## 9 June 2021 AGENDA – 8.2

Applicant: GE Hughes Construction CoLandowner: Hughes Properties Pty Ltd		
Agent: Peter Meline	Originating Officer: Melanie Scott	
Development Application:	19/532/473	
<b>Application Description:</b> Change of use to include a transport depot and extend an exvehicle hardstand, retaining walls, combined fence and retaining wall (maximum height 3 me 2 x 28000 litre fuel storage pods, storage building, outbuilding for truck wash equipmen 20000 litre water tanks & associated earthworks		
Subject Land: Lot:3 Sec: P5140 FP:125204 CT: 5220/438  General Location: 4 Brettig Road Lobethal  Attachment – Locality Plan		
Development Plan Consolidated : 8 August 2019 Maps AdHi/12/55	Zones/Policy Areas: Light Industry Zone - Light Industry (Lobethal North) Policy Area, Watershed (Primary Production) Zone - Onkaparinga Valley Policy Area	
Form of Development: Merit Site Area: 12.5 hectares		
Public Notice Category: Category 2 Merit	Representations Received: 3	
	Representations to be Heard: 2	

#### 1. EXECUTIVE SUMMARY

The purpose of this application is to further develop an existing industrial site, owned and operated by Hughes Construction at 4 Brettig Road Lobethal, immediately north of the township boundary of Lobethal.

The proposal seeks to establish an extension to its existing hard-stand area, to be utilised for the parking of up to 76 heavy single unit, articulated/ combination trucks and earthmoving machinery, as an extension of the existing land use on the subject land, and the establishment of new buildings and structures including:

- A proposed truck wash and storage building and associated water tanks
- Covered canopy structure (storage bays)
- Two fuel pods (containerised commercial fuel storage and dispensing units)
- Combined fence and retaining wall structure
- Associated earthworks and drainage works.

The subject land is located within the Light Industry Zone and within the Light Industry (Lobethal North) Policy Area as well as the Watershed (Primary Production) Zone - Onkaparinga Valley Policy Area. The proposal is entirely within the Light Industry Zone - Light Industry (Lobethal North) Policy Area. No works are proposed within the Watershed (Primary Production) Zoned portion of the subject land.

The proposal is determined to be a merit Category 2 form of development as the location of the proposed development is immediately adjacent to land within a different zone.

The application has undertaken statutory public notification processes and received three (3) representations of which two (2) are in opposition and the other provided general advisory comments from the electricity network authority, SA Power Networks, during the public notification period.

2

As per the Adelaide Hills Council Instrument of delegation made pursuant to Section 102 (1) of the Planning, Development and Infrastructure Act 2016, the CAP is the relevant authority for, 'Development applications for development where there are opposing representations which have requested to be heard in response to a Category 2 or 3 public notifications'.

The main issues relating to the proposal include neighbouring landowners' concerns regarding stormwater and mobilised pollutants, existing and increased light-spill, traffic movement, associated noise and pollution concerns, proximity to dwellings and privacy to adjoining land. Development Plan policy implications include building scale, height and bulk, and visual amenity from nearby points of public outlook including Kenton Valley Road.

In consideration of all the information presented, and following an assessment against the *Light Industry Zone*, *Light Industry (Lobethal North) Policy Area* and Council Wide provisions within the Adelaide Hills Development Plan, staff are recommending that the proposal be **GRANTED** Development Plan Consent, subject to conditions.

#### 2. DESCRIPTION OF THE PROPOSAL

The proposal comprises the following elements:

#### Truck wash and storage building (and associated water tanks)

The proposed truck wash and storage building is 36 metres in length and 17 metres in width (including the water tanks for stormwater collection / recycled washing system water supply). The maximum proposed height is 7.2 metres roof ridge height above natural ground level) with 'leanto sides to the main shed portion of 5.3 metres wall height (connection at western side wall / roof line) and 3 metres wall height (connection at 4 metres height on eastern side wall).

The proposed building is to be upon a prepared pad on a gently sloping site with a maximum of approx. 0.4 metres fill at the southern portion of the building's footprint.

The two associated tanks are 3.6 metres diameter x 2.5 metres total height of approximately 22,000 litres each are situated in the 'inset' of the eastern side wall of the building. The eastern side of the building is not viewed from Kenton Valley Road to the west.

The proposed truck wash and storage building is to be situated approximately 119 metres from the Kenton Valley Road frontage, and is approximately 36 metres from the nearest part of the southern property boundary. The building is in excess of 270 metres from the Brettig Road frontage (primary frontage and access) and in the order of 220 metres from the eastern property boundary.

The proposed building maintains substantial separation distances from the existing and proposed buildings and structures situated on the land.

The proposed building is to be finished in Colorbond © metal deck wall and roof sheeting in 'pale eucalypt' and the same finish is also proposed for the tanks.

#### Covered canopy structure (implement storage bays)

The proposed covered canopy structure has a length of 29 metres x 9.46 metres width x 5.1 metres maximum skillion roof height above natural ground level.

The proposed building is to be upon a prepared pad excavated up to 2.8 metres deep into the site, with battered banks at the southern portion of the building's footprint.

The proposed building is to be situated approximately 92 metres from the Kenton Valley Road frontage, and approximately 183 metres from the nearest part of the southern property boundary. The building is in excess of 150 metres from the Brettig Road frontage (primary frontage and access) and in the order of 240 metres from the eastern property boundary.

The proposed building is to be finished in Colorbond © metal deck wall and roof sheeting in 'pale eucalypt'.

#### Two fuel pods (containerised commercial fuel storage and dispensing units)

The proposed fuel pods take the form of a '20 ft. shipping container', 6.05 metres length x 2.28 metres width x 2.89 metres height to be set upon elevated pads constructed on the site to a height of approximately 0.2 to 0.6 metres above natural ground level. It is understood the fuel pods are self bunded.

The proposed fuel pods are to be situated approximately 100 metres from the Kenton Valley Road frontage, and approximately 155 metres from the nearest part of the southern property boundary (approximately 80 metres north of the proposed truck wash building and 18 metres south of the covered canopy) and in excess of 230 metres from the eastern property boundary.

The finish of the proposed fuel pods is white.

#### Retaining walls

Concrete block retaining walls are to be installed along 75 metres of the southern property boundary with a height of 1 metre above ground level, establishing the southern edge and the finished level of the proposed hardstand area. It is proposed to have a 1.5 metre high Colorbond © fence in "pale eucalypt" atop this retaining wall as a result of negotiations with a representor.

#### Associated earthworks and drainage works.

Earthworks include bunds, drainage swales and stormwater detention and filtration channel comprised of 1 metre concrete blocks set into the ground, located in the south-west corner of the site to arrest any sediment mobilised in stormwater run-off from the hardstand area.

No vegetation is proposed to be removed from the site. The truck wash building maintains a setback of 10 metres from the nearby watercourse to the east which is to remain unaltered.

The proposed plans are included as **Attachment – Proposal Plans** with other information included as **Attachment – Application Information** and **Attachment – Applicant's Professional Reports**.

#### 3. BACKGROUND AND HISTORY

16/205	Storage building, retaining wall (max height	Development Approval 10
	3m) and associated earthworks	August 2016
15/340	Non illuminated advertisements on face of	Development Approval 10
	building	September 2015
15/29	Variation to development authorisation 473/75/13 for increased truck parking area and include staff parking and storage of plant/equipment in conjunction with existing light industry	Development Approval 29 January 2015

13/697	Two storey alterations and additions to existing office building including upper level balcony	Development Approval 6 June 2014
13/75	Change of use from grazing to truck with trailer parking (maximum of 14 trucks and trailers) and associated earthworks in conjunction with existing light industry	Development Approval 5 March 2013
11/591	Staged development-STAGE 1 Storage shed (24m x 15m x 4.240m height) storage shed (24m x 15m x 4.240m height) including 2 x 27,000 litre water storage tanks, associated earth works and landscaping, extension to vehicle storage shed (7.765m x 27.4m x 4.3m maximum wall height) storage (21.175m x 9.895m x 3.9m maximum wall height) & the removal of one (1) significant tree- Pinus Radiata (Monteray Pine) STAGE 2 - General industry building with mezzanine floor (42.3m x 39.8m x 10.9m maximum wall height) including 2 x 27,000 litre water storage tanks and associated earthworks and landscaping.	Development Approval 28 October 2011
11/41		
10/1268	10/1268 Significant tree removal	
10/1132	10/1132 Demolition of an existing derelict cottage and an outbuilding	
10/947  Construction of a new workshop and a new farm building and associated earthworks to be used in conjunction with exiting general industry and farm uses, warehouse and truck storage		Development Approval 26 October 2011
09/693 4 x advertising displays		Development Approval 10 August 2009
07/1030	07/1030 Alteration and additions to existing office/warehouse	
07/697		
06/61	Retaining wall and associated landscaping	Unknown - no record of when this was approved
03/952	Implement shed	Unknown - no record of when this was approved
03/880	Signage	Unknown - no record of when this was approved
01/336 Work depot and offices		Unknown - no record of when this was approved

5

#### 4. REFERRAL RESPONSES

#### **Mandatory Referrals**

The proposed development is not subject to any mandatory referrals pursuant to Schedule 8 of the Development Regulations 2008, specifically noting that:

- (i) The bulk storage of petroleum product on the site falls well below the prescribed volume to require referral to the Environment Protection Authority in accordance with Schedule 21 of the Development Regulations, as the threshold for petroleum product storage is 100 cubic metres (or 100,000 Litres).
- (ii) The proposal does not propose any vehicular access directly to Kenton Valley Road (DIT controlled Secondary Arterial Road) and accordingly did not require a referral to the Minister for Transport (DIT).

#### **Internal Referrals**

Council Engineering team have reviewed the proposal and provided the following requirements:

- (i) That scour protection on the eastern batter of the hardstand will be required to resist erosion by floodwaters from the adjacent eastern watercourse during 1% AEP events.
- (ii) That ponding water in the south east corner will scour between the concrete blockwork if gaps are not sealed. Ensuring no gaps between blocks or sealing is crucial to avoid surcharge, scouring and discharge of sediment laden water.
- (iii) Detailed design / engineering regarding the overflow mechanism from the bio-filtration area via the 6m weir is required to confirm the design rate of discharge to the local stormwater systems.

In respect of the above matters, it is considered appropriate to either condition these requirements or make it the subject of a *reserved* matter pursuant to Section 33 (3) of the Act, as this requires technical detailed and design engineering being provided regarding the blockwork retaining wall, scour protection measures, and bunding and detention/discharge weir design (refer to *Condition 1*).

The extensive use of concrete block walls has been raised as a matter of aesthetic consideration as the blockwork structures are typically not aesthetically pleasing. The response to representations proposes a 3 metres combined fence and retaining wall.

The above responses are included as **Attachment – Referral Responses**.

#### 5. CONSULTATION

The application was categorised as a Category 2 form of development in accordance with Section 38(2)(a) of the *Development Act (1993)* and Schedule 9 of the *Development Regulations (2008)*, requiring formal public notification.

Three (3) representations were received as a result of the public notification process, of which two (2) are in opposition and the other providing general advisory comments from the electricity network authority, SA Power Networks.

Two representations were received from adjacent residential properties.

The following representors wish to be heard:

Name of Representor	Representor's Property Address	Nominated Speaker
Dianne Barrett	20 Kenton Valley Road, Lobethal.	Indicated desire to appear in person.
Mark & Helen Elsworthy	15A Kenton Valley Road, Lobethal.	Indicated a desire to be heard in support of representation but does not wish to attend or appear in person.
SA Power Networks	25 Kenton Valley Road, Lobethal (substation) and network services crossing the subject land.	Subject to the relevant matters being taken into account by Council, the Landowner and Developer, SA Power Networks does not consider it necessary to appear, or be represented, before Council in support of this submission.

The issues contained in the representations can be briefly summarised as follows:

- Stormwater and mobilised pollutants
- Existing and increased light-spill
- Traffic movement / associated noise and pollution concerns
- Proximity to dwellings
- Privacy to adjoining land

The applicant's response to representations has addressed the following:

#### Privacy

The representor adjoining the subject land's southern boundary has expressed concern over the potential lack of privacy and has requested a 3m high fence located on concrete blocks along the Southern boundary of the allotment.

The applicant has proposed a combined 1.5 metre block wall with a 1.5 metre Colorbond © fence on top of this which the representor has accepted addresses her concerns. Note the retaining will be two one metre concrete blocks with the first buried 0.5 metres below ground.

#### Truck Movements, Noise & Pollution

Concerns have been expressed regarding the noise of the truck wash and increase in noise due to an increase in vehicle movements.

The applicant has indicated that 'the proposed truck wash will be located within a shed, despite not needing to be, and the majority of usage will be between the hours of 4pm and 7pm on weekdays. However, the applicant notes that the company requires full flexibility of truck washing times to be able to operate the business effectively', and that 'the noise emitted from the proposal is not considered to be significant and should not cause unreasonable interference with the adjoining and adjacent dwellings', citing PDC 8 of the Council Wide Provisions – Interface Between Land Uses – Noise Generating Activities. Hughes Construction has an existing engine vehicle hot wash on site with an existing agreement with SA Water regarding the trade waste produced by this. These activities are in existence with existing vehicle maintenance activities on site. The new truck wash is proposed as a preliminary clean to enable accurate observation of vehicles as part of ongoing maintenance. No noise documentation has been provided with claims the truck wash company has never been asked to produce these in the past. It is also claimed that the truck wash is usually undertaken outside a building. As the proposal is to wash approximately three trucks per day which means the truck wash would be operational for approximately fifteen minutes in any twenty four hours this is considered acceptable. Documentation has been provided which demonstrates the amount of water, cleaning solution and waste water used for each vehicle wash (refer to the attachments for more details in this regard). Should the proposal be amended at some time in the future to accommodate more trucks, noise emissions may need to be examined more closely.

In respect to the emissions from trucks, the applicant's response has indicated that 80% of the vehicles currently utilised comply with modern Euro 6 Emission Standard and the remaining 20% comply with Euro 5 Emission Standard. Additionally, the vehicles utilise retarder braking systems, not engine brakes, ensuring no engine braking noise is created in this regard.

#### Light spill

The site and buildings exhibit flood lighting, predominantly in the north-western quadrant of the land. The applicant's response provides that, 'proposed lighting will be designed to minimise light spill off the site. It is considered that the proposed fencing as specified above will aid in minimising light pollution into 20 Kenton Valley Road', citing accordance with Council Wide Industrial Development PDC 6.

#### **Mobilised Pollutants**

The applicant has advised that the existing *silt fence* installed was for sediment control as requested and discussed with the Council previously.

Following an anonymous complaint, the EPA conducted an inspection of the site and found a small film of material on a puddle which was 100 metres from the winter creek. The EPA advised that they were satisfied that no other works were required after inspecting the site and complex.

The proposed fuel pods are self-bunded and the proposed stormwater management for the site directs all overland water flows from the site into the proposed stormwater catchment and treatment area in the south west portion of the site. The proposed stormwater catchment and treatment area is oversized for the proposed works, having been designed to cater for possible future developments on the undeveloped portion of the Light Industry zoned land. The proposed truck wash facility contains water recycling and cleansing methods, with any waste water being

7

8

disposed to SA Water sewer in accordance with a trade waste agreement between the applicant and SA Water.

#### **Traffic movements**

Currently, all vehicles enter and leave the site via Brettig Road and there is no proposal for trucks to use Kenton Valley Road to access the site. Recommended Condition 9 further ensures that all movement to and from the site is in accordance with the proposal.

#### **Proximity to dwellings**

The proposed development is an extension of an existing, lawful development, located within the Light Industry Zone. The applicant 's response cites the existing land use and the expansion of operations being significant to local business and economy, and provides that, 'the form of development is considered appropriate for this zoning and all necessary measures will be taken to preserve the amenity of the neighbouring properties'. It is noted that previous approvals recorded no conditions with regards to hours of operation. The original approval for truck parking from 2013 was for 14 vehicles. There was an extension to the area in 2015 which enabled 25 vehicles to be parked on site. This proposal is for 50 vehicles and includes staff parking for 50 persons.

Given the Industrial nature of the zone and the relationship of adjacent dwellings to the proposed parking/hardstand and truck wash (120 metres from the nearest residence) and the identified conventional hours of operation, the response is considered reasonable. A condition has been recommended regarding hours of operation of the hardstand and associated truck wash (refer to Condition 5).

A copy of the submission is included as **Attachment – Representations** and the response is provided in **Attachment – Applicant's Response to Representations.** A copy of the plans which were provided for notification are included as **Attachment – Publically Notified Plans ONLY INCLUDE IF DIFFERENT TO FINAL PLANS.** 

#### 6. PLANNING & TECHNICAL CONSIDERATIONS

This application has been evaluated in accordance with the following matters:

#### i. The Site's Physical Characteristics:

The subject land is in the order of 12 hectares of which approximately 40% is utilised for the commercial activity. The eastern half particularly, which lies within the Watershed (Primary Production) Zone is retained for grazing use.

The site is expansive, yet the requirements for the operation's vehicle storage necessarily utilises a large proportion of the site given the nature of heavy vehicles, including semi-trailer and dual-trailer combinations as well as the manoeuvring / circulation areas. The site slopes from high in the north to low in the south. The slope of the land was enough to cause some work health and safety concerns for staff accessing vehicles which has resulted in the proposed filling of land to decrease the slope.

The site was impacted by the Cudlee Creek Bushfire with the main impact being on existing landscaping on the western edge of the existing hardstand area. The applicant has also worked with Council engineering and arboricultural staff to ensure that the existing access point on Brettig Road meets expected safety standards. This

involved the recent removal of a large Council Eucalpyt tree which was causing sight line issues. The tree also had its health impacted by installation of Council stormwater infrastructure. Survival of the bushfire event and the access works demonstrate the existing site is generally well kept and orderly in its layout and parking arrangements.

There is limited flood mapping in the south eastern portion of the site adjacent the winter creek which flows across this portion of the land. The applicant has provided a consultant's report which indicated the proposed works will not impact the creek, but more particularly nor upstream or downstream sites.

#### ii. The Surrounding Area

The surrounding locality exhibits a closely interfaced arrangement of land use zones which have dissimilar planning objectives and land uses established.

The topography of land in the locality results in the proposed and existing development to be prominent within the landscape when travelling along Kenton Valley Road, rather than being concealed. In this respect, aesthetic and operational impacts are likely to be recognised well beyond the site boundaries.

The site is bounded to the north and east by primary production land. To the south the neighbouring land is dual zoned being both Township and Watershed Primary Production. To the west there are large light industry uses and some larger Township zoned residential parcels.

#### iii. Development Plan Policy considerations

Light Industry Zone & Policy Area provisions

The subject land lies within the Light Industry Zone and the Light Industry (Lobethal North) policy Area applies to this assessment. The zone and policy area provisions seek to enable a range of light industrial land uses which will be protected from intrusion of residential and other conflicting land uses, enhance the aesthetic characteristics of the zone and ensure the nearby areas within the Watershed (Primary Production) zone areas are protected from pollution as a priority.

The following are considered to be the relevant Policy Area provisions:

Objectives: 1, 2 & 3

Desired Character Statement: (all) PDCs: 1, 2, 3, 5, 6 & 7

The following are considered to be the relevant Zone provisions:

Objectives: 1

PDCs: 1,3&4

The relevant zone and policy area provisions illustrate the intention for the zone to support appropriate forms of industrial development without encroachment of incompatible uses. The zone and policy area PDCs 1 both indicate envisaged forms of development including light industry and service industry. The broad definitions of industrial development in Schedule 1 of the Development Regulations 2008, provide an indication of the scale and intensity of appropriate forms of industry.

#### Schedule 1 (interpretation) provides that:

**light industry** means an industry <u>where the process carried on</u>, the materials <u>and</u> <u>machinery used</u>, the transport of materials, goods or commodities to and from the land on or in which (wholly or in part) the industry is conducted and the scale of the industry <u>does not</u>—

- (a) <u>detrimentally affect the amenity of the locality or the amenity within the vicinity</u> of the locality <u>by reason of the establishment or the bulk of any building or structure</u>, the emission of <u>noise</u>, <u>vibration</u>, <u>smell</u>, fumes, <u>smoke</u>, vapour, steam, soot, ash, <u>dust</u>, waste water, waste products, grit, oil, <u>spilled light</u>, or otherwise howsoever; or
- (b) directly or indirectly, cause dangerous or congested traffic conditions in any nearby road;

#### And:

#### service industry means a light industry in which—

- (a) goods manufactured on the site (but not any other goods) are sold or offered for sale to the public from the site; or
- (b) goods (other than vehicles or vehicle parts) are serviced, repaired or restored, and the site occupied for such sale, service, repair or restoration (but not manufacture) does not exceed 200 square metres;

The proposal does not fall within the definition of *service industry* but does accord with the definition of *light industry*, being an extension of such activities already established upon the land, including accessory elements, such as storage of fuel & washing of vehicles which is allotted to the operation and is comprehensively a part of the light industry activities carried on upon the land.

In isolation, the parking of trucks and trailers (but not necessarily including storage of earthmoving machinery or any of the other existing elements of the business) with associated truck wash and fuel provisions could be defined as a road transport depot. This use is neither complying nor non-complying in the zone. However, the proposal must be assessed upon the whole of the proposal and its land use.

It is acknowledged that some of the listed impacts within the nature of light industry activities may be relevant considerations for the proposed development.

#### Accordance with Zone

The light industry zone seeks to become 'intensely developed', with 'low impact' industrial activities and seeks to achieve a 'high quality, landscaped industrial area' aesthetic.

Currently, the site is not intensively developed. However, the proposal seeks to establish a far more complete use of the subject land for what can be described as low intensity use, associated with the parking and maintenance of the heavy vehicles associated with the existing civil and construction activities carried out by the business, both on and off the land.

The impacts associated with the activities on balance, are considered to be relatively low for the proposed hard-stand area, which will involve the infrequent movement of trucks and trailers from the southern portion of the land on commencement and conclusion (typically) of work. It is noted that more intensive movements are likely at the northern end of the property and more so associated with loading, unloading and movement of machinery and construction materials.

The associated truck washing and storage building and apparatus is also considered on balance to present low level impacts. Activities will necessarily involve the movement of trucks through the truck wash apparatus, therefore traffic movements, and some associated noise from the washing, pumps etc. will exist.

Comparable with other forms of light industry, or warehousing, these are considered low level impacts, particularly at the southern portion of the property interfacing with nearby adjoining residential land uses.

Landscaping is proposed to provide some soft visual buffering and attenuation of some noise and light spill impacts. It is considered critical to the performance of the proposal against the objectives and desired character of the zone, particularly Policy Area Objective 2, for the proposed development to achieve 'a standard which presents an attractive town approach' and as the zone forms a part of visitors' approach to Lobethal from the north, …'as a gateway to the town it is important that development in this area enhances the area's amenity. The applicant was impacted by the Cudlee Creek Bushfire, in particular the landscaping on site. This proposal seeks to provide more extensive landscaping than that currently on site and by using locally sourced and recommended bushfire appropriate plantings.

#### Form of Development

As foreshadowed previously, the proposed development <u>in isolation</u>, is largely representative of a *road transport depot*, which itself is neither 'complying ' nor 'noncomplying.' It is therefore a merit form of development in the zone. However, associated with the existing activities carried on upon the subject land, the total development is considered to adequately satisfy the appropriate use for the zone as *light industry* activities.

#### Appropriateness of Proposal in Locality

Subject to inclusion of landscape screening of the site which would:

- (i) greatly improve the aesthetics of the northern approach to Lobethal, and
- (ii) greatly enhance the interface with adjoining and adjacent residential occupants by assisting in mitigating dust, light-spill and noise impacts,

the proposal is considered to continue the acceptable land use, which is envisaged in the zone and across the locality.

The zone provisions express that the Light industry Zone, which is a relatively constrained area, and which must provide for the total of the district's current and future industrial activities, is not to be prejudiced by residential or other incompatible uses. Accordingly, ensuring that appropriate measures are incorporated at the interface with adjoining zones and land uses, particularly residential uses which are sensitive to the aforementioned impacts, is critical. The proposed fence and retaining

wall structure on the southern boundary and the landscaping proposed on the western elevation of the area of fill are considered to address these zone provisions.

#### b) Council Wide provisions

The Council Wide provisions of relevance to this proposal seek to reinforce appropriate built form and design, safety of life and property from natural hazards, in this instance principally bushfire, and appropriate industrial development to contribute positively to the surrounding natural and built environment. The fine balance of these matters is critical to the achievement of the Development Plan intent.

The following are considered to be the relevant Council Wide provisions:

#### <u>Design and Appearance</u>

Objective: 1

PDCs: 1, 3 & 27

The appearance of the buildings proposed in this application are considered to be acceptable in the context of the site and zone. Buildings are set back substantially from the Kenton Valley Road frontage of the site and also incorporate muted colours and non-reflective finishes to external surfaces of the buildings.

The proposed fuel storage pods are white. It is considered appropriate that the pods are also painted in colours and finishes consistent with the proposed buildings, i.e. equivalent of Colorbond © 'pale eucalypt' in order to be consistent with the existing buildings and harmonise with the natural surrounding environment (recommended *Condition 3* regarding the painting of the fuel pods).

As foreshadowed previously, landscaping is considered necessary to provide some soft visual buffering which will contribute to more appropriate aesthetics of the site, zone and the northern approach to Lobethal, as well as attenuation of dust, noise & light spill impacts and is included on the proposed approval plans (refer to recommended *Condition 8*).

#### <u>Hazards</u>

Objectives: 1 & 5 PDCs: 1, 4 & 8

The proposal is considered to be reasonably invulnerable to bushfire risk particularly due to the surrounding landscape and sparse distribution of vegetation generally about the site.

Landscaping, which has been discussed previously for the benefit of visual amenity and appearance of the land and buildings, could present an increase in risk of bushfire. The selection of appropriate fire resistant or suppressant species has also been discussed with the applicant in respect of providing an appropriate landscape buffer without accentuating bushfire risks.

The land has a seasonal watercourse which traverses the land, coming in to close proximity with the proposed truck wash building. This watercourse is partially flood mapped. The applicant has provided a professional report which provides recommendations to ensure that the proposal will not impact on upstream and downstream properties. Some stabilisation is considered necessary (Council Engineering) to ensure that the eastern side of the proposed truck wash building and hard-stand area is protected from seasonal flood waters and inundation and scouring or undermining of the site. This information will be part of the proposed reserved matter in *Condition 1* with regards to a detailed civil design for the site.

During assessment of this proposal and review of previous applications it became apparent some previous stormwater infrastructure may not be operational. Significant infrastructure is proposed to capture and filter stormwater flows from the proposed hard-stand pad, and redirect that stormwater surcharge to the drainage line adjacent to the western boundary (Kenton Valley Road frontage) of the land. The proposed stormwater infrastructure has been designed with capacity for future development on the vacant portions of the site and has been considered by Council engineering staff as adequate.

On balance the proposal is not considered to be at risk of fire or flood / inundation hazards and is also considered to adequately address the risks emanating form or existing upon the land.

#### **Industrial Development**

Objectives: 3, 4 & 6 PDCs: 2, 3, 6 & 7

The proposed development is considered to represent an appropriate extension / expansion of the appropriate existing land uses and development on the site.

The proposal will result in impacts particularly to the southern adjoining residence and occupiers. However, the inclusion of features such as stormwater runoff control, a combined fence and retaining wall structure and landscaping, will greatly improve the interface between the light industrial land uses and the adjoining residential developments and enhance the residential occupants' amenity.

Interface between Land Uses

Objectives: 1 & 3 PDCs: 1 & 2

As discussed in detail previously in this report, the provision of a fence is necessary to improve the interface between the light industrial land uses and the adjoining and adjacent residential developments to enhance the residential occupants' amenity. Landscaping for the southern boundary was originally proposed but has been removed from the proposal due to potential ongoing management issues.

The proposal will undoubtedly result in impacts particularly to the southern adjoining residence and occupiers. However, the activities which are to occur on the land are considered to be reasonably low impact, involving infrequent traffic movements of

trucks departing and returning to the compound, at the commencement and conclusion of works, and the washing and maintenance of the vehicles. Where there are zones abutting other zones, interface issues are likely to arise. On balance the extension of the existing uses on the site to the proposed portion of the land being mainly the truck parking are considered of lower impact than light industry uses.

The impacts are not considered to be excessive or unreasonable acknowledging the intended land uses to be established within the zone and the protection that the Light Industry Zone is to be afforded in terms of avoidance of incompatible uses within the zone, and the appropriate measures required to be undertaken at the interface of zones.

#### Landscaping Fences and Walls

Objectives: 1 & 2 PDCs: 1 & 2

Landscaping has been addressed in detail throughout this report, relevant to assessment of the proposal against the Light Industry Zone, Policy Area and Council Wide provisions. This is also the subject of the representation made during Public Notification processes.

The representor from the adjoining land to the south of the subject land expressed concern over the potential lack of privacy and has requested a 3m high fence located on concrete blocks along the southern boundary of the allotment. The applicant has proposed a combined fence and retaining structure to a height of 3 metres which is considered to assist in ameliorating concerns for land in the residential zone to the south of the subject land.

The fence is to be attached to the vertical face of the concrete blockwork (in order to address the aesthetics of the blockwork) and extend from ground level at the base of the blockwork, and extend a maximum of 4 metres vertically (not more than 2.4 metres above the finished horizontal surface of the blockwork) at its western end. It is also stepped up the hill along the boundary with the southern neighbour to form a satisfactory privacy fence.

The western boundary, or area proximate to the boundary of the proposed hardstand, will also have a compact landscaped buffer. This buffer will comprise a variety of appropriate native species of compact trees and shrubs to attenuate the aforementioned potential nuisances emanating from the site (towards the other nearby residential land uses on the opposite side of Kenton Valley Road), and will provide a vastly improved aesthetic outlook over the site from areas of public outlook, particularly from Kenton Valley Road.

#### 7. SUMMARY & CONCLUSION

The proposal assessed against the provisions of the Adelaide Hills Development Plan, Consolidated 8 August 2019, is considered to demonstrate adequate merit insofar that it has the potential to vastly improve upon the existing form and appearance of the subject land, and would visually contain the activities carried out upon the land.

The proposal is located within the Light Industry Zone and Policy Area which is surrounded by a rural/semi-rural environment. Buildings are of an acceptable standard of design and appearance relative to the industrial nature of the development and is not considered to be aesthetically overwhelming within the locality.

The proposed development neither establishes any unreasonable risk or susceptibility to bushfire and will not propagate or perpetuate any additional risk to the environment, including watercourses and stormwater drainage.

The proposal is sufficiently consistent with the relevant provisions of the Development Plan, and it is considered the proposal is not seriously at variance with the Development Plan. In the view of staff, the proposal has sufficient merit to warrant consent. Staff therefore recommend that Development Plan Consent be **GRANTED**, subject to conditions.

#### 8. RECOMMENDATION

That the Council Assessment Panel considers that the proposal is not seriously at variance with the relevant provisions of the Adelaide Hills Council Development Plan, and GRANTS Development Plan Consent to Development Application 19/532/473 by GE Hughes Construction Co for Change of use to include a transport depot and extend an existing vehicle hardstand, retaining walls, 2 x 28000 litre fuel storage pods, storage building, outbuilding for truck wash equipment, 2 x 20000 litre water tanks & associated earthworks at 4 Brettig Road Lobethal subject to the following conditions:

#### (1) Reserved Matter

The applicant shall prepare a technical detail and design engineering plan regarding the blockwork retaining wall, scour protection measures, bunding and the proposed detention / discharge weir design for approval by Council engineering staff.

The works contained in the approved detailed engineering design shall be implemented prior to occupation of the hardstand area and construction commencing for the proposed truck wash vehicle.

#### (2) Development In Accordance With The Plans

The development herein approved shall be undertaken in accordance with the following plans, details and written submissions accompanying the application, unless varied by a separate condition:

- Designing Places Architects / Hughes Construction Co plans, PA01 as amended 30 April 2021, PA01A as amended 19 April 2021, PA02 as amended 20 May 2021, PA02B as amended 30 April 2021, PA03 04 as amended 30 April 2021, PA05 PA06 as amended 19 April 2021.
- DBN Consulting Engineers Stormwater management plan dated 30 April 2021 revision 3
  - D, Figure 01 A dated 13 August 2019, Figure 02 A dated 26 July 2020, Figure 03 E dated 26 August 2020, Appendices B and C dated 17 July 2020
- A-FLO Equipment Sheets 1 and 2 Rev 01 and Sheet 1 Rev 0.1 date stamped by Council 27 November 2019

#### (3) External Materials and Finishes

All external materials and finishes for the new buildings and fuel pods herein approved shall be of consistent colour and finish, i.e. Colorbond © 'pale eucalypt'.

#### (4) Soil Erosion Control

Prior to construction of the approved development straw bales (or other soil erosion control methods as approved by Council) shall be placed and secured below areas of excavation and fill to prevent soil moving off the site during periods of rainfall.

(5) Requirement For Retaining Wall To Be Constructed Prior To Works Commencing
The combined fence and retaining wall on the southern and south-eastern side of
property, as described on the site plan stamped as part of this authorisation, shall be
constructed prior to the commencement of the construction of the truck wash building
and hard-stand area and retaining walls over one (1) metre in height will require
Building Consent

#### (6) Hours of Operation

The operating hours of the truck hardstand and wash shall be from 8.00am to 6.00pm seven days a week.

#### (7) Number of Trucks

The approval is for the parking of a total of fifty (50) heavy vehicles. No reference is made to the number of trailers that may be parked within the truck parking area.

#### (8) Light spill

All external lighting on the subject land shall be designed and constructed to conform to Australian Standard AS/NZS 4282-1997, and shall be directed away from adjacent residential properties to prevent light spill nuisance.

#### (9) Timeframe for Landscaping To Be Planted

Landscaping shown on the plans form part of the application and shall be established prior to the operation of the development and shall be maintained and nurtured at all times with any diseased or dying plants being replaced as soon as practicable. At the time of planting, a minimum of 20% these trees shall be semi-mature with a minimum height of 2 metres.

#### (10) Site Entry

Entry and Exit to the site shall be via Brettig Road only.

#### **NOTES**

#### (1) Development Plan Consent Expiry

This application has been granted for Development Plan Consent only. The application for Building Consent is required to be lodged via the Development Application Processing System at PlanSA. Building Consent is required to be issued prior to the expiry date of the Development Plan Consent. Alternatively an application for extension of time must be sought from Adelaide Hills Council prior to the expiry date, including payment of the relevant fee.

Further details in relation to the Planning Reforms can be found https://www.saplanningportal.sa.gov.au/planning\_reforms

#### (2) EPA Environmental Duty

The applicant is reminded of his/her general environmental duty, as required by Section 25 of the Environment Protection Act 1993, to take all reasonable and practical 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.

#### (3) Works On Boundary

The development herein approved involves work on the boundary. The onus of ensuring development is in the approved position and on the correct allotment is the responsibility of the land owner/applicant. This may necessitate a survey being carried out by a licensed land surveyor prior to the construction works commencing.

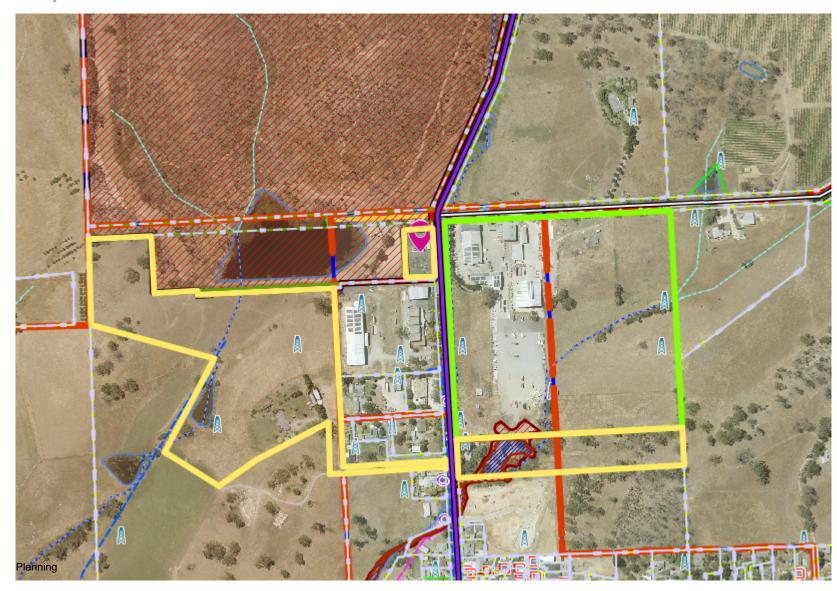
#### (4) Responsibility In Relation To Flooding

The applicant is reminded that Adelaide Hills Council accepts no responsibility for damage to, or loss of property, as a result of flooding. It is the applicant's responsibility to ensure that all appropriate steps are undertaken to minimise the potential damage to property as a result of flooding.

#### 9. ATTACHMENTS

Locality Plan
Proposal Plans
Application Information
Applicant's Professional Reports
Referral Responses
Representation
Applicant's response to representations
Publically Notified Plans

Respectfully submitted	Concurrence	
Melanie Scott	Deryn Atkinson	
Senior Statutory Planner	Assessment Manager	





DISCLAIMER
Apart from any use permitted under the Copyright Act 1968, no part may be reproduced by any process without pior written permission obtained from the Adelaide Hills Council. Requests and enquiries concerning reproduction and rights should be directed to the Chief Executive Officer, The Adelaide Hills Council, PO Box 44, Woodside SA 5244. The Adelaide Hills Council, its employees and servants do not warrant or make any

representations regarding the use, or results of use of the information contained herein as to its correctness, accuracy, currency or otherwise. In particular, it should be noted that the accuracy of property boundaries when displayed over aerial photography cannot be considered to be accurate, and that the only certain method of determining boundary locations is to use the services of a licensed Surveyor . The Adelaide Hills Council, its

employees and servants expressly disclaim all liability or responsibility to any person using the information or advice contained herein.  ${\small \textcircled{6}}$ 

Scale = 1:6032.880

200 m





#### **Annotations**

Representor 3

Representor 2

Representor 1

Subject Land

#### **Planners Summary**

PlanningSummary

#### AHC Core

Parks

★ Townships

#### RoadsStreetView

ADJOINING LGA RD

AHC & PRIVATE

AHC RD

DPTI RD

— PRIVATE RD

SHARED RD

PropertyOwner

Parcels

Roads

Suburbs

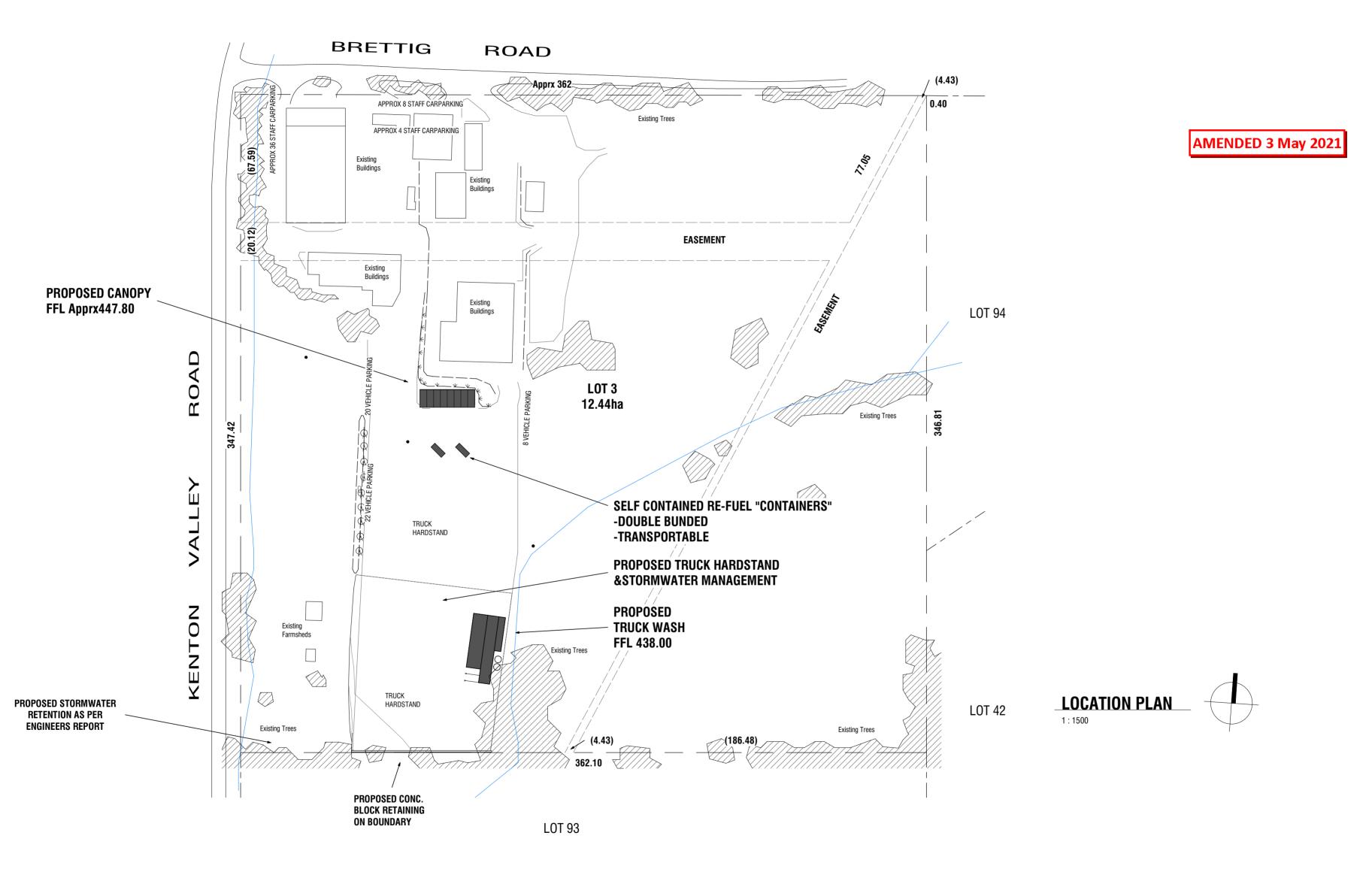
Rivers River

--- Creeks

Streams

#### Flood Study Data

TorrensFloodZones\_20Yr





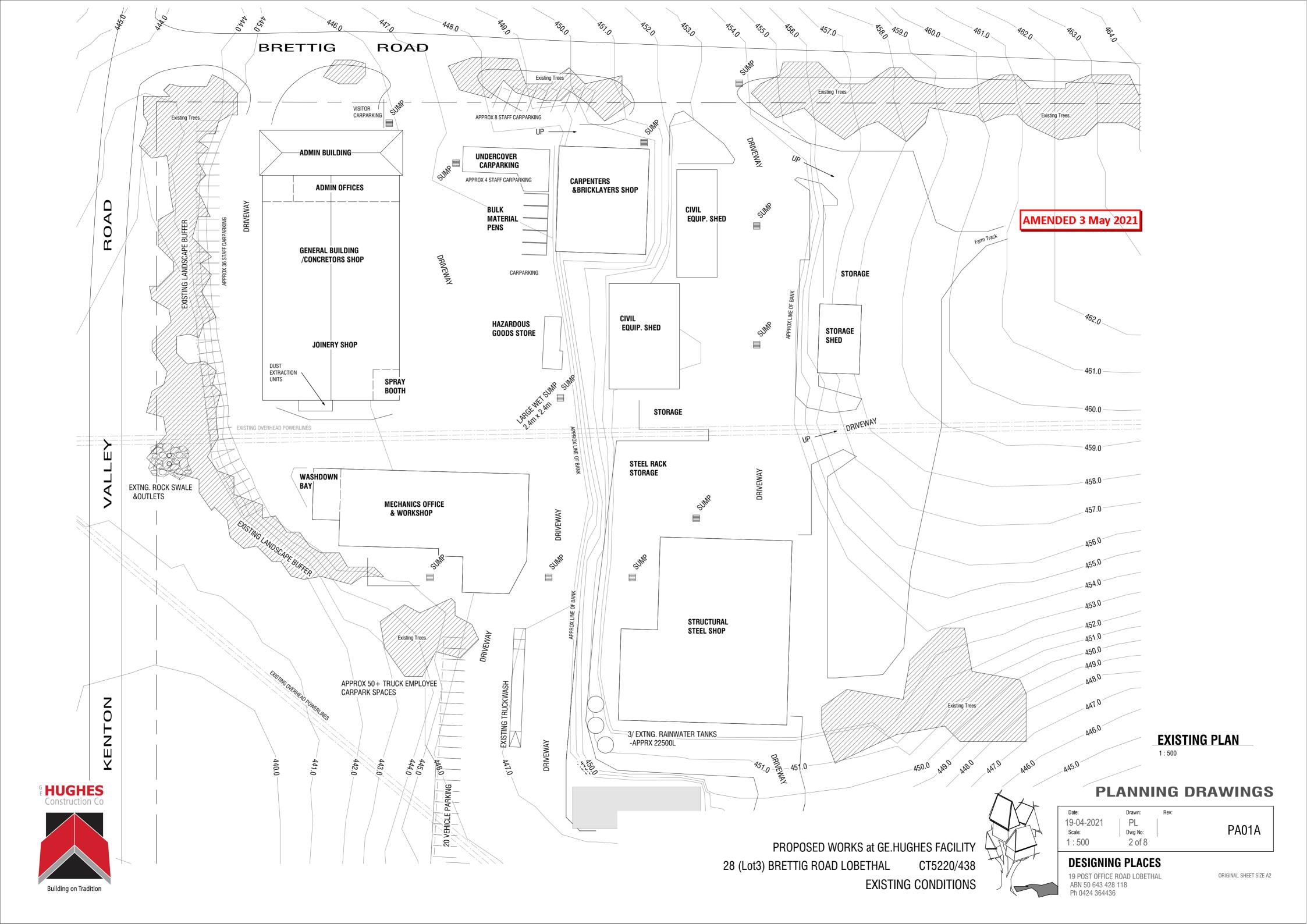
# PROPOSED WORKS at GE.HUGHES FACILITY 28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438 LOCATION PLAN

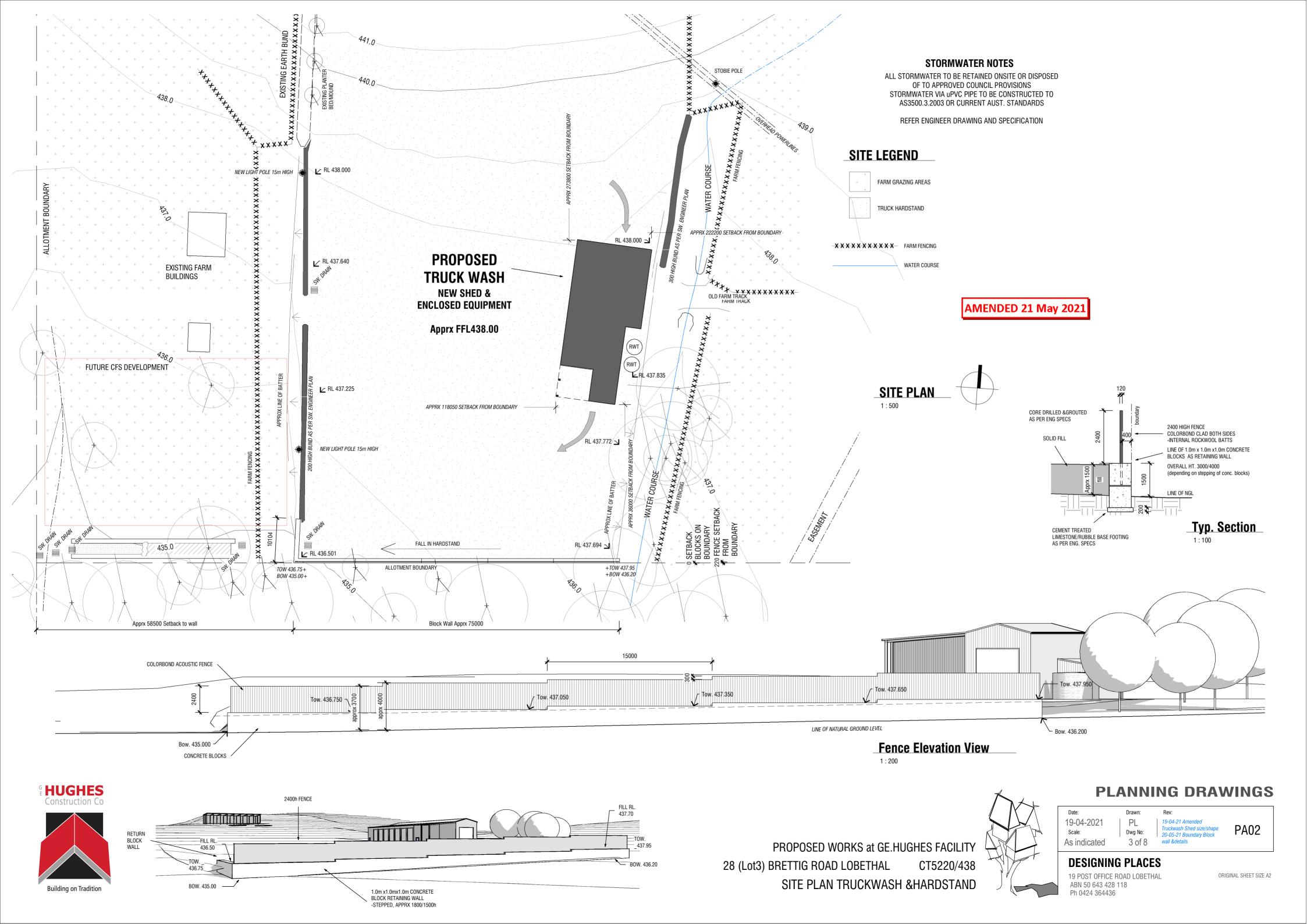
## **PLANNING DRAWINGS**

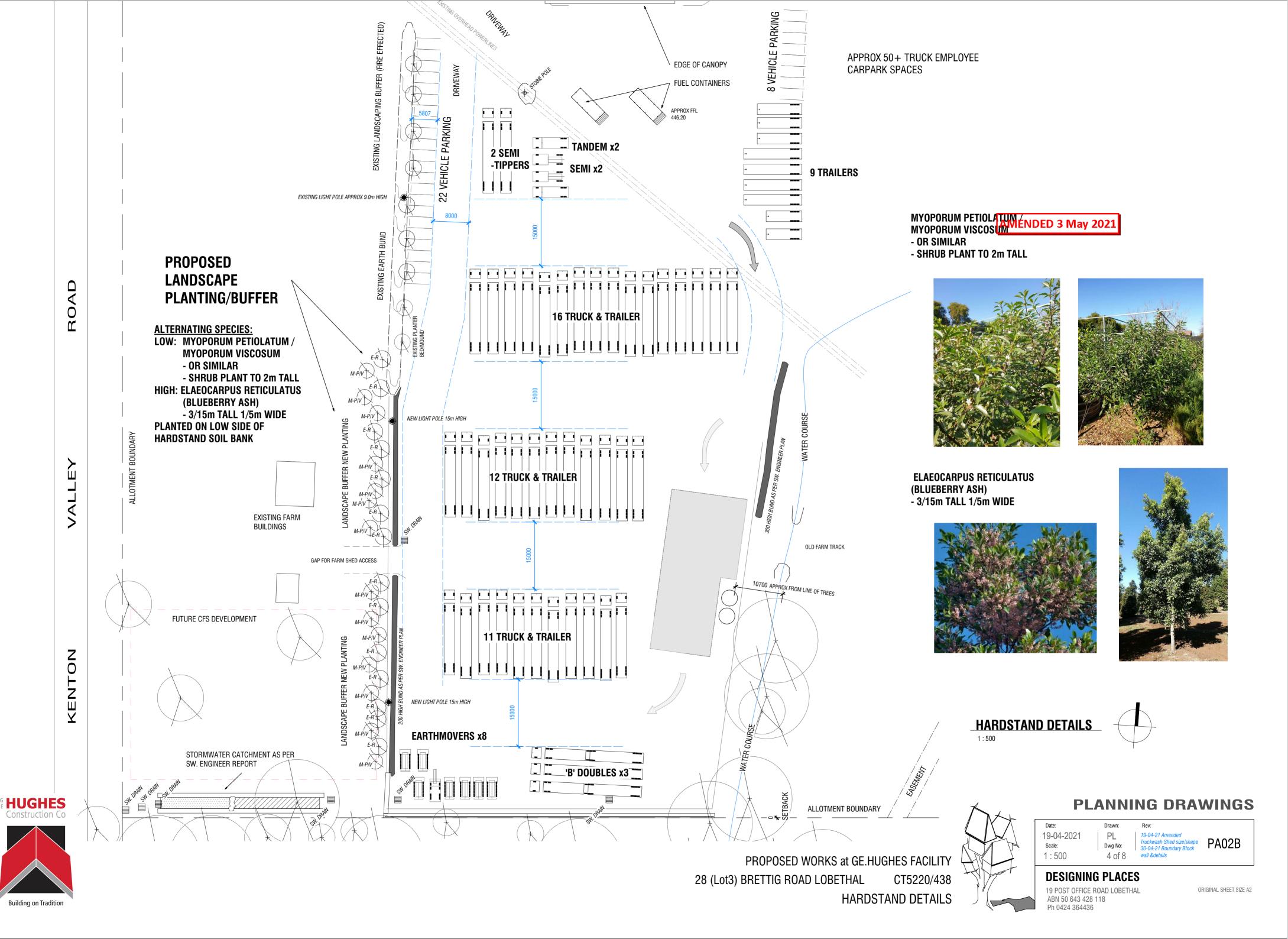
| Date: | Drawn: | Rev: | | 19-04-2021 | PL | | 19-04-21 Amended | | Truckwash Shed size/shape | 30-04-21 Boundary Block | Truckwash Shed size/shape | 30-04-21 Boundary Block | Wall & details | PA01 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 | | 1500 |

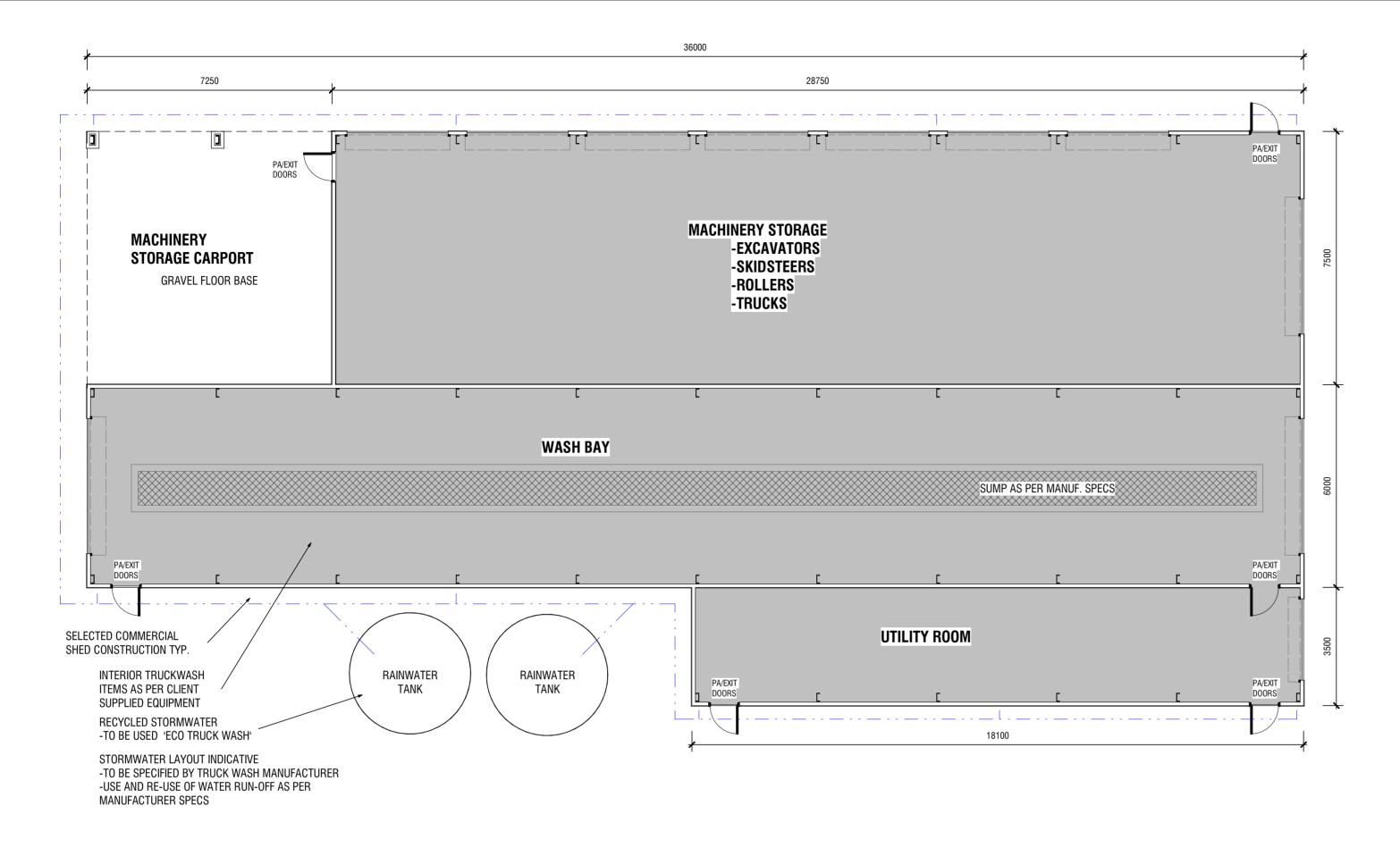
## DESIGNING PLACES

19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436



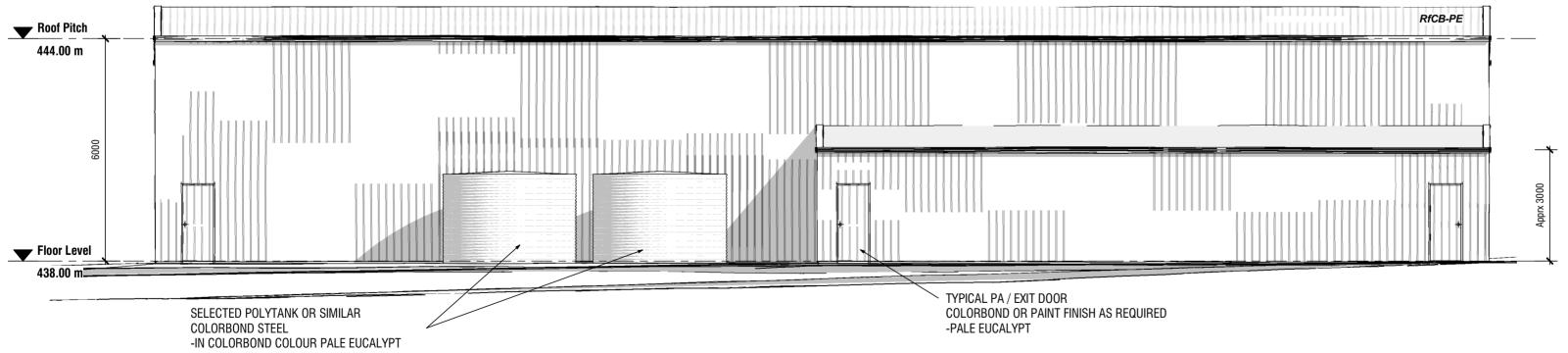








METRE SQ. AREA SHED FOOTPRINT Approx 500m2

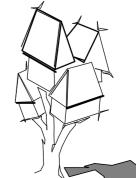


Finishes Schedule		
Code	Description	
CB-PE	Selected Trim-dek profile Colorbond wall(Vertical). PALE EUCALYPT	
RD-PE	Roller Door	
RfCB-PE	Selected Trim-dek Colorbond roof. PALE EUCALYPT	

## **East Elevation**

1:100

PROPOSED WORKS at GE.HUGHES FACILITY
28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438
TRUCKWASH FLOOR PLAN &ELEVATIONS



## **PLANNING DRAWINGS**

	Date: 19-04-2021 Scale: 1:100	Drawn: PL Dwg No: 5 of 8	Rev:  19-04-21 Amended Truckwash Shed size/shape 30-04-21 Boundary Block wall & details	PA03
--	--	--------------------------	---	------

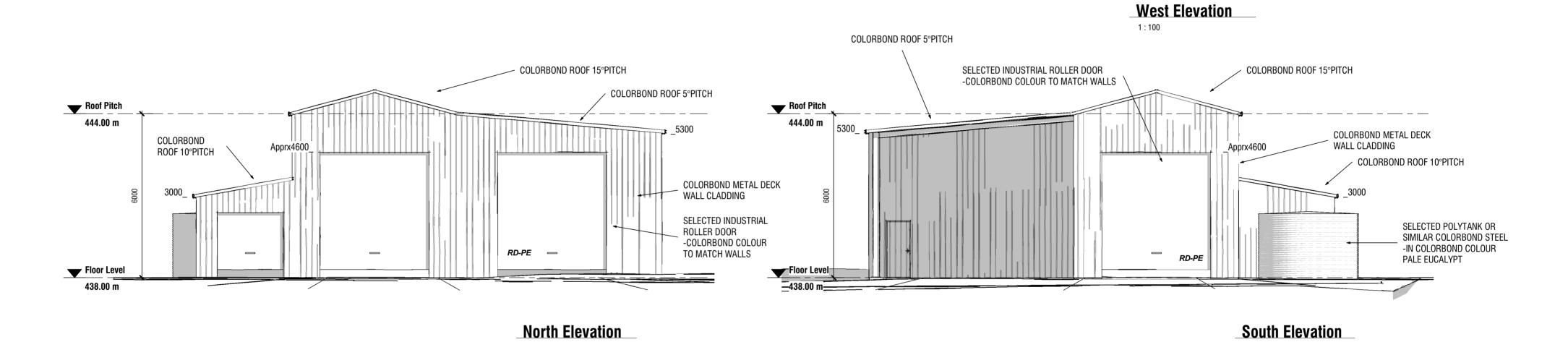
## **DESIGNING PLACES**

19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436

ORIGINAL SHEET SIZE A2







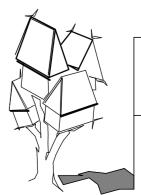
1:100

	Finishes Schedule		
Code	Description		
CB-PE	Selected Trim-dek profile Colorbond wall(Vertical). PALE EUCALYPT		
RD-PE	Roller Door		
RfCB-PE	Selected Trim-dek Colorbond roof. PALE EUCALYPT		





PROPOSED WORKS at GE.HUGHES FACILITY
28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438
TRUCKWASH ELEVATIONS



1:100

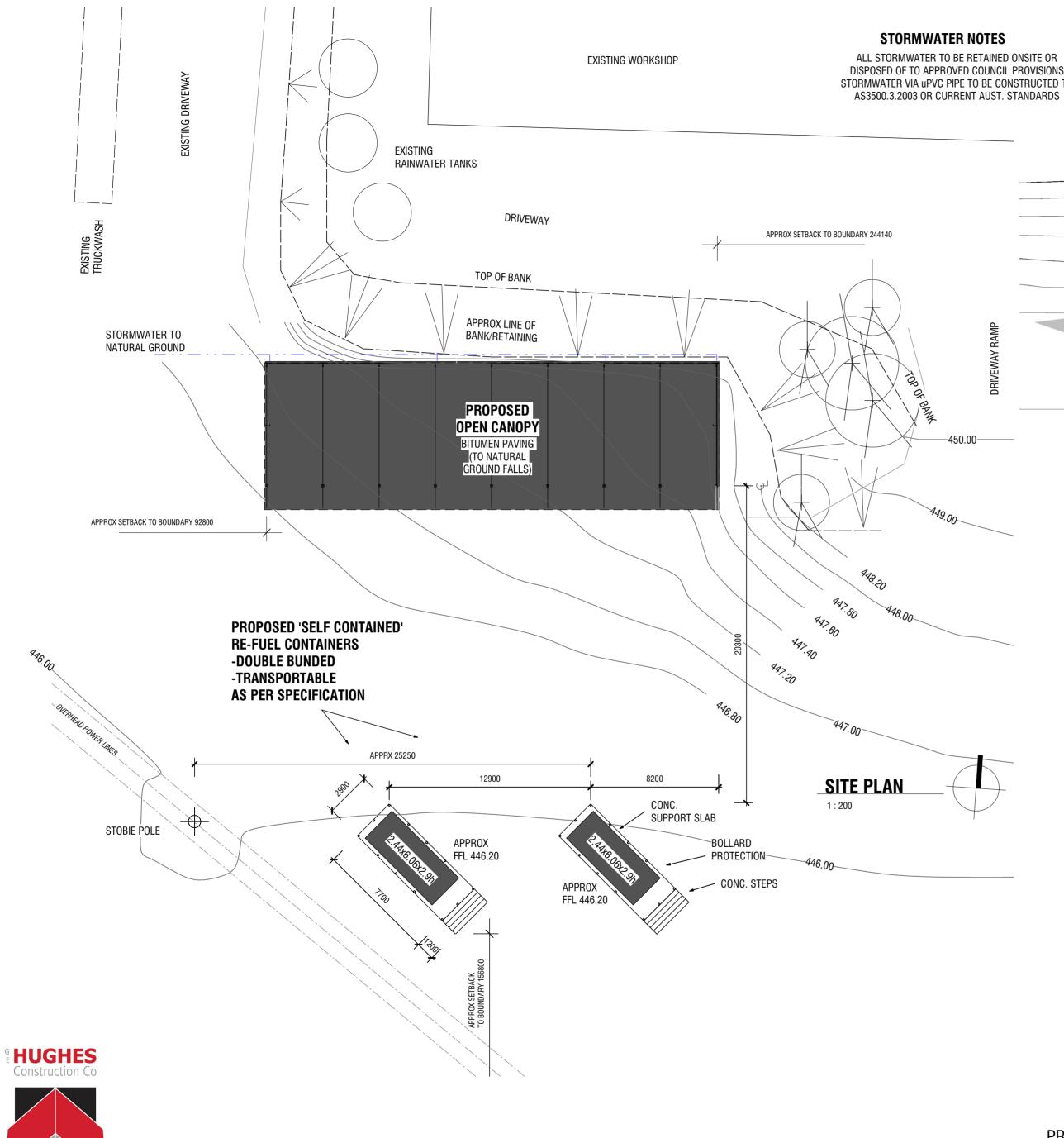
## **PLANNING DRAWINGS**

Date:	Drawn:	Rev:	
19-04-2021 Scale:	PL Dwg No:	19-04-21 Amended Truckwash Shed size/shape 30-04-21 Boundary Block	PA04
1:100	6 of 8	wall &details	

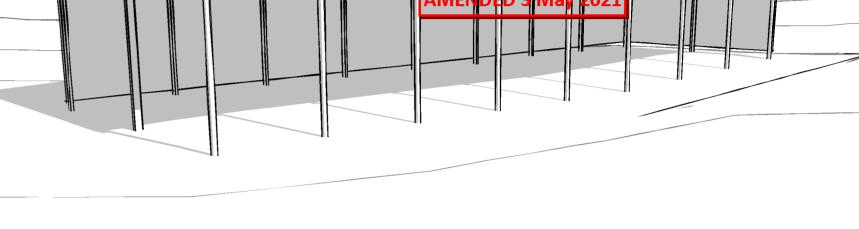
**DESIGNING PLACES** 

19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436

ORIGINAL SHEET SIZE A2



DISPOSED OF TO APPROVED COUNCIL PROVISIONS STORMWATER VIA uPVC PIPE TO BE CONSTRUCTED TO



## **PLANNING DRAWINGS**

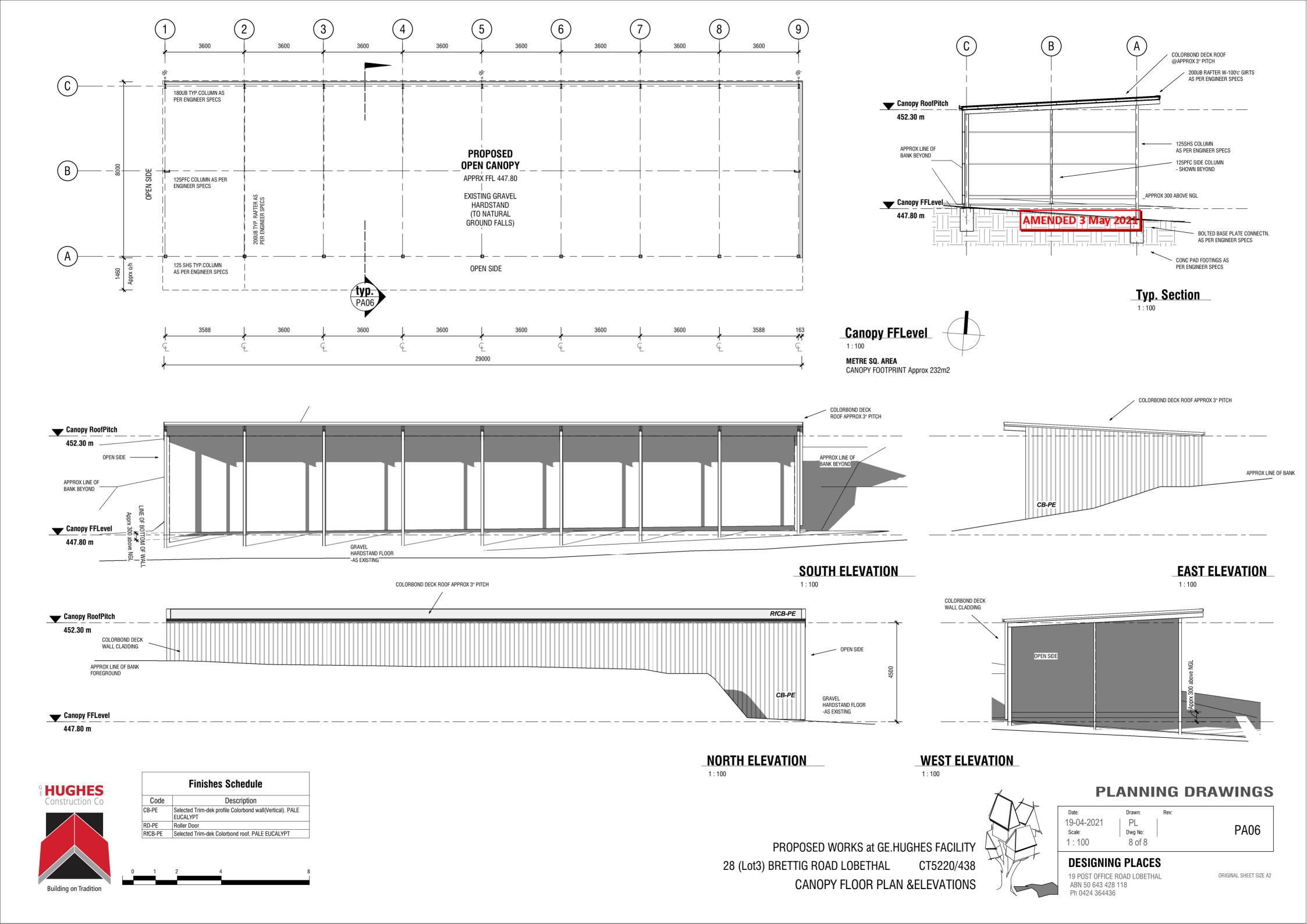
19-04-2021 PL PA05 Scale: Dwg No: 1:200 7 of 8

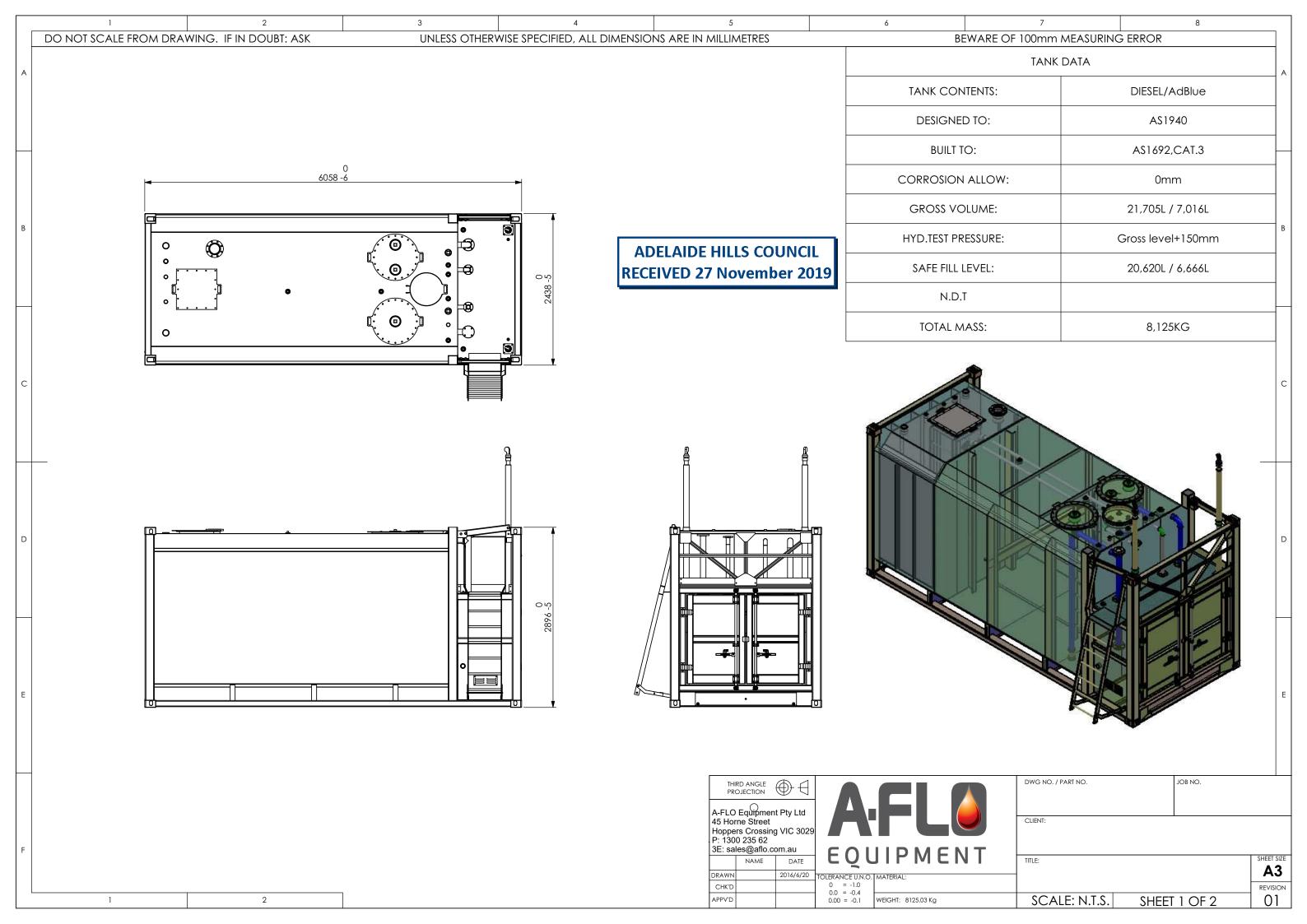
**DESIGNING PLACES** 

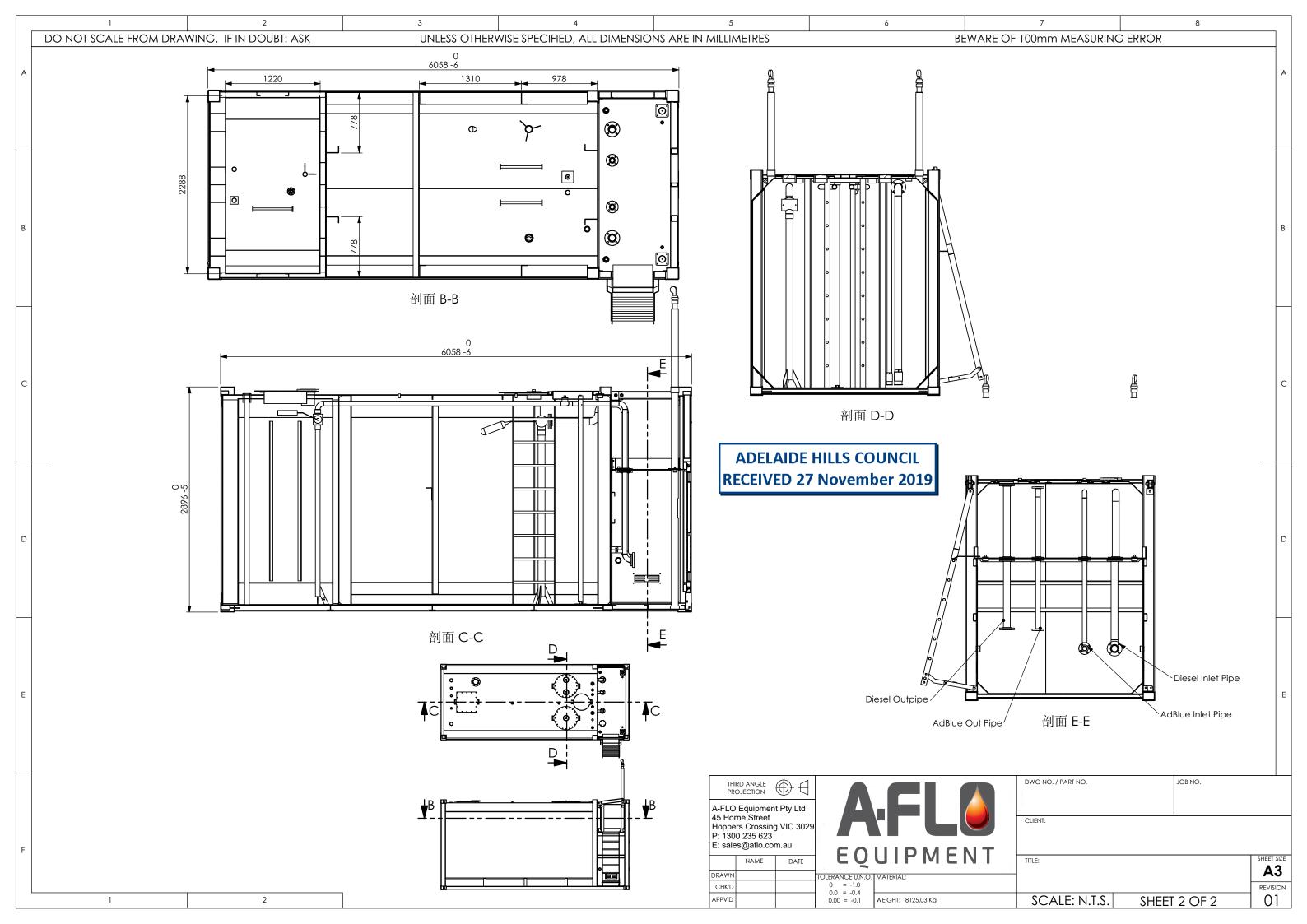
19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436

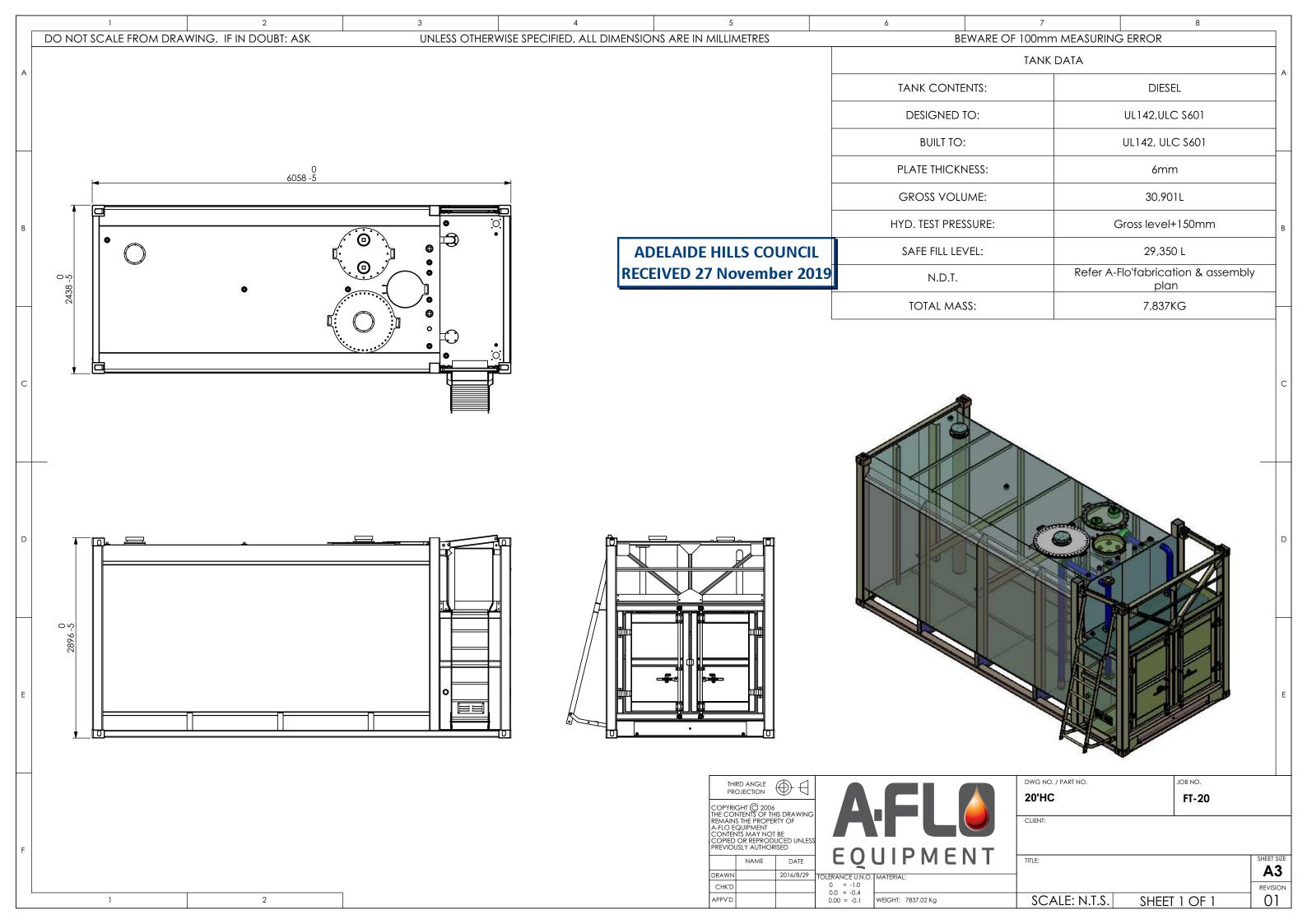
ORIGINAL SHEET SIZE A2

PROPOSED WORKS at GE.HUGHES FACILITY 28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438 SITE PLAN CANOPY &FUEL









30 April 2021

Mr Duane Hughes GE Hughes Construction Co PO Box 200 Lobethal SA 5241 Our ref: GE Hughes Lobethal Vehicle Hardstand Development SMP Revision: 3

# **GE Hughes, Lobethal Vehicle Hardstand Development - Stormwater Management Plan**

#### 1 Introduction

GE Hughes Construction Co commissioned DBN Consulting Engineers to prepare a Stormwater Management Plan (SMP) for an existing and proposed vehicle hardstand at the Lobethal site. The proposed development consists of an existing gravel lined hardstand area and extension to the south of the existing hardstand area. The existing site and vehicle hardstand area is shown in Image 1. Image 1 also shows the approximate location of a possible future County Fire Service (CFS) development.



Image 1 - Site Location



## 2 Existing Stormwater System and Council Requirements

#### 2.1 Existing Stormwater System

There is an existing watercourse that runs along the eastern side of the proposed vehicle hardstand extension. The existing watercourse exits the site in the south east corner and flows through the property to the south, towards Kenton Valley Road.

There is an existing watercourse that runs along the eastern side of Kenton Valley Road. The watercourse discharges to a DN750 mm pipe that runs under the access track to the site. The DN750 mm pipe has a DN450 mm pipe connection in the southwest corner of the site. The DN450 mm pipe connection has an upstream invert level of 433.66 m AHD.

#### 2.2 Council Stormwater Management Requirements

Council advised in a letter dated 16 July 2019 that the stormwater management requirements for the proposed development would include:

- 1. A hydrological report to determine the impact of the works proposed in a mapped flood plain on the subject land and neighbouring properties.
- 2. A civil engineering plan for the works detailing retaining, compaction, stormwater quality and quantity management to manage a 1% Annual Exceedance Probability (AEP) storm event and ensure pre and post development flows are best managed.

Further clarification from Council was sort and Council advised that:

- The post development 1% AEP peak post development flow rate from the proposed extent of development is not to exceed the pre-development 1% AEP peak flow rate from the proposed extent of development.
- Stormwater quality improvement measures are to be provided to ensure that there is an 80% reduction in Total Suspended Solids (TSS), 60% reduction in Total Phosphorus (TP) and 45% reduction in Total Nitrogen (TN).

#### 3 Floodplain Mapping

#### 3.1 Catchments

There is an existing rural catchment to the east of the existing and proposed vehicle hardstand extension. Figure 1, Appendix A shows catchment cEast to the east of the existing and proposed vehicle hardstand extension. Catchment cEast has an area of 24.4 ha. Figure 1, Appendix A also shows catchments cSouth East, which has an area of 3.8 ha and cNorth, which has an area of 72.9 ha. Catchment cSouth East discharges to the existing watercourse in the southeast corner of the proposed vehicle hardstand extension.

#### 3.2 Hydrology

Two methods have been used to calculate the 1%r AEP flow rate from each catchment. The two methods are:



- 1. Regional Relationships. WALPITA-GAMAGE, S.H.P, HEWA, G.A., SUBHASHINI, W.H.C., DANIELL, T.M., and KEMP D. (2009) "Regional Flood Studies in South Australia 2 At Site Flood Frequency Analysis" I.E.Aust Hydrology and Water Resources Symposium, Newcastle, December 2009.
- 2. DRAINS modelling.

#### **Regional Relationships**

Recent regional relationships developed as part of the Australian Rainfall and Runoff update have been used to calculate the 1% AEP flow rate from the three sub catchments.

In summary, the regional relationship used to calculate the 1% AEP flow rate is:

 $Q_{1\%} = 3.6914 \text{ x (Catchment Area (km}^2))^{0.708}$ 

Using the catchment areas in Section 3.1, the 1% AEP flow rate for each of the sub catchments are:

- cEast = 1.34 m<sup>3</sup>/s.
- cSouth East = 0.36 m<sup>3</sup>/s.
- cNorth = 3.02 m<sup>3</sup>/s.

#### **DRAINS Modelling**

A DRAINS model (hydrologic and hydraulic modelling software) was established to calculate the 1% AEP existing peak discharges from the catchments cEast, cSouth East and cNorth. The following data was input and assumptions made to establish the 1% AEP peak flow rate from these catchments:

- Paved and pervious area depression storages equal 1 mm and 5 mm respectively.
- Soil type equals 3.
- Antecedent moisture condition equals 2.5.

The DRAINS model was simulated for a range of storm durations for the 1%r AEP storm event, using Australian Rainfall and Runoff, 2016 Temporal Patters and Bureau of Meteorology, Intensity Frequency Duration data. The DRAINS model configuration and 1% AEP existing conditions DRAINS modelling results are shown in Appendix B.

The DRAINS modelling results show that the 1% AEP existing conditions flow rates from the three sub catchments are:

- cEast = 1.30 m<sup>3</sup>/s.
- cSouth East = 0.42 m<sup>3</sup>/s.
- cNorth = 3.13 m<sup>3</sup>/s.

The DRAINS modelling results compared favourably with Regional Relationship flow rates and were considered to provide a reasonable representation of the likely 1% AEP flow rates from the contributing sub catchments.

#### 3.3 Hydraulics

A HEC-RAS model was established to determine the extent of flooding during a 1% AEP storm event in the eastern watercourse for both existing and post development conditions.

The eastern watercourse and HEC-RAS cross section locations are shown in Figure 2, Appendix A. There is an existing DN450 mm pipe under the access track over the eastern watercourse. The cross sections were entered into the HEC-RAS model and simulated for a peak 1% AEP flow rate of 1.30 m³/s. The existing conditions 1% AEP extent of flooding is shown in Figure 2, Appendix A and the HEC-RAS modelling results are shown in Appendix C. Figure 2 shows that the 1% AEP flow spills over the western watercourse top of bank and flows in a south west direction towards Kenton Valley Road and the dwelling to the south west. The 1% AEP peak flood level at the existing DN450 mm culvert and access track is also very close to spilling over the western watercourse top of bank and flowing in a south west direction towards Kenton Valley Road and the dwelling to the south west.

The existing and proposed vehicle hardstand extensions match existing surface levels upstream of the existing DN450 mm culvert crossing under the access track. The proposed vehicle hardstand extension is in fill from the existing access track to the southern extent. The proposed depth of fill in the south east corner of the proposed vehicle hardstand is approximately 1.0 m. The existing conditions HEC-RAS model was amended to include the proposed fill for the vehicle hardstand and simulated for a 1% AEP flow rate of 1.30 m³/s. Figure 2 shows the extent of flooding with the proposed vehicle hardstand fill in place and the HEC-RAS modelling results are shown in Appendix C. The 1% AEP flood extent is contained within the watercourse by the fill. The proposed vehicle hardstand fill has a positive impact on flooding and reduces the risk of floodwater overtopping the western top of bank and flowing in a south west direction towards Kenton Valley Road and the existing dwelling to the south west. There is a risk upstream of the DN450 mm culvert crossing that floodwater could overtop the western top of bank and flow across the proposed vehicle hardstand area.

#### 3.4 Recommended Mitigation Measures

It is recommended that a 300 mm high earth bund is constructed along the western side of the watercourse from HEC-RAS chainage 105.3 m to the northern side of the access track, to tie in with the proposed fill. This will reduce the risk of floodwaters overtopping the existing and proposed vehicle hardstand.

#### 4 Proposed Development Stormwater Management Strategy

The stormwater management strategy for the proposed development is shown in Figure 3. Appendix A and includes:

- A 200 mm high cement stabilised rubble bund along the western side of the existing and
  proposed vehicle hardstand, from the existing bund to the proposed concrete block wall return.
  An opening will be provided at the existing access track. Two grated field inlet pits (GFIP2 and
  GFIP4) will be constructed along the eastern side of the cement stabilised rubble bund to
  capture stormwater runoff from catchment cWestHard, and DN375 mm to DN450 mm pipes will
  convey stormwater runoff to GFIP1.
- A 900 x 900 grated field inlet pit (GFIP1) in the south west corner of the proposed vehicle hardstand will capture stormwater runoff from catchment cGFIP1. A DN750 mm pipe will convey stormwater runoff to the basin. The proposed block wall on the southern boundary will direct stormwater runoff along the southern boundary to GFIP1. An additional grated field inlet pit (GFIP3) will be constructed in the south east corner of the hardstand area to capture any stormwater runoff and reduce the risk of stormwater overflows from the flatter area in the south east corner.

- A basin along the southern boundary of the site will be constructed to detain stormwater runoff and provide stormwater quality treatment. The basin will comprise:
  - A sediment forebay with an area of 160 m² to remove coarse sediment. A 300 mm high rock check dam will be constructed across the western end of the sediment forebay to temporarily pond stormwater in the sediment forebay and control flow into the bioretention (biofiltration) area of the basin.
  - A biofiltration area of 70 m² to provide treatment of stormwater runoff from the proposed vehicle hardstand. The biofiltration system will have:
    - An extended detention depth of 150 mm.
    - A filter depth of 350 mm.
    - No liner.
    - Two DN100 mm subsoil drainage lines.
  - The basin will utilise a DN375 mm outlet pipe that will discharge to the existing DN450 mm culvert in the south west corner of the site.

### 5 Vehicle Hardstand and Future CFS Stormwater Strategy Assessment

#### 5.1 Post Development Catchment Plan

The existing and proposed vehicle hardstand catchments are shown in Figure 3, Appendix A. There is a potential future Country Fire Service (CFS) development on the western side of the proposed vehicle hardstand. The possible future CFS development has been included in the assessment of the proposed mitigation strategy, because it will be more expensive to alter the basin at a later date to include stormwater runoff from the future CFS development. A summary of the post development catchment areas and percentage impervious is shown in Table 1.

Table 1 – Summary of the Post Development Catchment Areas and % Impervious

Catchment/Pit ID	Total Area (m²)	Impervious Area (m²)	% Impervious
cWestHard	5,662	5,662	100%
cGFIP1	10,614	10,614	100%
cCFS	1,841	1,841	100%

#### 5.2 DRAINS Modelling

A DRAINS model (hydrologic and hydraulic modelling software) was established to calculate the 1% AEP pre and post development peak discharges from the site. The following data was input and assumptions made to establish the pre and post development conditions DRAINS models:

- Pre-development catchments are assumed to be 100% pervious.
- The post development percentage impervious is shown in Table 1.
- Impervious and pervious area depression storages equal 1 mm and 5 mm respectively.
- Soil type equals 3.

- Antecedent moisture condition equals 2.5.
- The sediment forebay and biofiltration areas within the basin will have a surface level of 434.20 m AHD.
- Grated Field Inlet Pit 5 (GFIP5) will have a surface level of 434.35 m AHD, providing 150 mm of extended detention.
- The invert level of the proposed DN375 mm outlet pipe from the basin is 433.71 m AHD and the invert level at the point of discharge (existing DN450 headwall) is 433.66 m AHD.
- The basin weir level will be 434.90 m AHD. Any overflows will be directed to the adjacent watercourse and existing DN450 mm headwall.

#### 5.2.1 DRAINS Modelling Results

The pre and post development DRAINS models were simulated for a range of storm durations for the 1% AEP storm event, using Australian Rainfall and Runoff, 2016 Temporal Patters and Bureau of Meteorology, Intensity Frequency Duration data. The pre and post development 1% AEP flow rates from the site are shown in Table 2.

Table 2 –1% AEP DRAINS Modelling Results Summary

Catchment	Pre-Development Flow (L/s)	Post Development Flow (L/s)
cWestHard + cGFIP1	290	710
cCFS	26	56
Discharge Point	306	303

The DRAINS model configuration and 1% AEP pre and post development DRAINS modelling results are shown in Appendix B.

The DRAINS modelling results show that there is 90 L/s overflow from the basin in a 1% AEP storm event and that the 1% AEP post development discharge from the basin is less than the 1% AEP predevelopment flow rate. The 1% AEP ponding level at GFIP1 is 435.98 m AHD and the surface level of the pit is 435.80 m AHD. The proposed block work wall will have a minimum top of wall level of 436.10 m AHD to provide some freeboard. Any overflows from GFIP1 are to be directed to the basin.

The 1% AEP overflow from the drainage system along Kenton Valley Road is 2.15 m<sup>3</sup>/s. Any future CFS development will need to consider this overland flow along the eastern side of Kenton Valley Road and stormwater runoff from the existing GE Hughes development.

#### 5.3 Stormwater Quality Improvement

The basin will be provided with a 160 m² sediment forebay at the eastern end of the basin. A 300 mm high rock check dam will help to temporarily pond stormwater in the sediment forebay and promote settling of coarse sediment. Overflows from the sediment forebay will be directed to the biofiltration area of the basin. A biofiltration area of 70 m² will be provided in the western invert of the basin. The biofiltration area will treat stormwater runoff, including the removal of any oil, prior to discharge to the receiving watercourse.

A MUSIC model (water quality model) was established to simulate the performance of the proposed basin. The MUSIC model was simulated using 10 years of 6 minute Mount Crawford rainfall from 1 January 2000 to 31 December 2009.

The MUSIC model configuration and pollutant percentage reductions are shown in Image 2. The proposed stormwater quality improvement measures are adequate to meet Council's pollutant reduction targets of 90% Gross Pollutants, 80% Total Suspended Solids, 60% Total Phosphorus and 45% Total Nitrogen.

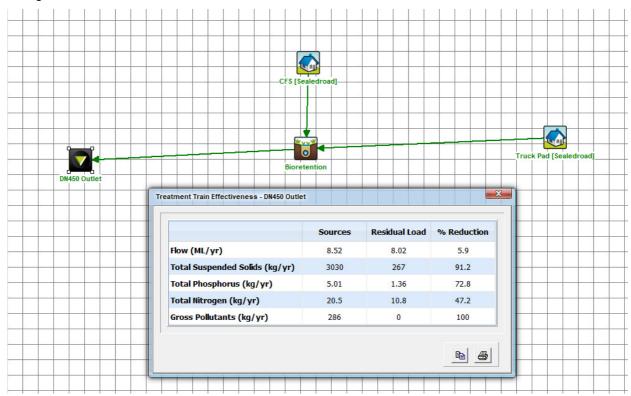


Image 2 - MUSIC Model layout and treatment train effectiveness

#### 5.4 Vegetation Selection

It is recommended that the biofiltration area of the basin is planted with a high density of drought tolerant plant species. The biofiltration area should be planted extensively; at a density of 4 plants/m², depending on the growth form. Image 3 shows a selection of high nitrogen removal plant species. Shrubs and trees should be planted at a density of < 1 plant/m². Mulch is not recommended as it has a tendency to float and block outlets. The sediment forebay area does not need to be planted because sediment will need to be periodically removed with an excavator.

## AMENDED 3 May 2021

Objective	Effective
Nitrogen removal	Baumea juncea Baumea rubiginosa Carex appressa Carex tereticaulis Ficinia nodosa Goodenia ovata Juncus amabilis Juncus flavidus Juncus pallidus Juncus subsecundus Melaleuca ericifolia Melaleuca lateritia

Image 3 – High Nitrogen Removal Plant Species (CRC for Water Sensitive Cities)

#### 6 Maintenance

The following inspection and maintenance measures are recommended to maintain the integrity of the stormwater system:

- Inspect inlet pits on a monthly basis for the first 12 months to establish a cleaning regime.
- Inspections to check for an excess of sediment, erosion or boggy conditions in the basin.
   Excess sediment should be removed to as close to original design levels as possible and erosion should be repaired by filling with sandy loam material and rock ballast if erosion continues to be a high risk.
- Regular pruning and weeding to remove any foreign species and any diseased plantings, to promote new growth.
- Monitor vegetation closely during the first year to ensure plants are becoming established and have sufficient water. Some irrigation may be required to establish new plants. Dead plants should be replaced with new plants.
- Check that the basin outlet pipe is not blocked by vegetation matter or other debris.
- Inspection and removal of gross pollutants.

Routine maintenance inspections should be undertaken every month and/or after rainfall events totalling 15 mm or more.

#### 7 Conclusion

A stormwater management strategy has been developed for the existing and proposed vehicle hardstand areas. The future CFS development has also been included in the sizing of mitigation measures.

Flood mapping was undertaken for the watercourse on the eastern side of the existing and proposed vehicle hardstand. HEC-RAS modelling showed that a 300 mm high earth bund will be required along

the eastern side of the existing vehicle hardstand to reduce the risk of 1% AEP flows in the watercourse, flowing across the hardstand area. The proposed hardstand area will include fill in the southern corner of the site, which will contain the 1% AEP peak flow rate in the watercourse to the discharge point at the southern boundary.

DRAINS modelling showed that the proposed basin will reduce the 1% AEP post development flow rate to less than the existing conditions 1% AEP flow rate. The proposed sediment forebay and biofiltration area are sufficient to meet Council's pollutant reduction targets of 80% TSS, 60% TP and 45% TN removal.

Any future CFS development on the western side of the proposed vehicle hardstand area will need to consider 1% AEP overland flows along the eastern side of Kenton Valley Road and from the existing GE Hughes development.

If you have any queries regarding this report please contact the undersigned on 0422 150 775.

Yours faithfully DBN Consulting Engineers Pty Ltd

BNobbs.

**Dean Nobbs** 

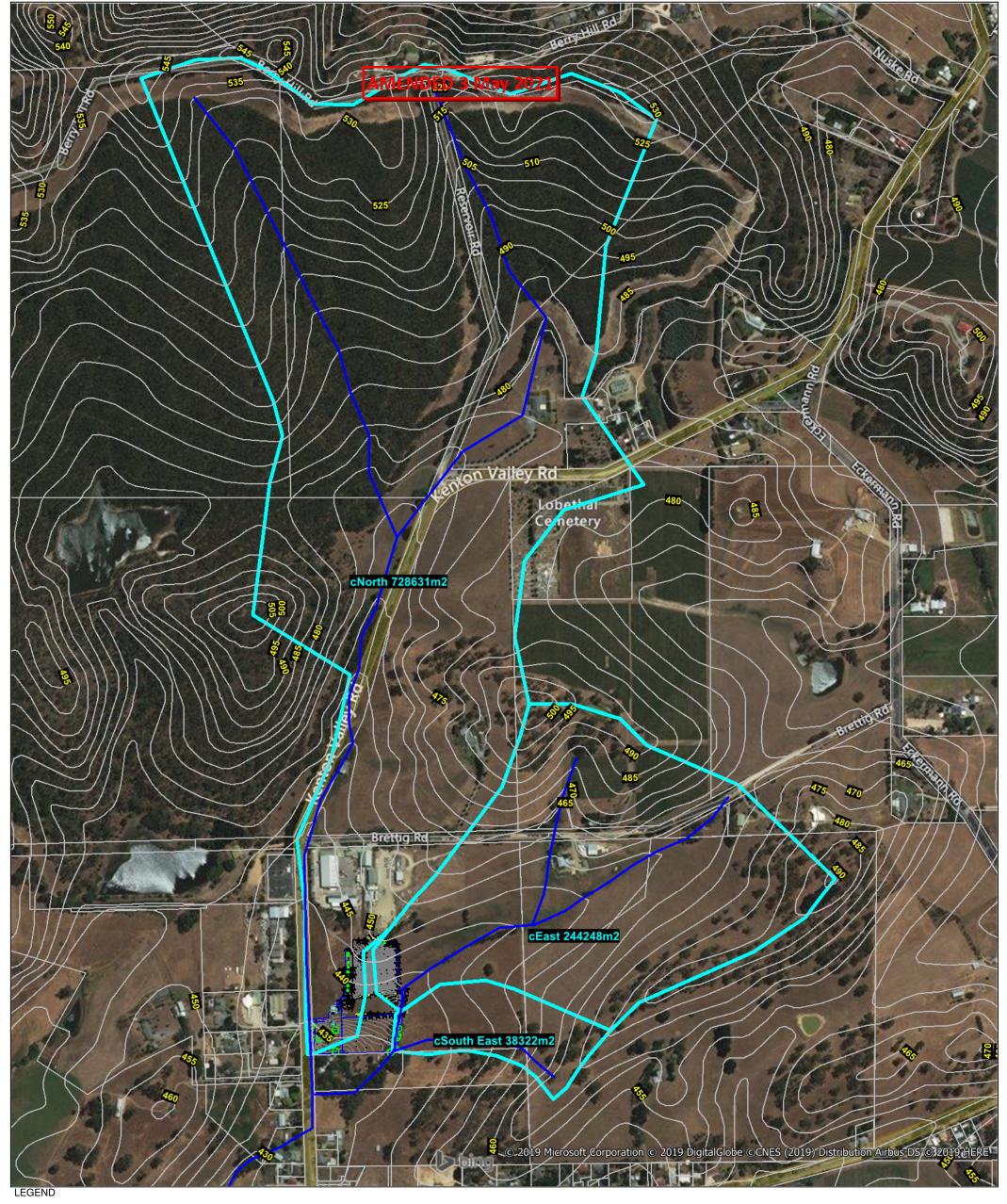
Director 0422 150 775

## **Appendix A - Figures**

Figure 1 – Catchment Plan

Figure 2 – 1% AEP Flood Mapping and Proposed Mitigation Measures

Figure 3 – Stormwater Management Plan



Watercourse 5 m Contour Catchment

1:6,000

Map projection: Universal Transverse Mercator Horizontal datum: Geocentric Datum of Australia 1994 Grid: Map Grid of Australia, Zone 54



GE Hughes Construction Co Truck Parking Hardstand Catchment Plan

Figure 01

ADL0219

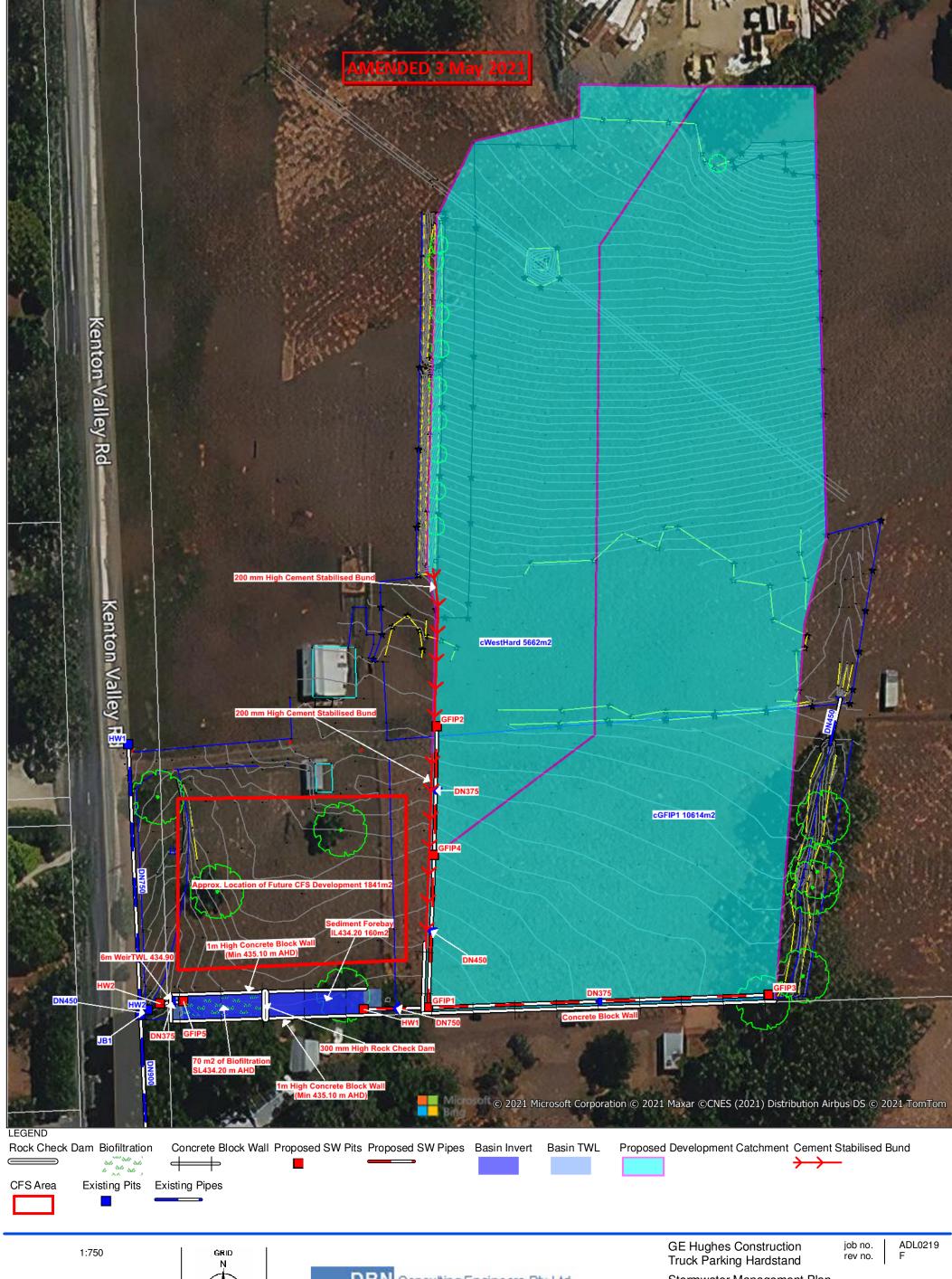
job no. rev no.

13 | August 2019





Map projection: Universal Transverse Mercator Horizontal datum: Geocentric Datum of Australia 1994 Grid: Map Grid of Australia, Zone 54





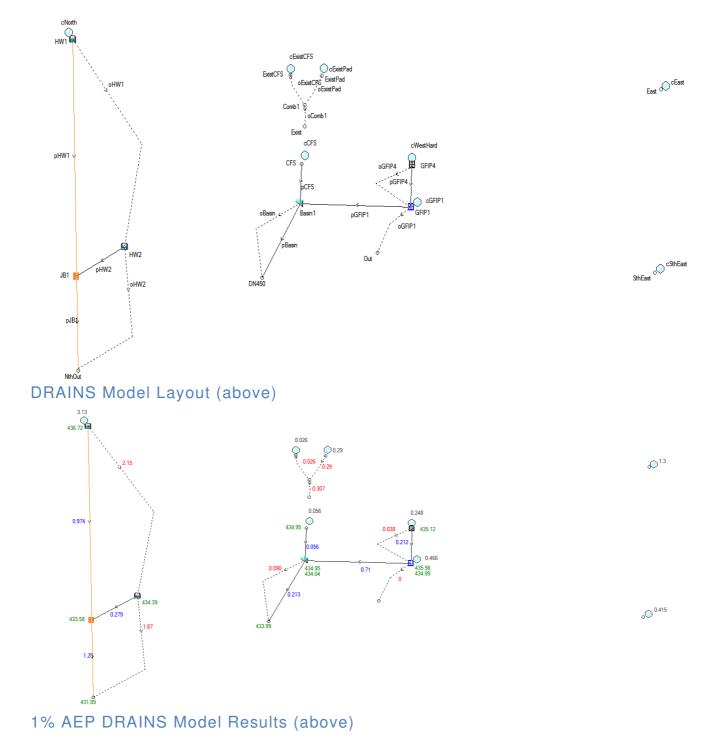
Map projection: Universal Transverse Mercator Horizontal datum: Geocentric Datum of Australia 1994 Grid: Map Grid of Australia, Zone 54

Stormwater Management Plan

30 | April 2021

Figure 03

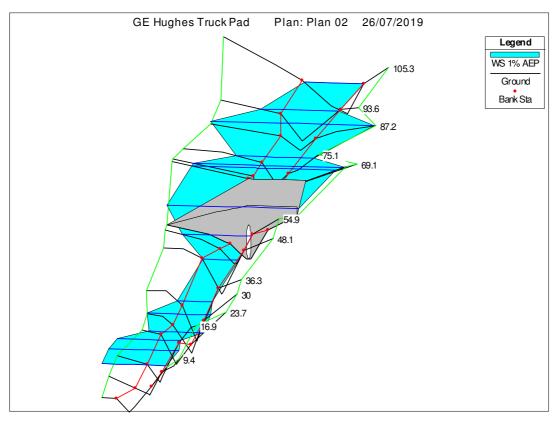
## **Appendix B - DRAINS Model Results**



# **Appendix C – HEC-RAS Modelling Results**

Existing Conditions HEC-RAS Modelling Results (below)

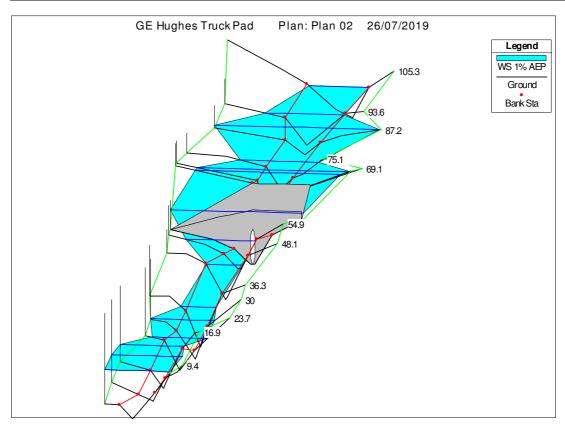
River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Flow Area	Top Width
		(m3/s)	(m)	(m)	(m/s)	(m2)	(m)
105.3	1% AEP	1.3	438.02	438.42	0.94	1.39	6.32
93.6	1% AEP	1.3	437.85	438.26	0.97	1.39	8.37
87.2	1% AEP	1.3	437.84	438.2	0.78	2.32	17.47
75.1	1% AEP	1.3	437.59	437.96	1.37	1.16	8.29
69.1	1% AEP	1.3	437.21	437.95	0.64	3.05	16.27
62		Culvert					
54.9	1% AEP	1.3	436.89	437.26	1.35	1.12	7.39
48.1	1% AEP	1.3	436.6	437.05	1.51	0.86	3.79
36.3	1% AEP	1.3	436.17	436.7	1.46	0.91	3.75
30	1% AEP	1.3	436.12	436.64	1.17	1.23	6.77
23.7	1% AEP	1.3	436.08	436.51	1.45	0.97	5.8
16.9	1% AEP	1.3	435.96	436.52	0.66	2.13	6.81
9.4	1% AEP	1.3	435.92	436.52	0.48	3.1	7.5
1.8	1% AEP	1.3	435.82	436.46	0.15	2.78	6.8



## AMENDED 3 May 2021

### Proposed Development Conditions HEC-RAS Modelling Results (below)

River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Flow Area	Top Width
		(m3/s)	(m)	(m)	(m/s)	(m2)	(m)
105.3	1% AEP	1.3	438.02	438.42	0.94	1.39	6.32
93.6	1% AEP	1.3	437.85	438.26	0.97	1.39	8.37
87.2	1% AEP	1.3	437.84	438.2	0.78	2.32	17.47
75.1	1% AEP	1.3	437.59	437.96	1.37	1.16	8.29
69.1	1% AEP	1.3	437.21	437.95	0.64	3.05	16.27
62		Culvert					
54.9	1% AEP	1.3	436.89	437.26	1.35	1.12	7.39
48.1	1% AEP	1.3	436.6	437.05	1.51	0.86	3.79
36.3	1% AEP	1.3	436.17	436.7	1.46	0.91	3.75
30	1% AEP	1.3	436.12	436.64	1.17	1.23	6.77
23.7	1% AEP	1.3	436.08	436.51	1.45	0.97	5.8
16.9	1% AEP	1.3	435.96	436.52	0.66	2.13	6.81
9.4	1% AEP	1.3	435.92	436.52	0.48	3.1	7.5
1.8	1% AEP	1.3	435.82	436.46	0.15	2.78	6.8







Westmatic Australia Pty Ltd ABN: 15 639 072 861

410 Churchill Road Kilburn South Australia 5084

Phone: 1300 624 222

Email: admin@westmatic.com.au

300421

Dear Duane,

In response to your question regarding water usage and disposal of detergents into sewer systems I can give you the following information;

- 1. The average wash cycle for your style of vehicles will be 3-4 minutes depending on driving speed
- 2. The water usage is driven by the rinse water used. In your case we envisage using approx. 130lpm for the duration of the wash cycle. Typically drivers speed up slightly going through the brush section of the equipment so work on 3 minutes of rinse water being applied = 390L on average / truck used.
- 3. We recommend an environmentally friendly standard Truck wash to be used in the system. Depending on application rate, length of vehicle and driving speed approximately 0.7-1.1 L of concentrate is used. I have attached information on a low impact truck wash product that we provide.
- 4. The system contains approx. 30000L of water at any given time. A typical wash cycle uses 5-6000L from the 30000L. The rinse water mentioned in point 2 above is added into the overall water volume and therefore only 390L of water is discharged to sewer per wash cycle. This water is passed through a standard oil separator as per functional description forwarded to you last week.

It should be mentioned that if manual pressure cleaning equipment with a traditional chemical injector is used, a truck and tipper usually requires 14-1600L of water and 3-5L of truck wash. In other words, the use of automated systems have huge environmental benefits over traditional pressure cleaning.

I trust this information helps. If you have any further questions please don't hesitate to contact me.

With regards,

Ulf Thorstensson Managing Director Westmatic Australia

ADELAIDE HILLS COUNCIL
RECEIVED 3 May 2021





ADELAIDE HILLS COUNCIL RECEIVED 3 May 2021





**Building on Tradition** 

- a PO Box 200 Lobethal SA 5241
- p 08 8389 6472
- f 08 8389 6809
- e admin@gehughes.com.au
- w www.gehughes.com.au

Adelaide Hills Council

Attn: Melanie Scott

3<sup>rd</sup> May 2021

RE: GE Hughes Construction Co proposed truck wash.

Currently GE Hughes Construction Co wash all their trucks by hand which can take drivers 2 to 4 hours each; use approximately 1400 to 1600 litres of water each wash and can be physically demanding on the older drivers. It also causes staging issues at our depot.

The intention of the new truck wash is:

- Operate so 2 to 4 trucks are washed each night before they pass through our mechanical workshop as the mechanics can be more comprehensive when everything is visible
- It will take 3 to 4 minutes to wash one truck & trailer
- The truck wash will save 75% of water usage per truck from an estimated 1500litres to 390 litres as it is all recycled apart from 390litres which is passed through an oil separator before being discharged to sewer
- We currently use bore water which will be the same and treated at the truck wash before use
- Hughes are constructing the new truck wash within a contained shed which is not required but will make it aesthetically pleasing and reduce notice by 30% for the 15 minutes a day it may run overall
- SA Water have no objection to a truck wash being installed on the property in principal as per email dated 30/04/2021

**Duane Hughes** 

ADELAIDE HILLS COUNCIL
RECEIVED 5 May 2021





Q U A L I T Y MANAGEMENT





### **Hazardous Substance, NON-Dangerous Goods**

#### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: FLEET

Recommended use: Premium Vehicle Wash

**Supplier:** Tasman Chemicals Pty Ltd

ACN 005 072 659 Street Address: 1-7 Bell Grove

Braeside, VIC, 3195

Australia

Telephone: +613 9587-6777 Facsimile: +613 9587-5255

Emergency Telephone number: Australia 1800 334 556

#### 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word Warning

Hazard Classifications Skin Corrosion/Irritation - Category 3

Serious Eye Damage/Irritation - Category 2A

**Hazard Statement** 

H319 Causes serious eye irritation.

**Prevention Precautionary Statements** 

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash hands, face and all exposed skin thoroughly after handling.

P280 Wear protective clothing, gloves and eye/face protection.

**Response Precautionary Statements** 

P101 If medical advice is needed, have product container or label at hand.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

Storage Precautionary Statement Not allocated

Disposal Precautionary Statement Not allocated

Poison Schedule: Not Applicable

DANGEROUS GOOD CLASSIFICATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Product Name: FLEET Reference No: 020801,020805,020806,020808



#### 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Benzenesulfonic acid, dodecyl-, sodium salt	25155-30-0	1 - 10 % (w/v)
Triphosphoric acid, pentasodium salt	7758-29-4	1 - 10 % (w/v)
Amides, coconut, N-(hydroxyethyl)	68140-00-1	1 - 10 % (w/v)
1,3-Propanediol, 2-bromo-2-nitro-	52-51-7	0 - 0.1 % (w/v)

Ingredients determined to be non-hazardous Balance

#### 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin Contact:** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

**Eye contact:** If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

**Ingestion:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically.

#### **5. FIRE FIGHTING MEASURES**

Hazchem Code: Not applicable.

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**Specific hazards:** Non-combustible material.

Firefighting further advice: Not applicable.

#### **6. ACCIDENTAL RELEASE MEASURES**

#### **SMALL SPILLS**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

#### LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No: Not applicable

Product Name: FLEET Reference No: 020801,020805,020806,020808

Issued: 2020-08-17 Version: 6 Page 2 of 5



#### 7. HANDLING AND STORAGE

**Handling:** Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by Safe Work Australia.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

National occupational exposure limits: Natural ventilation should be adequate under normal use conditions...

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES.

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Material Family: Aqueous Formulation

Base Units: Litres

Form: Creamy Liquid
Colour: Opaque Blue
Odour: Odourless

Solubility: Miscible in water

Specific Gravity (20 °C):1.08Density:1.08Relative Vapour Density (air=1):N AppVapour Pressure (20 °C):N App

Flash Point (°C): > 100 Degrees Celcius

Flammability Limits (%):

Autoignition Temperature (°C):

N App
Melting Point/Range (°C):

N App

Boiling Point/Range (°C): 100 Degrees Celcius

**pH:** 7 - 9

Viscosity: Viscous Liquid

Total VOC (g/Litre): N App

(Typical values only - consult specification sheet) N Av = Not available, N App = Not applicable

#### 10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Product Name: FLEET Reference No: 020801,020805,020806,020808



Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

#### 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

#### **Acute Effects**

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

**Skin contact:** Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Eye contact: An eye irritant.

#### **Acute toxicity**

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

**Skin contact:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Ingestion:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Corrosion/Irritancy:** Eye: this material has been classified as a Category 2A Hazard (reversible effects to eyes). Skin: this material has been classified as not corrosive or irritating to skin.

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

#### **Chronic Toxicity**

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

#### 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

Product Name: FLEET Reference No: 020801,020805,020806,020808

Issued: 2020-08-17 Version: 6 Page 4 of 5



**Long-term aquatic hazard:** This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log  $K_{ow}$  < 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

#### 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

#### 14. TRANSPORT INFORMATION

#### **ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

#### MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

#### AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

#### 15. REGULATORY INFORMATION

#### This material/constituent(s) is covered by the following requirements:

 All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

#### 16. OTHER INFORMATION

Reason for issue: 5 Yearly Revision

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

Product Name: FLEET Reference No: 020801,020805,020806,020808

## CATEGORY 2 PUBLIC NOTIFICATION

**DEVELOPMENT 19/532/473** 

**GE Hughes Construction Co** 

For

Change of use to include a transport depot and extend an existing vehicle hardstand, retaining walls, 2 x 28000 litre fuel storage pods, storage building, outbuilding for truck wash equipment, 2 x 20000 litre water tanks & associated earthworks

At

4 Brettig Road Lobethal SA 5241

COMMENCEMENT DATE: 15 January 2021 CLOSING DATE: 29 January 2021

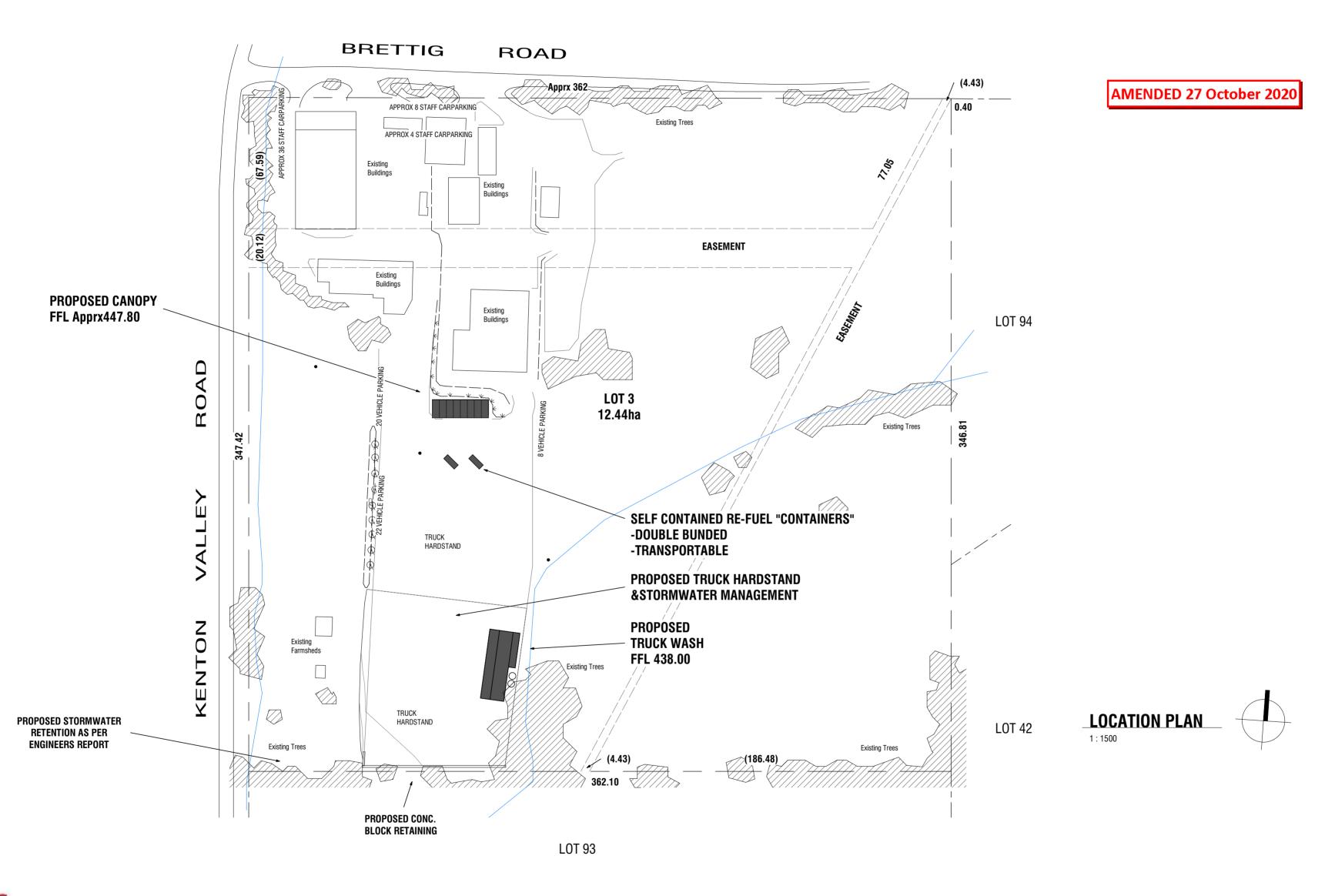
**CONTACT OFFICER: Melanie Scott** 

CAT 2 TRIGGER: The site of the development is adjacent land to land in a zone under the relevant Development Plan which is different to the zone that applies to the site of the development

**ZONES:** Light Industry Zone - Light Industry (Lobethal North) Policy Area, Watershed (Primary Production) Zone - Onkaparinga Valley Policy Area

#### **FOR PUBLIC DISPLAY ONLY**

Date to be displayed: 15 January 2021
Date to be removed: 29 January 2021





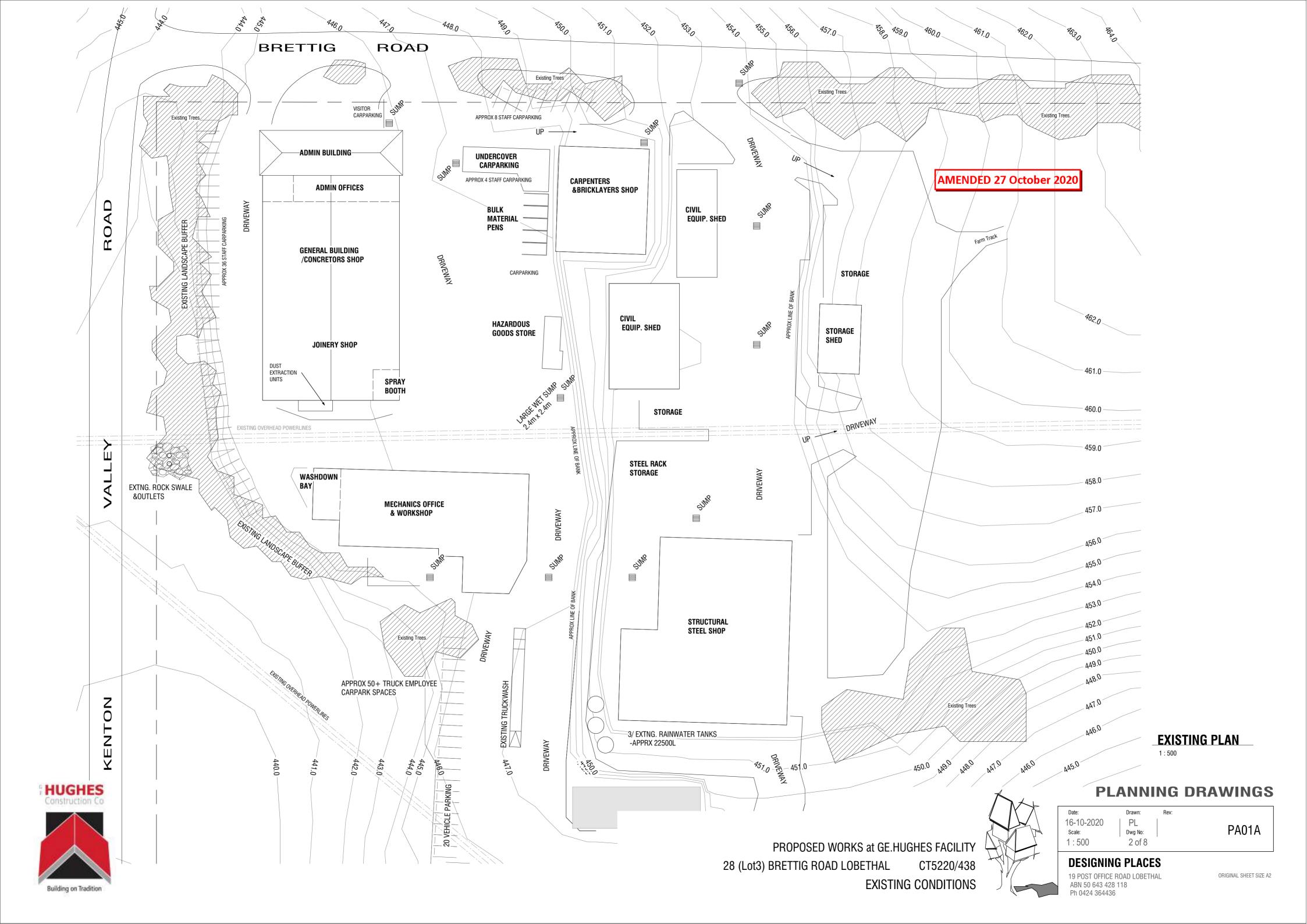
PROPOSED WORKS at GE.HUGHES FACILITY
28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438
LOCATION PLAN

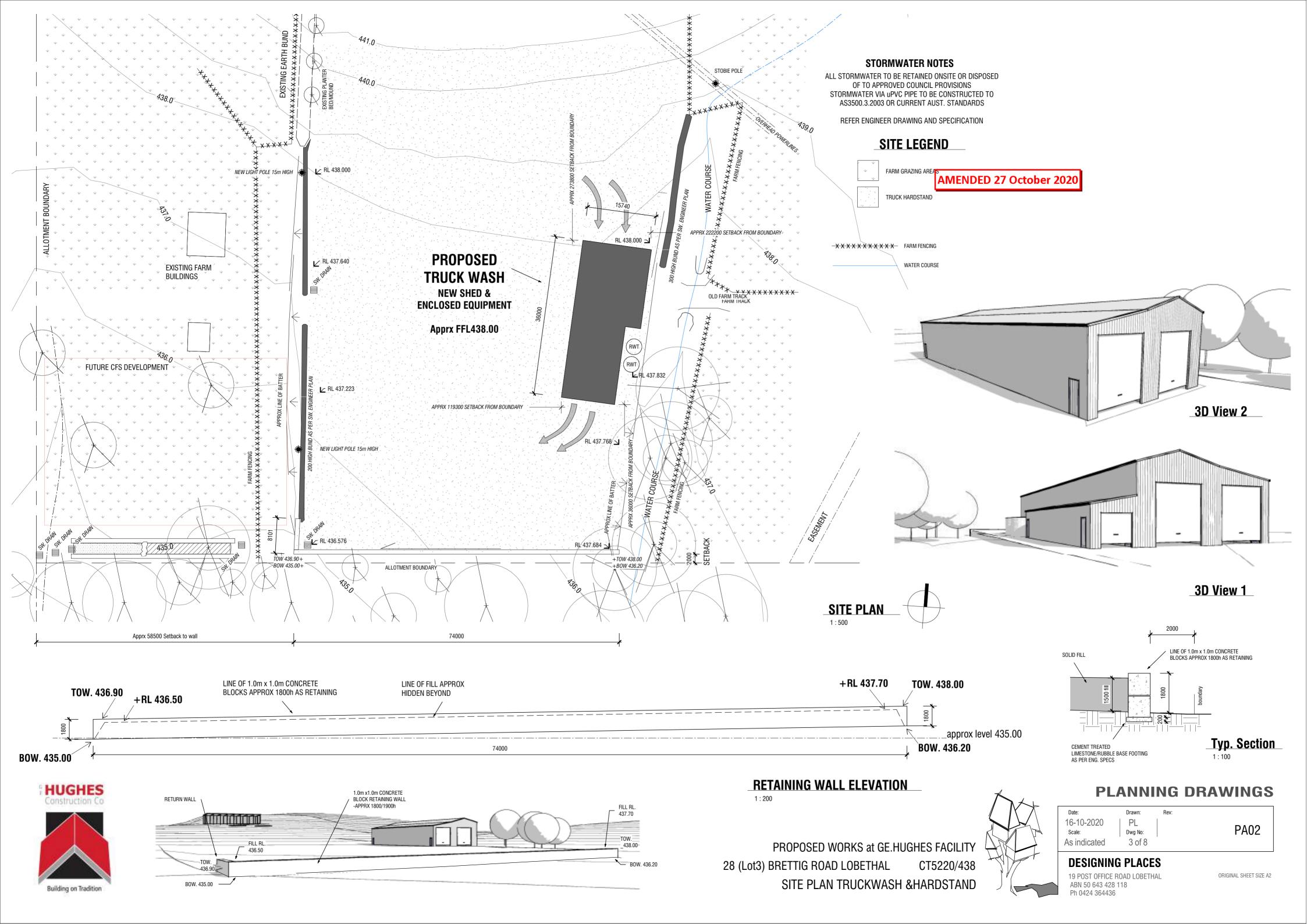
## **PLANNING DRAWINGS**

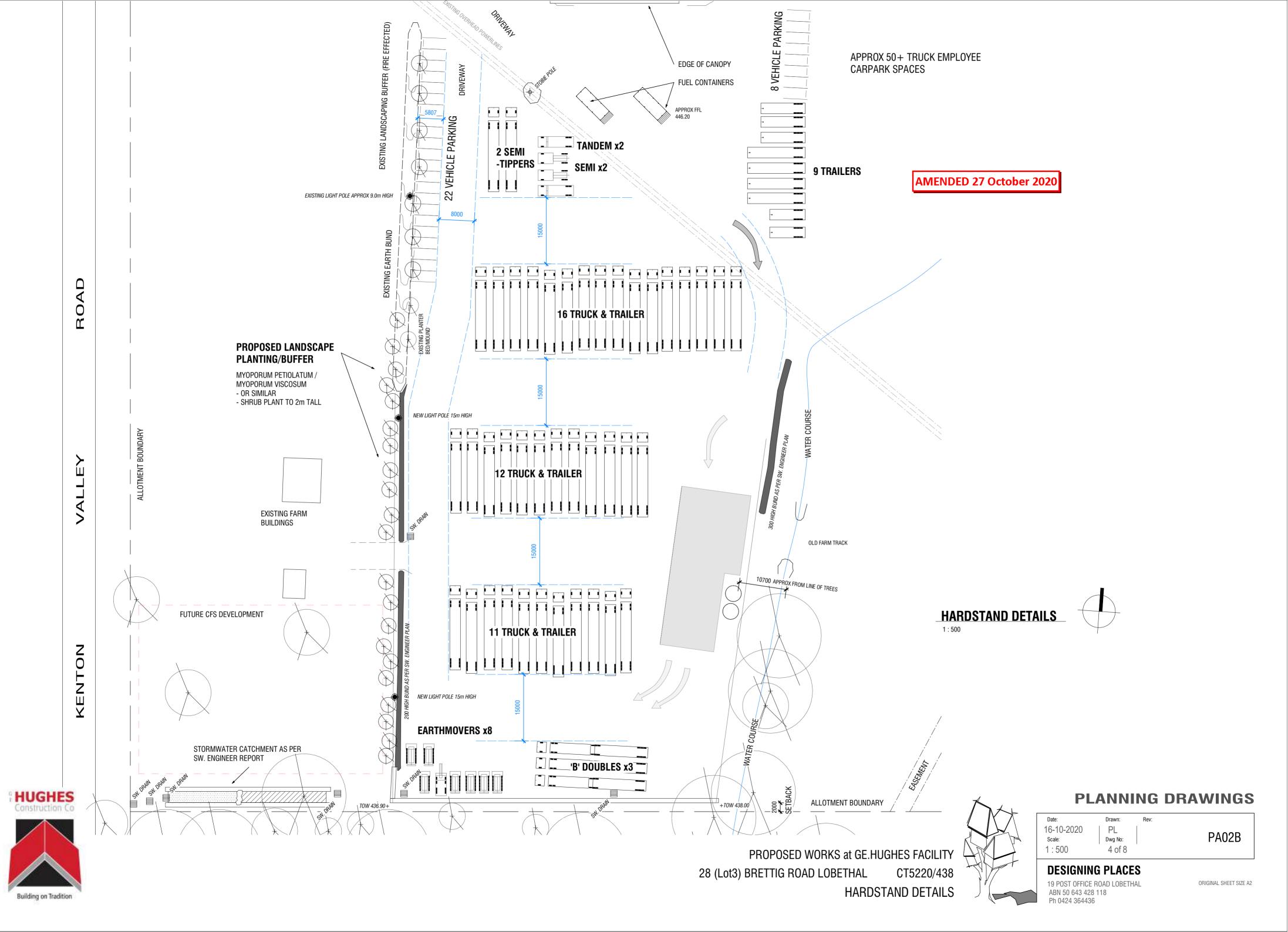
Date:	Drawn:	Rev:	
16-10-2020	PL		D404
Scale:	Dwg No:		PA01
1:1500	1 of 8		

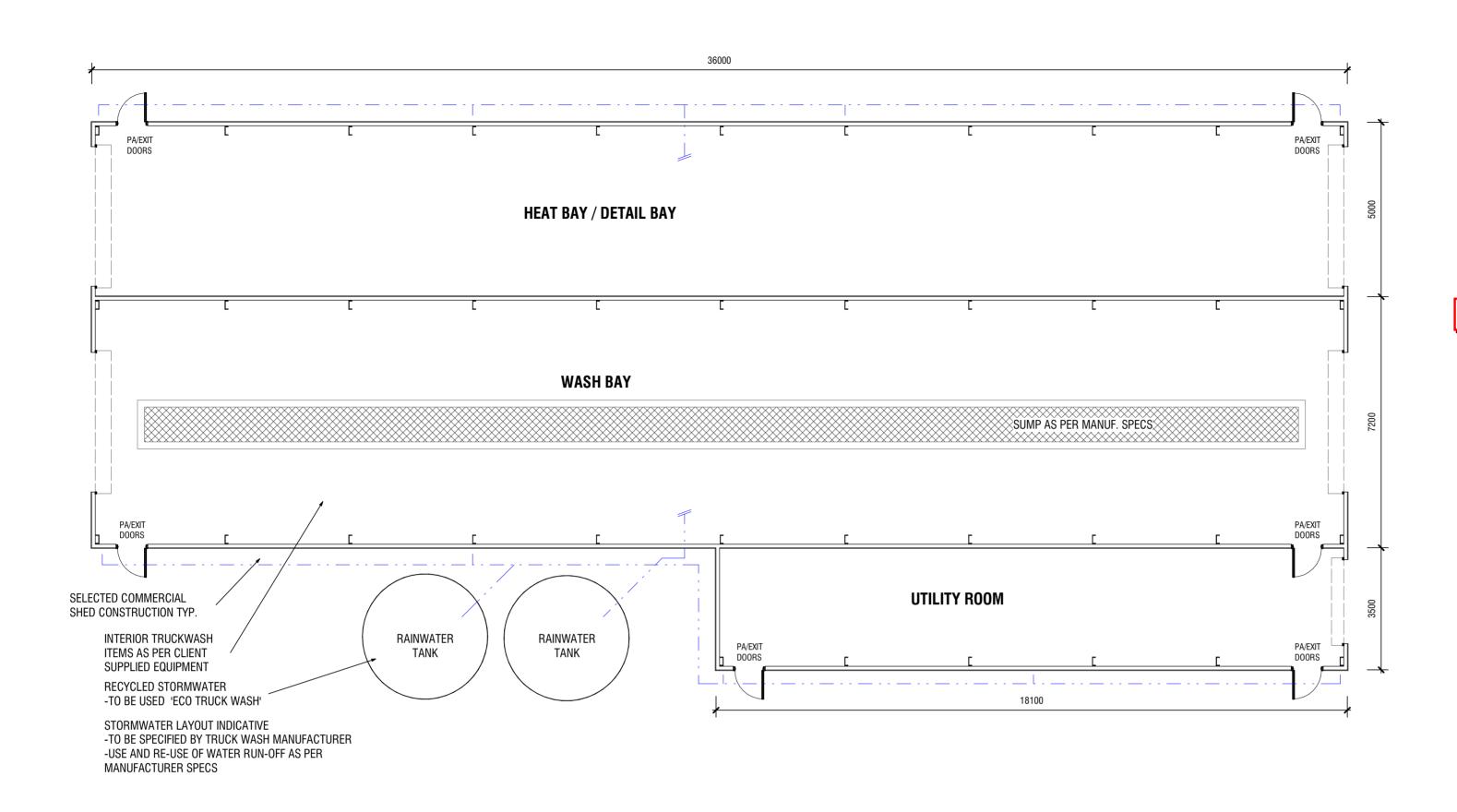


19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436



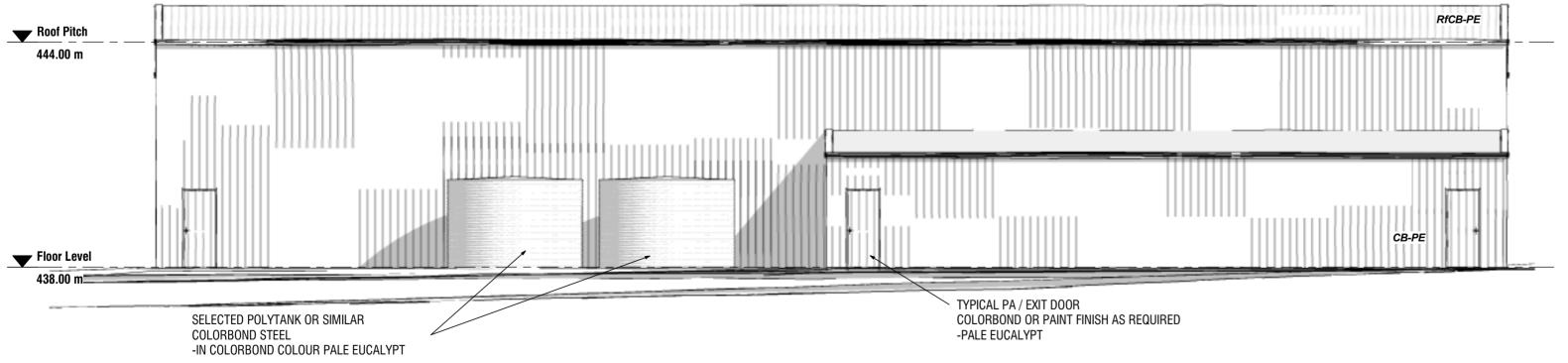






AMENDED 27 October 2020





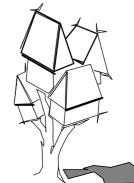
	Finishes Schedule			
Code	Description			
CB-PE	Selected Trim-dek profile Colorbond wall(Vertical). PALE EUCALYPT			
RD-PE	Roller Door			
RfCB-PE	Selected Trim-dek Colorbond roof. PALE EUCALYPT			

**East Elevation** 

1.100



PROPOSED WORKS at GE.HUGHES FACILITY
28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438
TRUCKWASH FLOOR PLAN &ELEVATIONS

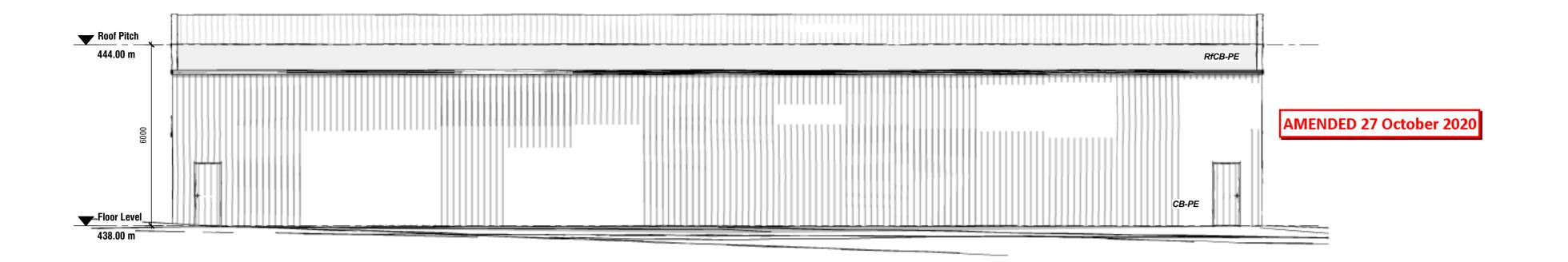


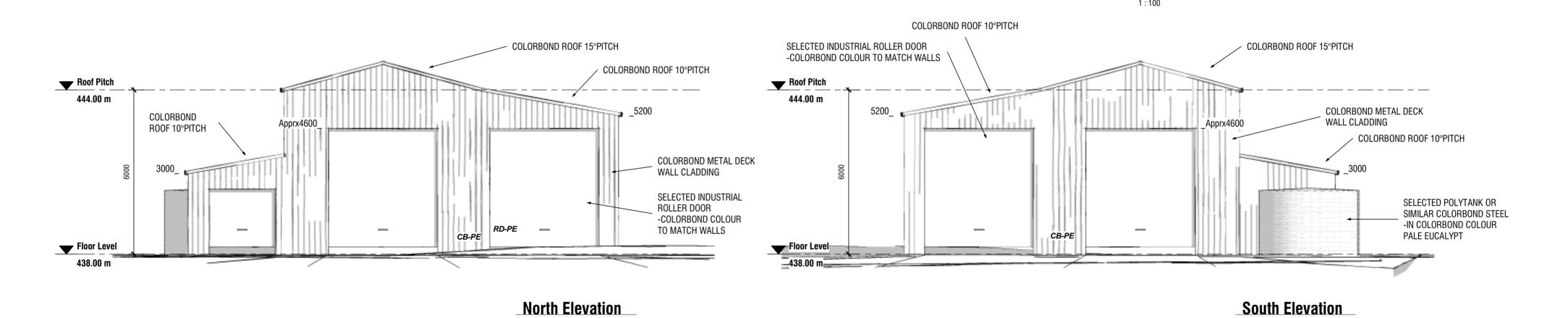
## **PLANNING DRAWINGS**

Date:	Drawn:	Rev:	
16-10-2020	PL		D. 1.00
Scale:	Dwg No:		PA03
1:100	5 of 8		

## **DESIGNING PLACES**

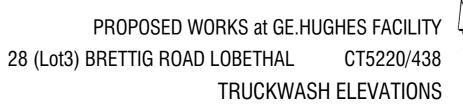
19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436

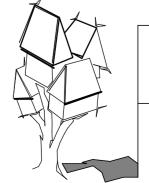




Finishes Schedule				
Code	Description			
CB-PE	Selected Trim-dek profile Colorbond wall(Vertical). PALE EUCALYPT			
RD-PE	Roller Door			
RfCB-PE	Selected Trim-dek Colorbond roof. PALE EUCALYPT			







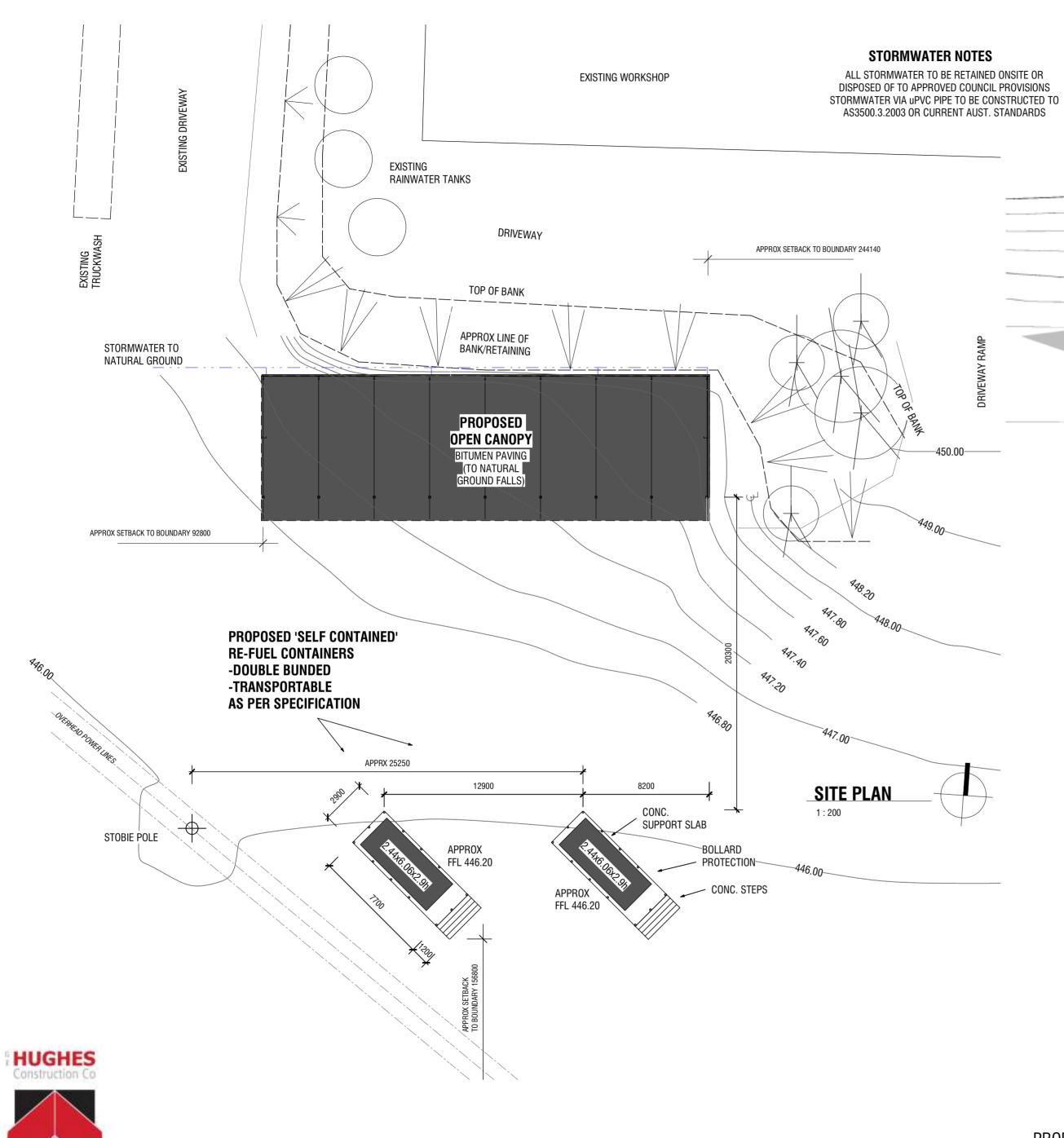
**West Elevation** 

## **PLANNING DRAWINGS**

Date:	Drawn:	Rev:	
16-10-2020	PL		D 4 0 4
Scale:	Dwg No:		PA04
1:100	6 of 8		

**DESIGNING PLACES** 

19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436



AMENDED 27 October 2020

## **PLANNING DRAWINGS**

| Date: | Drawn: Rev: | | 16-10-2020 | PL | | Dwg No: | | PA05 | | 1:200 | 7 of 8

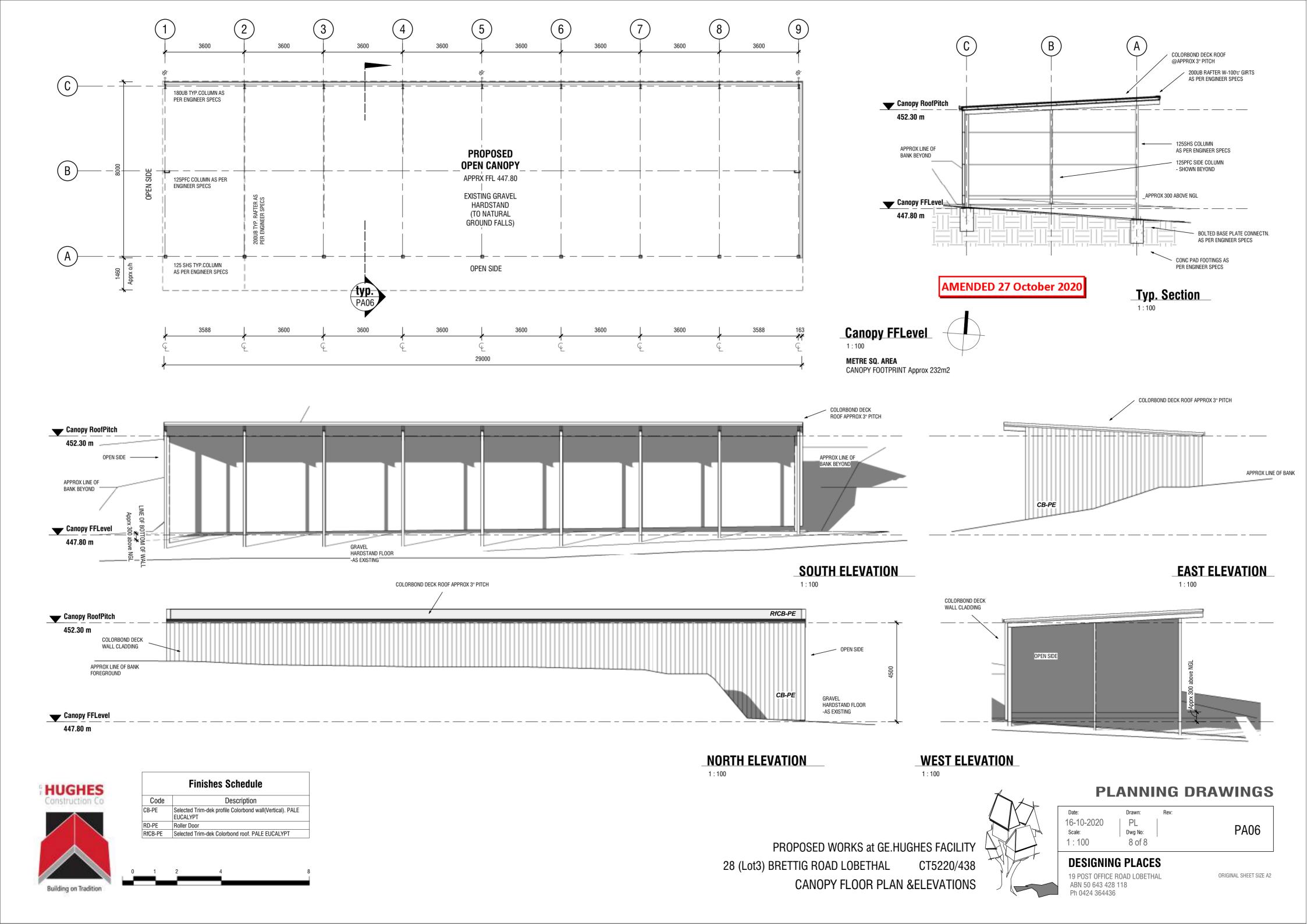
PROPOSED WORKS at GE.HUGHES FACILITY

28 (Lot3) BRETTIG ROAD LOBETHAL CT5220/438

SITE PLAN CANOPY &FUEL

DESIGNING PLACES

19 POST OFFICE ROAD LOBETHAL ABN 50 643 428 118 Ph 0424 364436





Map projection: Universal Transverse Mercator Horizontal datum: Geocentric Datum of Australia 1994 Grid: Map Grid of Australia, Zone 54



Stormwater Management Plan

Figure 03

26 | August 2020

# ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020

17 July 2020

Mr Duane Hughes GE Hughes Construction Co PO Box 200 Lobethal SA 5241 Our ref: GE Hughes Lobethal Vehicle Hardstand Development SMP Revision: 2

## **GE Hughes, Lobethal Vehicle Hardstand Development - Stormwater Management Plan**

#### 1 Introduction

GE Hughes Construction Co commissioned DBN Consulting Engineers to prepare a Stormwater Management Plan (SMP) for an existing and proposed vehicle hardstand at the Lobethal site. The proposed development consists of an existing gravel lined hardstand area and extension to the south of the existing hardstand area. The existing site and vehicle hardstand area is shown in Image 1. Image 1 also shows the approximate location of a possible future County Fire Service (CFS) development.



Image 1 – Site Location

## **ADELAIDE HILLS COUNCIL** Existing Stormwater System and Council Ben

### 2

#### 2.1 **Existing Stormwater System**

There is an existing watercourse that runs along the eastern side of the proposed vehicle hardstand extension. The existing watercourse exits the site in the south east corner and flows through the property to the south, towards Kenton Valley Road.

There is an existing watercourse that runs along the eastern side of Kenton Valley Road. The watercourse discharges to a DN750 mm pipe that runs under the access track to the site. The DN750 mm pipe has a DN450 mm pipe connection in the southwest corner of the site. The DN450 mm pipe connection has an upstream invert level of 433.66 m AHD.

#### 2.2 **Council Stormwater Management Requirements**

Council advised in a letter dated 16 July 2019 that the stormwater management requirements for the proposed development would include:

- 1. A hydrological report to determine the impact of the works proposed in a mapped flood plain on the subject land and neighbouring properties.
- 2. A civil engineering plan for the works detailing retaining, compaction, stormwater quality and quantity management to manage a 1% Annual Exceedance Probability (AEP) storm event and ensure pre and post development flows are best managed.

Further clarification from Council was sort and Council advised that:

- The post development 1% AEP peak post development flow rate from the proposed extent of development is not to exceed the pre-development 1% AEP peak flow rate from the proposed extent of development.
- Stormwater quality improvement measures are to be provided to ensure that there is an 80% reduction in Total Suspended Solids (TSS), 60% reduction in Total Phosphorus (TP) and 45% reduction in Total Nitrogen (TN).

#### 3 Floodplain Mapping

#### **Catchments** 3.1

There is an existing rural catchment to the east of the existing and proposed vehicle hardstand extension. Figure 1, Appendix A shows catchment cEast to the east of the existing and proposed vehicle hardstand extension. Catchment cEast has an area of 24.4 ha. Figure 1, Appendix A also shows catchments cSouth East, which has an area of 3.8 ha and cNorth, which has an area of 72.9 ha. Catchment cSouth East discharges to the existing watercourse in the southeast corner of the proposed vehicle hardstand extension.

#### 3.2 Hydrology

Two methods have been used to calculate the 1%r AEP flow rate from each catchment. The two methods are:

ADELAIDE HILLS COUNCIL
RECEIVED 19 August 2020

- 1. Regional Relationships. WALPITA-GAMAGE, S.H.P. HEWA, G.A., SUBHASHINI, W.H.C., DANIELL, T.M., and KEMP D. (2009) "Regional Flood Studies in South Australia 2 At Site Flood Frequency Analysis" I.E.Aust Hydrology and Water Resources Symposium, Newcastle, December 2009.
- 2. DRAINS modelling.

#### **Regional Relationships**

Recent regional relationships developed as part of the Australian Rainfall and Runoff update have been used to calculate the 1% AEP flow rate from the three sub catchments.

In summary, the regional relationship used to calculate the 1% AEP flow rate is:

 $Q_{1\%} = 3.6914 \text{ x (Catchment Area (km}^2))^{0.708}$ 

Using the catchment areas in Section 3.1, the 1% AEP flow rate for each of the sub catchments are:

- cEast = 1.34 m<sup>3</sup>/s.
- cSouth East = 0.36 m<sup>3</sup>/s.
- cNorth = 3.02 m<sup>3</sup>/s.

#### **DRAINS Modelling**

A DRAINS model (hydrologic and hydraulic modelling software) was established to calculate the 1% AEP existing peak discharges from the catchments cEast, cSouth East and cNorth. The following data was input and assumptions made to establish the 1% AEP peak flow rate from these catchments:

- Paved and pervious area depression storages equal 1 mm and 5 mm respectively.
- Soil type equals 3.
- Antecedent moisture condition equals 2.5.

The DRAINS model was simulated for a range of storm durations for the 1%r AEP storm event, using Australian Rainfall and Runoff, 2016 Temporal Patters and Bureau of Meteorology, Intensity Frequency Duration data. The DRAINS model configuration and 1% AEP existing conditions DRAINS modelling results are shown in Appendix B.

The DRAINS modelling results show that the 1% AEP existing conditions flow rates from the three sub catchments are:

- cEast = 1.30 m<sup>3</sup>/s.
- cSouth East = 0.42 m<sup>3</sup>/s.
- cNorth = 3.13 m<sup>3</sup>/s.

The DRAINS modelling results compared favourably with Regional Relationship flow rates and were considered to provide a reasonable representation of the likely 1% AEP flow rates from the contributing sub catchments.

#### 3.3 Hydraulics

A HEC-RAS model was established to determine the extent of flooding during a 1% AEP storm event in the eastern watercourse for both existing and post development conditions.

# ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020 Section locations are shown in Figure 2

The eastern watercourse and HEC-RAS cross section locations are shown in Figure 2 Appendix A. There is an existing DN450 mm pipe under the access track over the eastern watercourse. The cross sections were entered into the HEC-RAS model and simulated for a peak 1% AEP flow rate of 1.30 m³/s. The existing conditions 1% AEP extent of flooding is shown in Figure 2, Appendix A and the HEC-RAS modelling results are shown in Appendix C. Figure 2 shows that the 1% AEP flow spills over the western watercourse top of bank and flows in a south west direction towards Kenton Valley Road and the dwelling to the south west. The 1% AEP peak flood level at the existing DN450 mm culvert and access track is also very close to spilling over the western watercourse top of bank and flowing in a south west direction towards Kenton Valley Road and the dwelling to the south west.

The existing and proposed vehicle hardstand extensions match existing surface levels upstream of the existing DN450 mm culvert crossing under the access track. The proposed vehicle hardstand extension is in fill from the existing access track to the southern extent. The proposed depth of fill in the south east corner of the proposed vehicle hardstand is approximately 1.0 m. The existing conditions HEC-RAS model was amended to include the proposed fill for the vehicle hardstand and simulated for a 1% AEP flow rate of 1.30 m³/s. Figure 2 shows the extent of flooding with the proposed vehicle hardstand fill in place and the HEC-RAS modelling results are shown in Appendix C. The 1% AEP flood extent is contained within the watercourse by the fill. The proposed vehicle hardstand fill has a positive impact on flooding and reduces the risk of floodwater overtopping the western top of bank and flowing in a south west direction towards Kenton Valley Road and the existing dwelling to the south west. There is a risk upstream of the DN450 mm culvert crossing that floodwater could overtop the western top of bank and flow across the proposed vehicle hardstand area.

#### 3.4 Recommended Mitigation Measures

It is recommended that a 300 mm high earth bund is constructed along the western side of the watercourse from HEC-RAS chainage 105.3 m to the northern side of the access track, to tie in with the proposed fill. This will reduce the risk of floodwaters overtopping the existing and proposed vehicle hardstand.

#### 4 Proposed Development Stormwater Management Strategy

The stormwater management strategy for the proposed development is shown in Figure 3. Appendix A and includes:

- A 200 mm high cement stabilised rubble bund along the western side of the existing and
  proposed vehicle hardstand, from the existing bund to the proposed concrete block wall return.
  An opening will be provided at the existing access track. Two grated field inlet pits (GFIP2 and
  GFIP4) will be constructed along the eastern side of the cement stabilised rubble bund to
  capture stormwater runoff from catchment cWestHard, and DN375 mm to DN450 mm pipes will
  convey stormwater runoff to GFIP1.
- A 900 x 900 grated field inlet pit (GFIP1) in the south west corner of the proposed vehicle hardstand will capture stormwater runoff from catchment cGFIP1. A DN750 mm pipe will convey stormwater runoff to the basin. The proposed block wall on the southern boundary will direct stormwater runoff along the southern boundary to GFIP1. An additional grated field inlet pit (GFIP3) will be constructed in the south east corner of the hardstand area to capture any stormwater runoff and reduce the risk of stormwater overflows from the flatter area in the south east corner.

# ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020 of the site will be constructed to detain s

- A basin along the southern boundary of the site will be constructed to detain sormwater runoff and provide stormwater quality treatment. The basin will comprise:
  - A sediment forebay with an area of 160 m<sup>2</sup> to remove coarse sediment. A 300 mm high rock check dam will be constructed across the western end of the sediment forebay to temporarily pond stormwater in the sediment forebay and control flow into the bioretention (biofiltration) area of the basin.
  - A biofiltration area of 70 m² to provide treatment of stormwater runoff from the proposed vehicle hardstand. The biofiltration system will have:
    - An extended detention depth of 150 mm.
    - A filter depth of 350 mm.
    - No liner.
    - Two DN100 mm subsoil drainage lines.
  - The basin will utilise a DN375 mm outlet pipe that will discharge to the existing DN450 mm culvert in the south west corner of the site.

### 5 Vehicle Hardstand and Future CFS Stormwater Strategy Assessment

### 5.1 Post Development Catchment Plan

The existing and proposed vehicle hardstand catchments are shown in Figure 3, Appendix A. There is a potential future Country Fire Service (CFS) development on the western side of the proposed vehicle hardstand. The possible future CFS development has been included in the assessment of the proposed mitigation strategy, because it will be more expensive to alter the basin at a later date to include stormwater runoff from the future CFS development. A summary of the post development catchment areas and percentage impervious is shown in Table 1.

Table 1 – Summary of the Post Development Catchment Areas and % Impervious

Catchment/Pit ID	Total Area (m²)	Impervious Area (m²)	% Impervious
cWestHard	5,662	5,662	100%
cGFIP1	10,366	10,366	100%
cCFS	1,841	1,841	100%

#### 5.2 DRAINS Modelling

A DRAINS model (hydrologic and hydraulic modelling software) was established to calculate the 1% AEP pre and post development peak discharges from the site. The following data was input and assumptions made to establish the pre and post development conditions DRAINS models:

- Pre-development catchments are assumed to be 100% pervious.
- The post development percentage impervious is shown in Table 1.
- Impervious and pervious area depression storages equal 1 mm and 5 mm respectively.
- Soil type equals 3.

## ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020

- Antecedent moisture condition equals
- The sediment forebay and biofiltration areas within the basin will have a surface level of 434.20 m AHD.
- Grated Field Inlet Pit 5 (GFIP5) will have a surface level of 434.35 m AHD, providing 150 mm of extended detention.
- The invert level of the proposed DN375 mm outlet pipe from the basin is 433.71 m AHD and the invert level at the point of discharge (existing DN450 headwall) is 433.66 m AHD.
- The basin weir level will be 434.90 m AHD. Any overflows will be directed to the adjacent watercourse and existing DN450 mm headwall.

#### 5.2.1 DRAINS Modelling Results

The pre and post development DRAINS models were simulated for a range of storm durations for the 1% AEP storm event, using Australian Rainfall and Runoff, 2016 Temporal Patters and Bureau of Meteorology, Intensity Frequency Duration data. The pre and post development 1% AEP flow rates from the site are shown in Table 2.

Table 2 –1% AEP DRAINS Modelling Results Summary

Catchment	Pre-Development Flow (L/s)	Post Development Flow (L/s)
cWestHard + cGFIP1	290	699
cCFS	26	56
Discharge Point	306	301

The DRAINS model configuration and 1% AEP pre and post development DRAINS modelling results are shown in Appendix B.

The DRAINS modelling results show that there is 89 L/s overflow from the basin in a 1% AEP storm event and that the 1% AEP post development discharge from the basin is less than the 1% AEP predevelopment flow rate. The 1% AEP ponding level at GFIP1 is 435.94 m AHD and the surface level of the pit is 435.80 m AHD. The proposed block work wall will have a minimum top of wall level of 436.10 m AHD to provide some freeboard. Any overflows from GFIP1 are to be directed to the basin.

The 1% AEP overflow from the drainage system along Kenton Valley Road is 2.15 m<sup>3</sup>/s. Any future CFS development will need to consider this overland flow along the eastern side of Kenton Valley Road and stormwater runoff from the existing GE Hughes development.

#### 5.3 Stormwater Quality Improvement

The basin will be provided with a 160 m² sediment forebay at the eastern end of the basin. A 300 mm high rock check dam will help to temporarily pond stormwater in the sediment forebay and promote settling of coarse sediment. Overflows from the sediment forebay will be directed to the biofiltration area of the basin. A biofiltration area of 70 m² will be provided in the western invert of the basin. The biofiltration area will treat stormwater runoff, including the removal of any oil, prior to discharge to the receiving watercourse.

ADELAIDE HILLS COUNCIL
RECEIVED 19 August 2020

A MUSIC model (water quality model) was established to simulate the performance of the proposed basin. The MUSIC model was simulated using 10 years of 6 minute Mount Crawford rainfall from 1 January 2000 to 31 December 2009.

The MUSIC model configuration and pollutant percentage reductions are shown in Image 2. The proposed stormwater quality improvement measures are adequate to meet Councils pollutant reduction targets of 90% Gross Pollutants, 80% Total Suspended Solids, 60% Total Phosphorus and 45% Total Nitrogen.

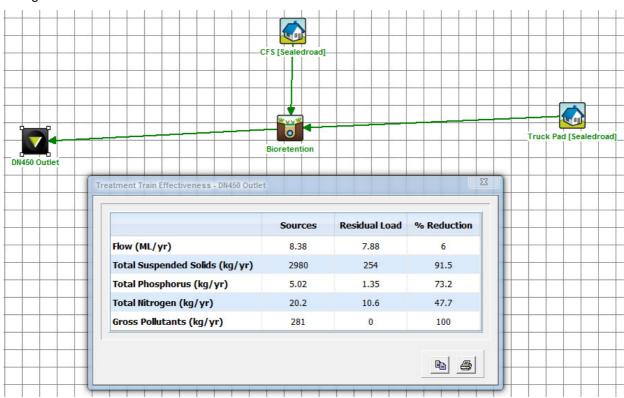


Image 2 - MUSIC Model layout and treatment train effectiveness

#### 5.4 Vegetation Selection

It is recommended that the biofiltration area of the basin is planted with a high density of drought tolerant plant species. The biofiltration area should be planted extensively; at a density of 4 plants/m², depending on the growth form. Image 3 shows a selection of high nitrogen removal plant species. Shrubs and trees should be planted at a density of < 1 plant/m². Mulch is not recommended as it has a tendency to float and block outlets. The sediment forebay area does not need to be planted because sediment will need to be periodically removed with an excavator.

			HILLS COUNCIL 19 August 2020
Objective	Effective		
Nitrogen removal	· Baumea juncea · Baumea rubiginos · Carex appressa · Carex tereticaulis · Ficinia nodosa · Goodenia ovata · Juncus amabilis · Juncus flavidus · Juncus pallidus · Juncus subsecun · Melaleuca ericifol · Melaleuca lateritis	dus lia	

Image 3 – High Nitrogen Removal Plant Species (CRC for Water Sensitive Cities)

#### 6 Maintenance

The following inspection and maintenance measures are recommended to maintain the integrity of the stormwater system:

- Inspect inlet pits on a monthly basis for the first 12 months to establish a cleaning regime.
- Inspections to check for an excess of sediment, erosion or boggy conditions in the basin.
   Excess sediment should be removed to as close to original design levels as possible and erosion should be repaired by filling with sandy loam material and rock ballast if erosion continues to be a high risk.
- Regular pruning and weeding to remove any foreign species and any diseased plantings, to promote new growth.
- Monitor vegetation closely during the first year to ensure plants are becoming established and have sufficient water. Some irrigation may be required to establish new plants. Dead plants should be replaced with new plants.
- Check that the basin outlet pipe is not blocked by vegetation matter or other debris.
- Inspection and removal of gross pollutants.

Routine maintenance inspections should be undertaken every month and/or after rainfall events totalling 15 mm or more.

#### 7 Conclusion

A stormwater management strategy has been developed for the existing and proposed vehicle hardstand areas. The future CFS development has also been included in the sizing of mitigation measures.

Flood mapping was undertaken for the watercourse on the eastern side of the existing and proposed vehicle hardstand. HEC-RAS modelling showed that a 300 mm high earth bund will be required along



# ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020

the eastern side of the existing vehicle hardstand to reduce the risk of 1% AEP flows in the watercourse, flowing across the hardstand area. The proposed hardstand area will include fill in the southern corner of the site, which will contain the 1% AEP peak flow rate in the watercourse to the discharge point at the southern boundary.

DRAINS modelling showed that the proposed basin will reduce the 1% AEP post development flow rate to less than the existing conditions 1% AEP flow rate. The proposed sediment forebay and biofiltration area are sufficient to meet Council's pollutant reduction targets of 80% TSS, 60% TP and 45% TN removal.

Any future CFS development on the western side of the proposed vehicle hardstand area will need to consider 1% AEP overland flows along the eastern side of Kenton Valley Road and from the existing GE Hughes development.

If you have any queries regarding this report please contact the undersigned on 0422 150 775.

Yours faithfully DBN Consulting Engineers Pty Ltd

Ralathon.

**Dean Nobbs** 

Director 0422 150 775

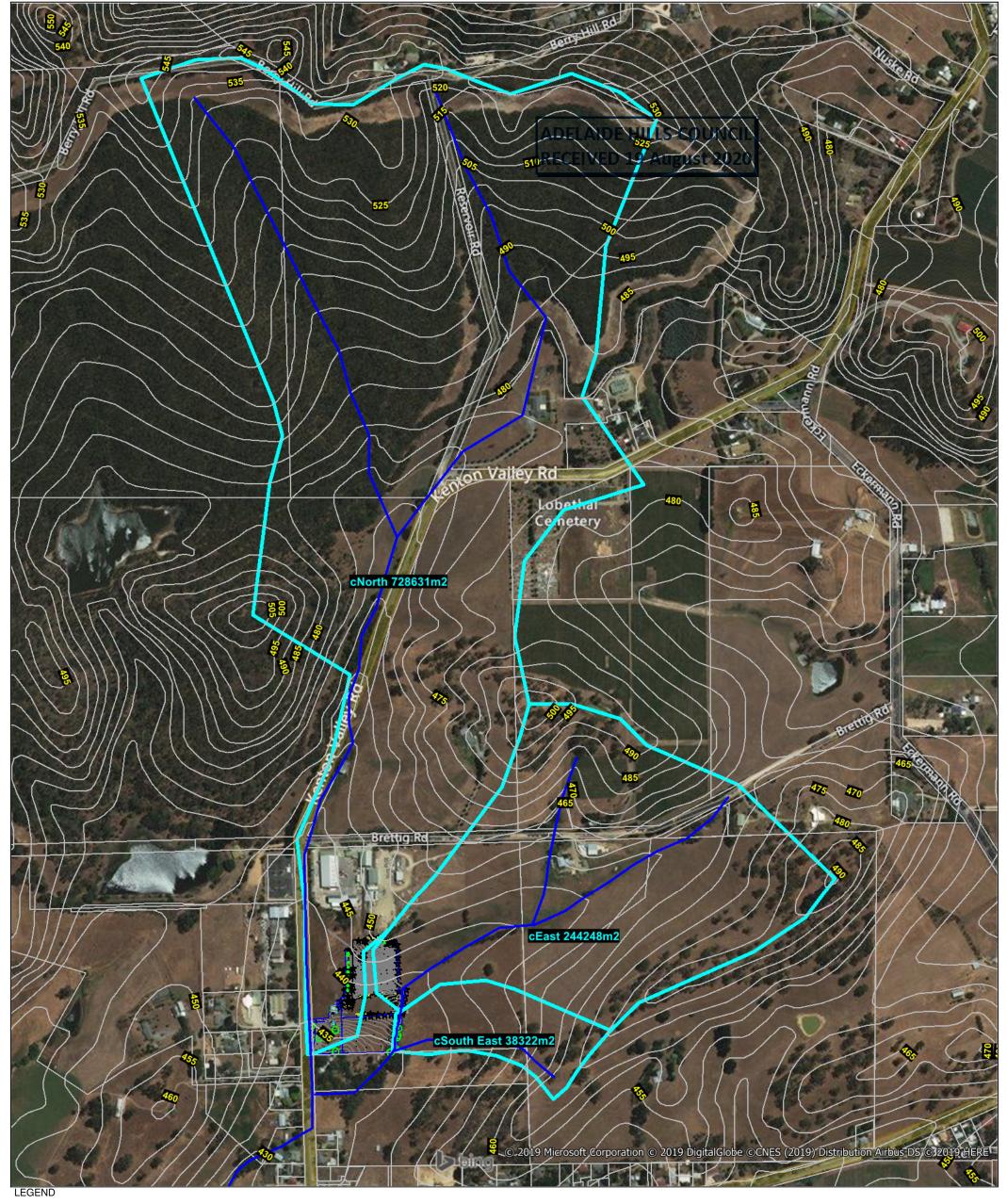
## ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020

## Appendix A - Figures

Figure 1 – Catchment Plan

Figure 2 – 1% AEP Flood Mapping and Proposed Mitigation Measures

Figure 3 – Stormwater Management Plan



Watercourse 5 m Contour Catchment

1:6,000



GE Hughes Construction Co Truck Parking Hardstand Catchment Plan

nt Plan

Figure 01

job no. rev no. ADL0219



1:500



DBN Consulting Engineers Pty Ltd

M 0422 150 775 E deannobbs@internode.on.net

GE Hughes Construction Truck Parking Hardstand 1% AEP Flood Mapping and
Proposed Mitigation Measures Figure 02 26 | July 2019

job no. rev no. ADL0219





Map projection: Universal Transverse Mercator Horizontal datum: Geocentric Datum of Australia 1994 Grid: Map Grid of Australia, Zone 54

Stormwater Management Plan

Figure 03

26 | August 2020

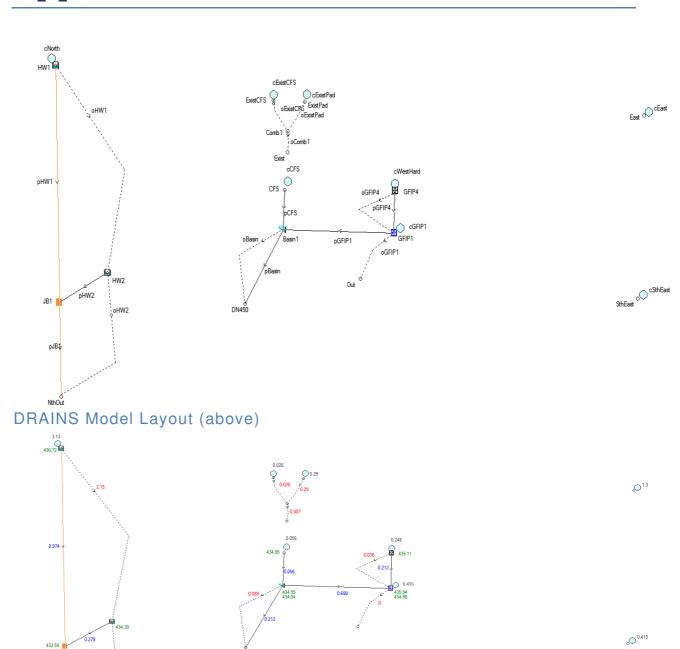




Truck Parking Hardstand Stormwater Management Plan

Figure 03

# Appendix B – DRAINS Model Results

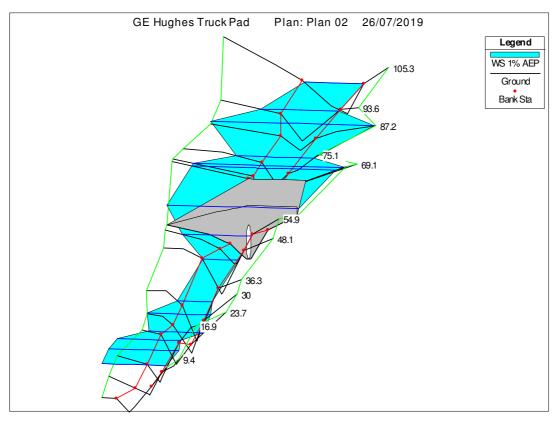


1% AEP DRAINS Model Results (above)

# Appendix C – HEC-RAS Modelling Results

## Existing Conditions HEC-RAS Modelling Results (below)

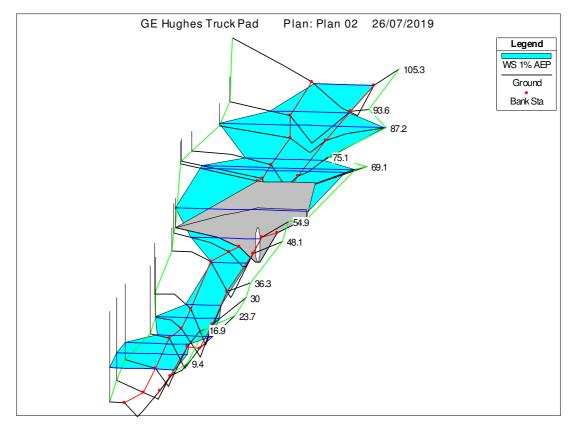
River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Flow Area	Top Width
		(m3/s)	(m)	(m)	(m/s)	(m2)	(m)
105.3	1% AEP	1.3	438.02	438.42	0.94	1.39	6.32
93.6	1% AEP	1.3	437.85	438.26	0.97	1.39	8.37
87.2	1% AEP	1.3	437.84	438.2	0.78	2.32	17.47
75.1	1% AEP	1.3	437.59	437.96	1.37	1.16	8.29
69.1	1% AEP	1.3	437.21	437.95	0.64	3.05	16.27
62		Culvert					
54.9	1% AEP	1.3	436.89	437.26	1.35	1.12	7.39
48.1	1% AEP	1.3	436.6	437.05	1.51	0.86	3.79
36.3	1% AEP	1.3	436.17	436.7	1.46	0.91	3.75
30	1% AEP	1.3	436.12	436.64	1.17	1.23	6.77
23.7	1% AEP	1.3	436.08	436.51	1.45	0.97	5.8
16.9	1% AEP	1.3	435.96	436.52	0.66	2.13	6.81
9.4	1% AEP	1.3	435.92	436.52	0.48	3.1	7.5
1.8	1% AEP	1.3	435.82	436.46	0.15	2.78	6.8

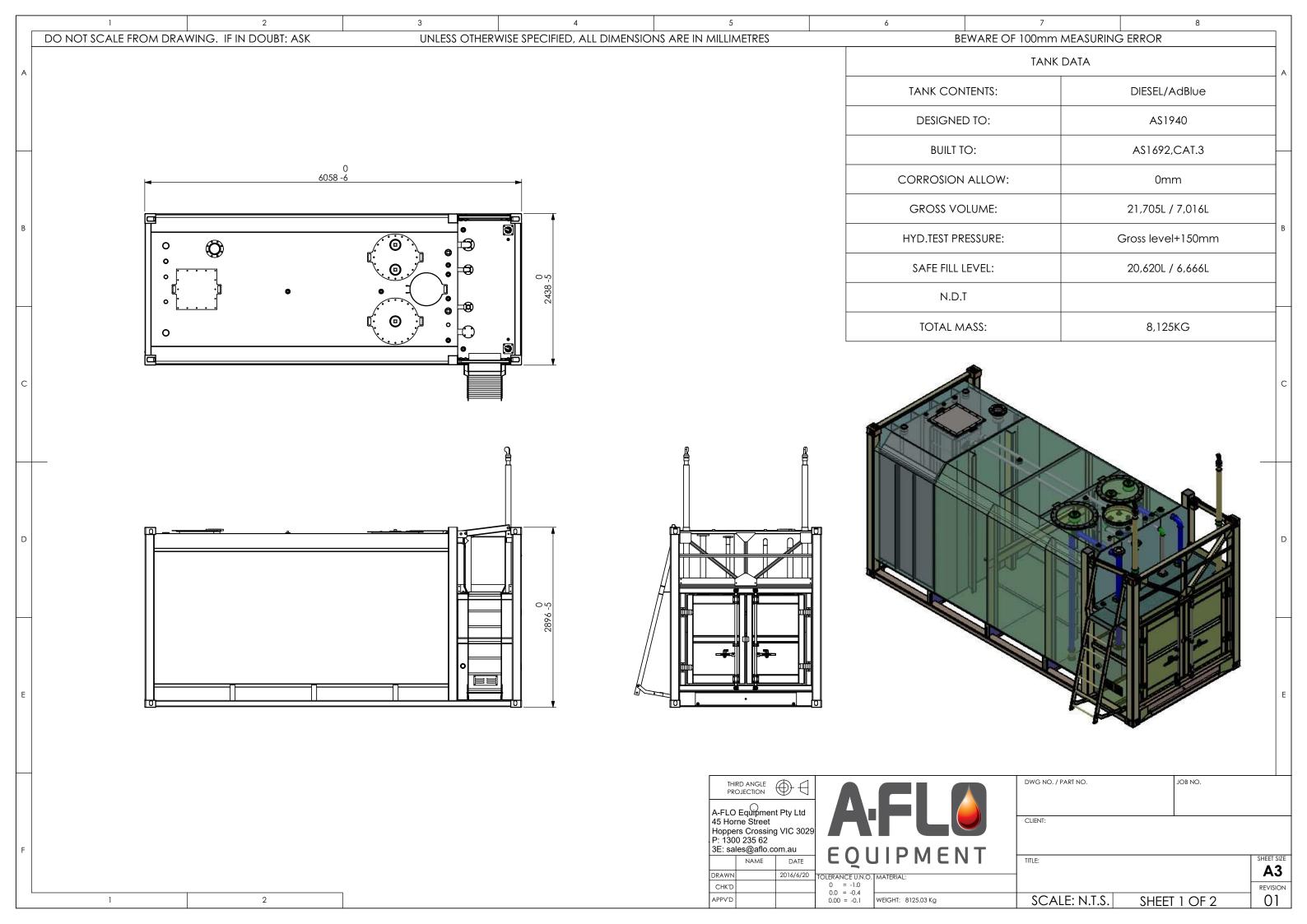


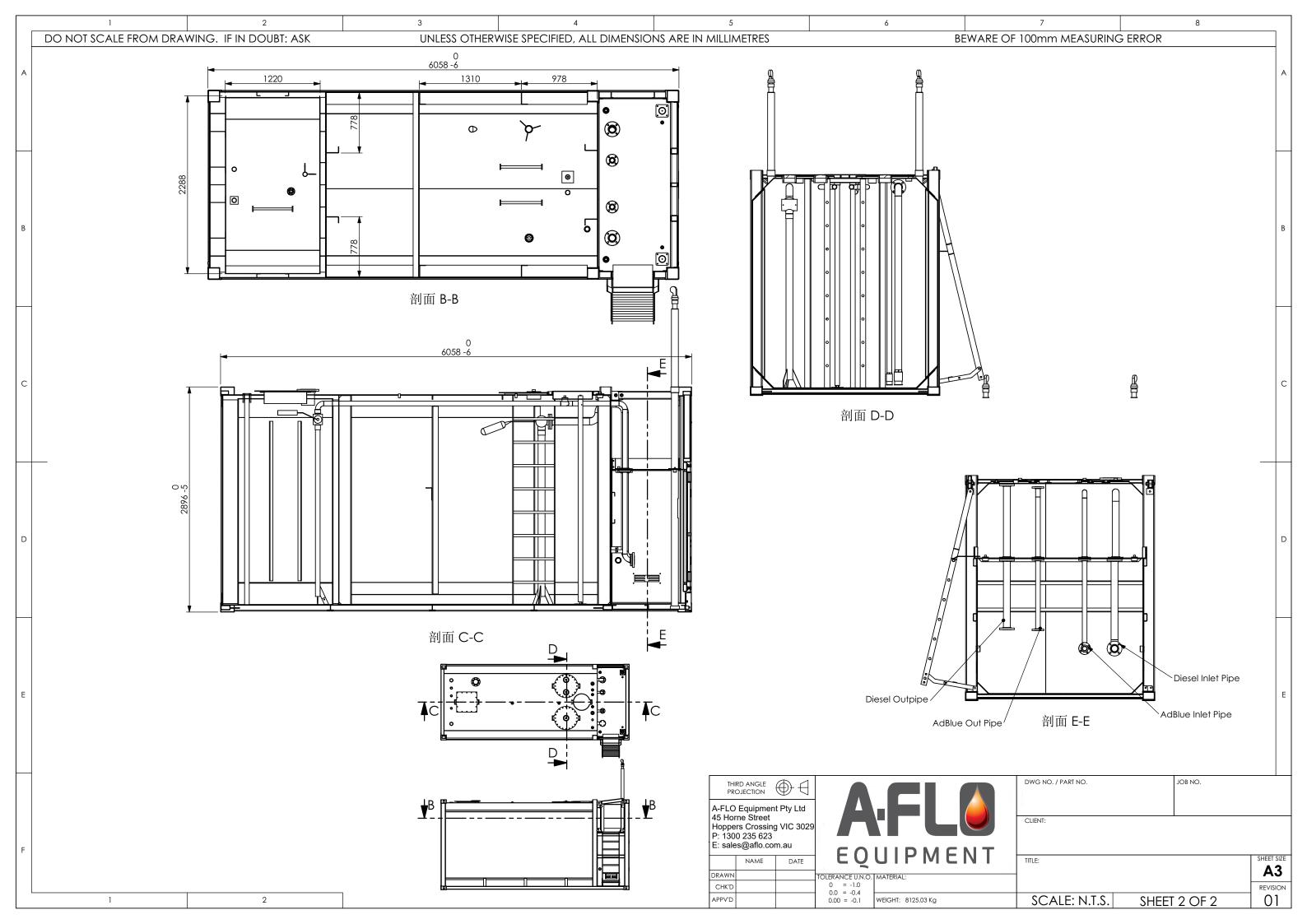
## ADELAIDE HILLS COUNCIL RECEIVED 19 August 2020

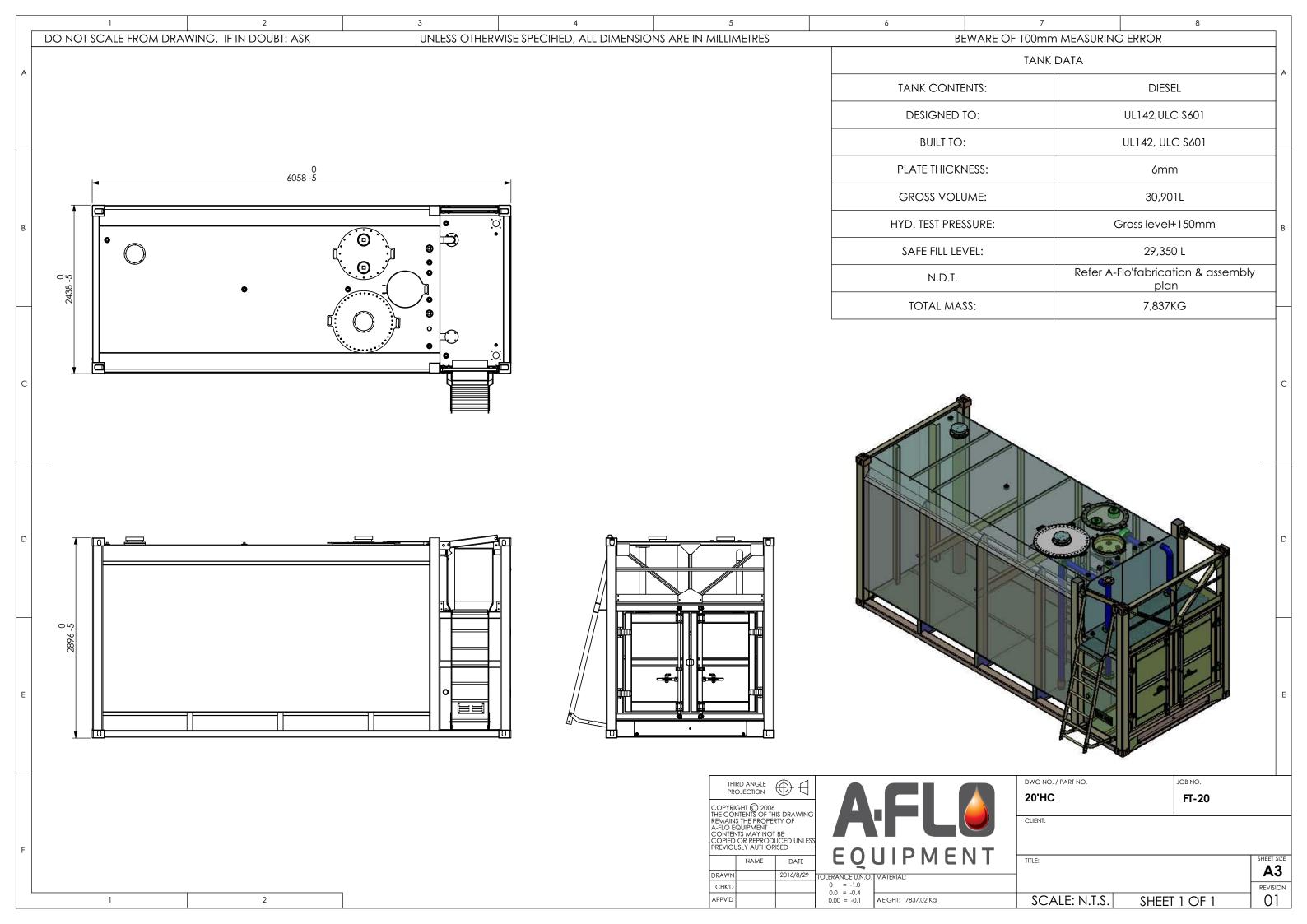
Proposed Development Conditions HEC-RAS Modeling Results (below

River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Flow Area	Top Width
		(m3/s)	(m)	(m)	(m/s)	(m2)	(m)
105.3	1% AEP	1.3	438.02	438.42	0.94	1.39	6.32
93.6	1% AEP	1.3	437.85	438.26	0.97	1.39	8.37
87.2	1% AEP	1.3	437.84	438.2	0.78	2.32	17.47
75.1	1% AEP	1.3	437.59	437.96	1.37	1.16	8.29
69.1	1% AEP	1.3	437.21	437.95	0.64	3.05	16.27
62		Culvert					
54.9	1% AEP	1.3	436.89	437.26	1.35	1.12	7.39
48.1	1% AEP	1.3	436.6	437.05	1.51	0.86	3.79
36.3	1% AEP	1.3	436.17	436.7	1.46	0.91	3.75
30	1% AEP	1.3	436.12	436.64	1.17	1.23	6.77
23.7	1% AEP	1.3	436.08	436.51	1.45	0.97	5.8
16.9	1% AEP	1.3	435.96	436.52	0.66	2.13	6.81
9.4	1% AEP	1.3	435.92	436.52	0.48	3.1	7.5
1.8	1% AEP	1.3	435.82	436.46	0.15	2.78	6.8









From:

Sent: Monday, 25 January 2021 11:59 AM

To: Mail

**Subject:** Representation on Application - Cagegory 2 Notification. Development No:

19/532/473

To whom it may concern

Development number: 19/532/473

To reiterate more clearly what I've written:

Address: 20 Kenton Valley Rd, Lobethal 5241. (Adjacent to 4 Brettig Rd, Lobethal 5241)

The specific aspects of the application to which I make representation are:

- Privacy
- Noise (of the increased amount of vehicles & unknown noise level of the proposed Truck Wash)
- Light Pollution: their security lights currently directed onto their fleet of trucks affect the amount of light coming onto my property,

which is not appreciated. I certainly don't wish any further light coming over onto my property, it's like full moon every night.

• Diesel Pollution: My property is classified as both water catchment and a flood plain, therefore I am very particular about what goes

onto my land. I have a 'winter creek' which has already been affected with diesel pollution in which the EPA has become involved with. Therefore I'm very concerned with what potential pollutants may escape from the truck wash. GE Hughes Construction Co were requested

by the EPA to place green anti-sludge material up to stop the current diesel (admittedly not a large amount) entering my property. This

material, placed along their southern and my northern boundary has not been fixed properly, with NO fixture to the actual ground-

USLESS!!! I can supply photos.

My objections could be overcome by:

- A solid fence at least 3 m high running the length of their southern /my northern boundary within their boundary.
- fail safe containment of potential diesel leakage into the environment a solid barrier preventing leakage into my property not sure if the

concrete blocks being placed along their southern boundary would be or are sufficient in preventing leakage.

• if possible, sound proofing of the truck wash. Use of truck wash only during week day 9-5 hours & not on weekends.

Kind	regards

Dianne Barrett

## SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2 NOTIFICATION

Development Number: 15	
My Name: Distors.	parte. N
Postal Address: PD B	OX 136, LOSETHAL SA 5241
Contact No:	
Email:	ss you agree to receive any related future correspondence electronically)
This representation is in re	lation to the application by: GE Hughes Construction Co
Nature of Development:	Change of use to include a transport depot and extend an existing
	vehicle hardstand, retaining wans, 2 x 20000 storage building, outbuilding for truck wash equipment, 2 x 20000 intre water tanks & associated earthworks
Proposed to be located at:	4 Brettig Road Lobethal SA 5241
CONTRACTOR DESCRIPTION OF	to the same does not apply below)
My representation:	upports the proposed development OR Opposes the proposed development
My interests are:	(cross out whichever does not apply below)
the microsoperation	owner of local necessity Displesspier of local projectly
	a representative of a company OR other organisation affected by the proposal CR a private citizen
The address of the proper	ty affected is:
7 20 Venton Va	Usy RS, Lobstriff Postcode 524/
The specific aspects of the	application to which I make representation are:
	of RS, Lobothal Privacy, Alorse Light Pollution
	d be overcome by 3 Metre High
fence along South	s bounding, to allow privacy - the knowly a solid fence
(cross out whichever does	not apply below)
I do wish to be	heard in support of my representation by appearing personally or-being y the following person.
_ I do not wish t	o be heard in support of my representation.
"Please note that, in accordance its absolute discretion, allow a	te with Section 38 (10(ks) of the Development Act 1993, the Council Assessment Panel may, in person who made a representation to appear personally or by representative before it to be heard in support of the representation."
	of appeal to the Environment, Resources and Development Court exists for
	mit a Category 2 representation.
Date: 22/1/24	Sensure Spandt
	te for Representations is 5.00pm on 29 January 2021 & Representations can scelved during the period 15 January 2021 to 29 January 2021
	e with Section 38(8) of the Development Act 1993, a copy of this representation is forwarded

"Please note that in accordance with Section 38(8) of the Development Act 1993, a cupy of this representation is forwarded to the Applicant for their information and emports. Further a copy of your representation (including your name and address) will become public and can be viewed on the web."

## SOUTH AUSTRALIAN DEVELOPMENT ACT, 1993 REPRESENTATION ON APPLICATION – CATEGORY 2 NOTIFICATION

\* AHACHED LIST OF CONCERNS

Development Number: 19/5		
My Name: MARK & H	eler Elsworthy	
Postal Address: 15 A	KENTON Valley Ro Lobethal	
Contact No:		
Email: (by providing an email address	you agree to receive any related future correspondence electronically)	
This representation is in rela	tion to the application by: GE Hughes Construction Co	
Nature of Development:	Change of use to include a transport depot and extend an existing vehicle hardstand, retaining walls, 2 x 28000 litre fuel storage pods, storage building, outbuilding for truck wash equipment, 2 x 20000 litre water tanks & associated earthworks	
Proposed to be located at:	4 Brettig Road Lobethal SA 5241	
My representation:	(cross out whichever does not apply below)  ports the proposed development OR Opposes the proposed development	
My interests are:	(cross out whichever does not apply below) owner of local property OR occupier of local property a representative of a company OR other organisation affected by the proposal OR a private citizen	
To Cost To Resta	pplication to which I make representation are:  ENTIAL SUBPLUSION (B) NOISE POUNTINN !! WATER CARCINGED  be overcome by: BUTLO CLOSER TO ENTSTING BUTLOINGS OF	
rangeantar hy t	ot apply below) eard in support of my representation by appearing personally or being he following person.  be heard in support of my representation. But do Not want to affend.	
"Please note that, in accordance v	with Section 38 (10)(a) of the <i>Development Act 1993</i> , the Council Assessment Panel may, in erson who made a representation to appear personally or by representative before it to be heard in support of the representation."	
	appeal to the Environment, Resources and Development Court exists for it a Category 2 representation.	
Date: .2.1./.2/		

The closing time and date for Representations is 5.00pm on 29 January 2021 & Representations can only be received during the period 15 January 2021 to 29 January 2021

"Please note that in accordance with Section 38(8) of the *Development Act 1993*, a copy of this representation is forwarded to the Applicant for their information and response. Further a copy of your representation (including your name and address) will become public and can be viewed on the web."

From: Helen Maria Elsworthy

Sent: Friday, 29 January 2021 8:42 AM

To: Helen Maria Elsworthy

Subject:

Sent from Mail for Windows 10

Date: 29/01.2021

Adelaide Hills Council

Development Number 19/532/473

RECEIVED

29 JAN 2121



Attached list of concerns for the development at 4 Brettig Road, Lobethal. SA

- Becoming a large concern with the amount of trucks near rural property and township area for a light industry zone.
  - With the amount of trucks and machinery it seems more like a heavy industrial.
- The extra noise that it will create as we already get excessive noise early in the morning around 5.30am.
- · What will be the times for trucks starting up and retiring from jobs.
- How much more noise will the large Truck Wash create with the extra trucks and machinery.
- What times will the Truck Wash operate?
- More large machinery and truck traffic on our road will create more road destruction considering it is a tourist route.
- · Has a report been made for the noise levels to neighbouring homes .
- At present the area is classed as Truck parking but the trucks will be going in and out every day to do there daily work.
- Why has this been given that title?
- . Where will the trucks be exiting and entering from, Kenton Valley Road or Brettig Road?

Yours Sincerely

Mark and Helen Elsworthy



Our Ref: Adelaide Hills Council

21 January 2021

Adelaide Hills Council PO Box 44 Woodside SA 5244

By email only: mail@ahc.sa.gov.au

Dear Sir/Madam

### DEVELOPMENT APPLICATION 19/532/473 - CHANGE OF USE, 4 BRETTIG ROAD, LOBETHAL

I refer to your letter dated 8 January 2021 and thank you for providing SA Power Networks the opportunity to comment. The proposed development is in close proximity to SA Power Networks' Lobethal Substation at 25 Kenton Valley Road, Lobethal.

SA Power Networks requests that Council and prospective Developer, in making a determination on the proposal, give consideration to building setbacks, building near power lines and vegetation clearances that are prescribed by the Electricity Act 1996.

As noted on your submitted plans, there are 11kV and 33kV lines running through the development land which are subject to easement rights and safety clearances as prescribed by the Electricity Act 1996. Building near power lines and other infrastructure including vertical clearances between vehicles and overhead powerlines, and/or the use of heavy plant and equipment (including backhoes and cranes), fall under the control of the Office of the Technical Regulator and the Developer would be strongly advised to discuss the proposal with that Office (telephone no.8226 5500) before committing to any physical works.

Providing the above matter is taken into account by Council, the Landowner and Developer in dealing with the development proposal, SA Power Networks does not consider it necessary to appear, or be represented, before Council in support of this submission.

Should you require any further clarification or information please contact Jane Jusup, Real Estate Support Officer on 8404 5262, thank you again for the opportunity to comment.

Yours sincerely

HROY

**Real Estate Advisor** 



## PETER MELINE AND ASSOCIATES

TOWN AND COUNTRY
PLANNERS
PO BOX 1508, MT. BARKER, SA,
5251.
MOBILE 0448 395 299
petermeline@bigpond.com

11/02/2021

Ms Melanie Scott Development & Regulatory Services Adelaide Hills Council PO Box 44 Woodside SA 5244

Dear Melanie,

## 19/532/473 4 Brettig Rd, Lobethal SA

## RESPONSE TO WRITTEN REPRESENTATIONS PURSUANT TO SECTION 38 DEVELOPMENT ACT 1993 AND REGULATION 36 OF THE DEVELOPMENT REGULATIONS 2008

I have reviewed the written representations as sent to Council in response to the public exhibition process for the above DA as prescribed in Section 38 of the Development Act 1993 and Part 6 of the Development Regulations 2008, and I have summarised them in the table below.

REPRESENTOR	SUMMARY OF ISSUES
Dianne Barrett 20 Kenton Valley Rd, Lobethal	<ul> <li>Objects to the proposal and expresses concerns</li> <li>Privacy Concerns</li> <li>Noise Concerns</li> <li>Light Spill</li> <li>Diesel Pollution</li> <li>Fencing</li> </ul>
Mr and Helen Elsworthy 15A Kenton Valley Rd, Lobethal	<ul> <li>Objects to the proposal and expresses concerns</li> <li>Concern with proximity to residential dwellings</li> <li>Noise Concerns</li> <li>Too close to Water Catchment</li> <li>Concern about trucks entering and leaving on Kenton Valley Road</li> </ul>
SA Power Networks	<ul> <li>Does not consider it necessary to be heard or represented provided the below matters are considered</li> </ul>

Building Setbacks
•
<ul> <li>Building Near Powerlines</li> </ul>
<ul> <li>Vegetation Clearances</li> </ul>

It is noted that 2 representors oppose the proposal. The issues raised by the representors are addressed below:

### LACK OF PRIVACY

Ms Barrett has expressed concern over the potential lack of privacy and has requested a 3m high fence located on concrete blocks along the Southern boundary of the allotment, in accord with Council Wide "Design and Appearance" PDC 18 – *visual privacy*. We have no problem with obliging this request.

#### NOISE

Concerns have been expressed regarding the noise of the truck wash and increase in noise due to an increase of vehicle movements. The proposed truck wash will be located within a shed, despite not needing to be, and the majority of usage will be between the hours of 4pm and 7pm on weekdays. However, the applicant notes that the company requires full flexibility of truck washing times to be able to operate the business effectively.

The noise emitted from the proposal is not considered to be significant and should not cause unreasonable interference with the adjoining and adjacent dwellings, in accord with PDC 8 of the Council Wide Provisions – Interface Between Land Uses – *Noise Generating Activities*.

The trucks accessing the land are 80% Euro 6 Emission Standard compliant and the rest are Euro 5 Emission Standard Compliant. All trucks are fitted with retarders (not engine brakes), resulting in no engine braking noise. All trucks have road friendly air bag suspension and run full maintenance and mass schemes. Trucks are only ever parked on the site at the end of their days work.

#### LIGHT SPILL

The proposed lighting will be designed to minimise light spill off the site. It is considered that the proposed fencing as specified above will aid in minimising light pollution into 20 Kenton Valley Road, in accord with Council Wide "Industrial Development" PDC 6.

## DIESEL POLLUTION

The applicant notes that the existing silt fence installed was for sediment control as requested and discussed with the council. Following an anonymous complaint the EPA conducted an inspection of the site, and found a small film of material on a puddle which was 100 metres from the winter creek and the EPA advised that they were satisfied that no other works were required after inspecting the site and complex.

#### TRAFFIC MOVEMENT

Currently, all vehicles enter and leave the site via Brettig Road. There is no proposal for trucks to use Kenton Valley Road to access the site.

#### PROXIMITY TO DWELLINGS

The proposed development is an extension of an existing, lawful development and located within the Light Industry Zone. This business has operated this way for 18 years, and due to company growth now supports 120 staff and more than 750 subcontractors and suppliers. The applicant is seeking a change of use to include transport depot, storage and truck wash area. This form of development is considered appropriate for this zoning and all necessary measures will be taken to preserve the amenity of the neighbouring properties.

It is respectfully submitted that the proposal is an extension of an existing long standing lawful land use located within a Light Industry Zone. Pursuant to the objectives of the Zone, the use is an appropriate kind of use for the Zone (Light Industry) and Policy Area (Light Industry (Lobethal North)).

It is considered that the issues raised in the written representations will be adequately managed within the proposal and are not considered to be seriously at variance with Adelaide Hills Council's Development Plan.

It is therefore recommended that the application should be submitted to the Development Assessment Panel for approval subject to conditions pursuant to Section 35(3) of the Development Act 1993.

Regards,

Peter Meline

RPIA, MAIBS, JP.

Accredited Professional (Planning) Level 1