommendation Analysis

6.1.1 Analysis & Implications of the Recommendation

The recommendation allows the CAP to delegate powers and functions under the PDI Act in accordance with legislative requirements. This ensures that Council's delegations will be current and provide the City of Playford Assessment Manager appropriate delegations to further sub-delegate to staff. This will ensure that Council staff have the appropriate powers to undertake their duties in accordance with the new legislation and deliver services to the community as of the designated day.

6.1.2 Financial Implications

There are no financial or resource implications specifically arising from delegating these powers and functions.

6.2 Option 2 Analysis

6.2.1 Analysis & Implications of Option 2

This option provides CAP the ability to make changes to the proposed Instrument of Delegation with amendments as deemed appropriate. Consideration of legislative requirements must be given to any amendments to specific provisions under the PDI Act and any provisions that are not delegated must be brought before Council for decision.

6.2.2 Financial Implications

It is unlikely that there will be financial or resource implications with a varied resolution.



INSTRUMENT C

INSTRUMENT OF DELEGATION UNDER THE PLANNING, DEVELOPMENT AND INFRASTRUCTURE ACT 2016, REGULATIONS, PLANNING AND DESIGN CODE AND PRACTICE DIRECTIONS OF POWERS OF AN ASSESSMENT PANEL

NOTES

1. Conditions or Limitations: conditions or limitations may apply to the delegations contained in this Instrument as specified herein.
2. Refer to the relevant Assessment Panel decision to identify when these delegations were made, reviewed and or amended.

POWERS AND FUNCTIONS DELEGATED IN THIS INSTRUMENT

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s7(5)(a)	<p>1. Environment and Food Production Areas – Greater Adelaide</p> <p>1.1 The power pursuant to Section 7(5)(a) of the Planning, Development and Infrastructure Act 2016 (the PDI Act), in relation to a proposed development in an environment and food production area that involves a division of land that would create 1 or more additional allotments to seek the concurrence of the Commission in the granting of the development authorisation to the development.</p>	
s7(5)(d)	<p>1. Environment and Food Production Areas – Greater Adelaide</p> <p>1.2 The power pursuant to Section 7(5)(d) of the PDI Act in relation to a proposed development in an environment and food production area that involves a division of land that would create one or more additional allotments, to, if the proposed development will create additional allotments to be used for residential development, refuse to grant development</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	authorisation in relation to the proposed development.	
s85(1)	<p>2. Appointment of Additional Members</p> <p>2.1 The power pursuant to Section 85(1) of the PDI Act to appoint 1 or 2 members to act as additional members of the assessment panel for the purposes of dealing with a matter that the assessment panel must assess as a relevant authority under the PDI Act.</p>	
s94(3)(a)	<p>3. Relevant Authority – Commission</p> <p>3.1 The power pursuant to Section 94(3)(a) of the PDI Act, if the Minister acts under Section 94(1)(h) of the PDI Act to, at the request of the Commission, provide the Commission with a report relating to any application for development authorisation that has been under consideration by the relevant authority.</p>	
s99(1)	<p>4. Relevant Provisions</p> <p>4.1 The power pursuant to Section 99(1) of the PDI Act, if a proposed development involves the performance of building work to determine to act under Section 99(1) of the PDI Act to:</p> <p>4.1.1 refer the assessment of the development in respect of the Building Rules to the council for the area in which the proposed development is to be undertaken; or</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	4.1.2 require that the assessment of the development in respect of the Building Rules be undertaken by a building certifier.	
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p> <p>5.1.1 -</p> <p>5.1.1.1 the relevant provisions of the Planning Rules; and</p> <p>5.1.1.2 to the extent provided by Part 7 Division 2 of the PDI Act – the impacts of the development,</p> <p>(planning consent);</p>	<p>The delegation of the power to grant or refuse planning consent pursuant to Section 102(1)(a) of the Act is limited to applications in relation to which one or more of the following apply:</p> <ol style="list-style-type: none"> 1. No valid representations are received; 2. All valid representations are withdrawn; 3. No representor who has lodged a valid representation wishes to be heard; 4. A deemed consent notice has been served on the Panel under Section 125(2) of the Act; 5. The applicant has not agreed to extend the

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
		statutory timeframe within which the Panel must determine the development application pursuant to Regulation 53 of the Regulations, and that timeframe will expire before the next meeting of the Panel is scheduled to occur.
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p> <p>5.1.2 the relevant provisions of the Building Rules (building consent);</p>	
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p> <p>5.1.3 in relation to a proposed division of land (otherwise than under the</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>Community Titles Act 1996 or the Strata Titles Act 1988) - the requirement that the following conditions be satisfied (or will be satisfied by the imposition of conditions under the PDI Act):</p> <p>5.1.3.1 requirements set out in the Planning and Design Code made for the purposes of this provision are satisfied;</p> <p>5.1.3.3 the requirements of a water industry entity under the Water Industry Act 2012 identified under the regulations relating to the provision of water supply and sewerage services are satisfied;</p> <p>5.1.3.4 where land is to be vested in a council or other authority - the council or authority consents to the vesting;</p> <p>5.1.3.5 requirements set out in regulations made for the purposes of Section 102(1)(c) of the PDI Act are satisfied;</p>	
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p> <p>5.1.4 in relation to a division of land under the Community Titles Act 1996 or the Strata Titles Act 1988 - the requirement that the following conditions be satisfied (or will be satisfied by the imposition of conditions under the PDI</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>Act):</p> <p>5.1.4.1 requirements set out in the Planning and Design Code made for the purposes of this provision are satisfied;</p> <p>5.1.4.2 any relevant requirements set out in a design standard has been satisfied;</p> <p>5.1.4.3 any encroachment of a lot or unit over other land is acceptable having regard to any provision made by the Planning and Design Code or a design standard;</p> <p>5.1.4.4 where land is to be vested in a council or other authority - the council or authority consents to the vesting;</p> <p>5.1.4.5 a building or item intended to establish a boundary (or part of a boundary) of a lot or lots or a unit or units is appropriate for that purpose;</p> <p>5.1.4.6 the division of land under the Community Titles Act 1996 or the Strata Titles Act 1988 is appropriate having regard to the nature and extent of the common property that would be established by the relevant scheme;</p> <p>5.1.4.7 the requirements of a water industry entity under the Water Industry Act 2012 identified under the regulations relating to the provision of water supply and sewerage services are satisfied;</p> <p>5.1.4.8 any building situated on the land complies with the Building Rules;</p> <p>5.1.4.9 requirements set out in the regulations made for the purposes of Section 102(d) of the PDI Act are satisfied;</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p> <p>5.1.5 any encroachment of a building over, under, across or on a public place (and not otherwise dealt with above) is acceptable having regard to any provision made by the Planning and Design Code or a design standard;</p>	
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p> <p>5.1.6 if relevant - requirements applying under Part 15 Division 2 of the PDI Act are satisfied;</p>	
s102(1)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.1 The power pursuant to Section 102(1) of the PDI Act to assess a development against, and grant or refuse a consent in respect of, each of the following matters (insofar as they are relevant to the particular development):</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	5.1.7 such other matters as may be prescribed.	
s102(3)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.2 The power pursuant to Section 102(3) of the PDI Act to, in relation to granting a planning consent, on the delegate's own initiative or on application, reserve the delegate's decision on a specified matter or reserve the delegate's decision to grant a planning consent:</p> <p>5.2.1 until further assessment of the relevant development under the PDI Act; or</p> <p>5.2.2 until further assessment or consideration of the proposed development under another Act; or</p> <p>5.2.3 until a licence, permission, consent, approval, authorisation, certificate or other authority is granted, or not granted (by the decision of another authority), under another Act.</p>	
s102(4)	<p>5. Matters Against Which Development Must Be Assessed</p> <p>5.3 The power pursuant to Section 102(4) of the PDI Act to allow any matter specified by the Planning and Design Code for the purposes of Section 102(4) of the PDI Act to be reserved on the application of the applicant.</p>	
s107(2)(c)	<p>6. Performance Assessed Development</p> <p>6.1 The power pursuant to Section 107(2)(c) of the PDI Act to form the</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	opinion that the development is seriously at variance with the Planning and Design Code (disregarding minor variations).	
s107(3)	6. Performance Assessed Development 6.2 The power pursuant to Section 107(3) of the PDI Act, if a proposed development is to be assessed under Section 107 of the PDI Act to make a decision in accordance with a practice direction.	
s107(4)	6. Performance Assessed Development 6.3 The power pursuant to Section 107(4) of the PDI Act to limit the matters that the delegate will take into account to what should be the decision of the relevant authority as to planning consent in relation to the performance based elements of the development as assessed on its merits.	
s118(1)	7. Building Consent 7.1 The power pursuant to Section 118(1) of the PDI Act, if the Regulations provide that a form of building work complies with the Building Rules, to grant any such building work a building consent (subject to such conditions or exceptions as may be prescribed by the regulations).	
s118(2)(a)	7. Building Consent 7.2 The power pursuant to Section 118(2)(a) of the PDI Act to seek the	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	concurrence of the Commission to grant a building consent in respect of a development that is at variance with the performance requirements of the Building Code or a Ministerial building standard.	
s118(2)	<p>7. Building Consent</p> <p>7.3 The power pursuant to Section 118(2) of the PDI Act, subject to Section 118(6) of the PDI Act, to grant a building consent to a development that is at variance with the Building Rules if:</p> <p>7.3.1 the variance is with a part of the Building Rules other than the Building Code or a Ministerial building standard and the delegate determines that it is appropriate to grant the consent despite the variance on the basis that the delegate is satisfied:</p> <p>7.3.1.1 that:</p> <p>(a) the provisions of the Building Rules are inappropriate to the particular building or building work, or the proposed building work fails to conform with the Building Rules only in minor respects; and</p> <p>(b) the variance is justifiable having regard to the objects of the Planning and Design Code or the performance requirements of the Building Code or a Ministerial building standard (as the case may be) and would achieve the objects of this Act as effectively, or more effectively, than if the variance were not to be allowed; or</p> <p>7.3.1.2 in a case where the consent is being sought after the development has occurred - that the variance is justifiable in the circumstances of the</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	particular case.	
s118(4)	<p>7. Building Consent</p> <p>7.4 The power pursuant to Section 118(4) of the PDI Act, to at the request or with the agreement of the applicant, refer proposed building work to the Commission for an opinion on whether or not it complies with the performance requirements of the Building Code or a Ministerial building standard.</p>	
s118(6)	<p>7. Building Consent</p> <p>7.5 The power pursuant to Section 118(6) of the PDI Act if an inconsistency exists between the Building Rules and the Planning Rules in relation to a State heritage place or a local heritage place, to, in determining an application for building consent, ensure, so far as is reasonably practicable, that standards of building soundness, occupant safety and amenity are achieved in respect of the development that are as good as can reasonably be achieved in the circumstances.</p>	
s118(7)	<p>7. Building Consent</p> <p>7.6 The power pursuant to Section 118(7) of the PDI Act to seek and consider the advice of the Commission before imposing or agreeing to a requirement under Section 18(6) of the PDI Act that would be at variance with the performance requirements of the Building Code or a Ministerial</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	building standard.	
s118(8)	<p>7. Building Consent</p> <p>7.7 The power pursuant to Section 118(8) of the PDI Act, to, subject to the PDI Act, accept that proposed building work complies with the Building Rules to the extent that:</p> <p>7.7.1 such compliance is certified by the provision of technical details, particulars, plans, drawings or specifications prepared and certified in accordance with the regulations; or</p> <p>7.7.2 such compliance is certified by a building certifier.</p>	
s118(10)	<p>7. Building Consent</p> <p>7.8 The power pursuant to Section 118(10) of the PDI Act to refuse to grant a consent in relation to any development if, as a result of that development, the type or standard of construction of a building of a particular classification would cease to conform with the requirements of the Building Rules for a building of that classification</p>	
s118(11)	<p>7. Building Consent</p> <p>7.9 The power pursuant to Section 118(11) of the PDI Act, if a relevant authority decides to grant building consent in relation to a development that is at variance with the Building Rules, to, subject to the regulations, in giving</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>notice of the relevant authority's decision on the application for that consent, specify (in the notice or in an accompanying document):</p> <p>7.9.1 the variance; and</p> <p>7.9.2 the grounds on which the decision is being made.</p>	
s119(1)(b)	<p>8. Application and Provision of Information</p> <p>8.1 The power pursuant to Section 119(1)(b) of the PDI Act to require an application to the relevant authority for the purposes of Part 7 of the PDI Act, to include any information as the delegate may reasonably require.</p>	
s119(3)	<p>8. Application and Provision of Information</p> <p>8.2 The power pursuant to Section 119(3) of the PDI Act to request an applicant:</p> <p>8.2.1 to provide such additional documents, assessments or information (including calculations and technical details) as the delegate may reasonably require to assess the application;</p> <p>8.2.2 to remedy any defect or deficiency in any application or accompanying document or information required by or under the PDI Act;</p> <p>8.2.3 to consult with an authority or body prescribed by the regulations;</p> <p>8.2.4 to comply with any other requirement prescribed by the regulations.</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s119(6)	<p>8. Application and Provision of Information</p> <p>8.3 The power pursuant to Section 119(6) of the PDI Act if a request is made under Section 119(3) of the PDI Act, and the request is not complied with within the time specified by the regulations, to</p> <p>8.3.1 subject to Section 119(6)(b)(ii) of the PDI Act, refuse the application; and</p> <p>8.3.2 refuse the application in prescribed circumstances (including, if the regulations so provide, in a case involving development that is deemed to satisfy development).</p>	
s119(7)	<p>8. Application and Provision of Information</p> <p>8.4 The power pursuant to Section 119(7) of the PDI Act to, in dealing with an application that relates to a regulated tree, consider that special circumstances apply.</p>	
s119(9)	<p>8. Application and Provision of Information</p> <p>8.5 The power pursuant to Section 119(9) of the PDI Act to:</p> <p>8.5.1 permit an applicant:</p> <p>8.5.1.1 to vary an application;</p> <p>8.5.1.2 to vary any plans, drawings, specifications or other documents that</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>accompanied an application,</p> <p>(provided that the essential nature of the proposed development is not changed);</p> <p>8.5.2 permit an applicant to lodge an application without the provision of any information or document required by the regulations;</p> <p>8.5.3 to the extent that the fee is payable to the relevant authority waive payment of whole or part of the application fee, or refund an application fee (in whole or in part);</p> <p>8.5.4 if there is an inconsistency between any documents lodged with the relevant authority for the purposes of Part 7 of the PDI Act (whether by an applicant or any other person), or between any such document and a development authorisation that has already been given that is relevant in the circumstances, return or forward any document to the applicant or to any other person and determine not to finalise the matter until any specified matter is resolved, rectified or addressed.</p>	
s119(10)	<p>8. Application and Provision of Information</p> <p>8.6 The power pursuant to Section 119(10) of the PDI Act to grant a permission under Section 119(9) of the PDI Act unconditionally or subject to such conditions as the delegate thinks fit.</p>	
s119(12)	<p>8. Application and Provision of Information</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	8.7 The power pursuant to Section 119(12) of the PDI Act to, in a consent, provide for, or envisage, the undertaking of development in stages, with separate consents or approvals for the various stages.	
s119(14)	8. Application and Provision of Information 8.8 The power pursuant to Section 119(14) of the PDI Act to if an applicant withdraws an application to determine to refund the application fee.	
s120(1)	9. Outline Consent 9.1 The power pursuant to Section 120(1) of the PDI Act and subject to Section 120 of the PDI Act, to on application, grant a consent in the nature of an outline consent.	
s120(3)	9. Outline Consent 9.2 The power pursuant to Section 120(3) of the PDI Act if an outline consent is granted and a subsequent application is made with respect to the same development (subject to any variations allowed by a practice direction) to: 9.2.1 grant any consent contemplated by the outline consent; and 9.2.2 not impose a requirement that is inconsistent with the outline consent.	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s121(7)	<p>10. Design Review</p> <p>10.1 The power pursuant to Section 121(7) of the PDI Act, to in acting under the PDI Act, take into account any advice provided by a design panel (insofar as may be relevant to the assessment of proposed development by the delegate).</p>	
s122(1)	<p>11. Referrals to Other Authorities or Agencies</p> <p>11.1 The power pursuant to Section 122(1) of the PDI Act, where an application for consent to, or approval of, a proposed development of a prescribed class is to be assessed by a relevant authority, to:</p> <p>11.1.1 refer the application, together with a copy of any relevant information provided by the applicant, to a body prescribed by the regulations (including, if so prescribed, the Commission); and</p> <p>11.1.2 not make a decision until the relevant authority has received a response from that prescribed body in relation to the matter or matters for which the referral was made</p> <p>where the regulations so provide, subject to Section 122 of the PDI Act.</p>	
s122(5)(b)	<p>11. Referrals to Other Authorities or Agencies</p> <p>11.2 The power pursuant to Section 122(5)(b) of the PDI Act, acting by direction of a prescribed body:</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>11.2.1 to refuse the application; or</p> <p>11.2.2 consent to or approve the development and impose such conditions as the prescribed body thinks fit, (subject to any specific limitation under another Act as to the conditions that may be imposed by the prescribed body)</p> <p>where the regulations so provide.</p>	
s122(7)	<p>11. Referrals to Other Authorities or Agencies</p> <p>11.3 The power pursuant to Section 122(7) of the PDI Act, if the relevant authority is directed by a prescribed body to refuse an application and the refusal is the subject of an appeal under the PDI Act, to apply for the relevant authority to be joined as a party to the proceedings.</p>	
s122(10)	<p>11. Referrals to Other Authorities or Agencies</p> <p>11.4 The power pursuant to Section 122(10) of the PDI Act to, if requested by an applicant, defer a referral under Section 122 of the PDI Act to a particular stage in the process of assessment.</p>	
s123(2)	<p>12. Preliminary Advice and Agreement</p> <p>12.1 The power pursuant to Section 123(2) of the PDI Act, if:</p> <p>12.1.1 a proposed development is referred to a prescribed body under</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>Section 123(1) of the PDI Act; and</p> <p>12.1.2 the prescribed body agrees to consider the matter under Section 123 of the PDI Act after taking into account any matter prescribed by the regulations; and</p> <p>12.1.3 the prescribed body agrees, in the manner prescribed by the regulations, that the development meets the requirements (if any) of the prescribed body (including on the basis of the imposition of conditions), to, subject to Section 123(4) of the PDI Act if an application for planning consent with respect to the development is lodged with the relevant authority within the prescribed period after the prescribed body has indicated its agreement under Section 123(2)(c) of the PDI Act, form the opinion and be satisfied that the application accords with the agreement indicated by the prescribed body (taking into account the terms or elements of that agreement and any relevant plans and other documentation).</p>	
s123(4)	<p>12. Preliminary Advice and Agreement</p> <p>12.2 The power pursuant to Section 123(4) of the PDI Act to determine an agreement under Section 123 of the PDI Act is no longer appropriate due to the operation of Section 132 of the PDI Act.</p>	
s124(1)	<p>13. Proposed Development Involving Creation of Fortifications</p> <p>13.1 The power pursuant to Section 124(1) of the PDI Act, if the delegate has reason to believe that a proposed development may involve the creation</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	of fortifications, to refer the application for consent to, or approval of, the proposed development to the Commissioner of Police (the Commissioner).	
s124(5)	<p>13. Proposed Development Involving Creation of Fortifications</p> <p>13.2 The power pursuant to Section 124(5) of the PDI Act, if the Commissioner determines that the proposed development involves the creation of fortification, to:</p> <p>13.2.1 if the proposed development consists only of the creation fortifications - refuse the application; or</p> <p>13.2.2 in any other case - impose conditions in respect of any consent to or approval of the proposed development prohibiting the creation of the fortifications</p>	
s124(6)	<p>13. Proposed Development Involving Creation of Fortifications</p> <p>13.3 The power pursuant to Section 124(6) of the PDI Act, if the relevant authority acting on the basis of a determination of the Commissioner under Section 124(2) of the PDI Act refuses an application or imposes conditions in respect of a development authorisation, to notify the applicant that the application was refused, or the conditions imposed, on the basis of a determination of the Commissioner under Section 124 of the PDI Act.</p>	
s124(7)	13. Proposed Development Involving Creation of Fortifications	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	13.4 The power pursuant to Section 124(7) of the PDI Act, if a refusal or condition referred to in Section 124(5) of the PDI Act is the subject of an appeal under the PDI Act to apply to the Court to be joined as a party to the appeal.	
s125(6)	14. Time Within Which Decision Must be Made 14.1 The power pursuant to Section 125(6) of the PDI Act to form the opinion and consider that the relevant application for planning consent should have been refused and apply to the Court for an order quashing the consent.	
s125(7)	14. Time Within Which Decision Must be Made 14.2 The power pursuant to Section 125(7) of the Act to apply to the Court for an extension of time to make an application under Section 125(6) of the Act.	
s126(1)	15. Determination of Application 15.1 The power pursuant to Section 126(1) of the PDI Act to, on making a decision on an application under Part 7 of the PDI Act, give notice of the decision in accordance with the regulations (and, in the case of a refusal, to include in the notice the reasons for the refusal and any appeal rights that exist under the PDI Act).	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s126(3)	<p>15. Determination of Application</p> <p>15.2 The power pursuant to Section 126(3) of the PDI Act to, on the delegate's own initiative or on the application of a person who has the benefit of any relevant development authorisation, extend a period prescribed under Section 126(2) of the PDI Act.</p>	
s127(1)	<p>16. Conditions</p> <p>16.1 The power pursuant to Section 127(1) of the PDI Act to make a decision subject to such conditions (if any) as the delegate thinks fit to impose in relation to the development.</p>	
s127(2)(c)	<p>16. Conditions</p> <p>16.2 The power pursuant to Section 127(2)(c) of the PDI Act to vary or revoke a condition in accordance with an application under Part 7 of the PDI Act.</p>	
s127(4)	<p>16. Conditions</p> <p>16.3 The power pursuant to Section 127(4) of the PDI Act, subject to Sections 127(6) and (8) of the PDI Act, if a development authorisation provides for the killing, destruction or removal of a regulated tree or a significant tree, to apply the principle that the development authorisation be subject to a condition that the prescribed number of trees (of a kind determined by the delegate) must be planted and maintained to replace the</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	tree (with the cost of planting to be the responsibility of the applicant or any person who acquires the benefit of the consent and the cost of maintenance to be the responsibility of the owner of the land).	
s127(6)	<p>16. Conditions</p> <p>16.4 The power pursuant to Section 127(6) of the PDI Act to, on the application of the applicant, determine that a payment of an amount calculated in accordance with the regulations be made into the relevant fund in lieu of planting 1 or more replacement trees under Section 127(4) of the PDI Act.</p>	
s127(8)(b)	<p>16. Conditions</p> <p>16.5 The power pursuant to Section 127(8)(b) of the PDI Act to:</p> <p>16.5.1 determine that it is appropriate to grant an exemption under Section 127(8)(b) of the PDI Act in a particular case after taking into account any criteria prescribed by the regulations and provided the Minister concurs in the granting of the exemption;</p> <p>16.5.2 to seek the Minister's concurrence to grant an exemption under Section 127(8)(b) of the PDI Act.</p>	
s128(2)(d)	<p>17. Variation of Authorisation</p> <p>17.1 The power pursuant to Section 128(2)(d) of the PDI Act to approve an</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	application for a variation to a development authorisation previously given under the PDI Act, which seeks to extend the period for which the relevant authorisation remains operative.	
s134(1)	<p>18. Requirement to Up-grade</p> <p>18.1 The power pursuant to Section 134(1) of the PDI Act to form the opinion that the building is unsafe, structurally unsound or in an unhealthy condition.</p>	
s134(1)	<p>18. Requirement to Up-grade</p> <p>18.2 The power pursuant to Section 134(1) of the PDI Act, if:</p> <p>18.2.1 an application for a building consent relates to:</p> <p>18.2.1.1 building work in the nature of an alteration to a building constructed before the date prescribed by regulation for the purposes of Section 134(1) of the PDI Act; or</p> <p>18.2.1.2 a change of classification of a building; and</p> <p>18.2.2 the building is, in the opinion of the delegate, unsafe, structurally unsound or in an unhealthy condition,</p> <p>to require that building work that conforms with the requirements of the Building Rules be carried out to the extent reasonably necessary to ensure that the building is safe and conforms to proper structural and health standards.</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s134(2)	<p>18. Requirement to Up-grade</p> <p>18.3 The power pursuant to Section 134(2) of the PDI Act, when imposing a requirement under Section 134(1) of the PDI Act, to specify (in reasonable detail) the matters under Section 134(1)(b) of the PDI Act that must, in the opinion of the delegate, be addressed.</p>	
s134(3)	<p>18. Requirement to Up-grade</p> <p>18.4 The power pursuant to Section 134(3) of the PDI Act to impose a requirement under Section 134(1) of the PDI Act:</p> <p>18.4.1 subject to Section 134(3)(b) of the PDI Act - on the basis that the relevant matters must be addressed as part of the application before the relevant authority will grant building consent; and</p> <p>18.4.2 in cases prescribed by the regulations - as a condition of the building consent that must be complied with within a prescribed period after the building work to which the application for consent relates is completed</p>	
s134(4)	<p>18. Requirement to Up-grade</p> <p>18.5 The power pursuant to Section 134(4) of the PDI Act if:</p> <p>18.5.1 an application is made for building consent for building work in the nature of an alteration of a class prescribed by the regulations; and</p> <p>18.5.2 the delegate is of the opinion that the affected part of the building does not comply with the performance requirements of the Building Code or</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>a Ministerial building standard in relation to access to buildings, and facilities and services within buildings, for people with disabilities,</p> <p>to require that building work or other measures be carried out to the extent necessary to ensure that the affected part of the building will comply with those performance requirements of the Building Code or the Ministerial building standard (as the case may be).</p>	
s134(5)	<p>18. Requirement to Up-grade</p> <p>18.6 The power pursuant to Section 134(5) of the PDI Act to impose a requirement under Section 134(4) of the PDI Act:</p> <p>18.6.1 subject to Section 134(5)(b) of the PDI Act - on the basis that the building work or other measures to achieve compliance with the relevant performance requirements must be addressed before the relevant authority will grant building consent; and</p> <p>18.6.2 in cases prescribed by the regulations - as a condition of the building consent that must be complied with within a prescribed period after the building work to which the application for consent relates is completed.</p>	
s143(1)	<p>19. Cancellation of Development Authorisation</p> <p>19.1 The power pursuant to Section 143(1) of the PDI Act to, on the application of a person who has the benefit of the authorisation, cancel a development authorisation previously given by the relevant authority.</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
s143(2)	<p>19. Cancellation of Development Authorisation</p> <p>19.2 The power pursuant to Section 143(2) of the PDI Act to make a cancellation under Section 143(1) of the PDI Act subject to such conditions (if any) as the delegate thinks fit to impose.</p>	
s235(1)	<p>20. Professional Advice to be Obtained in Relation to Certain Matters</p> <p>20.1 The power pursuant to Section 235(1) of the PDI Act, to, in the exercise of a prescribed function, rely on a certificate of a person with prescribed qualifications.</p>	
s235(2)	<p>20. Professional Advice to be Obtained in Relation to Certain Matters</p> <p>20.2 The power pursuant to Section 235(2) of the PDI Act to seek and consider the advice of a person with prescribed qualifications, or a person approved by the Minister for that purpose, in relation to a matter arising under the PDI Act that is declared by regulation to be a matter on which such advice should be sought.</p>	
cl12(7) sch8	<p>21. General Transitional Schemes for Panels</p> <p>21.1 The power pursuant to Clause 12(7) of Schedule 8 of the PDI Act, to</p> <p>21.1.1 adopt any findings or determinations of a council development assessment panel under the repealed Act that may be relevant to an application made before the relevant day under the repealed Act; and</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>21.1.2 adopt or make any decision (including a decision in the nature of a determination), direction or order in relation to an application made before the relevant day under the repealed Act; and</p> <p>21.1.3 deal with any matter that is subject to a reserved decision under the repealed Act before the relevant day; and</p> <p>21.1.4 deal with any requirement or grant any variation imposed or proposed in connection with an application made before the relevant day under the repealed Act; and</p> <p>21.1.5 deal with any requirement or grant any variation imposed or proposed in connection with an application made before the relevant day under the repealed Act.</p> <p>(Only applicable to assessment panels appointed by a council or a joint planning board)</p>	
cl13(5) sch8	<p>22. Regional Assessment Panels</p> <p>22.1 The power pursuant to Clause 13(5) of Schedule 8 of the PDI Act to:</p> <p>22.1.1 adopt any findings or determinations of a council development assessment panel or a regional development assessment panel under the repealed Act that may be relevant to an application made before the relevant day under the repealed Act; and</p> <p>22.1.2 adopt or make any decision (including a decision in the nature of a determination), direction or order in relation to an application made before</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>the relevant day under the repealed Act; and</p> <p>22.1.3 deal with any matter that is subject to a reserved decision under the repealed Act before the relevant day; and</p> <p>22.1.4 deal with any requirement or grant any variation imposed or proposed in connection with an application made before the relevant day under the repealed Act; and</p> <p>22.1.5 deal with any requirement or grant any variation imposed or proposed in connection with an application made before the relevant day under the repealed Act.</p> <p>(Relevant to regional assessment panels only)</p>	
cl18(2) sch8	<p>23. Continuation of Processes</p> <p>23.1 The power pursuant to Clause 18(2) of Schedule 8 of the PDI Act, to:</p> <p>23.1.1 adopt any findings or determinations of a relevant authority under the repealed Act that may be relevant to an application to which Clause 18(1) of Schedule 8 of the PDI Act applies; and</p> <p>23.1.2 adopt or make any decision (including a decision in the nature of a determination), direction or order in relation to an application to which Clause 18(1) of Schedule 8 of the PDI Act applies; and</p> <p>23.1.3 deal with any matter that is subject to a reserved decision under the repealed Act before the designated day; and</p>	

Planning, Development and Infrastructure Act 2016, Regulations, Planning and Design Code and Practice Directions of Powers of an Assessment Panel (Instrument C)		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>23.1.4 deal with any requirement or grant any variation imposed or proposed in connection with an application to which Clause 18(1) of Schedule 8 of the PDI Act applies; and</p> <p>23.1.5 take any other step or make any other determination authorised by the regulations, or that is reasonably necessary to promote or ensure a smooth transition on account of the transfer of functions, powers or duties under Clause 18 of Schedule 8 of the PDI Act.</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
r25(7)(c)	<p>24. Accredited Professionals</p> <p>24.1 The power pursuant to Regulation 25(7)(c) of the Planning, Development and Infrastructure (General) Regulations 2017 (the General Regulations) to form the opinion and be satisfied, on the basis of advice received from the accreditation authority under the Planning, Development and Infrastructure (Accredited Professionals) Regulations 2019, a relevant professional association, or other relevant registration or accreditation authority, that a person has engineering or other qualifications that qualify the person to act as</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	a technical expert under Regulation 25 of the General Regulations.	
r31(1)	<p>25. Verification of Application</p> <p>25.1 The power pursuant to Regulation 31(1) of the General Regulations, on the receipt of an application under Section 119 of the PDI Act, and in addition to any other requirement under the General Regulations, to, in order to ensure that an application has been correctly lodged and can be assessed in accordance with the PDI Act:</p> <p>25.1.1 determine the nature of the development; and</p>	
r31(1)	<p>25. Verification of Application</p> <p>25.1 The power pursuant to Regulation 31(1) of the General Regulations, on the receipt of an application under Section 119 of the PDI Act, and in addition to any other requirement under the General Regulations, to, in order to ensure that an application has been correctly lodged and can be assessed in accordance with the PDI Act:</p> <p>25.1.2 if the application is for planning consent - determine:</p> <p>25.1.2.1 whether the development involves 2 or more elements and, if so, identify each of those elements for the purposes of assessment against the provisions of the Planning and Design Code; and</p> <p>25.1.2.2 the category or categories of development that apply for the purposes of development assessment; and</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
r31(1)	<p>25. Verification of Application</p> <p>25.1 The power pursuant to Regulation 31(1) of the General Regulations, on the receipt of an application under Section 119 of the PDI Act, and in addition to any other requirement under the General Regulations, to, in order to ensure that an application has been correctly lodged and can be assessed in accordance with the PDI Act:</p> <p>25.1.3 determine whether the relevant authority is the correct entity to assess the application under the PDI Act; and</p>	
r31(1)	<p>25. Verification of Application</p> <p>25.1 The power pursuant to Regulation 31(1) of the General Regulations, on the receipt of an application under Section 119 of the PDI Act, and in addition to any other requirement under the General Regulations, to, in order to ensure that an application has been correctly lodged and can be assessed in accordance with the PDI Act:</p> <p>25.1.4 if the relevant authority is the correct entity to assess the application (or any part of the application):</p> <p>25.1.4.1 check that the appropriate documents and information have been lodged with the application; and</p> <p>25.1.4.2 confirm the fees required to be paid at that point under the Planning, Development and Infrastructure (Fees, Charges and Contributions) Regulations 2019; and</p> <p>25.1.4.3 provide an appropriate notice via the SA planning portal; and</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
r31(1)	<p>25. Verification of Application</p> <p>25.1 The power pursuant to Regulation 31(1) of the General Regulations, on the receipt of an application under Section 119 of the PDI Act, and in addition to any other requirement under the General Regulations, to, in order to ensure that an application has been correctly lodged and can be assessed in accordance with the PDI Act:</p> <p>25.1.5 if the relevant authority is not the correct entity to assess the application (or any part of the application):</p> <p>25.1.5.1 provide the application (or any relevant part of the application), and any relevant plans, drawings, specifications and other documents and information in its possession, to the entity that the delegate considers to be the correct relevant authority in accordance with any practice direction; and</p> <p>25.1.5.2 provide an appropriate notice via the SA planning portal.</p>	
r33(4)	<p>26. Application and Further Information</p> <p>26.1 The power pursuant to Regulation 33(4) of the General Regulations to seek clarification about any document or information that has been provided by the applicant.</p>	
r35(3)	<p>27. Amended Applications</p> <p>27.1 The power pursuant to Regulation 35(3) of the General Regulations if an application is varied following referral under Division 2 or giving of notice under Division 3, to, if the variations are not substantial, consider the</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	application without the need to repeat an action otherwise required under Division 2 or Division 3.	
r35(4)	<p>27. Amended Applications</p> <p>27.2 The power pursuant to Regulation 35(4) of the General Regulations if a variation would change the essential nature of a proposed development (as referred to in Section 119(9)(a) of the PDI Act), to agree with the applicant to proceed with the variation on the basis that the application (as so varied) will be treated as a new application under the General Regulations.</p>	
r38(1)	<p>28. Withdrawing/Lapsing Applications</p> <p>28.1 The power pursuant to Regulation 38(1) of the General Regulations if an application is withdrawn by the applicant under Section 119(14) of the PDI Act, to notify:</p> <p>28.1.1 any agency to which the application has been referred under Division 2 of the General Regulations; and</p> <p>28.1.2 any person who has made a representation in relation to the application under Division 3 of the General Regulations, of the withdrawal.</p>	
r38(3)	<p>28. Withdrawing/Lapsing Applications</p> <p>28.2 The power pursuant to Regulation 38(3) of the General Regulations before taking action to lapse an application under Regulation 38(2) of the</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>General Regulations, to:</p> <p>28.2.1 take reasonable steps to notify the applicant of the action under consideration; and</p> <p>28.2.2 allow the applicant a reasonable opportunity to make submissions to the delegate (in a manner and form determined by the delegate) about the proposed course of action.</p>	
r40	<p>29. Court Proceedings</p> <p>29.1 The power pursuant to Regulation 40 of the General Regulations to, subject to Section 214(14) of the PDI Act, by notice in writing to the applicant, decline to deal with the application until any proceedings under the PDI Act have been concluded.</p>	
r42(1)	<p>30. Additional Information or Amended Plans</p> <p>30.1 The power pursuant to Regulation 42(1) of the General Regulations if a delegate has referred an application to a prescribed body under Division 1 of the General Regulations and the relevant authority subsequently receives additional information, or an amended plan, drawing or specification, which is materially relevant to the referral, or to any report obtained as part of the referral process, to repeat the referral process.</p>	
r45(1)	<p>31. Building Matters</p> <p>31.1 The power pursuant to Regulation 45(1) of the General Regulations to, if</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>in assessing an application for building consent, the delegate considers that:</p> <p>31.1.1 a proposed performance solution within the meaning of the Building Code requires assessment against a performance requirement of the Building Code which provides for the intervention of a fire authority; or</p> <p>31.1.2 the proposed development is at variance with a performance requirement of the Building Code which provides for the intervention of a fire authority; or</p> <p>31.1.3 special problems for fire fighting could arise due to hazardous conditions of a kind described in Section E of the Building Code,</p> <p>refer the application to the relevant fire authority for comment and report unless the fire authority indicates to the delegate that a referral is not required.</p>	
r45(2)	<p>31. Building Matters</p> <p>31.2 The power pursuant to Regulation 45(2) of the General Regulations, if a report is not received from the fire authority on a referral under Regulation 45(1) of the General Regulations within 20 business days, to presume that the fire authority does not desire to make a report.</p>	
r45(3)	<p>31. Building Matters</p> <p>31.3 The power pursuant to Regulation 45(3) of the General Regulations to have regard to any report received from a fire authority under Regulation 45 of the General Regulations.</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
r45(4)	<p>31. Building Matters</p> <p>31.4 The power pursuant to Regulation 45(4) of the General Regulations, if, in respect of an application referred to a fire authority under Regulation 45 of the General Regulations, the fire authority:</p> <p>31.4.1 recommends against the granting of building consent; or</p> <p>31.4.2 concurs in the granting of consent on conditions specified in its report, but the delegate:</p> <p>31.4.3 proposes to grant building consent despite a recommendation referred to in Regulation 45(4)(a) of the General Regulations; or</p> <p>31.4.4 does not propose to impose the conditions referred to in Regulation 45(b) of the General Regulations, or proposes to impose the conditions in varied form, on the grant of consent,</p> <p>to:</p> <p>31.4.5 refer the application to the Commission; and</p> <p>31.4.6 not grant consent unless the Commission concurs in the granting of the consent.</p>	
r45(5)	<p>31. Building Matters</p> <p>31.5 The power pursuant to Regulation 45(5) of the General Regulations to provide to the Commission a copy of any report received from a fire authority under Regulation 45(1) of the General Regulations that relates to an</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	application that is referred to the Commission under the PDI Act.	
r46(6)	<p>32. Preliminary Advice and Agreement (Section 123)</p> <p>32.1 The power pursuant to Regulation 46(6) of the General Regulations, if:</p> <p>32.1.1 the delegate permits an applicant to vary an application under Section 119(9) of the PDI Act; and</p> <p>32.1.2 the delegate determines that the application no longer accords with the agreement indicated by the prescribed body,</p> <p>to refer the application (unless withdrawn) to the prescribed body:</p> <p>32.1.3 to obtain a variation to the agreement under Section 123 of the PDI Act; or</p> <p>32.1.4 to obtain a response from the prescribed body for the purposes of Section 122 of the PDI Act.</p>	
r46(7)	<p>32. Preliminary Advice and Agreement (Section 123)</p> <p>32.2 The power pursuant to Regulation 46(7) of the General Regulations if:</p> <p>32.2.1 an application is withdrawn by the applicant; and</p> <p>32.2.2 the applicant sought to rely on an agreement under Section 123 of the PDI Act in connection with the application,</p> <p>to notify relevant prescribed body of the withdrawal.</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
r46(8)	<p>32. Preliminary Advice and Agreement (Section 123)</p> <p>32.3 The power pursuant to Regulation 46(8) of the General Regulations, if:</p> <p>32.3.1 an application is lapsed by a relevant authority under Regulation 38 of the General Regulations; and</p> <p>32.3.2 the applicant sought to rely on an agreement under Section 123 of the PDI Act in connection with the application,</p> <p>to notify the relevant prescribed body of the lapsing.</p>	
r46(9)	<p>32. Preliminary Advice and Agreement (Section 123)</p> <p>32.4 The power pursuant to Regulation 46(9) of the General Regulations, if:</p> <p>32.4.1 an applicant seeks to rely on an agreement under Section 123 of the PDI Act in connection with the application; and</p> <p>32.4.2 a notice of a decision on the application is issued by the delegate under Regulation 57 of the General Regulations,</p> <p>to provide a copy of the notice to the prescribed body within 5 business days after the notice is given to the applicant under Regulation 57 of the General Regulations.</p>	
r48	<p>33. Notification of Application of Tree-damaging Activity to Owner of Land</p> <p>33.1 The power pursuant to Regulation 48 of the General Regulations, if an owner of land to which an application for a tree-damaging activity in relation to</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	<p>a regulated tree relates is not a party to the application, to:</p> <p>33.1.1 give the owner notice of the application within 5 business days after the application is made; and</p> <p>33.1.2 give due consideration in the delegate's assessment of the application to any submission made by the owner within 10 business days after the giving of notice under Regulation 48 of the General Regulations.</p>	
r49(3)	<p>34. Public Inspection of Applications</p> <p>34.1 The power pursuant to Regulation 49(3) of the General Regulations to request a person verify information in such manner as the delegate thinks fit.</p>	
r50(5)	<p>35. Representations</p> <p>35.1 The power pursuant to Regulation 50(5) of the General Regulations to, if the delegate considers that it would assist the delegate in making a decision on the application, allow a person:</p> <p>35.1.1 who has made a representation under Regulation 50(1) of the General Regulations in relation to development being assessed under Section 107 of the PDI Act; and</p> <p>35.1.2 who has indicated an interest in appearing before the delegate,</p> <p>an opportunity (at a time determined by the delegate) to appear personally or by representative before the delegate to be heard in support of the representation that has been made under Regulation 50(1) of the General</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	Regulations.	
r51(1)	<p>36. Response by Applicant</p> <p>36.1 The power pursuant to Regulation 51(1) of the General Regulations to allow a response to a representation by the applicant to be made within such longer period as the delegate may allow.</p>	
r57(4)(a)	<p>37. Notice of Decision (Section 126(1))</p> <p>37.1 The power pursuant to Regulation 57(4)(a) of the General Regulations to endorse a set of any approved plans and other relevant documentation with an appropriate form of authentication.</p>	
r60	<p>38. Consideration of Other Development Authorisations</p> <p>38.1 The power pursuant to Regulation 60 of the General Regulations, to, in deciding whether to grant a development authorisation, take into account any prior development authorisation that relates to the same proposed development under the PDI Act, and any conditions that apply in relation to that prior development authorisation.</p>	
r61(4)(c)	<p>39. Certificate of Independent Technical Expert in Certain Cases</p> <p>39.1 The power pursuant to Regulation 61(4)(c) of the General Regulations to form the opinion and be satisfied on the basis of advice received from the accreditation authority under the Planning, Development and Infrastructure (Accredited Professionals) Regulations 2019, a relevant professional</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	association, or another relevant registration or accreditation authority, that a person has engineering or other qualifications, qualify the person to act as a technical expert under this regulation.	
r63(1)	<p>40. Urgent Work</p> <p>40.1 The power pursuant to Regulation 63(1) of the General Regulations to,</p> <p>40.1.1 determine a telephone number determined for the purposes of Regulation 63(1)(a) of the General Regulations; and</p> <p>40.1.2 determine the email address for the purposes of Regulation 63(1)(b) of the General Regulations.</p>	
r63(2)	<p>40. Urgent Work</p> <p>40.2 The power pursuant to Regulation 63(2) of the General Regulations to, for the purposes of Section 135(2)(c) of the PDI Act, allow a longer period.</p>	
r63(3)	<p>40. Urgent Work</p> <p>40.3 The power pursuant to Regulation 63(3) of the General Regulations to, for the purposes of Section 135(2)(c) of the PDI Act, allow a longer period.</p>	
r65(1)	<p>41. Variation of Authorisation (Section 128)</p> <p>41.1 The power pursuant to Regulation 65(1) of the General Regulations to, for the purposes of Section 128(2)(b) of the PDI Act, if a person requests the</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	variation of a development authorisation previously given under the Act (including by seeking the variation of a condition imposed with respect to the development authorisation) to form the opinion and be satisfied that the variation is minor in nature, and approve the variation.	
r76(2)	<p>42. Advice from Commission</p> <p>42.1 The power pursuant to Regulation 76(2) of the General Regulations, if a report is not received from the Commission within 20 business days from the day on which the application is lodged under Regulation 29 of the General Regulations or within such longer period as the Commission may require by notice to the relevant authority, to presume that the Commission does not desire to make a report.</p>	
r78(3)	<p>43. Underground Mains Area</p> <p>43.1 The power pursuant to Regulation 78(3) of the General Regulations, if an application relates to a proposed development that involves the division of land within, or partly within, an underground mains area (even if the area is declared as such after the application is lodged with the relevant authority), to require, as a condition on its decision on the application, that any electricity mains be placed underground.</p>	
cl2(d)(ii)(B)	<p>44. Plans for Residential Alterations, Additions and New Dwellings</p> <p>44.1 The power pursuant to Clause 2(d)(ii)(B) of Schedule 8 of the General Regulations to form the belief that the allotment is, or may have been, subject to site contamination as a result of a previous use of the land or a previous</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	activity on the land or in the vicinity of the land.	
cl2(d)(ii)(D)	<p>44. Plans for Residential Alterations, Additions and New Dwellings</p> <p>44.2 The power pursuant to Clause 2(d)(ii)(D) of Schedule 8 of the General Regulations to be satisfied a site contamination audit report (within the meaning of the Environment Protection Act 1993) is not required.</p>	
cl4(3)	<p>45. Plans for Building Work</p> <p>45.1 The power pursuant to Clause 4(3) of Schedule 8 of the General Regulations, in relation to an application for building consent for development consisting of or involving an alteration to a building, if:</p> <p>45.1.1 the applicant is applying for a change in the classification of the building to a classification other than Class 10 under the Building Code; or</p> <p>45.1.2 the building was erected before 1 January 1974 and the applicant is applying for a classification other than Class 10 under the Building Code to be assigned to the building,</p> <p>to require the application to be accompanied by such details, particulars, plans, drawings, specifications and other documents (in addition to the other documents required to accompany the application) as the delegate reasonably requires to show that the entire building will, on completion of the building work, comply with the requirements of the PDI Act and the General Regulations for a building of the classification applied for or with so many of those requirements as will ensure that the building is safe and conforms to a</p>	

Planning, Development and Infrastructure (General) Regulations 2017		
Provision	Powers and Functions Delegated	Conditions and Limitations
	proper structural standard.	

Planning, Development and Infrastructure (Fees, Charges and Contributions) Regulations 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
r5(1)	<p>46. Calculation or Assessment of Fees</p> <p>46.1 The power pursuant to Regulation 5(1) of the PDI (Fees, Charges and Contributions) Regulations 2019 (the Fees Regulations) in relation to an application which is duly lodged with the council under a related set of regulations (including via the SA planning portal):</p> <p>46.1.1 to require the applicant to provide such information as the delegate may reasonably require to calculate any fee payable under the Fees Regulations or a related set of regulations; and</p> <p>46.1.2 to make any other determination for the purposes of the Fees Regulations or a related set of regulations (even if the assessment panel is not a relevant authority).</p>	
r5(2)	<p>46. Calculation or Assessment of Fees</p> <p>46.2 The power pursuant to Regulation 5(2) of the Fees Regulations, if the delegate is acting under Regulation 5(1) of the Fees Regulations, or as the</p>	

Planning, Development and Infrastructure (Fees, Charges and Contributions) Regulations 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
	delegate of a relevant authority, believes that any information provided by an applicant is incomplete or inaccurate, to calculate any fee on the basis of estimates made by the delegate.	
r5(3)	<p>46. Calculation or Assessment of Fees</p> <p>46.3 The power pursuant to Regulation 5(3) of the Fees Regulations to, at any time, and despite an earlier calculation or acceptance of an amount in respect of the fee, reassess a fee payable under the Fees Regulations or a related set of regulations.</p>	
r7	<p>47. Waiver or Refund of Fee</p> <p>47.1 The power pursuant to Regulation 7 of the Fees Regulations to, as the delegate considers appropriate to do so:</p> <p>47.1.1 waive the payment of the fee, or the payment of part of the fee; or</p> <p>47.1.2 refund the whole or a part of the fee.</p>	

Planning and Design Code		
Provision	Powers and Functions Delegated	Conditions and Limitations
PD Code	48. Procedural Matter	

Planning and Design Code		
Provision	Powers and Functions Delegated	Conditions and Limitations
	48.1 The power pursuant to and in accordance with the Planning and Design Code (the PD Code) to form the opinion development is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development and therefore is excluded from the operation of Sections 107(3) and (4) of the PDI Act.	
PD Code	49. Procedural Referrals 49.1 The power pursuant to and in accordance with the PD Code to form the opinion development is minor in nature and would not warrant a referral when considering the purpose of the referral.	
PD Code	49. Procedural Referrals 49.2 The power pursuant to and in accordance with the PD Code to form the opinion and deem: 49.2.1 alteration to an existing access or public road junction; 49.2.2 development that changes the nature of vehicular movements or increases the number or frequency of movements through an existing access, to be minor.	
PD Code	49. Procedural Referrals 49.3 The power pursuant to and in accordance with the PD Code to form the	

Planning and Design Code		
Provision	Powers and Functions Delegated	Conditions and Limitations
	opinion an alteration or extension of an existing dwelling is minor.	
PD Code	<p>49. Procedural Referrals</p> <p>49.4 The power pursuant to and in accordance with the PD Code to form the opinion development is minor in nature or like for like maintenance and would not warrant a referral when considering the purpose of the referral.</p>	
Part 9.4	<p>50. Referral Body: Minister Responsible for the Administration of the Aquaculture Act 2001</p> <p>50.1 The power pursuant to and in accordance with Part 9.4 of the PD Code to form the opinion that aquaculture development which involves an alteration to an existing or approved development is minor in nature.</p>	

State Planning Commission Practice Direction - 3 (Notification of Performance Assessed Development Applications) 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
cl6(4)	<p>51. Responsibility to Undertake Notification</p> <p>51.1 The power pursuant to clause 6(4) of the State Planning Commission Practice Direction 3 (Notification of Performance Assessed Development</p>	

State Planning Commission Practice Direction - 3 (Notification of Performance Assessed Development Applications) 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
	Applications) 2019 (PD3), should the applicant request the relevant authority to place the notice on the land and pay the relevant fee, to (either personally or by engagement of a contractor) give notice of the application to members of the public by notice placed on the relevant land in accordance with Section 107(3)(a)(ii) of the PDI Act.	
cl8	<p>52. Preparing for Notification</p> <p>52.1 The power pursuant to clause 8 of PD3, if the applicant has confirmed they accept responsibility to place a notice on the land as per clause 6(3)(a) of PD3, to, at least 4 business days prior to the commencement of the notification period:</p> <p>52.1.1 give notice of the anticipated commencement date and of the notification period to the applicant; and</p> <p>52.1.2 provide the applicant with a copy of the content of the notice to be placed on the relevant land in PDF format; and</p> <p>52.1.3 advise the applicant of the position and number of notice(s) to be erected on the land in accordance with clause 10 of PD3.</p>	
cl10(2)	<p>53. Notice on Land</p> <p>53.1 The power pursuant to clause 10(2) of PD3, in relation to clause 10(2) of PD3, to determine the most appropriate position for the notice on the land in order to provide for maximum visibility from a public road, and in cases where the relevant land has more than 1 frontage to a public road, to determine that</p>	

State Planning Commission Practice Direction - 3 (Notification of Performance Assessed Development Applications) 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
	more than 1 notice must be erected on each of the public road frontages to ensure that notice of the development is reasonably apparent to members of the public.	

State Planning Commission Practice Direction (Appointment of Additional Members to Assessment Panel) 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
cl4(6)	<p>54. Qualifications and Experience of Additional members</p> <p>54.1 The power pursuant to clause 4(6) of the State Planning Commission Practice Direction (Appointment of Additional Members to Assessment Panel) 2019 (PD5) where the delegate forms the view that additional expert advice is required for an application which requires assessment of a matter listed in Column 1 of PD5, to engage an additional assessment panel member provided that person maintains both the minimum experience detailed in Column 2 of PD5, as well as the minimum qualification listed in Column 3 of PD5.</p>	
cl4(7)	<p>54. Qualifications and Experience of Additional members</p> <p>54.2 The power pursuant to clause 4(7) of PD5 to be satisfied of the minimum experience and qualifications of an additional assessment panel member.</p>	

State Planning Commission Practice Direction (Scheme to Avoid Conflicting Regimens) 2019		
Provision	Powers and Functions Delegated	Conditions and Limitations
cl5(1)	<p>55. Scheme Provisions</p> <p>55.1 The power pursuant to clause 5(1) of the State Planning Commission Practice Direction (Scheme to Avoid Conflicting Regimens) 2019 (PD6), to in undertaking a planning assessment or imposing controls, including through the imposition of conditions of planning consent, ensure that such assessment or controls do not conflict or duplicate matters dealt with or addressed under licencing or regulatory regimens under another Act.</p>	
cl5(3)	<p>55. Scheme Provisions</p> <p>55.2 The power pursuant to clause 5(3) of PD6 to, where the delegate is uncertain whether a matter conflicts with, or duplicates a matter dealt with under a licencing or regulatory regime under another Act, to seek the advice of that authority or agency.</p>	