From: Damien Mackay
Sent: 25 Jul 2018 18:04:56 +1000
To: Info (Shared)
Cc: Brian Millard;Carl Ewin;John Rowell
Subject: Electronic lodgement - Development Application for Material Change of Use (Service Station) at 23-25 Gowan Street, Mareeba
Attachments: 2018-07-25_Cover Letter.pdf, DA Form 1.pdf, Signed owners consent (Mareeba).pdf, Outback Truckstops -Mareeba-Town Planning Report_REVB.pdf, Appendix A_Title Searches.pdf, Appendix B_DA Drawings.pdf, Appendix C_Oily Water Management Statement.pdf, Appendix D_Local Code Response.pdf

Dear Council,

Please find attached an electronic lodgement of a development application (material change of use – code assessable) for a service station (unmanned truck refuelling facility) at the above site address.

Email attachments:

- Cover Letter
- DA Form 1
- Signed Owner's Consent
- Town Planning Report
- Appendix A – Property Searches
- Appendix B – DA Drawings
- Appendix C – Oily Water Management Statement
- Appendix D – Local Code Response

We thank Council for the opportunity in submitting this development application and look forward to a fee quote from Council in due course.

Kind regards,

Damien Mackay
Town Planner
B.UrbanEnvPlan, MPIA

Phone: 1300 794 300
Direct: +61 7 3854 2910
Mobile: +61 437 005 231
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PROJECT MANAGERS | PLANNERS | DESIGNERS | ENGINEERS

TfA Project Group
CREATE · PLAN · DELIVER

TfA Ref: 18175

25 July 2018

The Chief Executive Officer
Mareeba Shire Council
65 Rankin Street
Mareeba QLD 4880

ATTN: Development Assessment Team

Dear Sir / Madam,

RE: Material Change of Use for Service Station (Unmanned Truck Refuelling Facility) at 23-25 Gowan Street, Mareeba Qld – Formally Described as Lot 66 and Lot 67 on SP198060

TfA Project Group act on behalf of Outback Truckstops Pty Ltd (the applicant) in the submission of a Code Assessable Development Application seeking approval for a Development Permit for a Material Change of Use including a service station (unmanned truck refuelling facility) on land located at 23-25 Gowan Street, Mareeba Qld.

In support of this application, please find attached the following documentation which forms our client's development application:

- One (1) complete set of the Development Application documentation, including Town Planning Assessment, Oily Water Management Statement, relevant architectural drawings and plans, and further supporting documentation; and
- Completed statutory required forms.

We would appreciate a fee invoice from council at your earliest convenience.

Please contact myself on 3854 2910, or via email at damien.mackay@tfa.com.au should you require any additional information or have any questions in relation to the above.

Yours faithfully,

Damien Mackay
Town Planner
B.UrbanEnvPlan, MPIA
For and on behalf of TfA Project Group

TfA Project Group

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DA Form 1 – Development application details

Approved form (version 1.1 effective 22 JUNE 2018) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details.*

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008.* For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: *All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).*

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (*individual or company full name*)	Outback Truckstops Pty Ltd
Contact name *(only applicable for companies)*	C/- TFA Project Group, Damien Mackay
Postal address *(P.O. Box or street address)*	PO Box 2339
Suburb	Fortitude Valley
State	Qld
Postcode	4006
Country	Australia
Contact number	07 3854 2910
Email address *(non-mandatory)*	damien.mackay@tfa.com.au
Mobile number *(non-mandatory)*	0437 005 231
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	18175

2) Owner's consent
2.1) Is written consent of the owner required for this development application?
☒ Yes – the written consent of the owner(s) is attached to this development application ☐ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises *(complete 3.1) or 3.2), and 3.3) as applicable)*

***Note**: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.*

3.1) Street address and lot on plan

☒ Street address **AND** lot on plan (a*ll lots must be listed*), ***or***

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises *(appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon; all lots must be listed).*

a)	Unit No.	Street No.	Street Name and Type	Suburb
		23 - 25	Gowan Street	Mareeba
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
		66 & 67	SP198060	Mareeba Shire Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)

3.2) Coordinates of premises *(appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)*

***Note**: Place each set of coordinates in a separate row. Only one set of coordinates is required for this part.*

☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) *(if applicable)*
		☐ WGS84 ☐ GDA94 ☐ Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) *(if applicable)*
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ Other:	

3.3) Additional premises

☐ Additional premises are relevant to this development application and their details have been attached in a schedule to this application

☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

☐ In a tidal area

Name of local government for the tidal area *(if applicable)*:

Name of port authority for tidal area *(if applicable)*:

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*

Name of airport:

☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*	
EMR site identification:	
☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*	
CLR site identification:	

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see DA Forms Guide.

☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☒ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

☒ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☒ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

Erection of an unmanned truck refuelling facility comprising: 1 x 85,000L Diesel / Adblue double-walled, self-bunded, above-ground tank, ablutions block and associated signage (24/7 hours of operation)

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.*

☒ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

☐ Material change of use ☐ Reconfiguring a lot ☐ Operational work ☐ Building work

b) What is the approval type? *(tick only one box)*

☐ Development permit ☐ Preliminary approval ☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment ☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*:

e) Relevant plans

***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*

☐ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
☐ Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?	
Material change of use	☒ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☐ Yes – complete division 2
Operational work	☐ Yes – complete division 3
Building work	☐ Yes – complete *DA Form 2 – Building work details*

Division 1 – Material change of use

***Note**: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.*

8.1) Describe the proposed material change of use			
Provide a general description of the proposed use	Provide the planning scheme definition *(include each definition in a new row)*	Number of dwelling units *(if applicable)*	Gross floor area (m^2) *(if applicable)*
MCU – Unmanned Truck Refuelling Facility	Service Station	N/A	N/A

8.2) Does the proposed use involve the use of existing buildings on the premises?		
☐ Yes		
☒ No		

Division 2 – Reconfiguring a lot

***Note**: This division is only required to be completed if any part of the development application involves reconfiguring a lot.*

9.1) What is the total number of existing lots making up the premises?	
9.2) What is the nature of the lot reconfiguration? *(tick all applicable boxes)*	
☐ Subdivision *(complete 10))*	☐ Dividing land into parts by agreement *(complete 11))*
☐ Boundary realignment *(complete 12))*	☐ Creating or changing an easement giving access to a lot from a construction road *(complete 13))*

10) Subdivision 10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?	
☐ Yes – provide additional details below ☐ No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment 12.1) What are the current and proposed areas for each lot comprising the premises?			
Current lot		Proposed lot	
Lot on plan description	Area (m^2)	Lot on plan description	Area (m^2)

12.2) What is the reason for the boundary realignment?

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? *(attach schedule if there are more than two easements)*				
Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? *(e.g. pedestrian access)*	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

***Note**: This division is only required to be completed if any part of the development application involves operational work.*

14.1) What is the nature of the operational work?		
☐ Road work	☐ Stormwater	☐ Water infrastructure
☐ Drainage work	☐ Earthworks	☐ Sewage infrastructure
☐ Landscaping	☐ Signage	☐ Clearing vegetation
☐ Other – please specify:		

14.2) Is the operational work necessary to facilitate the creation of new lots? *(e.g. subdivision)*	
☐ Yes – specify number of new lots:	
☐ No	

14.3) What is the monetary value of the proposed operational work? *(include GST, materials and labour)*
$

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application
Mareeba Shire Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?
☐ Yes – a copy of the decision notice is attached to this development application ☐ Local government is taken to have agreed to the superseded planning scheme request – relevant documents attached ☐ No

PART 5 – REFERRAL DETAILS

17) Do any aspects of the proposed development require referral for any referral requirements?
***Note**: A development application will require referral if prescribed by the* Planning Regulation 2017.

☒ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **Chief Executive of the Planning Regulation 2017:**

☐ Clearing native vegetation
☐ Contaminated land *(unexploded ordnance)*
☐ Environmentally relevant activities (ERA) *(only if the ERA have not been devolved to a local government)*
☐ Fisheries – aquaculture
☐ Fisheries – declared fish habitat area
☐ Fisheries – marine plants
☐ Fisheries – waterway barrier works
☐ Hazardous chemical facilities
☐ Queensland heritage place *(on or near a Queensland heritage place)*
☐ Infrastructure – designated premises
☐ Infrastructure – state transport infrastructure
☐ Infrastructure – state transport corridors and future state transport corridors
☐ Infrastructure – state-controlled transport tunnels and future state-controlled transport tunnels
☐ Infrastructure – near a state-controlled road intersection
☐ On Brisbane core port land near a State transport corridor or future State transport corridor
☐ On Brisbane core port land – ERA
☐ On Brisbane core port land – tidal works or work in a coastal management district
☐ On Brisbane core port land – hazardous chemical facility
☐ On Brisbane core port land – taking or interfering with water
☐ On Brisbane core port land – referable dams
☐ On Brisbane core port land - fisheries
☐ Land within Port of Brisbane's port limits
☐ SEQ development area
☐ SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – community activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
☐ SEQ regional landscape and rural production area or SEQ rural living area – urban activity
☐ SEQ regional landscape and rural production area or SEQ rural living area – combined use
☐ Tidal works or works in a coastal management district
☐ Reconfiguring a lot in a coastal management district or for a canal
☐ Erosion prone area in a coastal management district
☐ Urban design
☐ Water-related development – taking or interfering with water
☐ Water-related development – removing quarry material *(from a watercourse or lake)*
☐ Water-related development – referable dams
☐ Water-related development – construction of new levees or modification of existing levees *(category 3 levees only)*
☐ Wetland protection area

Matters requiring referral to the **local government:**

☐ Airport land
☐ Environmentally relevant activities (ERA) (o*nly if the ERA have been devolved to local government)*
☐ Local heritage places

Matters requiring referral to the **chief executive of the distribution entity or transmission entity:** ☐ Electricity infrastructure
Matters requiring referral to: • The **Chief executive of the holder of the licence**, if not an individual • The **holder of the licence**, if the holder of the licence is an individual ☐ Oil and gas infrastructure
Matters requiring referral to **the Brisbane City Council:** ☐ Brisbane core port land
Matters requiring referral to the **Minister under the *Transport Infrastructure Act 1994*:** ☐ Brisbane core port land (inconsistent with Brisbane port LUP for transport reasons) ☐ Strategic port land
Matters requiring referral to the **relevant port operator:** ☐ Land within Port of Brisbane's port limits (below high-water mark)
Matters requiring referral to the **Chief Executive of the relevant port authority:** ☐ Land within limits of another port (below high-water mark)
Matters requiring referral to the **Gold Coast Waterways Authority:** ☐ Tidal works, or work in a coastal management district in Gold Coast waters
Matters requiring referral to the **Queensland Fire and Emergency Service:**
☐ Tidal works marina *(more than six vessel berths)*

18) Has any referral agency provided a referral response for this development application?		
☐ Yes – referral response(s) received and listed below are attached to this development application ☐ No		
Referral requirement	Referral agency	Date of referral response
Identify and describe any changes made to the proposed development application that was the subject of the referral response and the development application the subject of this form, or include details in a schedule to this development application *(if applicable).*		

PART 6 – INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules
☒ I agree to receive an information request if determined necessary for this development application ☐ I do not agree to accept an information request for this development application ***Note**: By not agreeing to accept an information request I, the applicant, acknowledge:* • *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties* • *Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.* *Further advice about information requests is contained in the DA Forms Guide.*

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? *(e.g. a preliminary approval)*

☐ Yes – provide details below or include details in a schedule to this development application
☒ No

List of approval/development application references	Reference number	Date	Assessment manager
☐ Approval ☐ Development application			
☐ Approval ☐ Development application			

21) Has the portable long service leave levy been paid? *(only applicable to development applications involving building work or operational work)*

☐ Yes – a copy of the receipted QLeave form is attached to this development application
☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid
☒ Not applicable *(e.g. building and construction work is less than $150,000 excluding GST)*

Amount paid	Date paid (dd/mm/yy)	QLeave levy number
$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

☐ Yes – show cause or enforcement notice is attached
☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

☐ Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below
☒ No

***Note**: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.*

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

☐ Yes – *Form 69: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application
☒ No

***Note**: See www.business.qld.gov.au for further information about hazardous chemical notifications.*

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

***Note**: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.*
2. See https://www.qld.gov.au/environment/land/vegetation/applying for further information on how to obtain a s22A determination.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

***Note**: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.*

Koala conservation

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work within an assessable development area under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes

☒ No

***Note**: See guidance materials at www.des.qld.gov.au for further information.*

Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the *Water Act 2000***?

☐ Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development

☒ No

***Note**: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.qld.gov.au for further information.*

*DA templates are available from https://planning.dsdmip.qld.gov.au/**.** If the development application involves:*

- *Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1*
- *Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2*
- *Taking overland flow water: complete DA Form 1 Template 3.*

Waterway barrier works

23.7) Does this application involve **waterway barrier works?**

☒ Yes – the relevant template is completed and attached to this development application

☐ No

DA templates are available from https://planning.dsdmip.qld.gov.au/. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated *resource* allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

***Note**: See guidance materials at www.daf.qld.gov.au for further information.*

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
☒ No

***Note**: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.qld.gov.au and www.business.qld.gov.au for further information.*

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995?*

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development
☒ No

***Note**: Contact the Department of Environment and Science at www.des.qld.gov.au for further information.*

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application
☒ No

***Note**: See guidance materials at www.dnrme.qld.gov.au for further information.*

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

☐ Yes – the following is included with this development application:
- ☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work *(only required if application involves prescribed tidal work)*
- ☐ A certificate of title

☒ No

***Note**: See guidance materials at www.des.qld.gov.au for further information.*

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below
☒ No

***Note**: See guidance materials at www.des.qld.gov.au for information requirements regarding development of Queensland heritage places.*

Name of the heritage place:		Place ID:	

Brothels

23.14) Does this development application involve a **material change of use for a brothel**?

☐ Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*
☒ No

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.15) Does this development application involve new or changed access to a state-controlled road?

☐ Yes - this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)
☒ No

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 ***Note**: See the Planning Regulation 2017 for referral requirements*	☒ Yes
If building work is associated with the proposed development, Parts 4 to 6 of *DA Form 2 – Building work details* have been completed and attached to this development application	☐ Yes ☒ Not applicable
Supporting information addressing any applicable assessment benchmarks is with development application ***Note**: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.*	☒ Yes
Relevant plans of the development are attached to this development application ***Note**: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*	☒ Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued *(see 21))*	☒ Yes ☐ Not applicable

25) Applicant declaration
☒ By making this development application, I declare that all information in this development application is true and correct ☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001* ***Note**: It is unlawful to intentionally provide false or misleading information.*
Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website. Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where: • such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or • required by other legislation (including the *Right to Information Act 2009*); or • otherwise required by law. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002.*

PART 9 – FOR OFFICE USE ONLY

Date received: _____ Reference number(s): _____

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	

Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment *Note: For completion by assessment manager if applicable*	
Description of the work	
QLeave project number	
Amount paid ($)	
Date paid	
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

Individual owner's consent for making a development application under the *Planning Act 2016*

I, Mareeba Shire Council

as owner of the premises identified as follows:

23-25 Gowan Street, Mareeba Qld, formally described as Lot 66 and Lot 67 on SP198060

consent to the making of a development application under the *Planning Act 2016* by:

Outback Truckstops Pty Ltd c/- TFA Project Group

on the premises described above for:

A Development Permit for Material Change of Use for a service station (unmanned truck refuelling facility)

Peter Franks
Chief Executive Officer

17 JULY 2018

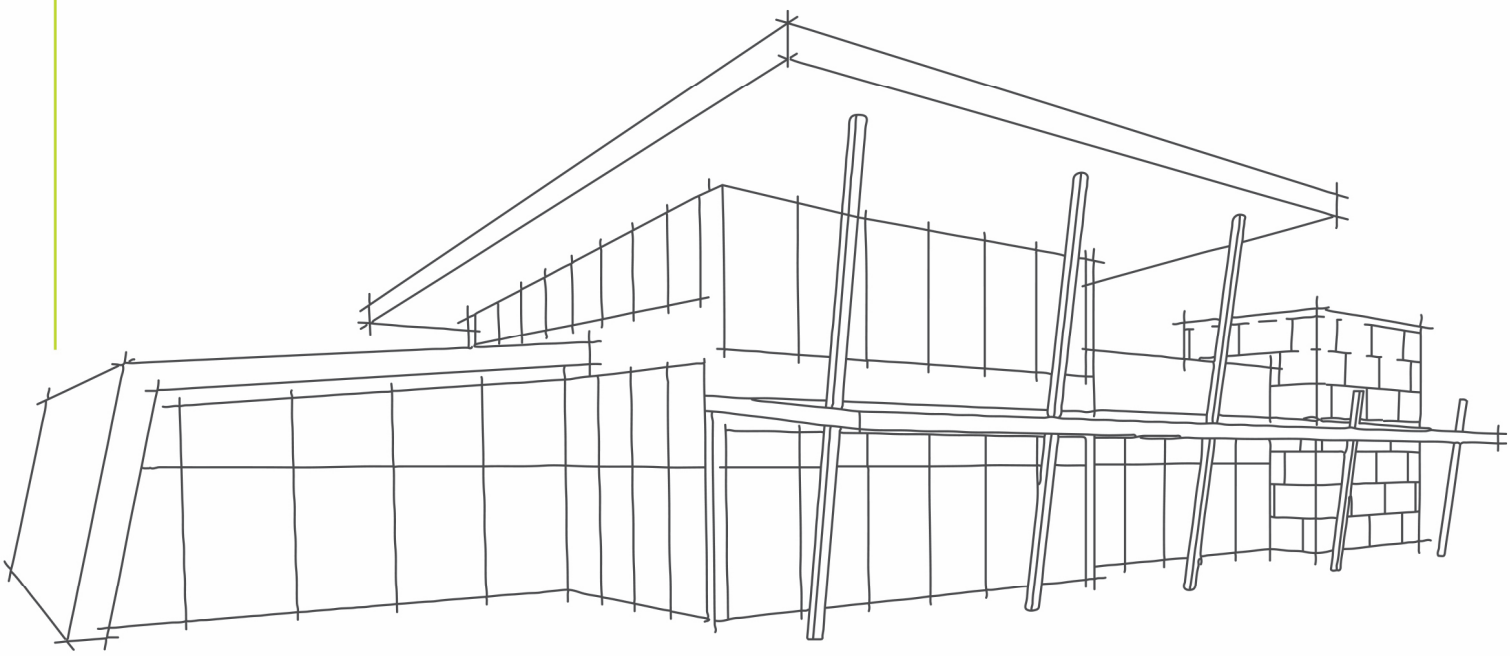
[*signature of owner and date signed*]

The Planning Act 2016 is administered by the Department of Local Government, Infrastructure and Planning, Queensland Government.

TOWN PLANNING REPORT

IOR MAREEBA

MATERIAL CHANGE OF USE APPLICATION (SERVICE STATION)



TFA Project Group

CREATE · PLAN · DELIVER

PROJECT MANAGERS | PLANNERS | DESIGNERS | ENGINEERS

TOWN PLANNING REPORT

IOR Mareeba

Material Change of Use Application (Service Station)

CLIENT: Outback Truckstops Pty Ltd (Outback Truckstops)

ADDRESS: 23-25 Gowan Street, Mareeba Qld

TFA REFERENCE: 18175

TFA CONTACT: Damien Mackay

Document Control

REVISION	DATE	PREPARED BY	REVIEWED BY	COMMENTS
A	20-07-2018	D. Mackay	L. Conroy	Draft
B	25-07-2018	D. Mackay	L. Conroy	Final

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EXECUTIVE SUMMARY

Applicant

Applicant Details	Outback Truckstops Pty Ltd
Contact Details	C/- Damien Mackay (Town Planner) TFA PROJECT GROUP PO Box 2339 FORTITUDE VALLEY QLD 4006

Site

Site Address	23-25 Gowan Street, Mareeba Qld
Site Details	Lot 66 and Lot 67 on SP198060
Site Area	2,178 m^2 (Lot 66) + 2,093m^2 (Lot 67) = 4,271m^2
Current Land Use	Vacant land

Proposal

Proposal Description	Erection of an unmanned truck refuelling facility comprising: 1 x 85,000L Diesel / Adblue double-walled, self-bunded, above-ground split tank, ablutions block and signage (24/7 hours of operation)
Application Type	Material Change of Use for Service Station (Unmanned Truck Refuelling Facility)

Local Government

Assessing Authority	Mareeba Shire Council
Local Planning Instrument	*Mareeba Shire Planning Scheme*
Zone / Precinct	Industry zone / heavy industrial precinct
Level of Assessment	Assessable Development (Code assessment)
Applicable Overlays	Nil

State Government

State Planning Policies	Nil
Referral Agencies	Nil
State Development Assessment Provisions (SDAP)	Nil
State Planning Regulatory Provisions	*Mareeba Shire Council Adopted Infrastructure Charges Resolution (No. 1) 2017*

1.0 INTRODUCTION

This planning assessment report has been prepared by TfA Project Group (TFA) on behalf of Outback Truckstops Pty Ltd (the applicant).

The application is made over land located at 23-25 Gowan Street, Mareeba Qld and formally described as Lot 66 and Lot 67 on SP198060. The application seeks approval for a Material Change of Use (code assessment) for the development of a Service Station (Unmanned Truck Refuelling Facility), which will operate 24 hours per day, seven days per week. The main function of the unmanned truck refuelling facility will be for the refuelling of heavy vehicles via pre-paid card arrangement for customers.

This report, which is submitted in support of the application, provides details of the proposed development and addresses relevant town planning, architectural, environmental and preliminary engineering issues associated with the proposal. The application is accompanied by the following consultant reports / documentation:

- **Appendix A** Title Searches
- **Appendix B** DA Drawings
- **Appendix C** Oily Water Management Statement (RPEQ)
- **Appendix D** Local Code Response

To assist in the consent authority's determination of this development application, this planning report covers the following matters:

- **Section 2:** a site description including site characteristics and the context of the surrounding area;
- **Section 3:** a description of the proposed development;
- **Section 4:** an assessment of the applicable state planning instruments; and
- **Section 5:** an assessment of the relevant planning scheme provisions.

2.0 THE SITE

2.1 Site Description

The subject site, formally described as Lot 66 and Lot 67 on SP198060, comprises 4,271 m^2 in area and located within the Mareeba Industrial Park (MIP). The subject site is currently vacant of any uses and has been cleared of any significant vegetation.

The site has frontages to Gowan Street and Keegan Street with approximate lengths of 56m and 52m respectfully. The subject site is immediately adjoined by other Industry zoned land.

The site will connect to the reticulated water, reticulated sewer, stormwater network, electricity and telecommunication points where available. It is understood Council will provide outstanding service infrastructure not available to the site upon the applicant receiving all necessary approvals.

Refer Figure 1 below for an aerial view of the subject area.

Figure 1: Site Overview (Source: Google)

Refer to the drawings in **Appendix B** of this report for further details of the existing site layout for an illustration of the site.

2.2 Surrounding Uses

The surrounding uses to the site are established and emerging industrial uses within the Mareeba Industrial Park precinct. The site is adjoined by vacant lots within the industry zone to the north, east and west. To the south-west beyond the MIP, is rural agricultural land. The site connects to Bowers Street and the Mulligan Highway beyond. The site is suitably distanced from any sensitive land uses.

The Mulligan Highway provides access into the Mareeba town centre heading south.

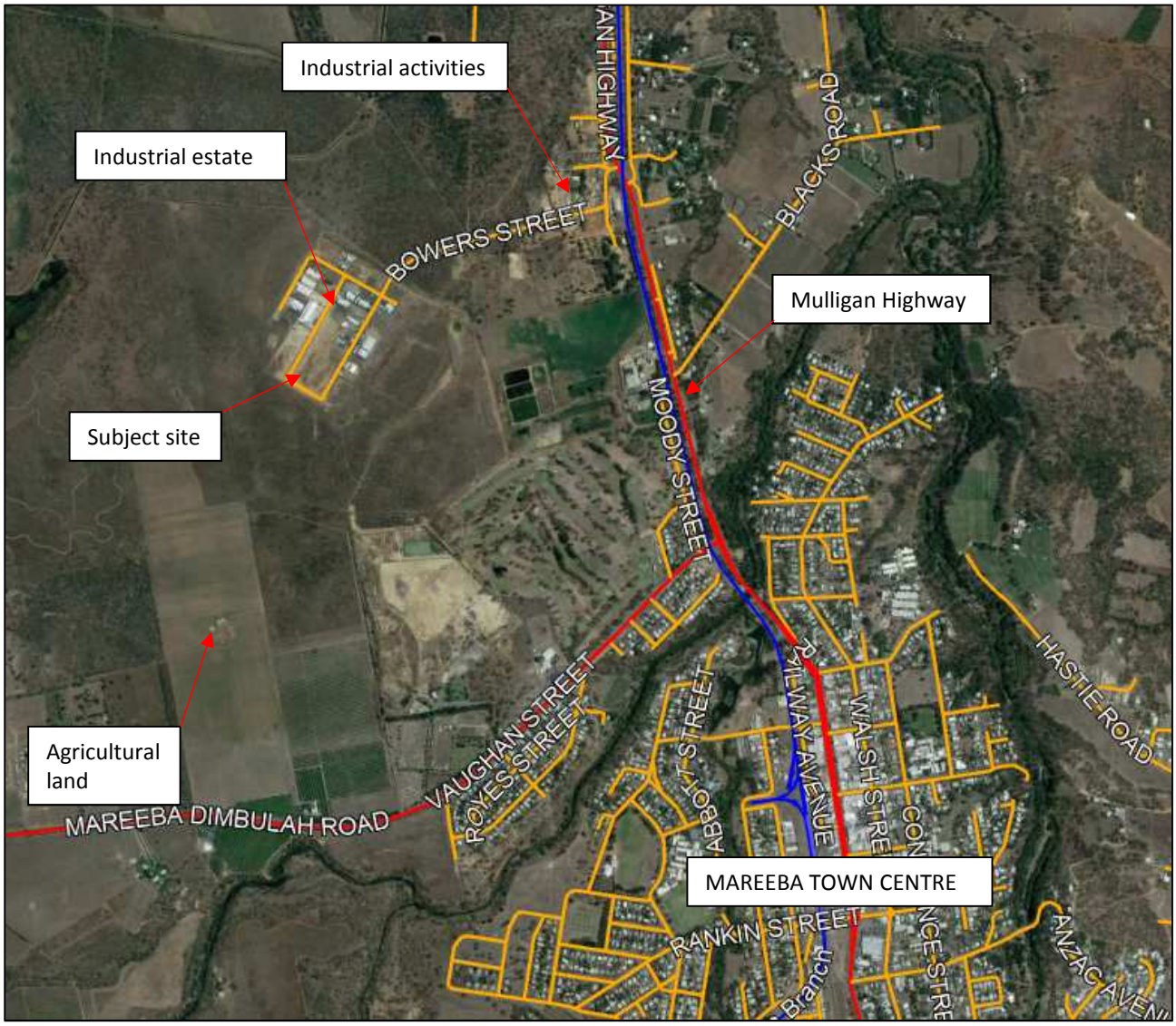


Figure 2: Surrounding Uses (source: Google)

3.0 PROPOSED DEVELOPMENT

3.1 Description of Proposal

The following provides a detailed description of the proposed unmanned truck refuelling facility over the subject site. All drawings of the proposal including all relevant plans, elevations and sections are attached in **Appendix B** of the report.

3.1.1 General

A material change of use is proposed to erect a new unmanned truck refuelling facility over the site. The facility will operate 24 hours per day, seven days per week and payment of diesel fuel will be made via swipe card technology. The facility will be for the refuelling of heavy vehicles only and, as a result, only diesel fuel (combustible and non-flammable) and the related AdBlue product (non-combustible / non-flammable) will be available.

The facility will involve the following main features:

- 1 x 85kL above-ground, self-bunded tank for the storage of diesel (combustible and non-flammable) and AdBlue (non-combustible / non-flammable);
  - Diesel tank 75,000L;
  - AdBlue tank 10,000L;
    - AdBlue is a diesel exhaust fluid used in modern trucks to reduce oxides / nitrogen levels;
- 1 x ablutions block to be connected to Council's waste water infrastructure and existing on site water supply;
- Fuel dispensing area allowing for up to two heavy vehicles to refuel at any one time;
- Fuel dispensing area to be located on a concrete hardstand rollover bunded area;
- Fuel dispensing area to be drained to an enclosed oily water treatment separator;
- Site access and on-site manoeuvrability will cater for B-Doubles being the largest anticipated heavy vehicle accessing the site;
- General on-site manoeuvring areas will consist of a new all weathered gravel surface and new concrete bunded area;
- Erection of one 6m high pylon sign on the Keegan Street frontage and entry only / exit only signage close to the accesses points; and
- Approximately eight trucks per day anticipated.

Refer to the relevant DA drawings in **Appendix B** for more details of the proposal.

3.1.2 Access and Manoeuvrability

Vehicular access to the site will be via one ingress only access point off Keegan Street and one egress only access point off Gowan Street.

The purpose of the turning path drawings in **Appendix B** is to illustrate how the largest anticipated vehicle (a B-Double) can safely access, manoeuvre throughout and exit the site in a forward gear. The majority of vehicles accessing the site are anticipated to be B-double heavy vehicles. Further, the turning path drawings in **Appendix B** indicates that the facility can accommodate up to two heavy vehicles refuelling at any one time.

The existing road network and site dimensions (site frontage and depth) of the proposed facility within the site, is considered to be sufficient for the scale and nature of the intended use without compromising the safety and function of the surrounding road network.

General on-site manoeuvring areas will consist of a new all weathered driveway surface and new concrete bunded area. This surface is considered to be supported within the Mareeba Industrial Park given the surrounding industrial uses which include all-weather gravel driveways and manoeuvring areas.

The proposed development will incorporate appropriate erosion and sediment control measures during construction as conditioned.

For further details of the all-weather gravel surface, refer to the proposed site layout plan in **Appendix B** and Oily Water Management Statement (RPEQ Signed) in **Appendix C.**

3.1.3 Oily Water Treatment

The proposal will include appropriate controls for oily water management so that the impacts on water quality in receiving waters is minimised.

Dispensing and unloading of fuel will occur in a bunded concrete slab with a centre sump pit connected to a collection chamber fitted with a Fox Environmental spill control valve (diversion valve). This device has a hydrocarbon sensor that detects the presence of fuel and in the event of a spill it will automatically direct the flow to an enclosed and roofed oily water holding tank with a minimum capacity of 10,000 litres, otherwise clean stormwater runoff will be discharged to the site's stormwater drainage network. Treated water will be discharged from the oily water treatment system to the Council's trade waste / sewer network.

For further information, refer to the proposed oily water holding plan (Drwg No. 18175-MR-A06) in **Appendix B** and the Oily Water Management Statement in **Appendix C**.

3.1.4 Tank Storage

The proposed fuel storage includes one 85,000L above-ground, double-walled, self-bunded tank. The tank will hold a total volume of 75,000L (approx.) of diesel fuel (combustible) and 10,000L (approx.) of AdBlue product (non-combustible / non-flammable) used for refuelling / fuel unloading purposes. Dispensers will be in-built into the side of the tank as shown on the relevant elevation drawings.

The tank is manufactured to comply with Australian Standard AS1692 (Steel tanks for flammable and combustible liquids) and, once installed, will comply with Australian Standard AS1940 (The storage and handling of flammable and combustible liquids).

For further details of the tank, refer to the DA drawings in **Appendix B**.

3.1.5 Signage

The proposed facility will include one pylon sign (6m in height) and a number of small entry / exit signs.

The proposed new signs are appropriately located within the property boundaries and will not comprise the character of the local area or the functioning of any pedestrian or motoring safety. Proposed signage will not be used for third party purposes.

The details of the signage, including their location over the site and relevant elevations, are included in **Appendix B**.

3.1.6 Ablutions Block

The ablutions block will comprise of one integrated toilet and shower facility. Access to the ablutions block will be via swipe card / key-tag and pre-arranged with the fuel provider as is the case with the use of the unmanned fuel facility.

The ablutions block will connect to the Council's sewer and water supply infrastructure as required.

For further details of the ablution block, including its location over the site, relevant elevations and floor plan refer to the DA drawings in **Appendix B.**

STATE GOVERNMENT PROVISIONS AND ASSESSMENT

3.2 State Planning Policy July 2017

The State Planning Policy July 2017 (SPP) is a statutory instrument developed by the State government under the Planning Act, 2016 expressing matters of State interest in land use planning and development. Where a particular SPP provision is not incorporated within a local government planning scheme, and where the relevant trigger for the SPP applies, the proposed development must satisfy the relevant provisions of the SPP. In relation to development assessment, Part E of the SPP discusses 'assessment benchmarks.'

As per Part 2 of Mareeba Shire Council Planning Scheme (the planning scheme) the Minister has confirmed that the SPP is appropriately reflected within the planning scheme. Therefore, no assessment is required against the SPP.

3.3 Referral Agencies

Schedule 10 of the Planning Regulation, 2017 (the Regulation) lists all potentially relevant referral triggers and their jurisdictions. No referrals have been identified for this application.

3.4 State Development Assessment Provisions (SDAP)

None relevant.

3.5 State Planning Regulatory Provisions (SPRP)

Further to the above addressed state planning instruments, additional areas of state interest are regulated through SPRPs. This particular application triggers assessment against the following items identified in Table 1 below.

Table 1: SPRP Development Requirements

Requirement	Applicability
State Planning Regulatory Provision (adopted charges) 2012 (SPRP)	**Applicable** The proposed development will be subject to infrastructure charges levied through the *Mareeba Shire Council Adopted Infrastructure Charges Resolution (No. 1) 2017*

4.0 LOCAL GOVERNMENT PROVISIONS AND ASSESSMENT

4.1 Mareeba Shire Council Planning Scheme 2016

Any assessable development over the site is subject to the provisions of the Mareeba Shire Planning Scheme (the planning scheme). The planning scheme commenced on 1 July 2016. The planning scheme sets out the relevant zoning and overlay provisions which guide development within the council area.

4.2 Use Definitions

Under the Planning Scheme, a **'Service Station'** is defined as follows:

'Premises used for the sale of fuel including petrol, liquid petroleum gas, automotive distillate and alternative fuels.

The use may include, where ancillary, a shop, food and drink outlet, maintenance, repair servicing and washing of vehicles, the hire of trailers, and supply of compressed air

The proposed unmanned truck refuelling facility is considered to fall within the parameters of this definition.

4.3 Planning Scheme Zoning

The subject site is currently included in the heavy industry precinct of the *industry zone*. Refer to Figure 3 below.

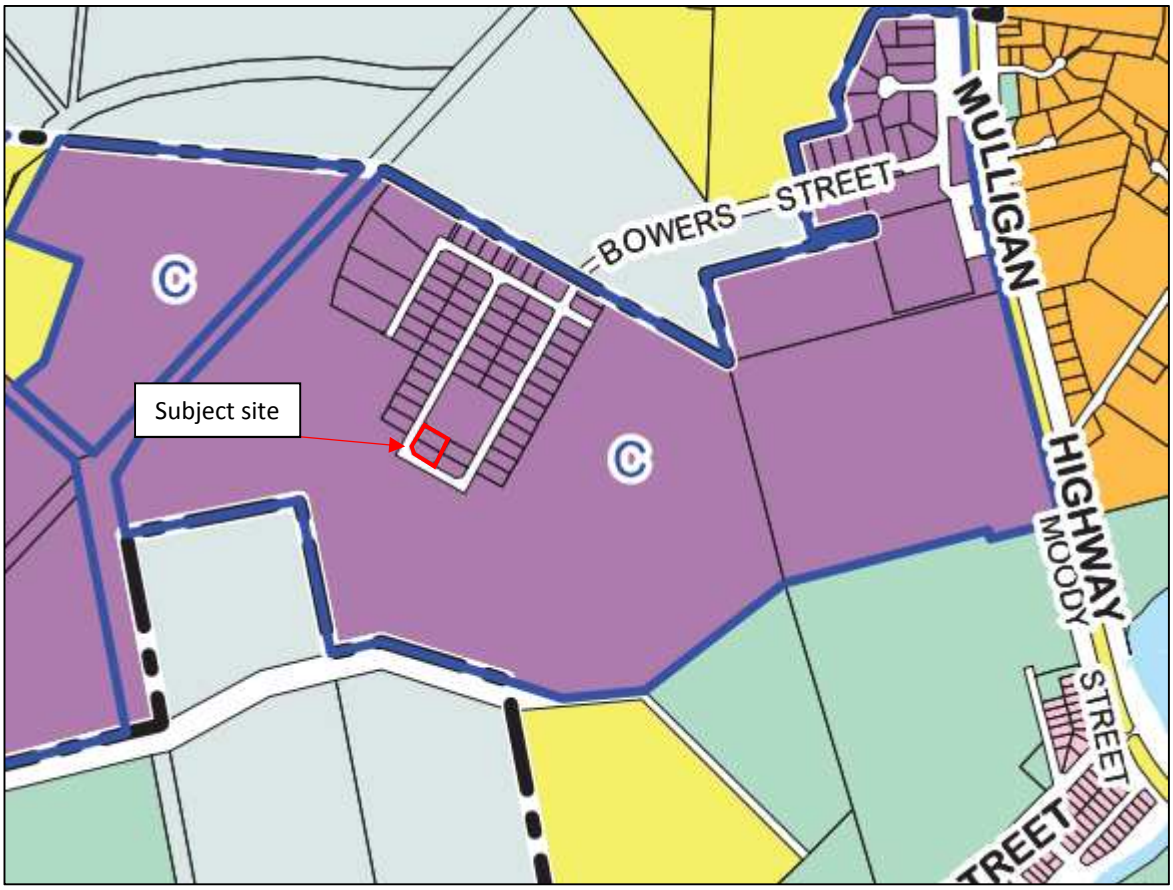


Figure 3: Mareeba Shire Planning Scheme - Zoning map extract (Source: MSC)

4.3.1 Zone – Level of Assessment

The Table of Assessment for the following zones designates the proposed 'Service Station' as:

- Code Assessable Development (Code Assessment) within the industry zone.

This application will therefore follow the code assessable process and be assessed against the relevant assessment benchmarks.

4.4 Overlays

None relevant.

4.5 Assessment of Relevant Planning Scheme Codes

The following codes are considered relevant to the development:

- Industry zone code
- Mareeba local plan code
- Commercial activities code
- Industrial activities code
- Advertising devices code
- Landscaping code
- Parking and access code
- Works, services and infrastructure code

An assessment of the proposal against the relevant specific outcomes / acceptable outcomes of the above codes is contained in **Appendix D** with a summary of the code compliance detailed below.

4.5.1 Industry Zone Code

The following table provides an assessment of the proposal in relation to the overall outcomes of the industry zone code.

Table 2: Industry Zone Code - Overall Outcomes Assessment

Overall Outcome	Development Response
(4) The purpose of the code will be achieved through the following overall outcomes: *(a) development Uses and works for industrial purposes are located, designed and managed to maintain safety to people, avoid significant adverse effects on the natural environment and minimise impacts on surrounding non-industrial land;*	The proposed storage of the diesel and AdBlue will be fully contained within a self-bunded tank. Further, the proposed development will provide for an oily-water treatment system for all stormwater captured over the refuelling / fuel unloading areas to ensure the release of materials as a result of natural hazards are mitigated. Refer to the Oily Water Management Statement (RPEQ) in **Appendix C.**
(b) Development is sited having regard to its servicing capabilities in terms of transport, water, sewage, electricity, telecommunications infrastructure, proximity to other associated industries and work force;	The proposed development will connect to the existing / future service related infrastructure as conditioned. It is understood the emerging Mareeba Industrial Park servicing infrastructure i.e. water, sewerage etc. will be provided by Council where currently unavailable.
(c) Development maximises the use of existing transport infrastructure and has access to an appropriate level of transport infrastructure and facilities;	The proposed unmanned truck refuelling facility will comply where applicable.
(d) Development is supported by necessary transport infrastructure which is designed to provide and promote safe and efficient public transport use, walking and cycling;	The proposal will be located within the Mareeba Industrial Park and would not require access to transport infrastructure given the nature and scale of the use.

(e) Development is reflective of and responsive to the environmental constraints of the land;	The subject site currently does not contain any known environmental constraints within the Mareeba Industrial Park. The proposal will include appropriate oily water management over the site to ensure no adverse impacts to any nearby environmental areas.
(f) The scale, character and built form of development contributes to an appropriate standard of amenity;	The proposed development is an appropriate scale and intensity suitable within the industry zone by providing a fuel service to the region while ensuing the proposal does not have a detrimental impact on the surrounding industrial amenity.
(g) Non-industrial uses, such as offices, retail uses and caretaker's accommodation that directly support the industrial area are facilitated;	The proposed use, due to its servicing of heavy vehicles and industrial appearance, is considered to support the Mareeba Industrial Park.
(h) The viability of both existing and future industrial activities is protected from the intrusion of incompatible uses;	The proposed service station (unmanned truck refuelling facility) is considered to be compatible within the industry zone.
(i) Adverse impacts on natural features and processes both on-site and from adjoining areas are minimised through location, design, operation and management of development;	The proposed storage of the diesel and AdBlue will be fully contained within a self-bunded tank. Further, the proposed development will provide for an oily-water treatment system for all stormwater captured over the refuelling / fuel unloading areas to ensure the release of materials as a result of natural hazards are mitigated. Refer to the Oily Water Management Statement (RPEQ) in **Appendix C.**
(j) Industrial uses are adequately separated and buffered from sensitive land uses to minimise the likelihood of environmental harm including environmental nuisance occurring;	The proposed development will not be located near any sensitive land use.
(k) Land included in the Industry zone is to be protected from incompatible uses to ensure that industrial activities may continue and expand; and	The proposed service station (unmanned truck refuelling facility) is considered to be compatible within the industry zone.
(l) Development is appropriately coordinated and sequenced to ensure the most effective use of land within the zone.	The proposal is considered to comply as necessary.

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the industry zone code. The key findings of this assessment have been summarised below:

- The proposed development will not exceed a maximum height of 12 metres given the proposed tank will be approximately 3 metres high;
- The proposed development will be setback approximately 3 metres from the side boundary and 10 metres from the road frontage. The proposed tank will be setback approximately 8.5 metres from the side boundary and 11.5 metres from the road frontage;
- The proposal is considered to be appropriately located within the Mareeba Industrial Park and consistent with the surrounding and emerging industrial uses;
- The proposed unmanned truck refuelling facility will connect to the necessary service infrastructure and provide a refuelling service for customers within the area. The operations are not considered to negatively impact the existing and future operations of the industrial park;
- The proposed development is not considered to detract from the surrounding area having regard to the existing industrial air, noise or odour emissions nor does the site adjoin a sensitive land use; and
- The proposal is not considered to be bound by negative environmental impacts over the site within the locality.

The proposal is considered to adequately address all relevant aspects of this code.

4.5.2 Mareeba Local Plan Code

The following table provides an assessment of the proposal in relation to the overall outcomes of the Mareeba local plan code.

Table 3: Mareeba Local Plan Code - Overall Outcomes Assessment

Overall Outcome	Development Response
(3) The purpose of the code will be achieved through the following overall outcomes: *(i) The establishment and operation of a range of industries in the Industrial park precinct is supported.*	The proposed use, due to its servicing of heavy vehicles and industrial appearance, is considered to support the established and emerging Industrial park precinct.

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the Mareeba local plan code. The key findings of this assessment have been summarised below:

- The proposed development will support the existing and emerging industrial park precinct by providing a refuelling service to vehicles within the area;
- The proposal does not include structures within or adjoining the Mareeba bypass element; and
- The proposed unmanned truck refuelling facility will operate 24 hours per day, seven days per week and payment of diesel fuel will be made to customers via swipe card technology.

The proposal is therefore considered to adequately address all relevant aspects of this code.

4.5.3 Commercial Activities Code

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the commercial activities code. The key findings of this assessment have been summarised below:

- The proposal is not considered to detract from the character and amenity of the industrial park locality given the scale and nature of the use;
- The subject site comprises 4,271m^2 in area. The site has frontages to Gowan Street and Keegan Street with approximate lengths of 56m and 52m respectfully;
- The proposed split tank will be setback approximately 11.5 metres from the Gowan Street frontage;
- The proposed tank will include in-built fuel pumps at the front of the tank. The proposal does not include car wash bays or facilities including air and water points; and
- The proposal will include appropriate controls for oily water management so that the impacts on water quality in receiving waters is minimised. Refer to the proposed oily water holding plan (Drwg No. 18175-MR-A06) in **Appendix B** and the Oily Water Management Statement in **Appendix C.**

The proposal is therefore considered to adequately address all relevant aspects of this code.

4.5.4 Industrial Activities Code

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the industrial activities code. The key findings of this assessment have been summarised below:

- The proposed unmanned refuelling facility will be suitably distanced from any sensitive land use; and
- The proposal is considered to support the character and amenity of the industrial park locality through appropriately locating amenities on site. No air conditioning, refrigeration plant, mechanical plant or refuse bin storage areas are proposed as part of this application.

The proposal is therefore considered to adequately address all relevant aspects of this code.

4.5.5 Advertising Devices Code

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the advertising devices code. The key findings of this assessment have been summarised below:

- The proposed pylon sign is not considered to obscure motorists' views of vehicles, pedestrians or potentially hazardous road features;
- The proposed signage will not be animated or include any flashing lights; and
- The proposed pylon sign will be located on a lot greater than 1,000 m^2 and will be 6 metres high with a total sign face area of less than 6m^2.

The proposal is therefore considered to adequately address all relevant aspects of this code.

4.5.6 Landscape Code

The proposed development will comply with the Landscape Code as required.

4.5.7 Parking and Access Code

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the parking and access code. The key findings of this assessment have been summarised below:

- It is considered that the proposal does not require carparking spaces given the proposed use does not include an ancillary shop on site;
- The proposal has two road frontages which are both lower order roads for the industrial park;
- General on-site manoeuvring areas will consist of a new all weathered driveway surface and new concrete bunded area. This surface is considered to be supported within the Mareeba Industrial Park given the surrounding industrial uses which include all-weather gravel driveways and manoeuvring areas. Further, there are no sensitive land uses within proximity to the industrial park and the proposed development will incorporate appropriate erosion and sediment control measures during construction. For further details of the all-weather driveway surface, refer to the proposed site layout plan in Appendix B;
- The purpose of the turning path drawings in Appendix B is to illustrate how the largest anticipated vehicle (B-Double) can safely access, manoeuvre throughout and exit the site in a forward gear. The majority of vehicles accessing the site are anticipated to be B-double heavy vehicles; and
- Pedestrian and cyclist access is not proposed given the scale and nature of the proposed unmanned truck refuelling facility.

The proposal is therefore considered to adequately address all relevant aspects of this code.

4.5.8 Works, Services and Infrastructure Code

The proposed development has been assessed against the relevant acceptable outcomes / performance outcomes of the works, services and infrastructure code. The key findings of this assessment have been summarised below:

- The proposed development will connect to Council's reticulated water system and sewer system as required.
- Dispensing and unloading of fuel will occur in a bunded concrete slab with a centre sump pit connected to a collection chamber fitted with a Fox Environmental spill control valve (diversion valve). This device has a hydrocarbon sensor that detects the presence of fuel and in the event of a spill it will automatically direct the flow to an enclosed and roofed oily water holding tank with a minimum capacity of 10,000 litres, otherwise clean stormwater runoff will be discharged to the site's stormwater drainage network. Treated water will be discharged from the oily water treatment system to the Council's trade waste / sewer network. For further information, refer to the proposed oily water holding plan (Drwg No. 18175-MR-A06) in Appendix B and the Oily Water Management Statement in Appendix C; and
- The proposal will include appropriate controls for oily water management so that the impacts on water quality in receiving waters is minimised.

The proposal is therefore considered to adequately address all relevant aspects of this code.

5.0 CONCLUSION

This planning assessment report has been prepared by TfA Project Group (TFA) on behalf of Outback Truckstops Pty Ltd (the applicant).

The application is made over land located at 23-25 Gowan Street, Mareeba Qld and formally described as Lot 66 and Lot 67 on SP198060. The application seeks approval for a Material Change of Use (code assessment) for the development of a Service Station (Unmanned Truck Refuelling Facility), which will operate 24 hours per day, seven days per week. The main function of the unmanned truck refuelling facility will be for the refuelling of heavy vehicles via pre-paid card arrangement for customers.

The proposal has been assessed under the code assessment procedures of the Mareeba Shire Council Planning Scheme and all relevant State planning policy provisions. From this assessment, the following conclusions are able to be drawn:

- The proposed use, due to its servicing of heavy vehicles and industrial appearance, it is considered to be a consistent form of development within the Industry Zone and Mareeba Industrial Park;
- The proposed development will be constructed and operated in a manner which will not impact upon the safety and operation of the surrounding road network;
- The proposed development, through effective oily water treatment, will not impact adversely on any sensitive receiving environment; and
- The application demonstrates compliance with all relevant local and state provisions including all relevant codes.

On the basis of the above, it is considered sufficient planning grounds exist to warrant the proposal and the application is recommended for Council approval.

APPENDIX A – TITLE SEARCHES

APPENDIX B – DA DRAWINGS

APPENDIX C – OILY WATER MANAGEMENT STATEMENT (RPEQ)

APPENDIX D LOCAL CODE RESPONSE

CURRENT TITLE SEARCH

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 29018767
Search Date: 04/07/2018 11:17 **Title Reference: 50876617**
Date Created: 11/04/2012

Previous Title: 50695828

REGISTERED OWNER

Dealing No: 716673320 05/08/2015

MAREEBA SHIRE COUNCIL

ESTATE AND LAND

Estate in Fee Simple

LOT 66 SURVEY PLAN 198060
Local Government: MAREEBA

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 21114185 (POR 879)

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

** End of Current Title Search **

Requested By: D-ENQ PROPERTY & TITLE SEARCH

CURRENT TITLE SEARCH

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 29018769
Search Date: 04/07/2018 11:17 **Title Reference: 50876618**
Date Created: 11/04/2012

Previous Title: 50695828

REGISTERED OWNER

Dealing No: 716673320 05/08/2015

MAREEBA SHIRE COUNCIL

ESTATE AND LAND

Estate in Fee Simple

LOT 67 SURVEY PLAN 198060
Local Government: MAREEBA

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 21114185 (POR 879)

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

** End of Current Title Search **

Requested By: D-ENQ PROPERTY & TITLE SEARCH

EXIT ONLY SIGN

PROPOSED ABLUTIONS BLOCK

GOWAN STREET

T85 A/G DIESEL TANK

R.P.D
LOT 66
SP 198060
AREA: 2178m²

SW

TW

S

EXIT ONLY SIGN

R.P.D
LOT 67
SP 198060
AREA: 2093m²

ALL WEATHER DRIVEWAY

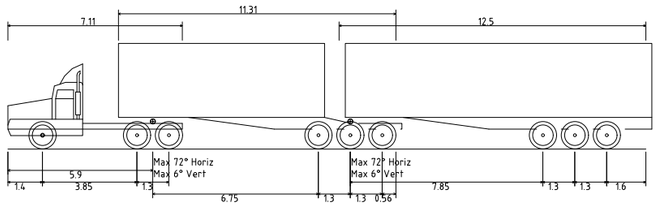
6m SITE PYLON SIGN

ENTRY ONLY SIGN

ENTRY ONLY SIGN

KEEGAN STREET

N



B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

Scale Bar

5 0 5 10 15 20 25m

Metres

Figured dimensions to be taken in preference to scale readings.

revision	date	by	description	checked
A	03.07.18	APS	ISSUED FOR D.A.	

ACN 612 132 233

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TfA Project Group

project
iOR PETROLEUM
UNMANNED TRUCK STOP
CNR KEEGAN & GOWAN ST
MAREEBA
QLD

title
PROPOSED SITE LAYOUT B-DOUBLE TRUCK PATHS

drawn	approved	date created	A1 scale	A3 scale
APS		1.6.18	1:250	1:500

status	drawing no.	rev.
D.A. ISSUE	18175-MR-A01	A

iOR PETROLEUM

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PROPOSED ABLUTIONS BLOCK

T85 A/G DIESEL TANK

R.P.D
LOT 66
SP 198060
AREA: 2178m²

R.P.D
LOT 67
SP 198060
AREA: 2093m²

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ALL WEATHER DRIVEWAY

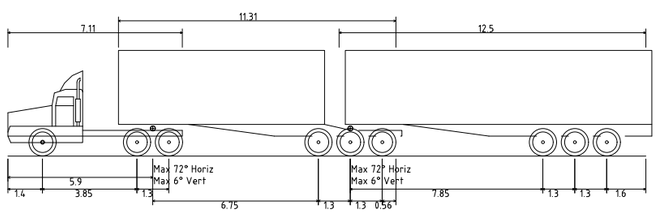
6m SITE PYLON SIGN

ENTRY ONLY SIGN

ENTRY ONLY SIGN

GOWAN STREET

KEEGAN STREET



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Metres

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revision	date	by	description	checked
A	03.07.18	APS	ISSUED FOR D.A.	

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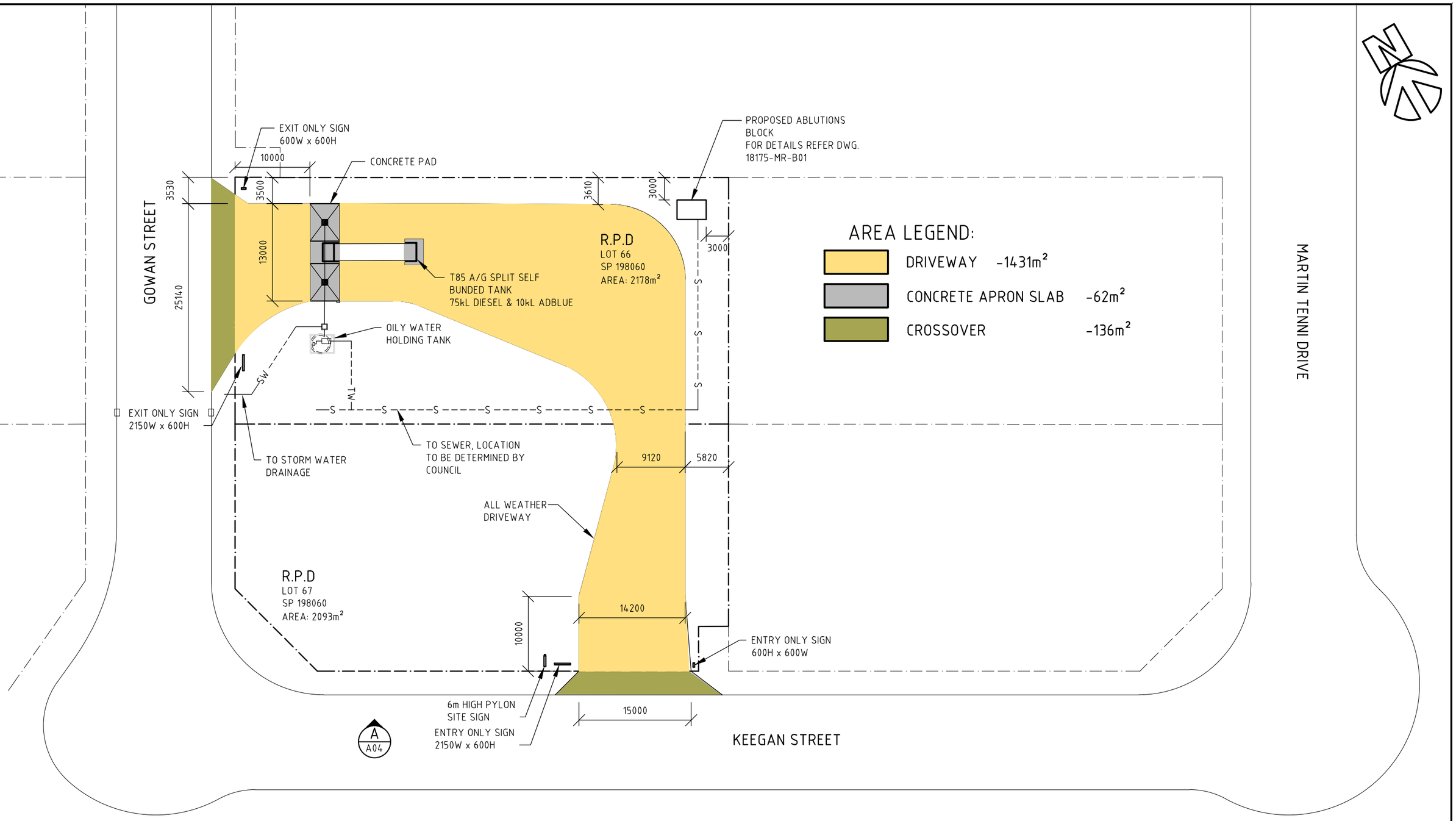
MAREEBA
QLD

title
PROPOSED SITE LAYOUT
B-DOUBLE TRUCK PATHS

drawn	approved	date created	A1 scale	A3 scale
APS		1.6.18	1:250	1:500

status	drawing no.	rev.
D.A. ISSUE	18175-MR-A02	A



Scale Bar

5 0 5 10 15 20 25m

Metres

Figured dimensions to be taken in preference to scale readings.

revision	date	by	description	checked
A	03.07.18	APS	ISSUED FOR D.A.	

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CNR KEEGAN & GOWAN ST
MAREEBA
QLD

title
PROPOSED SITE LAYOUT

drawn	approved	date created	A1 scale	A3 scale
APS		1.6.18	1:250	1:500

status	drawing no.	rev.
D.A. ISSUE	18175-MR-A03	A

A / A03 ELEVATION
1:200

iOR PETROLEUM

Scale Bar

2 0 5 10m

Metres

Figured dimensions to be taken in preference to scale readings.

revision	date	by	description	checked
A	03.07.18	APS	ISSUED FOR D.A.	

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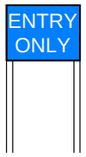
title
PROPOSED SITE ELEVATION

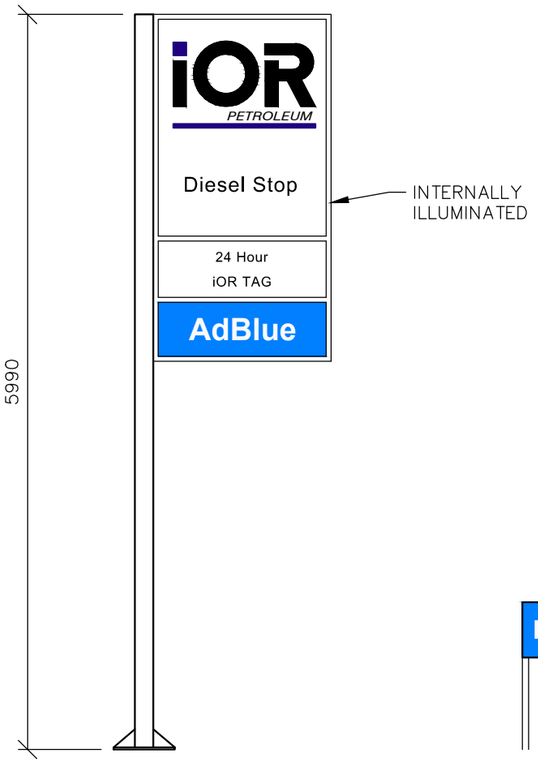
drawn	approved	date created	A1 scale	A3 scale
APS		03.07.18	1:100	1:200

status	drawing no.	rev.
D.A. ISSUE	18175-MR-A04	A



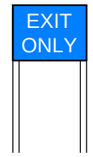
ENTRY ONLY SIGN
600W x 600H
1:50

ENTRY ONLY SIGN
2150W x 600H
1:50



6m HIGH PYLON
SITE SIGN
1:50

EXIT ONLY SIGN
2150W x 600H
1:50



EXIT ONLY SIGN
600W x 600H
1:50

Scale Bar

0.5 0 0.5 1 1.5 2 2.5m

Metres

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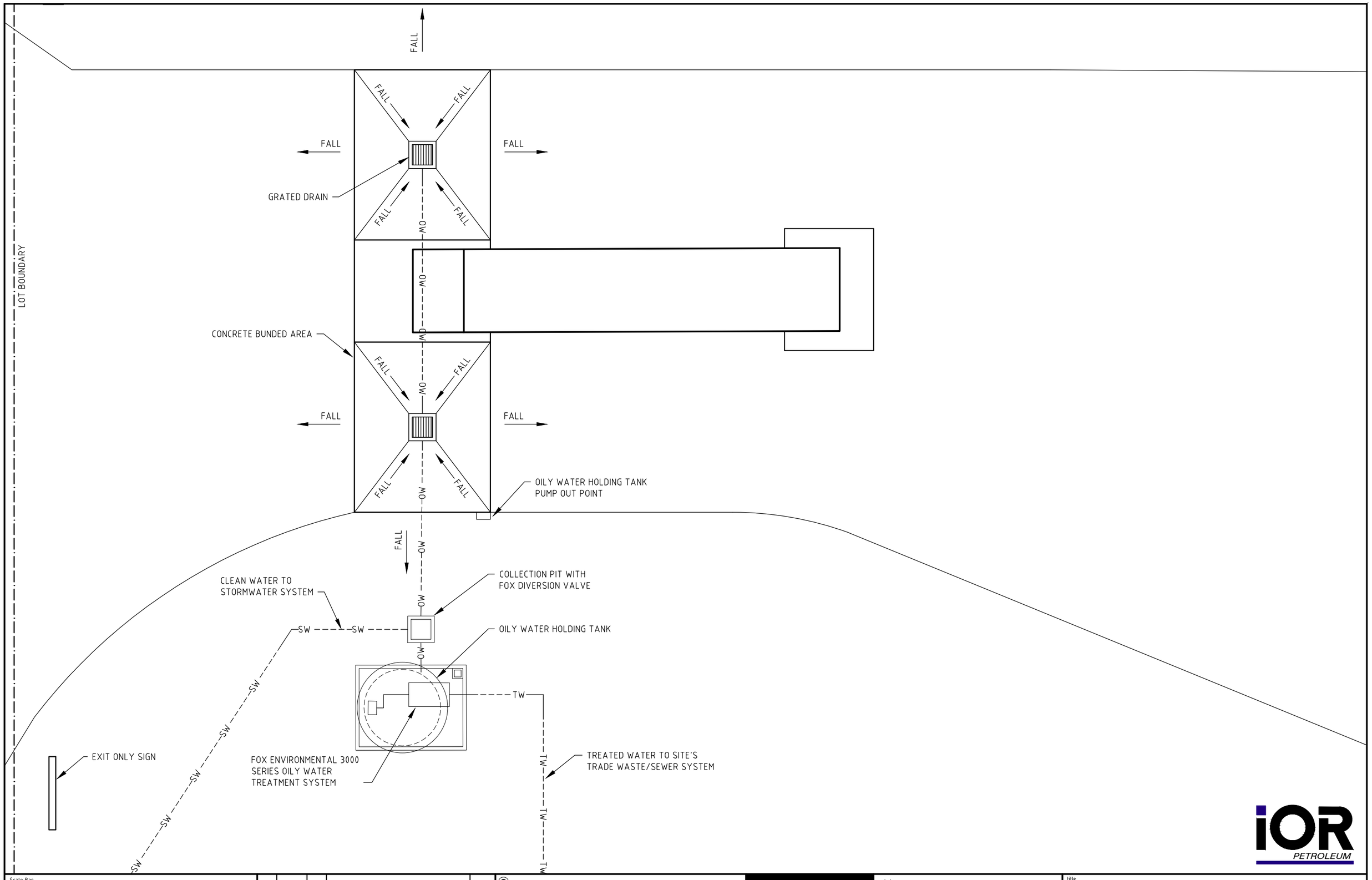
title
PROPOSED SIGNAGE DETAILS

drawn	approved	date created	A1 scale	A3 scale
APS		03.07.18	1:25	1:50

status	drawing no.	rev.
D.A. ISSUE	18175-MR-A05	A



Scale Bar

1 0 1 2 3 4 5m

Metres

Figured dimensions to be taken in preference to scale readings.

revision	date	by	description	checked
A	03.07.18	APS	ISSUED FOR D.A.	

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TfA Project Group

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UNMANNED TRUCK STOP
CNR KEEGAN & GOWAN ST
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QLD

title
PROPOSED OILY WATER HOLDING PLAN

drawn	approved	date created	A1 scale	A3 scale
APS		03.07.18	1:50	1:100

status	drawing no.	rev.
D.A. ISSUE	18175-MR-A06	A

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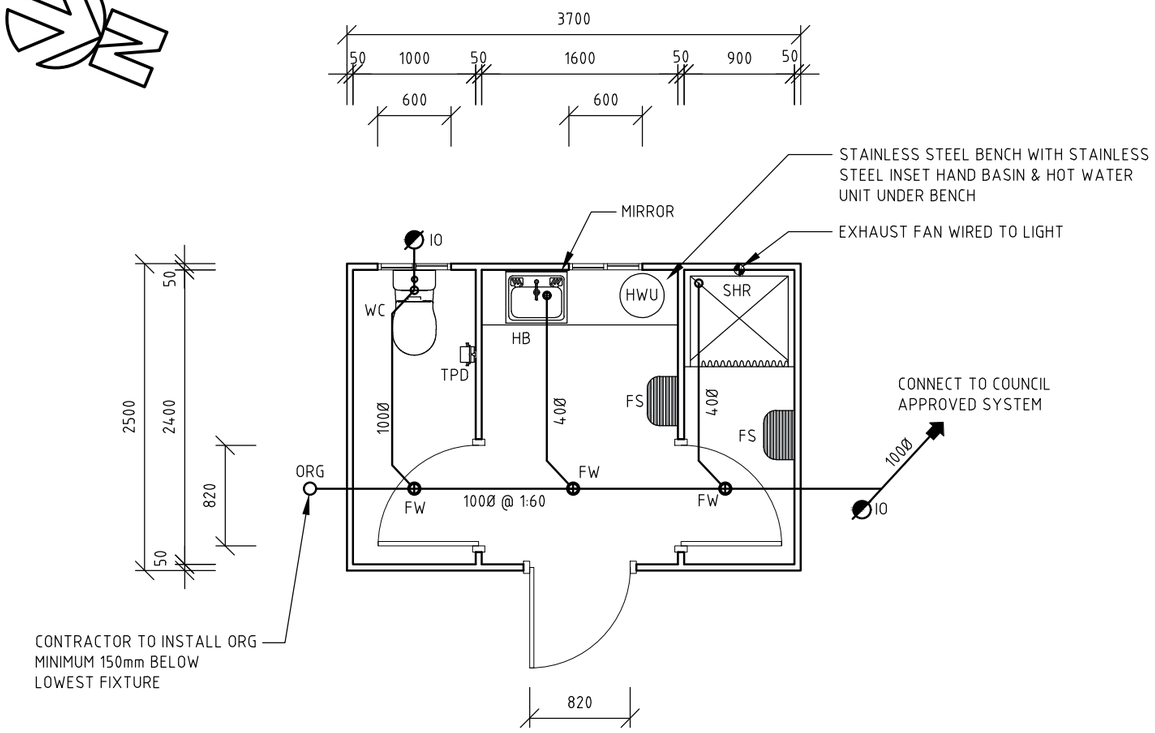
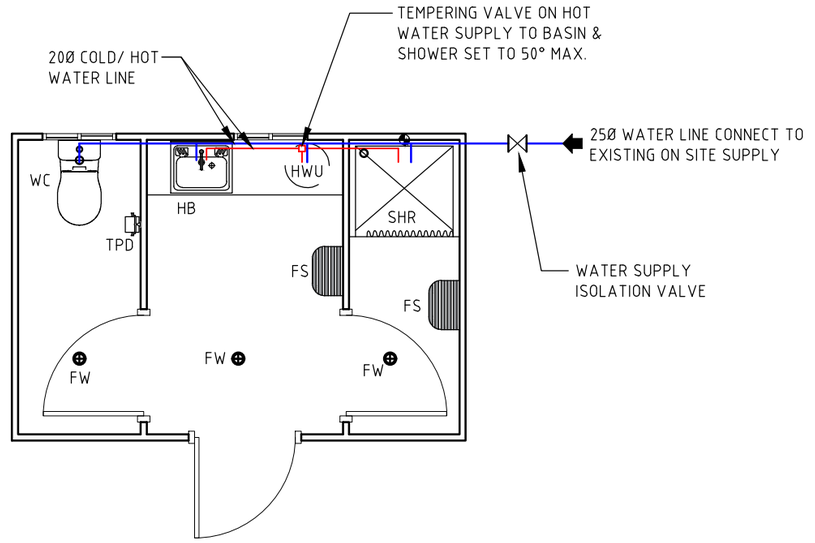


FLOOR PLAN - DRAINAGE



FLOOR PLAN - WATER RETICULATION

FIXTURE LOAD RATING				
FIXTURES	**ABB**	**QTY**	**FIXTURE UNIT RATING**	**TOTAL**
HAND BASIN	HB	1	1	1
WATER CLOSET	WC	1	6	6
FLOOR WASTE	FW	3	1	3
SHOWER	SHR	1	2	2
			TOTAL LOADING	12

NOTES:

1. ALL SERVICES TO BE CONCEALED, RUN BELOW FLOOR OR IN WALL/ CEILING CAVITIES.
2. THE CONTRACTOR IS TO VERIFY ON SITE THAT THE INVERT & SERVICE LEVELS & REQUIRED COVER OVER DRAINAGE LINES ARE OBTAINABLE BEFORE COMMENCING WORKS.
3. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE BY-LAWS & THE REQUIREMENTS OF THE LOCAL BUILDING & PLUMBING INSPECTOR. ENSURE MATERIALS MEET THE FIRE RATING REQUIREMENTS OF THE QLD BUILDING CODE OF AUSTRALIA.
4. ALL INSPECTION OPENINGS AS NOTED & CLEAR OUT TO SURFACE TO BE BROUGHT TO SURFACE & CAPPED WITH APPROVED CAP & INSTALLED TO COUNCIL REQUIREMENTS.
5. CONSTRUCTION OF PLUMBING & DRAINAGE WORKS MUST NOT BE UNDERTAKEN BEFORE STAMPED APPROVED PLANS HAVE BEEN RECEIVED FROM RELEVANT AUTHORITIES.
6. WHERE THE CONTRACTOR DEVIATES THE SERVICES INSTALLATION FROM THE POSITIONS NOMINATED AND APPROVED BY THE GOVERNING AUTHORITY OR INSTALL SERVICE PIPES FOR ADDITIONAL FIXTURES, HE SHALL BE RESPONSIBLE FOR THE RESUBMISSION OF AMENDED DOCUMENTS & ANY ADDITIONAL COSTS REQUIRED BY THE AUTHORITIES FOR APPROVAL & REDRAWINGS FEES CHARGED BY HYDRAULIC CONSULTANT.
7. THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECTS / DESIGNERS COUNCIL OR CERTIFIERS APPROVED BUILDING DRAWINGS.
8. THESE PLANS HAVE BEEN DESIGNED TO & COMPLY WITH AS/NZSW 3500.1:2003 & AS/NZS 3500.2:2003

LEGEND:

FS	FOLDING SEAT
FW	FLOOR WASTE
HB	HAND BASIN
HWU	HOT WATER UNIT
IO	INSPECTION OPENING
ORG	OVERFLOW RELIEF GULLY
SHR	SHOWER
TPD	TOILET PAPER DISPENSER
WC	WATER CLOSET
———	HOUSE DRAIN (DIA. AS SHOWN)
———	COLD WATER (DIA. AS SHOWN)
———	HOT WATER (DIA. AS SHOWN)

LOCAL GOVERNMENT AUTHORITY - MAREEBA SHIRE

R.P.D - LOTS 66 & 67 ON SP 198060

iOR PETROLEUM

Scale Bar

0.5 0 0.5 1 1.5 2 2.5m

Metres

Figured dimensions to be taken in preference to scale readings.

revision	date	by	description	checked
A	03.07.18	APS	ISSUED FOR D.A.	JR
1	31.5.18	LCC	PRELIMINARY ISSUE	JR

ACN 612 132 233
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TfA Project Group

project: iOR PETROLEUM UNMANNED TRUCK STOP CNR KEEGAN & GOWAN ST MAREEBA QLD

title: ABLUTIONS BLOCK DRAINAGE & RETICULATION PLAN

drawn	approved	date created	A1 scale	A3 scale
LCC		31.5.18	1:50	1:100

status	drawing no.	rev.
D.A. ISSUE	18175-MR-B01	A

TfA Ref: 18175

20 July 2018

Oily Water Management Statement

Proposed 24 hour Truck Refuelling Facility at 23-25 Gowan Street, Mareeba Qld

The following is a summary description of our proposed method of oily water treatment at the above referenced site:

1. Dispensing and unloading of fuel will occur in a bunded concrete slab with a centre sump pit connected to a collection chamber fitted with a Fox Environmental spill control valve (diversion valve). This device has a hydrocarbon sensor that detects the presence of fuel and in the event of a spill it will automatically direct the flow to an oily water holding tank with a minimum capacity of 10,000 litres, otherwise clean stormwater runoff will be discharged to the site's stormwater drainage network.

   The sensitivity of the diversion valve hydrocarbon sensor is satisfactory to the Australian Technical Standard and SAI Global Watermark.

   The hydrocarbon sensor cleans itself automatically every cycle (12 or 24 hours) to ensure an accurate reading is achieved and an authorised technician will service the equipment twice a year as per Fox Environmental recommendations to keep the sensitivity of the device fully compliant with the Australian Technical Standard.

2. In addition to the spill control valve the system will be provided with a coalescing plate oil water separator device to treat contaminated water captured in the holding tank (minor spills and leaks) and first flush stormwater sent by the diversion valve to the holding tank during rain events.

3. The coalescing plate separator system will draw the water accumulated in the holding tank and deliver it to the separator through a diaphragm pump. Drawn water will enter the Separator via the inlet and then will pass through a Vertical Tube Coalescing (VTC) pack. As oils are lighter than water, gravity forces them to the top of the separator where they are skimmed and ultimately disposed in a waste oil container. The water will then continue under a baffle and through 100 micron filters before exiting the separator.

4. Water treated by the coalescing plate oil water separator will be discharged with a total hydrocarbon content of less than 10ppm as no emulsions will be present in the holding tank or are expected in the dispensing/bunded area.

   A 3000 series Fox Environmental Oil Separator is proposed for this site. Please refer to the attached Chemical Laboratory (NATA accredited) test result which demonstrates a reduction of Total Oil & Grease to a concentration of less than 10 mg/L. This test was performed to the influent and effluent of a Fox Environmental Oil Separator 3000 series.

5. Treated water from the oil water separator will be then discharged to the site's trade waste/sewer system.

6. In the case of a major spill, only likely during the unloading of a tanker, the system will be shut down manually and the separator completely isolated. Spilled fuel will be stored in the holding tank until it is removed by a Licenced Waste Removal Contractor.

   The system will be provided with an alarm that will be triggered as the 'major spill' shutdown button is activated so the operator (remotely or from the site) can order the removal of the spill.

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ABN: 34 612 132 233

7. The proposed blind holding tank will have a 10,000 litres capacity which allows for containment of a spill from an 8,000 litre tanker compartment plus an allowance for first flush stormwater stored. The tank will have a contents level probe to alert the remote operator when the tank contents reaches 2,000 litres. The tank will have its contents removed and legally disposed of by a licensed waste contractor.

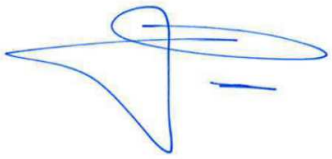
Given that the dispensing and unloading areas are small, the stormwater runoff generated is negligible. In the case of a heavy rain fall event (e.g. ARI 20 years) the treatable flow rate will be well under 5 litres per second for a 5 minutes duration. If no hydrocarbons are detected by the sensor the diversion valve is more than capable to handle this flowrate and direct the water to the site's stormwater network.

The treatment achieved by the oil water separator, which will only be required in the event of minor spills of contaminants, is considered adequate for discharge to the to the site's sewer system.

The introduction of a spill control system (diversion valve) negates the requirement of covering the loadout area with a roof as this device will:

- Provide 24 hour spill protection.
- Divert clean stormwater to the site network avoiding fill up of the holding tank (no need of roof to minimise this).
- Be capable of collecting minor spills of contaminants and major spills.
- Handle the stormwater flow rate generated within the loadout/bunded area.

Kind regards,



Juan D. Avella
Director – Civil/ Structural Engineering
(BEng MBA MIEAust CPEng NER RPEQ)
For and on behalf of TfA Group Pty Ltd.

Enc. Diversion Valve Specifications and Drawings
Oily Water Separator Specifications and Drawings
Chemical Laboratory Test Result

Diversion Valve Specifications and Drawings

TFA Project Group

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info@foxenviro.com.au
www.foxenviro.com.au

The Fox Model SCS600 Spill Control System

The Fox Model SCS600 system provides continuous protection for the site against minor or major spills of hydrocarbons that may occur. The system is ideally suited to installations such as bulk liquid storage facilities, Service Stations, refuelling areas or any site where there is a risk of hydrocarbon spills contaminating the stormwater network.

The unit is fitted in a polyethylene chamber with a 600 square medium duty grate. A polyethylene silt basket is fitted below the grate to capture solids and free floating debris. This is removable for disposal of the captured pollutants. A Fox Model DV150 stormwater diversion valve is installed in the bottom of the chamber. A sensor installed in the chamber detects the presence of any hydrocarbons in the runoff. A stainless steel Control Panel is supplied containing all electrical control equipment as well as the Fox Demand Valve, RPZ, Strainer and sensor controls. A water supply and 240 v AC power are required for the control panel which should be installed in a convenient location near the system. A ½" copper drive line and a 32mm electrical conduit are required between the control panel and the SCS600 chamber. The ½" copper drive line is the signal line that will activate the diversion of the unit when a demand for wash water is detected. Electrical protection is rated at IP65 (Intrinsically safe supply will not be required if the fuel is diesel). If unleaded or other fuels are to be stored in close proximity to the system intrinsically safe equipment will be required.

At the commencement of a rain event the SCS600 chamber fills to a level where the float is activated. As a cleansing procedure the system will divert the first one to four chambers (site specific) contents without activating the probe. After the first volume of runoff has been diverted the sensor probe will be activated each time the float is triggered; the quality of the runoff is checked before being released. If hydrocarbons are detected a strobe alarm will be activated and the pit contents will be diverted to a holding tank. After the contents of the chamber have been diverted the Diversion Valve will close. This process continues until the water quality is suitable to be discharged to the stormwater network. An option is available to totally isolate the site if a spill is detected to ensure that no further runoff can leave the area until the cause of the alarm is addressed.

When a wash operation is taking place the diversion valve will be held in an open position. At the end of the wash activity the valve will close. A 'delay drop' function will open the Diversion Valve once more after a 5 minute delay to allow drainage from the area to also be diverted.

The system must be installed in accordance with the instructions provided by Fox Environmental Systems at the time of delivery. Please refer to our drawing A4-SPEC-1010 for the SCS600 specification details and drawing A4-INST-1010 for typical installation details.

Protecting your Business ……
and the Environment.

FOX ENVIRONMENTAL SYSTEMS

SCS600 I.S

This Manual is the property of the owner operator.

Please ensure you pass this to the relative person.

Unit 2 /8 Dual Av, Warana Qld 4575 Australia Ph: 5437 8455 Fax: 5437 8488

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3.2 Float Level Switch Test
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4.2 Procedure to take when A.P. (area polluted) alarm is activated.

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6.0 TROUBLE SHOOTING

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6.2 Demand Valve alarm

1.0 INTRODUCTION

The SCS 600 has been designed to protect the stormwater system from minor splashes and major spills of hydrocarbons.

This system unlike the First Flush system release only small volumes of water to the treatment system. The benefits of this are;

- Small Holding Tanks
- Small Oil Separators
- Low Running Costs
- Reduced Site Installation Costs

The SCS600 can also be programmed to have a First Flush function if required.

Good housekeeping practices of your washdown slab area and the diversion pit will ensure correct operation of your valve system.

All drains and silt traps must be kept clean of debris and silt to protect the diversion valve and your waste treatment process.

Generally the advice here is to use common sense and try to limit the amount of solids and silt from entering the system. Drainage systems are designed for liquids only.

2.0 PROCESS DESCRIPTION

Protecting the washdown and work area from hydrocarbons entering the stormwater system.

Washdown

All washdown runoff water travels through the Diversion Valve to the Holding Tank for treatment.

After washdown ceases the valve will close and excess runoff water will be collected in the diversion pit and it will remain in the pit until one of the following procedures takes place.

1. 6 hour cleansing cycle occurs. (programmable)
2. Someone turns on a tap, opening the valve.
3. The diversion pit fills to float level and creates valve action.

If rain occurs No. 3 also will take place.

Minor Splashing caused in works operations are trapped and held in a specially designed pit. This pit is automatically emptied and the sensor is hydraulically cleaned at a programmable time (E.g. 6 hrs)
When the cleansing cycle occurs, all contents of the pit are drained via the diversion valve to the holding tank for treatment.

Good house cleaning procedure is recommended by using the washdown hose supplied to clean away such minor spills.

If this procedure takes place, the diversion valve is hydraulically operated, the pit empties and the sensor is cleaned.

2.0 PROCESS DESCRIPTION CONT'D

Major Spills (E.g. over 15 litres) will be detected and the following occurs;

1. System alarms, emptying the pit to the Holding Tank.
2. Strobe alarm is activated (if fitted).
3. Sensor cleaned.

NOTE: If spill has been contained in bunded area

1. Area will need attendance once a spill has been detected.
2. Once spill has been removed from bunded area the Bund Valve may be opened.

When Rain Occurs the pit will fill to the float level (below the stormwater run out) and a drop is activated, emptying the pit to the Holding Tank and washing the sensor.
This is called a cleansing cycle, which will occur twice.

The valve closes allowing the pit to refill, this time passing the float level, activating the sensor and allowing the clean water to run to storm.

Whilst the float is in this position, the sensor continually guards against hydrocarbons entering the stormwater.
NOTE:

- This system can take a first flush volume if programmed to do so.
- This system will allow minor spills and splashes to treatment whilst protection against major spills.
- Washdown will also be diverted to treatment.
- This system has a fail safe alarm that occurs when House Cleaning is not maintained or in an event of system component failure.

3.0 MAINTENANCE

The following maintenance instructions are intended to ensure that this system continues to work properly and protect your business and the environment.

3.1 DAILY MAINTENANCE

- Remove any obstructions from the grates of the pit, such as rags, scraps and plastic bags.

- Remove and empty silt trap AWAY from washdown slab.

- While the silt trap and grate is off your collection pit, visually inspect the diversion valve and the draw tube exit holes to make sure that they are not clogged with silt or obstructions.

- downstream of the valve builds up with silt. House cleaning should be done on a regular basis to keep silt from entering the holding tank and pipe works, eventually clogging the valve.

- Check that the Diversion Valve is operational by turning on a hose that is connected to the Demand Valve.

- Wash out the collection pit and keep the draw tube exit holes clean. (positioned on the bottom of the draw tube.)

3.2 FLOAT LEVEL SWITCH TEST

- Lift grate and silt trap out of the collection pit.
- Manually lift float ball upwards, then release.
- Valve will open, then close. Note that water ejects freely from the Sensor Box situated on the pit wall.

3.3 SENSOR TEST

The sensor cannot be tested until all washing cycles or First Flush deops have been activated.

NOTE: Some systems may be programmed to several washing cycles, or a First Flush program. The system program should be known before sensor testing takes place.

- Activate the float until all wash cycles and first flush drops are completed.
- Remove the probe from the sensor block and dry completely.
- Activate the float. A.P. alarm will occur. The alarm will cease when the solenoid times out.
- Replace the probe into the sensor block.
- Remove the ½" drive line from the demand valve.
- Turn on the washdown tap and allow the pit to fill. A.P. alarm should not activate and water is allowed to run to storm.

If the above does not occur, contact your local Authorised Fox Distributor.

4.0 ALARM ACTIVATION

- The sound and light alarm is activated when the Diversion Valve cannot shut in a normal operational manner within 60 minutes.

- The RED alarm light will come on with the valve open light. (Section 4.1)
- Alarm occurs when an unacceptable amount of hydrocarbons are detected. (Section 4.2)

4.1 PROCEDURE TO TAKE WHEN ALARM IS ACTIVATED

- If the open light on the control station is 'on' when system is at rest, proceed with the following actions.

- Remove grate and silt trap from collection pit.

- Clean out any silt or foreign material from collection pit.

- Inspect Diversion Valve in collection pit for any obstructions that may be preventing the valve from closing.

- If the Diversion Valve will not close due to foreign material caught in the base of the Diversion Valve, turn a washdown hose on and wait for the valve to open further before removing the obstruction, so as not to damage the nitrile rubber seal.

- A closed light at the controller must be displayed when the system is at rest, before the alarm mode will cancel.

- If the open light is on and the system is active (water ejecting from the delay jet on the pit wall and valve wide open, and there is no washdown occurring), then there may be problems in the Demand Valve.
  (Section 6.3)

4.2 A.P. ALARM (AREA POLLUTED)

This alarm is notifying that there has been an unacceptable amount of hydrocarbons detected in the catchment pit. Attendance at the site is required and the polluted water disposed of in the correct legal manner.
When the hydrocarbons have been removed from the diversion pit, the alarm will stop.

5.0 EQUIPMENT SPECIFICATIONS

DIVERSION VALVE
Model DV150
Flow Rate..... 1200 Ltrs/min at 0.5 mtr head
Min. opening pressure ..... 30 KPA
Body..... Gunmetal
Shafts ..... Stainless Steel
Flange ..... Nylon
Diaphragm ..... Nitrile Rubber
Gasket..... Nitrile Rubber
Diversion valve size 150mm.

SENSOR BOX .....Stainless Steel

DEMAND VALVE
Model.....SCS600
Valve Body ..... Gunmetal
Internal .....Stainless Steel
Gasket..... Nitrile Rubber/Polyurethane
Max. inlet pressure.....1400 KPA
Size:
Demand valve standard size 25mm.

CONTROL STATION
Type ..... (PLC) Programmable Logic Controller

DRIVE LINE.....12mm Copper

CONDUIT..... 32mm PVC HD electrical

6.0 TROUBLE SHOOTING

Please read the following in conjunction with the drawings in Appendix C.

POSSIBLE CAUSES OF PROBLEMS:

- Demand Valve needs adjustment/servicing.
- Driveline blocked.
- Delay Jet blocked.
- Debris blocking the Diversion Valve.
- Ruptured diaphragm in the Diversion Valve. Service and replace.
- Holding tank is full. The Diversion Valve may be open but the chamber contents will have nowhere to drain to.
- Proximity switch needs adjustment.

- A regular three monthly service should be carried out on the system by an authorized technician.

6.1 DIVERSION VALVE WILL NOT OPEN/CLOSE.

- Check for leaks down stream of the Demand Valve.
- Remove the Grate and Silt Basket from the chamber.
- Check for debris under the sealing lip of the Diversion Valve. If the Valve is blocked turn on the hose connected to the wash tap and wait for the Diversion Valve to fully open before hosing around the valve to clear the chamber.
- With the washdown tap off, check if water is ejecting from the Delay Jet in the Bleed Valve Assembly. If water is noticed ensure that no other taps are on in the area and there are no leaks in the pipes.
- Remove the Driveline from the Demand Valve. Turn the washdown tap to approx ¼" flow to activate the Demand Valve. If water doesn't flow from the Driveline point, adjust the Demand Valve Stem. (Loosen lock nut on bottom of stem first.) Refer to Drawing A4-DV-5001 : Demand Valve Adjustments.

- With the washdown tap on, water should be coming from the Delay Jet in the chamber. If not remove the drive line from the Bleed Valve and check. The drive line may be blocked.
- If valve still does not close it is a mechanical fault in the Diversion Valve. A service call will be required.

6.2 DEMAND VALVE ALARM

Problem: **Debris in the Demand Valve Piston.**

- Remove the top of the Demand Valve.
- Remove the piston and spring.
- Flush Clean.
- Check the rubber washers in the Piston Assembly. Replace if damaged.
- Reassemble.

TO CHECK THE DEMAND VALVE

- Remove ½" Drive Line from the Demand Valve.
- Slowly turn on the tap downstream of the Demand Valve.
- Water should eject from the Drive Line connection when tap is at approximately ¼ flow, then when tap is turned off, no water should flow from the Drive Line connection.

TO ADJUST THE DEMAND VALVE

- Slacken the adjuster tube lock nut.
- Turn the adjuster tube in or out to achieve the above setting.
- Tighten the adjuster tube lock nut.
- Fit ½" Drive Line to the Drive Line connection.

Project: Servicing Instructions

Drawing Title: Demand Valve Adjustments

Drawing No: A4 - DM-5001

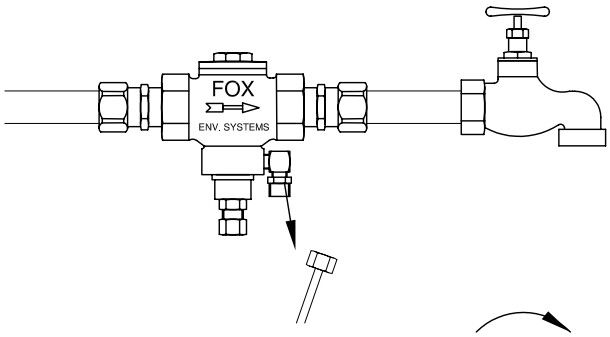
Date: 19/10/2006

Drawn by: R.O'B.

Revision:

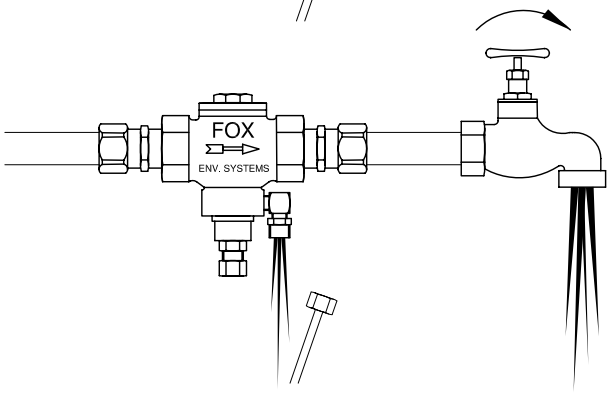
STEP 1

Remove Drive Line from Demand Valve.



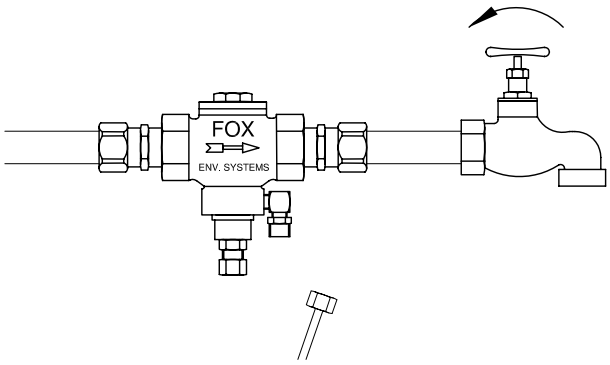
STEP 2

Turn on tap to activate Demand Valve. Tap should be approximately at $\frac{1}{4}$ flow.



STEP 3

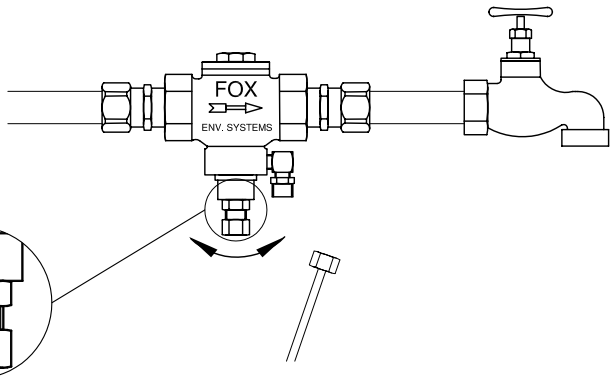
Turn tap off. Demand Valve flow should cease.



STEP 4

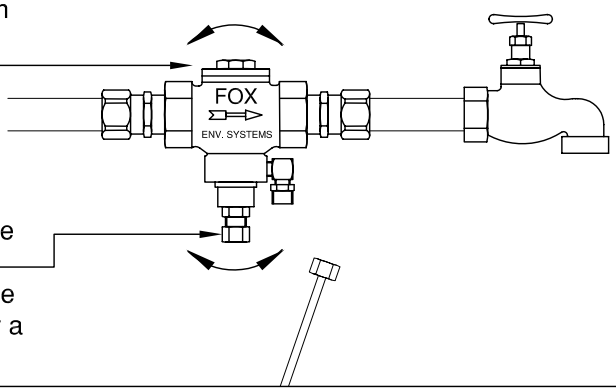
If numbers 2 & 3 can not be achieved, adjustment may be necessary. Using the appropriate spanner ($\frac{3}{4}$ AF) slacken the Valve Stem Lock Nut, then adjust the Valve Stem to achieve the correct flow.
NOTE: Screwing Adjuster Tube in makes the Demand Valve less sensitive.

Check Demand Valve setting again after locknut has been tightened.



STEP 5

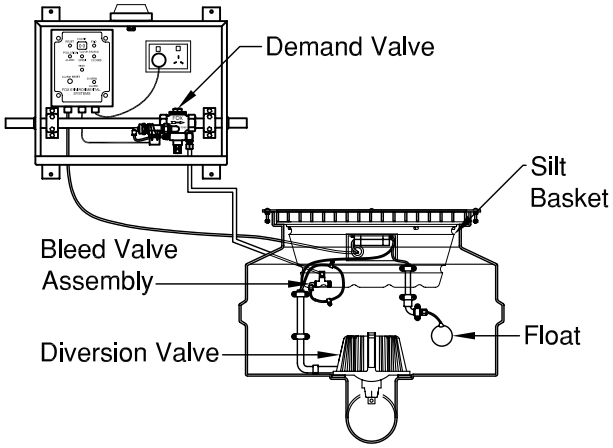
If flow from the Driveline doesn't stop when the Valve Stem is fully screwed in, there will be a service issue with the valve.
-Isolate the water supply prior the the RPZ.
-Remove the Top Cap, Piston and Spring to ensure that no debris (such as thread tape) has entered the valve.
If the valve is clear, remove the Valve Stem and inspect the O-rings and sealing tip for damage.
(In areas where hard water is passing through the valve the sealing tip can be eroded and may need to be replaced by a Valve Stem with a stainless steel tip.



Project: Field Service Instructions	Drawing No: A4 - DV-5002
Problem: **Diversion Valve not closing.**	Date: 13/08/2007
	Drawn By: R.O'B.
	Revision:

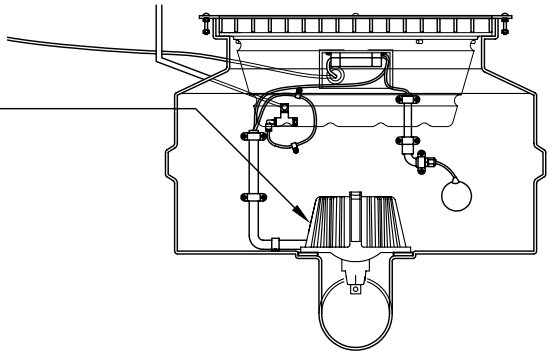
STEP 1

Remove the grate and silt basket.
Identify the various components in your system.
Note: In some systems (FF600, SCS600) the Demand Valve may be located in a control panel box.



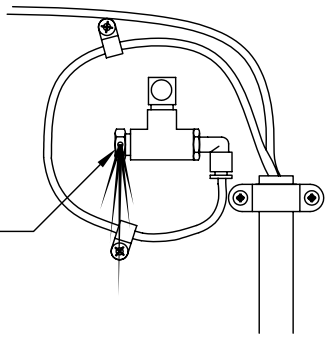
STEP 2

Determine if the Diversion Valve has been blocked by debris. Connect a hose to the wash tap and hose around the Diversion Valve to clean the pit.



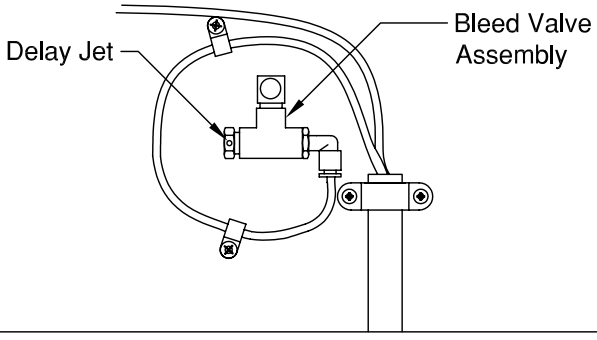
STEP 3

Determine if a water jet comes from the Bleed Valve when a wash tap is on. If no water is noticed, turn off the tap and manually bleed the pressure from the system by removing the Bleed Plug. If the pressure bleeds off and the valve closes then the bleed hole is blocked. Use a 1.5mm dia. drill or similiar to clear the hole.



STEP 4

With no taps on in the area determine if water is ejecting from the Delay Jet in the Bleed Valve Assembly. If water is noticed ensure that no other taps are connected to the waterline after the Fox Demand Valve. If not refer to instructions for Demand Valve adjustment.



INSTALLATION INSTRUCTIONS FOR SCS600 I.S

To be read in conjunction with Drawings A4-INST-1010/12 & A4-INST-1010/13

Note: Control Panel needs to be located outside Hazardous Zone

Provision for connections from the control panel should be in place when the concrete is poured: -

- ½" Copper Driveline to the SCS600 chamber.
- 32mm Conduits for the Control Cables to the Pump Control Box and SCS600 chamber. Do not use conduit smaller than 32mm. Do not use small radius conduit elbows. Make sure all joins are clean and burr free. Run a draw wire through while laying the 32mm conduit.

1. Select the desired wastewater outlet on the bottom of the SCS600 chamber and saw the capped end off.

2. Place the SCS600 chamber in the excavation and level. Connect 150mm pipework to the Stormwater & Tradewaste outlets. Connect the 32mm conduit to the chamber. If the diversion valve is to be installed under the ORG level a reflux valve may need to be installed under the diversion valve.

3. Mount the Fox Control Panel to a wall or similar in a weather proof area. Before connecting mains water supply to the Control Panel flush the mains line thoroughly. Connect the Control Panel to mains water using compression fittings only. Place a stop cock or similar at the outlet pipe of the Control Panel. All washdown equipment must be located beyond the Demand Valve. Hoses and taps other than those downstream of the Demand Valve should not be accessible in the area.

4. Connect the ½" Copper Driveline to the Demand Valve using a compression fitting.

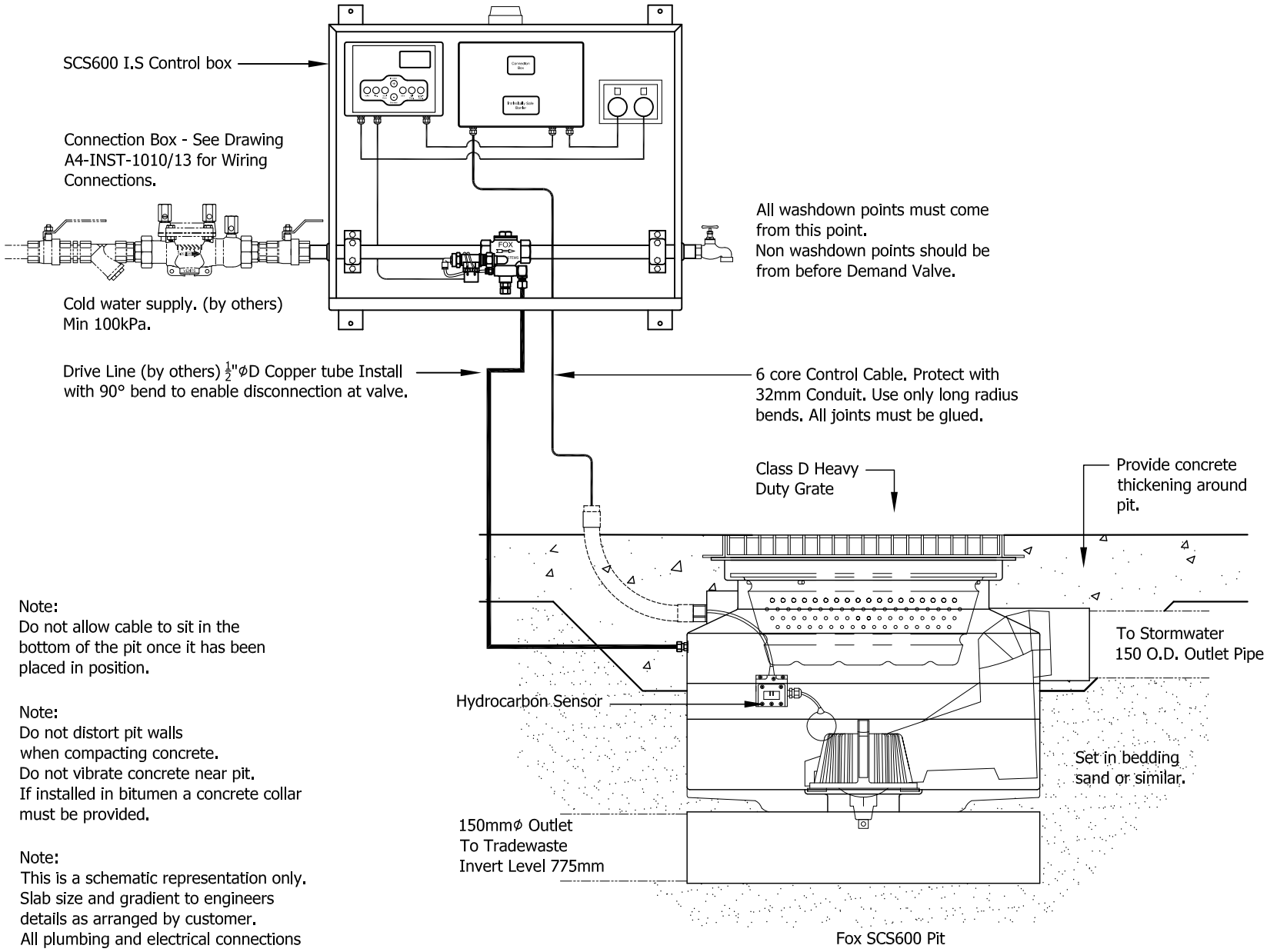
5. **Flush the ½" driveline thoroughly before connecting** to the Bleed Valve Assembly. Connect only after the installer is sure it is clear of debris.

6. Gently draw the 6 core control cable through the 32mm conduit to the Control Panel. **Do not allow the control cable to lie in the bottom of the chamber during the rest of construction as concreting material and water will cause damage.**

7. Backfill and concrete around the chambers. **Before pouring concrete the chambers must be braced internally to prevent distortion.** When pouring concrete around the chamber make sure that excessive concrete does not distort the chamber walls. **Do not vibrate. Do not ram.** Both these operations will distort the chamber walls.

Schematic Detail of SCS600 I.S Installation

Scale 1:20



Note:
Do not allow cable to sit in the bottom of the pit once it has been placed in position.

Note:
Do not distort pit walls when compacting concrete.
Do not vibrate concrete near pit.
If installed in bitumen a concrete collar must be provided.

Note:
This is a schematic representation only. Slab size and gradient to engineers details as arranged by customer.
All plumbing and electrical connections to be installed by certified tradesmen in accordance with relative authorities requirements. Tradesmen to be engaged by the purchaser.
System to be approved by relative Local Authorities before Installation.

FOX ENVIRONMENTAL SYSTEMS

This is a schematic representation only. Slab size and gradient to engineers details as arranged by customer. All plumbing and electrical connections to be installed by certified tradesmen in accordance with relative authorities requirements. Tradesmen to be engaged by the purchaser. System to be approved by relative Local Authorities before Installation.

Project:
Installation Instructions

Drawing Title:
SCS600 I.S

Drawn by:	J.F.S
Date:	16/02/2015
Scale:	NTS
Drawing No:	A4 - INST-1010/12

WIRING INSTRUCTIONS

Pit Cable I.S barrier Connection:

1. Ensure the System Power is off before connecting the 6 core cable.

2. Insert the 6 core cable from the SCS600 Pit through the gland at the bottom of the Connection Box.

3. Pare back the outer grey sheath and expose the six coloured wires. Expose approximately 10mm of copper on all wires.

4. Twist each copper wire tightly and place on bootlace ferrules supplied. Using pliers squeeze the soft metal on the bootlace ferrule so the ferrule clamp flattens onto the wire. Ensure the wires are properly joined by pulling the wire. The wire and ferrule should remain connected.

5. Insert the correct coloured wire (with bootlace ferrule now attached) into the appropriate terminal matching the colour and terminal number.

6. For Intrinsically Safe Connections refer to Drawings A4-INST-1010/13

PLUMBING FITTINGS

Valves and fittings shown are those generally required to operate the SCS600/BRT system. We do not warrant that this arrangement will be in accordance with all local by-laws. Waste will probably require pre-treatment before discharge to sewer. It is the responsibility of the installer to ensure that the installation is inspected by and to the satisfaction of the relevant local authority.

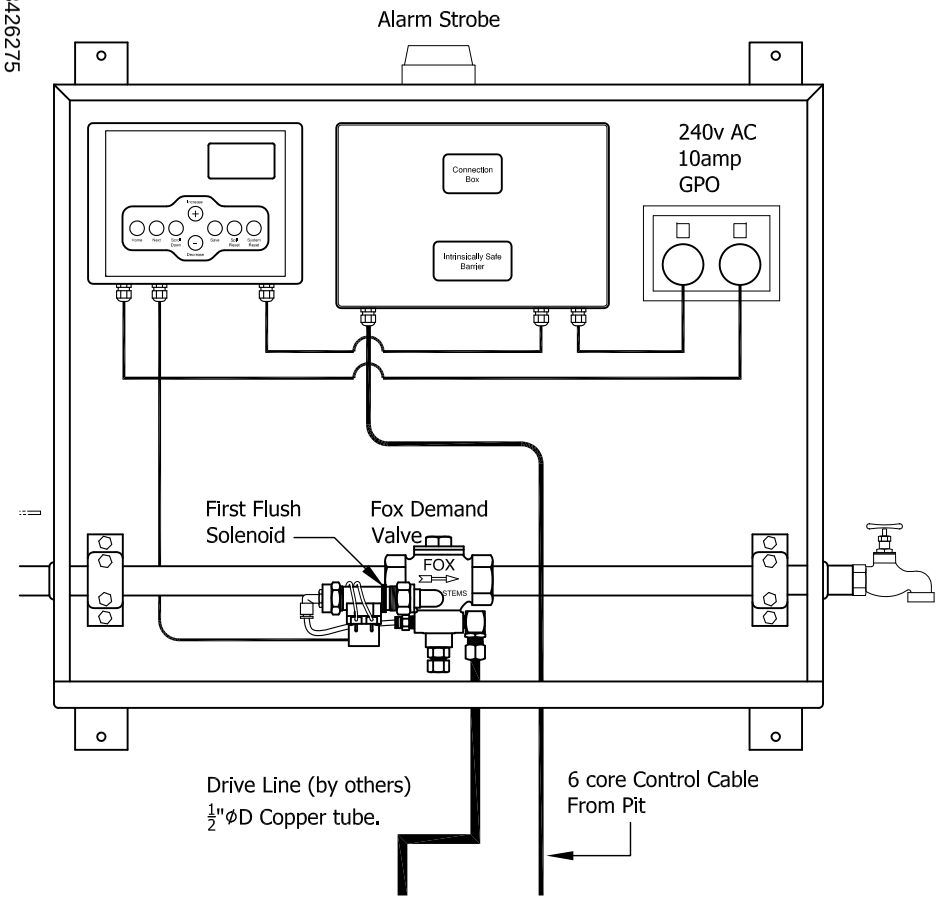
WARRANTY

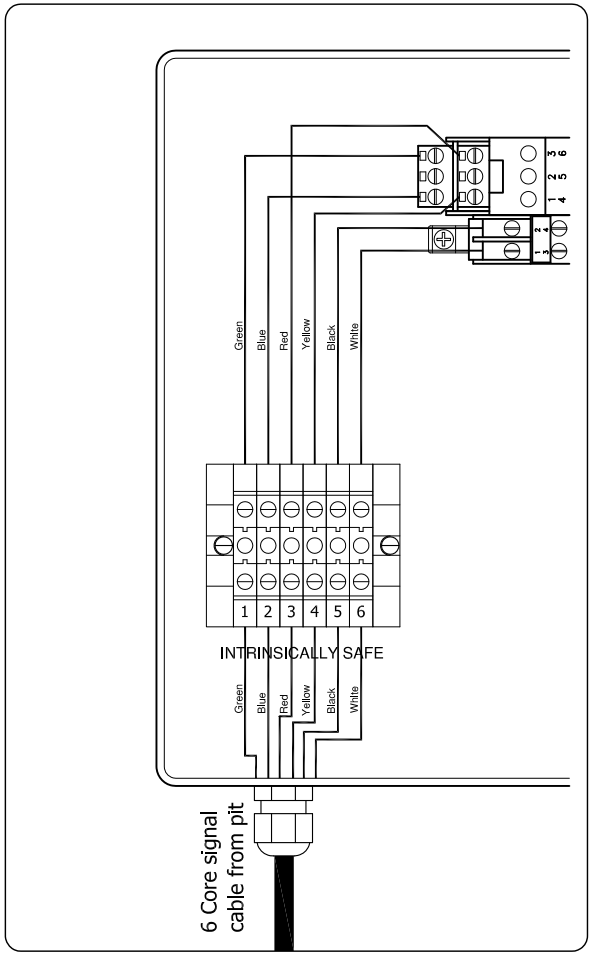
Warranty will be void if

(a) Fox SCS600/BRT System is not installed as per manufacturer's instructions.
(b) water pressure exceeds 1400 KPA.
(c) 'Commissioning In' report is not completed, signed & returned to Fox Environmental Systems

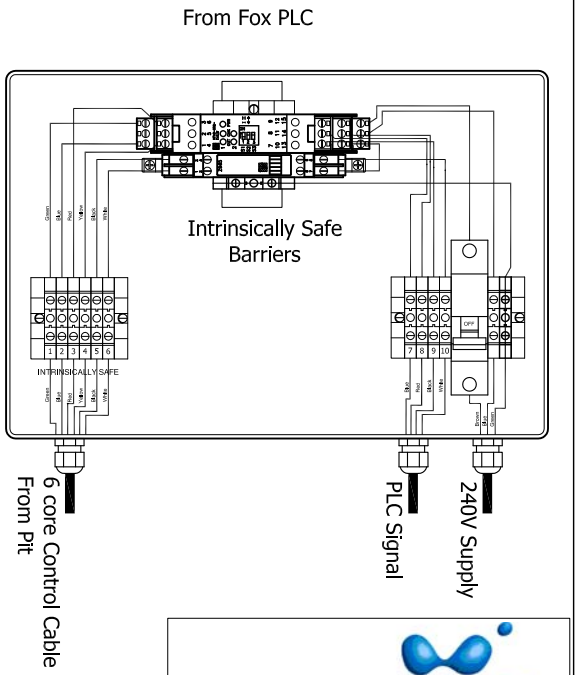
Control Box Wiring Details

Panel Box





Internal View



NOTES

1. Strip back wire insulation to expose copper wire.
2. Crimp the bootlace ferrules supplied flat onto each wire end.
3. Insert ferrules into terminal block and Tighten
4. Pull test each wire to ensure a good connection has been made.

Connections

1.	Float	(Green)
2.	Float	(Blue)
3.	Prox	(Red)
4.	Prox	(Yellow)
5.	Probe	(Black)
6.	Probe	(White)

FOX ENVIRONMENTAL SYSTEMS

Project:
Installation Instructions

Drawing Title:
SCS600 I.S Wiring Instructions

Drawn by:	JFS
Date:	16/02/2015
Scale:	NTS
Drawing No:	A4 - INST-1010/13

WARRANTY & SERVICE - To comply with Interim Australian Standards (Water Mark) Fox Environmental Systems Pty Ltd strongly recommend that the system you have purchased be serviced on a 3 monthly basis by Service Personnel authorised by Fox.

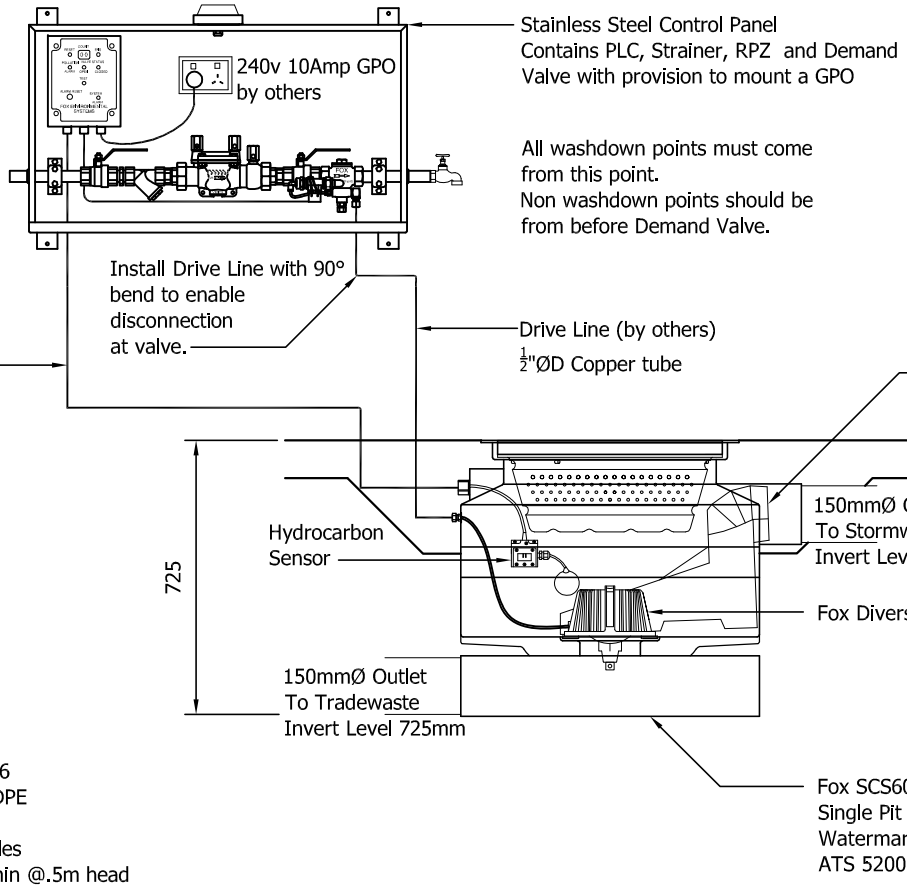
The warranty is only valid when the system is operated and maintained in accordance with the manufacturer's instructions. If service of the system is not carried out on a regular basis, the warranty of your system will be effected.

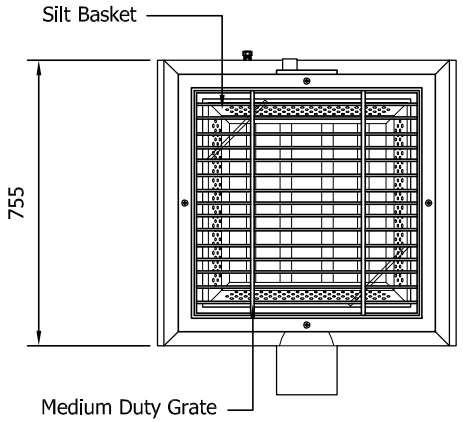
You will receive a Commissioning Report with your new system which should be returned to Fox Environmental Systems for warranty. For any additional information on the servicing of your system please contact Fox Environmental Systems Pty Ltd.

Ph: (07) 5437 8455
Fax: (07) 5437 8488
Email: info@foxenviro.com.au

Schematic Detail of SCS600 System with Standard Panel Box

Note:
This is a schematic representation only.
Slab size and gradient to engineers details as arranged by customer.
All plumbing and electrical connections to comply with local regulations.





Plan View

Available Options
Class 'B' Grate
Class 'D' Grate
Note: Inverts will change.
Request details if required.

SPECIFICATIONS

Single Pit Diversion Chamber	
Watermark License No. W618 ATS 5200.46	
Material	6mm MDPE
Silt Basket Capacity	50 Litres
	9mm holes
Diversion Valve Flow Rate	1200 l/min @.5m head
Grate	Medium Duty Galvanised

PROCESS DESCRIPTION

The Fox SCS600 is suitable for applications where there is a need to prevent spillage of hydrocarbons or other free floating non-soluble contaminants from entering the stormwater system. A hydrocarbon sensor in the pit can be calibrated to suit site conditions. This sensor detects the presence of significant quantities of hydrocarbons providing an alarm. The pit contents are then diverted to a holding tank. An option is available to totally isolate the site if a spill is detected to ensure that no further runoff can leave the area until the cause of the alarm is addressed. Minor quantities of hydrocarbons are retained in the chamber by a drawwing and discharged to the holding tank during a cleansing cycle once each day. Electrical protection is rated at IP65. An Intrinsically Safe supply is not required when the fuel is diesel. If unleaded or other fuels are present an intrinsically safe control panel will be required and is available at an additional cost.

FOX ENVIRONMENTAL SYSTEMS

Project
System Specifications

Drawing Title
SCS600 System

Drawn by:	R.O'B.
Date:	27/03/2008
Scale:	1:20
Drawing No:	A4-ENG-1010

WaterMark

WATERMARK LICENCE

SAI Global hereby grants to:

Fox Environmental Systems Pty Ltd

ABN 32 071 716 062

6B Deefa Street, CALOUNDRA QLD 4551 AUSTRALIA

"the Licensee" the right to use the WATERMARK *as shown above only in respect of the goods described and detailed in the Schedule which are produced by the Licensee and which comply with the appropriate Standard referred to below as from time to time amended. The Licence is granted subject to the rules governing the use of the* WATERMARK *and the Terms and Conditions for certification and licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.*

Manufactured to:

MP52 Spec 046 - Diversion systems, washdown and first flush

The WATERMARK is a registered certification trademark of Standards Australia Limited (ACN 087 326 690) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 669) ("SAI Global"). This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to the Schedule for the list of product models.

Licence No.: WMK 00618
Issue Date: 9 June 2005

Certified Date: 27 October 2000
Expiry Date: 26 October 2010

Alex Ezrakhovich - General Manager Certification
For and on behalf of SAI Global

Authorised Local Signatory, SAI Global

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IQNet
THE INTERNATIONAL CERTIFICATION NETWORK
MEMBER

MKP 127.01 CDAN 04/27 HMABLAZE 101891/5

WaterMark

WATERMARK SCHEDULE

Fox Environmental Systems Pty Ltd

ABN 32 071 716 062

6B Deefa Street, CALOUNDRA QLD 4551 AUSTRALIA

MP52 Spec 046:2001 - Diversion systems, washdown and first flush

Model identification of the goods on which the WATERMARK *may be used:*

MODEL ID	TYPE	SIZE	DEMAND VALVE	DIVERSION VALVE
CMS 600-1	Constant Monitoring Systems	Pit Capacity 122L	D-25	DV-150
SCS 600-1	Spill Control Systems	Pit Capacity 122L	D-25	DV-150
DD 600-1	Wash down Systems	Pit Capacity 29L	D-25	DV-150
FF 600-1	First Flush Systems	Pit Capacity 122L	D-25	DV-150

Maximum Inlet Pressure: 1400kPA
Maximum Temperature: 80°C

End of Record

Alex Ezrakhovich - General Manager Certification
For and on behalf of SAI Global

Authorised Local Signatory, SAI Global

Licence No.: WMK 00618

Issue Date: 9 June 2005

This schedule supersedes all previously issued schedules

SAI GLOBAL

standards assurance innovation

IQNet THE INTERNATIONAL CERTIFICATION NETWORK MEMBER

Oily Water Separator Specifications and Drawings

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Fox Environmental Pty Ltd

Product Appraisal Report TWA 1101

WATER SERVICES ASSOCIATION OF AUSTRALIA

Separator Systems for Light Liquids

Model Numbers

FX1000SS

FX1000SSD

FX1500SS

FX1500SSD

FX3000SS

FX3000SSD

FX6000SSD

Published - November 11

Overview of WSAA

The Water Services Association of Australia (WSAA) is the peak body of the Australian urban water industry. Its 30 members and 28 associate members provide water and wastewater services to approximately 16 million Australians and to many of our largest industrial and commercial enterprises.

Urban water service providers have a critical role in ensuring that Australians have access to adequate and high quality water services. As Australia's population continues to grow, with most of this growth occurring in cities, that role becomes increasingly important.

WSAA's vision is for Australian urban water utilities to be valued as leaders in the innovative, sustainable and cost effective delivery of water services. WSAA strives to achieve this vision by promoting knowledge sharing, networking and cooperation amongst members. WSAA identifies emerging issues and develops industry-wide responses. WSAA is the national voice of the urban water industry, speaking to government, the broader water sector and the Australian community.

Copyright

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1. Executive Summary

Fox Environmental is an Australian-owned company based in Warana Queensland with distributors in Queensland, New South Wales, Victoria and Tasmania.

This Appraisal Report has been compared against the requirements of the WSAA Specification WSA PS – 810 Separator Systems for Light Liquids (See appendix A).

Examination of all of the submitted documented material provides an expectation that the products described here in sourced and distributed by Fox Environmental Pty Ltd are 'fit for purpose' in the applications described in this report subject to future works items.

It is recommended that WSAA Members and Associates, subject to any specific requirements of the Member or Associate, accept or authorise the Fox Environmental product range as detailed in this report for use in sewer networks provided design, installation, acceptance testing and commissioning are in accordance with relevant WSAA Codes, WSAA Member Integrated Codes, and the manufacturer's requirements.

2. Company Overview

Fox Environmental is an Australian-owned company based in Warana Queensland with distributors in Queensland, New South Wales, Victoria and Tasmania.

3. Scope of this Appraisal

The scope of this appraisal covers separator Systems for Light Liquids manufactured from stainless steel in Model Numbers FX1000SS, FX1000SSD, FX1500SS, FX1500SSD, FX3000SS, FX3000SSD, FX6000SSD. The capacity of the separators vary from 1000Lt/Hr to 6000Lt/Hr and are manufactured from 304 Stainless Steel and can be fitted with either diaphragm or helical rotor pumps.

MODEL	FX1000SS	FX1000SSD	FX1500SS	FX1500SSD	FX3000SS	FX3000SSD	FX6000SSD
Material of construction Color Silver Above Ground							
Tank and Lid	304 Stainless Steel 1.6 mm.	304 Stainless Steel 1.6 mm.	304 Stainless Steel 1.6 mm.	304 Stainless Steel 1.6 mm.	304 Stainless Steel 1.6 mm.	304 Stainless Steel 1.6 mm.	304 Stainless Steel 2.00 mm.
Stand	25 mm. SHS Stainless Steel	25 mm. SHS Stainless Steel	25 mm. SHS Stainless Steel	25 mm. SHS Stainless Steel	25 mm. SHS Stainless Steel	25 mm. SHS Stainless Steel	40 mm. SHS Stainless Steel
Coalescing Medium	Vertical Tube 42 mm 294X630 X350mm	Vertical Tube 42 mm 294X630X 350mm	Vertical Tube 42 mm 378X630X 350mm	Vertical Tube 42 mm 378X630X 350mm	Vertical Tubes 42 mm 2 X 294X630X 350mm	Vertical Tubes 42 mm 2 X 294x630x 350mm	Vertical Tubes 42 mm. 3X 550X550X 500mm
Weight including Fluid	165 kg.	165kg.	220kg.	220kg.	430kg.	430kg.	1170kg.

Dry Weight	44 kg.	44kg.	56kg.	56kg.	80kg.	80kg.	245kg.
Maximum Flow Rate	1000 L/h	1000 L/h	1500 L/h	1500 L/h	3000 L/h	3000 L/h	6000 L/h
Actual Flow Rate	720 L/h	800 L/h	720 L/h	1170 L/h	160 L/h	2580 L/h	4200 L/h
Pump Type	Mono CP 11	FXP1000	Mono CP 11	FXP 1500	Mono CP 25	ASM DS 32	ASM DS 38
External Dimensions							
Height	1195 mm.	1195 mm.	1195 mm.	1195 mm.	1195 mm.	1195 mm.	1580 mm.
Length	1250 mm.	1250 mm.	1250 mm.	1250 mm.	1935 mm.	1935 mm.	2330 mm.
Width	370 mm.	370 mm.	455 mm.	455 mm.	455 mm.	455 mm.	660 mm.
Inlet Diameter	40 mm.	40 mm.	40 mm	40 mm.	40 mm.	40 mm.	80 mm.
Outlet Diameter	50 mm.	50 mm.	50 mm.	50 mm.	50 mm.	50 mm.	100 mm.
Final Filter Bag	1x 100 Micron	1x 100 Micron	2x 100 Micron	2x 100 Micron	2x 100 Micron	2x 100 Micron	4x 100 Micron

4. Appraisal Criteria

This Appraisal Report has been compared against the requirements of the WSAA Specification WSA PS – 810 Separator Systems for Light Liquids (See appendix A).

5. Quality Assurance Requirements

The WSAA product appraisal network accepts system (ISO 9001) and product certification by a Certification Body at the manufacturing site of strategic products to appropriate Australian or internationally recognised standards. The Certification Body shall have relevant accreditation by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ) or by an equivalent international accreditation system recognised by JAS-ANZ.

The manufacturer Fox Environmental is not ISO9001:2000 certified at this time.

6. Compliance to the Appraisal Criteria

6.1. Materials of Construction

6.1.1. Separation Tank and Stand

The Separation tank is manufactured from 304 Stainless Steel and is supported by a specifically engineered and constructed 304 Stainless Steel frame. Material are supplied by Fagersta Steel Pty Ltd which is ISO0991:2008 compliant.

6.1.2. Vertical-Tube Coalescing Pack

The Vertical-Tube Coalescing Pack is constructed from Oleophilic Polypropylene, which provides increased efficiency and performance via its enhanced flow, phase separation characteristics and longevity.

6.2. Access Covers and Lids

The lids that are used for the Fox Environmental product range are manufactured from 304 stainless steel 1.2mm thick on all products with the exception of the FX6000SSD product where the lid is 1.6mm thick.

6.3. Internal Surface Coating

The internal surface coating of the product range is not specially coated.

7. Performance Requirements

7.1. Process Description

The Fox Series FX separators are enhanced gravity separators and incorporate a Bio-Tube® filtration media pack to promote coalescing of oil droplets and enhance floation separation from the water in accordance with Stokes Laws. The design of the tube pack offers a large surface area for the interruption of flow through the unit with the spiral construction of the tube promoting an upward flow of oil particles.

The units will be supplied with a low voltage pump motor control station. There are several options available:

Model X1 – Allows Auto/Manual Pump Control

Model X1IS - Intrinsically Safe Control Station

Model X2 - Provides for a High Level Alarm in the Holding Tank.

Model X2IS - Intrinsically Safe Control Station

Model X3 – Provides a Non-Resetable Run Meter (required by some councils)

Model X3IS - Intrinsically Safe Control Station

All units are manufactured from 304 Stainless Steel as standard and are fully seal welded.

A removable lid ensures that rain or hose water cannot enter the tank in normal circumstances.

The lid is vented and has provision for locking. An option is available for the unit to be manufactured from grade 316 Stainless Steel when they are to be used for extremely aggressive waste or salt water applications.

The basic design philosophy for each model is typical however the physical size, retention time and tube pack mass for each model increases with the treatment rate of the unit.

The Models are designated as follows:

Model FX1000SS …….. 0.28 l/sec (1000 l/hr)

Model FX1500SS …….. 0.42 l/sec (1500 l/hr)

Model FX3000SS ……. 0.85 l/sec (3000 l/hr)

Model FX6000SS ……. 1.7 l/sec (6000 l/hr)

Model FX10000SS…… 2.8 l/sec (10000 l/hr)

Model FX15000SS…… 4.2 l/sec (15000 l/hr)

Each Model will be supplied with a Fox Diaphragm Pump, ASM Diaphragm Pump, or a Mono

Helical Rotor Pump (where allowable by Local Authorities). Dual diaphragm pumps may also be supplied where suitable.

7.2. Effluent quality

Fox Environmental has conducted sampling and testing on 2 samples analyzing for oil & grease, Total Petroleum Hydrocarbons, BTEX, pH and Suspended solids. These test reports have been made available and is included in Appendix B. The report shows a significant reduction in levels of all parameters tested on these samples, however there is no supporting narrative for the testing. A full trial is subject to a future works item (Part 16).

8. Applicability

The Fox Series FX Separator is ideally suited to applications that have the potential to generate waste water containing free floating hydrocarbons in suspension. Typical applications for the separator include but are not limited to the following:

- Vehicle Washdown Areas
- De-greasing Bays
- Mechanical Workshops
- Oil Storage Areas
- Vehicle Hardstand Areas

Correct sizing of the Separator, Pump and Holding Tank and the use of “Quick Break” detergents will provide a system that will treat oily water to a standard that is suitable for discharge into Local Government Tradewaste Disposal Systems.

9. Specifications and Drawings

The product specifications and drawings are included in Appendix C.

10. Warranty

All products that are supplied by Fox Environmental Systems Pty Ltd (Fox) are warranted to the original owner (not necessarily the purchaser) of the equipment in accordance with the following Limited Warranty. The warranty is only valid when the system is operated and maintained in accordance with the manufacturer’s instructions. If service of the system is not carried out on a regular basis the warranty of your system will be affected.

The warranty offered is for the repair or replacement of any part or component manufactured by Fox or their subcontractors that fails due to defects in materials or workmanship for a period of 12 months. To obtain service under this warranty the owner should contact Fox Environmental Systems and advise the nature of their concern, the model and serial number of the unit and the date of

purchase. If required the component must be returned at the senders' expense. A replacement item, which at the discretion of Fox, may be the original component following repair, a reconditioned or new item, will be returned at our expense. Should it be determined that the part is not covered by warranty the owner will be responsible for the payment of any costs involved in the supply of replacement parts, including shipping and handling.

All components supplied under this warranty will be covered by a further warranty equal to the remainder of the original limited warranty or 90 days, whichever is the longer. All components replaced under warranty become the property of Fox Environmental Systems Pty Ltd and may be used for whatever purpose they deem suitable.

The warranty will be void if the equipment is not installed as per manufacturer's instructions. Warranty will also be void if water pressure exceeds 1400 kPa. The warranty is only valid when the system is operated and maintained in accordance with the manufacturer's instructions, and service of the system is carried out on a regular basis. The Commissioning-in report must be completed, signed & returned to Fox Environmental Systems

Note: The use of pipes smaller than the port size of the pumps will void the suppliers' warranty.

This warranty does not cover consumables or any damage arising from improper selection of materials, faulty installation or misuse.

What are Consumables?

1. The final filter bags.

To obtain service under this warranty the owner should contact Fox Environmental Systems Pty Ltd on (07) 5437 8455 or Fax (07) 5437 8488 and advise the nature of their concern, the model and serial number of the unit and date of purchase. If required, the component must be returned to Fox at the senders' expense. A replacement item which at the discretion of Fox may be the original component following repair, a reconditioned or new item will be returned at our expense. Should it be determined that the part is not covered by warranty the owner will be responsible for the payment of any costs involved for the supply of replacement parts, shipping and handling costs.

All components replaced under warranty become the property of Fox Environmental Systems Pty Ltd

and may be used for whatever purpose they deem suitable. All components supplied under this

warranty will be covered by a further warranty equal to the remainder of the original limited warranty or 90 days, whichever is the longer. Should it be found that the equipment is not being maintained in accordance with the maintenance recommendations provided by Fox Environmental Systems Pty Ltd then the warranty may become void.

11. Installation Requirements

11.1. Installation Instructions

It is important to ascertain the requirements of the Local Authority responsible for the installation of pre-treatment systems to ensure that the proposed installation will fulfill their individual requirements.

At this stage it is assumed that the Holding Tank has been installed and a bunded concrete pad has been provided for the Separator Installation. Provision should be made for this area to drain back to the Holding Tank.

Please refer to the drawings relevant to the Fox Oil/Water Separator and pump being used.

- Model FX 1000 SS …….. A4-INST-1020
- Model FX 1500 SS …….. A4-INST-1021
- Model FX 3000 SS ……. A4-INST-1022
- Model FX 6000 SS ……. A4-INST-1023
- Model FX 10000 SS ……. A4-INST-1025
- Model FX 15000 SS ……. A4-INST-1026

Refer to the relevant drawings for the Control Box connection details.

- Model X1 …….. A4-INST-X1
- Model X2 …….. A4-INST-X2
- Model X3 ……. A4-INST-X3
- Model X1IS ……. A4-INST-X1IS
- Model X2IS ……. A4-INST-X2IS

Following is a step by step procedure for the installation of the Separator, Pump and Control Box. Careful attention should be paid to the items marked ’ as they will affect either the operation of the unit or the safety of personnel.

1. Install the pump suction line in the holding tank with a barrel union to enable dismantling via the manhole for service. Install a foot valve if a Mono pump is being used. No foot valve is required for the diaphragm pumps as they are self priming.

2. Remove the Separator lid; this is done by releasing the over-centre lock, lifting and sliding the cover away from the locking end. When the lip of the cover clears the lip of the tank the lid can be removed. Supplied loose inside the unit are the legs for the stand, waste oil extension pipe, gate valve(s) for the separator tank and the Holding Tank float switch(es).

3. Lift the tank out of the stand. Fit the legs onto the stand, finger tightening the locking bolts.

4. Place the stand in position. To ensure correct operation of the Separator, the unit must be installed in a level plane in all directions. ’Using a builder’s level, adjust the legs so that the stand is level in both planes then tighten the locking screws.

5. Using Dynabolts, Chemical Anchors or other suitable corrosive-resistant fixings, anchor the stand utilising the pre-drilled 10 mm dia. holes in the feet. Re-check the levels and adjust if

necessary.

6. Fit the tank into the stand.

7. Fit the gate valve to the tank drain using Teflon tape or suitable thread sealant. Make sure that the valve is closed.

8. Install the waste oil extension pipe to the skimmer outlet. The pipe should not be glued to the adaptor to facilitate removal of the waste oil collection vessel.

9. Place the pump in position and fix to the concrete pad using corrosive-resistant fixings. 'Electrical regulations require that the pump motor is to have a 500mm clearance from the separator unit and holding tanks.

10. Install interconnecting pipework between the pump and the separator inlet. Barrel unions should be installed on either side of the pump to facilitate easy removal for servicing. Install sample points as required by the Local Authority.

11. Connect the outlet pipe of the separator to the trade-waste (sewer) system. Install sample points as required by the Local Authority. 'Connections to sewer system must be made by a licensed plumbing contractor and with the approval of Local Authorities.

12. Supply and install a waste oil collection vessel. The waste oil collection vessel must be clear and have provision for a screw cap to be fitted.

13. Mount the Control Box adjacent to the pump and near a 240V 10Amp GPO. 'Any electrical work required must be carried out by a licensed electrician.

14. Install Activation Float Switch in the Holding Tank. Attach to the suction line using heavy duty cable ties and ensure that sufficient lead is left to enable removal of the suction line for servicing. Position to ensure clearance from bottom of tank as per installation drawing. Draw cable through 32mm conduit to Control Box location. The float operates on low voltage and is connected to the terminal strip in the Control Box via the gland in the bottom of the unit. Refer to the Control Box installation drawing for connection details. For Model X2 & X3 Control Boxes, repeat procedure for High Level Float Switch.

15. Plug the Control Box into the GPO and the pump power lead into the Control Box outlet.

16. Fill the Separator to the level of the discharge weir. Ensure that the level in the Holding Tank is well above the pump pick up point before testing. If a Mono pump is being installed it must be primed with water.

17. Select the manual run position on the Control Box and turn the power on at the GPO. The pump will start and transfer water into the Separator. Ensure that the Oil Skimmer is above the water level. The top section of the skimmer pipe slides out from the main pipe. 'When the water flow through the Separator has stabilised the Oil Skimmer should be adjusted to 3 mm above the water level with the pump running.

18. The Separator is now ready for work. Turn the Control Box Selector Switch to the Auto position.

11.2. Training

It is a requirement that the oil separators be installed by a licensed plumber after providing design etc. to the relevant local authority.

Most plumbers are generally competent to carry out such installations keeping the relevant plumbing standards etc in mind but Fox Environmental supply with each unit, full installation and maintenance manual complete with drawings.

Fox staff or distribution staff are available to offer advice or training as required.

Final inspections are carried out by Fox staff or approved Distributor Representatives after each installation when operation and a visual performance levels are checked.

At this stage responsible on-site people are trained in the operation and maintenance of the unit.

In the event that outside contractors are used for the maintenance of the unit, Fox staff ensures that these contractors are trained and competent in the operation and maintenance programme.

Training is not required by a Registered Training Organisation although they may do some form of training regarding Oil Separators as part of certain Nationally Accredited Courses e.g. Motor Mechanic.

Fox Environmental and or its distribution network work together with RTO's (including TAFE Colleges) on a regular basis.

As members of the AHSCA, SIA, AWA and the Master Plumbers Association, Fox Environmental attend regular meetings of these organizations and provide training as required.

Fox staff and Distributors also have regular contact with Council Trade Waste Officers and Plumbing Inspectors and run seminars from time to time.

12. Operation and Maintenance

Proper maintenance of the Oil/water Separator and associated equipment will ensure that the unit continues to perform the function for which it has been installed. The Separator will provide effluent of a quality acceptable for release to sewer at the approved Flow rate. Increasing the flow rate beyond this will affect the efficiency of the system. 'Quick Break' detergents must be used for the System to operate efficiently. Solvent based detergents may affect the warranty.

Documentation of all pre-treatment facility operations, including products and residues removed should be kept in accordance with Australian Standards.

Maintenance of the unit should be undertaken at the following regular intervals:-

- Weekly

- Quarterly

Note: These are the recommended maintenance intervals for typical site requirements. The period should be reduced in accordance with the volumes and pollutant loadings of the effluent being treated.

12.1. Recommended Weekly Maintenance.

1. Remove the Separator lid; this is done by releasing the over-centre lock, lifting and sliding the cover away from the locking end. When the lip of the cover clears the lip of the tank the lid can be removed.

2. Inspect the Separator and ensure that there is no floating debris that can create a blockage.

3. Check the level in the waste oil collection vessel. If full, remove the extension pipe from the adaptor and place a screw cap on the oil container. Arrange for proper disposal of the waste.

4. Inspect and clean all collection points and silt baskets as required.

5. Turn the Separator Controller selector switch to manual and ensure that the pump starts, that the effluent flow through the unit is steady and that the Oil Skimmer pipe is approximately 3 mm above water level.

6. Check the flow through the final filter bags.

7. Return the selector switch to Auto.

8. Inspect the unit and all pipe connections for leaks or physical damage that could affect the operation.

9. Replace the Separator lid and lock if required.

12.2. Quarterly Service.

Fox Environmental Systems recommend that the quarterly service to the unit is performed by a qualified service technician. All Fox recommended Service agents are able to provide a Fox Service Authorisation Number.

1. Perform steps 1-4 & 8 above.

2. Isolate the Separator Controller at the GPO and remove the plug.

3. Adjust the Oil Skimmer to a point just below the water level to remove any build up of oil on the water surface.

4. Drain the sludge from the hopper via the gate valve into a suitable container and dispose of in a proper method.

5. Drain any remaining effluent from the Tank back to the Holding Tank.

6. Remove the Tube Pack from the unit and clean thoroughly. Ensure that any run-off is returned to the Holding Tank.

7. Thoroughly clean the Separator internally.

8. Refit the tube pack. Ensure that the sludge hopper is fully covered to stop bypass occurring.

9. Inspect the final filter bags and replace as necessary.

10. Lift the Oil Skimmer pipe to a point above the water level and fill the unit with clean water.

11. Check the level of sludge in the Holding Tank. If necessary arrange for the tank to be pumped out and the contents disposed of.

12. Check operation of the pump float switch. Be sure that the float is free to move with the water level and that the contacts change over when the float is lifted.

Note: The Holding Tank of a trade-waste system is a confined space and must not be entered without proper precautions being observed. In a properly installed system all regular maintenance activities should be able to be carried out through the access hole in the tank.

1. Prime the Pump (if required) and check that the water level in the Holding Tank is sufficient to run the unit.

2. Plug the Separator Controller into the GPO and turn on. If the pump does not start automatically, lift the float in the Holding Tank (use a wire hook or similar) and the pump should run. Let the float down; the pump will shut off automatically when the low level is reached.

3. When the effluent flow through the unit becomes steady adjust the Oil Skimmer to 3 mm above the water level.

4. Replace the Separator Lid and lock if required.

12.3. Trouble Shooting and Fault Finding

Note: Electrical fault finding must be done by a licensed electrical contractor.

Symptom Cause Remedy

No flow to Separator.
• Mono pump not primed
• Pump diaphragm damaged.
• Pump check valve faulty.
• Suction pipe below sludge level.
• Suction pipe blocked.
• Foot valve blocked.
• Prime pump
• Service pump.
• Service check valves.
• Pump holding tank out.
• Remove obstructions.
• Service foot valve.
Pump not running. • Low level in Holding Tank
• Float switch jammed.
• Controller switched Off.
• Motor overload tripped.
• Pump runs with rising float. Lift float.
• Ensure switch is free to lift with water level.
• Check power is on, & selector switch is on Auto or Manual. Return to Auto for running.
• Reset overload.
System will not switch on.

• Float switch jammed.
• No power to Controller.
• No power to pump.
• Pump running but not pumping.
• Ensure float switch is free to lift with water level.
• Check power is on, & selector switch is on Auto or Manual
• Check electrical connections and ensure power is available at pump.
• Refer “No flow to Separator” above.

System will not switch off.

• Float switch jammed.
• Pump not pumping.
• Ensure switch is free to fall with water level.
• Refer “No flow to Separator” above.

Water in Waste oil vessel.

• Oil skimmer set too low. • Adjust skimmer with pump running to 3mm above water level.

Oil in discharge stream.

• Oil skimmer set too high.
• Incorrect detergent or degreaser used.
• Excessive heavy oil loads introduced into waste stream.
• Adjust skimmer with pump running to 3mm above water level.
• Use only quick break detergents.
• Pure oil should not be run through the unit.

Pump Motor overload trips continuously.

• Motor starts/stops too frequently
• Power supply voltage too low or too high.
• Holding Tank too small.
• Floats set incorrectly.
• Check voltage.

13. Identification

Fox Environmental product range is identified using an identification plate which is attached to the separator at the inlet end below the top rim. An example of an identification plate follows below.

FOX ENVIRONMENTAL SYSTEMS

Fox Oil/Water Separator

Model No:	
Serial No:	
Volume:	
Authorisation No:	
Weight of Lid:	
Pump Model No:	
Rating:	
Pump Serial No:	

Unit 2, 8 Dual Avenue, Warana, Qld, Australia, 4575.
Phone: (07) 5437 8455 Fax: (07) 5437 8488
www.foxenviro.com.au

14. Outcomes of WSAA Network Review

14.1. ISO 9001 quality standard is now revised to the year 2008, not 2000. Are Fox Environmental intending to update the certification to ISO9001:2008**?**

Products sourced from supplier with 150.9001.2008 certification. Updated certificate has been requested.

14.2. (page 7, **7.2 Effluent Quality**):

14.2.1. Agree that "there is no supporting narrative for the testing". On Fri 29/05/2009 3:15 PM the proponent (David Dickson, Fox Environmental) was e-mailed a suggested draft process validation methodology, quality sampling techniques, data control, etc. for their consideration.

Compliance testing will be completed as a future works item

14.2.2. Not sure why pH would go from 4.5 influent to 7.8 in effluent (for Separator 1500 sample)?

Compliance testing will be completed as a future works item

14.2.3. One data sample for either pre-treatment device is not sufficient enough to draw sound scientific conclusions on the quality performance of either device. As a suggested minimum, at least three separate trial days (for the models FX1000SS and FX6000SSD devices (which bracket the device product range)) should be run. As already provided, INLET and OUTLET samples are to be taken under normal operating conditions.

Compliance testing will be completed as a future works item

14.2.4. The temperature of the *oil / water medium* should also be noted as this shall have a direct impact on the physical chemistry of the oil/water interaction, and hence quality of performance of the pre-treatment devices.

Noted.

14.3. (page 10, **11.1 Installation Instructions**, 16.) – Suggest that "Fill the Separator to the level…" be amended to "Fill the Separator with clean water to the level…" to avoid *potential* blinding of the filter bags (where installed). Solution filters generally require pre-wetting prior to effective use.

Manufacture of the filter bags suggests clean or dirty water is ok.

14.4. More data needed on product performance.

Compliance testing will be completed as a future works item

14.5. Drawing does not contain sufficient details (i.e., levels, pipe size, vent arrangements, etc..)

Drawings changed to reflect water level, separator inlet & outlet sizes reflect pipe sizing and are referred to in the separator specification. Vents are noted in the Separator specification.

14.6. Confirmation of the product meeting ANZ standards required

See page 27 for referral to AS/NZ 4494.1998

14.7. Insufficient detail on the compliance plates (generic title, date of manufacture, etc) and no mention about compliance plate for covers. Must conform with the WSAA Specification.

WSAA does not request date of manufacture on the compliance plate. Compliance plate has been updated.

14.8. Limited Warranty (12 months). Warranty must extend to 5 years

Separator tank, lid, VTC tube filter & stand are covered by a 5 year manufactures warranty, all related products including pumps, controllers and float switches are covered by a 12 month warranty.

14.9. Reference to use of detergents and no MSD - detergents are not accepted

Noted

14.10. Drawing & Specs details are not uniform throughout

Specification drawings have been updated

14.11. A minimum of two authorised service technicians/agents is desired to give customers choice and to bolster continuity of service. What are the servicing arrangements offered by the supplier?

Fox offers a service Division to its clients. It also offers to train plumbers, agents and Technicians in servicing of its equipment.

14.12. Another concern is the maintenance regime. Weekly and Quarterly maintenance is required. The maintenance procedures are very detailed and would be a high impost on any business to adhere too. Our concern is from experience these types of apparatus' tend to get left unattended for months if not years on end rendering them virtually ineffective.

The "maintenance regime" has been written in accordance with current trade waste policies & guidelines set out by councils in QLD & NSW.

14.13. If these models become obsolete will parts still be available in the long term?

Yes parts will be available to support any superseded models

14.14. What is the life expectancy of the apparatus?

The separator tank & stand is made of 304 stainless steel, we don't expect them to perish.

15. WSAA Member and Field Reports

At the time of publication a WSAA member field report was not available and this item has been referred as a future works and referenced in part 16 Future Works.

16. Future Works

16.1. It is a requirement that within 2 years of the publication of this report that a report be provided for inclusion in this appraisal detailing the outcomes of effluent quality testing in accordance with WSA PS 810 (attached as an appendix)

16.2. It is a requirement that within 12 months of the publication of this report that a WSAA member field report is provided for inclusion in this report .

17. Discussion

Examination of all of the submitted documented material provides an expectation that the products described here in sourced and distributed by Fox Environmental Pty Ld are 'fit for purpose' in the applications described in this report subject to future works items.

18. Report Recommendation

It is recommended that WSAA Members and Associates, subject to any specific requirements of the Member or Associate, accept or authorise the Fox Environmental product range as detailed in this report for use in sewer networks provided design, installation, acceptance testing and commissioning and maintenance are in accordance with relevant WSAA Codes, WSAA Member Integrated Codes, and the manufacturer's requirements.

19. Disclaimer

This Appraisal Report is issued by the Water Services Association of Australia Ld. on the understanding that :

a) This appraisal applies to the product(s) as submitted. Any changes to the product(s) either minor or major shall void this appraisal.

b) To maintain the recommendations of this appraisal any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the appraisal report and appropriate action. Appraisals and their recommendations will be the subject of continuous review dependent upon the satisfactory performance of products.

c) WSAA reserves the right to undertake random audits of product manufacture and installation. Where products fail to maintain appraised performance requirements the appraisal and its recommendations may be modified and reissued. Appraisal reports will be reviewed and reissued at regular intervals not exceeding five (5) years.

d) The following information explains a number of very important limits on your ability to rely on the information in this Product Appraisal Report. Please read it carefully and take it into account when considering the contents of this Product Appraisal Report

e) Any inquiries regarding this report should be directed to the Appraisal Project Manager, Grant Leslie, Phone: 02 9290 3655 - E-mail grant.leslie@wsaa.asn.au

19.1. Issue of Report

This Product Appraisal Report (Report) has been published and/or prepared by the Water Services Association of Australia, Inc and nominated Project Manager and peer group of technical specialists (the Publishers).

The Report has been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Report (the Recipients).

By accepting this Report, the Recipient acknowledges and represents to the Publisher[s] and each person involved in the preparation of the Report that the Recipient has understood and accepted the terms of this Disclaimer.

19.2. Limits on Reliance on Information and Recommendations

19.2.1. Disclaimer of liability

Neither the Publisher[s] nor any person involved in the preparation of the Report accept[s] any liability for any loss or damage suffered by any person however caused (including negligence or the omission by any person to do any thing) relating in any way to the Report or the product appraisal criteria underlying it. This includes (without limitation) any liability for any recommendation or information in the Report or any errors or omissions.

19.2.2. Need for independent assessment

The information and any recommendation contained (expressly or by implication) in this Report are provided in good faith. However, you should treat the information as indicative only. You should not rely on that information or any such recommendation except to the extent that you reach an agreement to the contrary with the Publisher[s].

This Report does not contain all information that a person might require for the purposes of assessing any product discussed or appraised within it (Product). The product appraisal criteria used in preparing this Report may not address all relevant aspects of the Product.

Recipients should seek independent evidence of any matter which is material to their decisions in connection with an assessment of the Product and consuL their own advisers for any technical information required. Any decision to use the Product should take into account the reliability of that independent evidence obtained by the Recipient regarding the Product.

Recipients should also independently verify and assess the appropriateness of any recommendation in the Report, especially given that any recommendation will not take into account a Recipient's particular needs or circumstances.

WSAA has not evaluated the extent of the product liability and professional indemnity insurance that the provider of the product maintains. Recipients should ensure that they evaluate the allocation of liability for product defects and any professional advice obtained in relation to the product or its specification including the requirements for product liability and professional indemnity insurance.

19.3. No updating

Neither the Publisher[s] nor any person involved in the preparation of this Report [has][have] any obligation to notify you of any change in the information contained in this Report or of any new information concerning the Publisher[s] or the Product or any other matter.

19.4. No warranty

The Publisher[s] do[es] not, in any way, warrant that steps have been taken to verify or audit the accuracy or completeness of the information in this Report, or the accuracy, completeness or reasonableness of any recommendation in this Report.

Appendix A Product Specifications

WATER SERVICES ASSOCIATION of Australia

PRODUCT SPECIFICATION

WSA PS 810
Separator Systems for Light Liquids

810.1 SCOPE

This specification covers Separator Systems for Light Liquids.

810.2 DESIGN REQUIREMENTS

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a) The system must comply with AS3500:2003 National Plumbing and Drainage Code where appropriate
b) The system must comply with AS/NZ 4494:1998 Discharge of commercial and industrial liquid waste to sewer – General performance requirements.
c) As a minimum the separator system must consist of a vented pit that has a minimum working volume of 500L and a separation device (such as a Coalescing Plate Interceptor (CPI), Hydro cyclone Separation System (HSS) or Vertical Gravity Separator (VGS)), a waste collection tank and a non emulsifying pump.
d) Separator systems are required to have adequate cross flow ventilation to prevent the growth of mould and fungus and to prevent the build up of gases.
e) A stilling zone before or after the inlet, or some other means of preventing turbulence in the tank containing the media
f) flow must be prevented from channelling around, over or under the contact media (plate pack, tube pack etc)
g) the hopper sludge value and a handle of the separator system to be made of metal
h) Concrete separator systems must comply with AS3735:2001 Concrete structures for retaining liquids. Written conformation from a suitably qualified engineer must accompany the application.
i) Separator systems designs of other materials of manufacture must be certified in writing by a suitably qualified structural engineer.
j) Lids and covers must comply with AS 3996:2006 Access covers and grates, Class A Covers
k) Detailed drawings must be supplied with the application
l) Interior surfaces of concrete and concrete fibre grease separator systems are to be coated so that the separator system is protected from corrosion/erosion by the waste contents and mechanical damage during cleaning. The coating must have a minimum 5 year warranty.

810.3 PERFORMANCE REQUIREMENTS

a) Treated waste water from the separator system must meet the following discharge standards

a.	Total Grease	50 mg/L
b.	Petroleum Hydrocarbons (flammable)	10 mg/L (includes BTEX)
c.	Benzene	0.1mg/L
d.	Suspended Solids	200 mg/L
e.	Flammability	<5% LEL (hexane) at 25°C
f.	pH	7 – 10

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b) Testing of the separator system must be verified by a WSAA member and conducted by an independent third party as follows;
   a. the applicant is to submit details of the proposed sites and sampling program to the appropriate WSAA member prior to the commencement of the test
   b. testing must be conducted at a minimum of three sites
   c. seven separate full production days are to be spread over a six-week period and tested
   d. composite sampling must be conducted at two points, the separator inlet and separator outlet.
   e. Samples are to be analysed for total grease, petroleum hydrocarbons (including BTEX) suspended solids and pH using analytical methods as specified by the WSAA member supervising the test.

810.4 SUPPORTING INFORMATION

Your application should address the following in accordance with the appraisal application guideline.

a) Specification Drawings including all of the following
   a.1. Detailed scale drawings of every component in the product in sufficient detail to permit accurate determination of all relevant volumes, internal/external diameters and air spaces. This is also to include a size and type of pipe connection.
   a.2. All dimensions are to be in millimetres.
b) Provide full details of the separator venting arrangements.
c) Full details of the excavation and backfill and requirements.

Full specifications of access covers and lids must be provided. The minimum requirement is as follows:

   a. Material of construction
   b. Dimension
   c. Weight. Each access cover must have the weight of the cover displayed. The information must be permanently attached such that each number is no smaller than 100mm in height
   d. Compliance with the requirements of AS 3996:2006 Access covers and grates, Class A (provide evidence)
   e. In-ground access covers are to include installation instructions in the manual supplied to the installer/purchaser.
   f. Access covers shall not allow the ingress of storm water or the escape of gases. On the air or is in this exuberant as
   g. Chequer plate lids are only to be used when the arrestor is installed in non trafficable areas.

d) Full details of the grease arrestor cleaning procedure, such that all liquid can be pumped out and the solids scraped to remove accumulated material.
e) Provide an example of the compliance plate that will be fitted to each unit.
   The compliance plate must be robust and durable and fitted to each unit produced. It must be placed in a location where it will remain visible after installation, and legible for the life of the unit.

The compliance plate must be fitted to the grease arrestor before leaving the factory. The compliance plate must contain the following information:

a. Brand
b. contact phone number of manufacturer
c. generic title
d. model number
e. volume in litres
f. serial number
g. WSAA, product appraisal number.

Documentary evidence of all aspects of this technical specification will be required to be provided for consideration by the WSAA product appraisal committee. The product appraisal committee is made up of technical experts drawn from WSAA members.

Appendix B Product Testing

Simmonds & Bristow
Established 1965 ACN 010 252 418 Pty Ltd

P/O Box 3160 Yeronga 4104
40 Reginald St
Rocklea, Qld 4106

Attention: Erica Harris
Client: Environmental Separator Maintanence
PO Box 3002

VICTORIA POINT WEST, QLD 4165

Client Order No.:
Batch Reference No.: J-1010-286
Job Description: Influent & Effluent Analysis for Separator 1500

Ph: 07 3286 5557
Fax:

Chemical Analytical Results

	Sample Reference	J-1010-286-01	J-1010-286-02
	Sample Point	Separator 1500 Effluent	Separator 1500 Influent
	Date Collected	13/10/2010	13/10/2010
	Date Received	13/10/2010	13/10/2010
	Date Testing Completed	20/10/2010	20/10/2010
GC030	Benzene - Water	6.5 µg/L	4900 µg/L
	Ethyl Benzene	12 µg/L	120000 µg/L
	O - Xylene	27 µg/L	59000 µg/L
	P, M - Xylene	55 µg/L	140000 µg/L
	Toluene - Water	230 µg/L	200000 µg/L
	TPH water C6-C9	430 µg/L	2400000 µg/L
GC040	TPH water C10-C14	640 µg/L	130000000 µg/L
	TPH water C15-C28	870 µg/L	190000000 µg/L
	TPH water C29-C36	< 50 µg/L	1800000 µg/L
WC405.31	Total Oil & Grease	26 mg/L	6000 mg/L
WP090.	pH Value @ 25øC	7.8	4.5
WP100.X	Suspended Solids	< 1.0 mg/L	13000 mg/L

Notes:

Samples are disposed of 14 days after completion of testing.
Results reported on an 'as received' basis

Note: All tests covered by NATA accreditation except where marked *

Authorised for release:

FRANKIE LOOK
Laboratory Manager

Date: 21/10/2010

...Helping you make good clean water.

NATA

NATA Corporate Accreditation Number: 1500
Chemical Laboratory Corporate Site Number: 1493
Microbiological Laboratory Corporate Site Number:1706
NATA ENDORSED TEST REPORT
This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025.

Simmonds & Bristow
Established 1965 ACN 010 252 418 Pty Ltd

P/O Box 3160 Yeronga 4104
40 Reginald St
Rocklea, Qld 4106

Attention: Erica Harris
Client: Environmental Separator Maintanence
PO Box 3002

VICTORIA POINT WEST, QLD 4165

Client Order No.:
Batch Reference No.: J-1010-287
Job Description: Influent & Effluent Analysis for Separator 3000

Ph: 07 3286 5557
Fax:

Chemical Analytical Results

	Sample Reference	J-1010-287-01	J-1010-287-02
	Sample Point	Separator 3000 Effluent	Separator 3000 Influent
	Date Collected	13/10/2010	13/10/2010
	Date Received	13/10/2010	13/10/2010
	Date Testing Completed	20/10/2010	20/10/2010
GC030	Benzene - Water	< 1 µg/L	< 1 µg/L
	Ethyl Benzene	< 1 µg/L	1.3 µg/L
	O - Xylene	1.1 µg/L	6.2 µg/L
	P, M - Xylene	< 2.0 µg/L	10 µg/L
	Toluene - Water	4.1 µg/L	8.8 µg/L
	TPH water C6-C9	44 µg/L	310 µg/L
GC040	TPH water C10-C14	< 50 µg/L	800 µg/L
	TPH water C15-C28	< 100 µg/L	1500 µg/L
	TPH water C29-C36	< 50 µg/L	570 µg/L
WC405.31	Total Oil & Grease	< 10 mg/L	29 mg/L
WP090.	pH Value @ 25øC	6.8	7.0
WP100.X	Suspended Solids	110 mg/L	900 mg/L

Notes:

Samples are disposed of 14 days after completion of testing.
Results reported on an 'as received' basis

Note: All tests covered by NATA accreditation except where marked *

Authorised for release:

FRANKIE LOOK
Scientist

Date: 21/10/2010

...Helping you make good clean water.

NATA

NATA Corporate Accreditation Number: 1500
Chemical Laboratory Corporate Site Number: 1493
Microbiological Laboratory Corporate Site Number:1706
NATA ENDORSED TEST REPORT
This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025.

Appendix C Product Specifications/Drawings

Specification FX1000SS Oil/ Water Separator

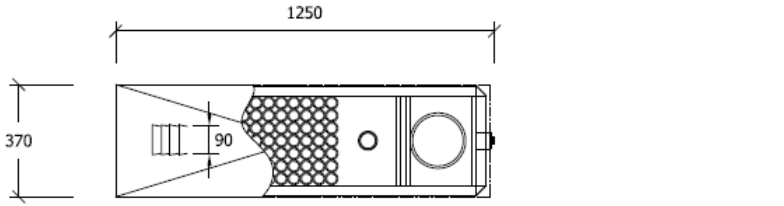
SPECIFICATIONS

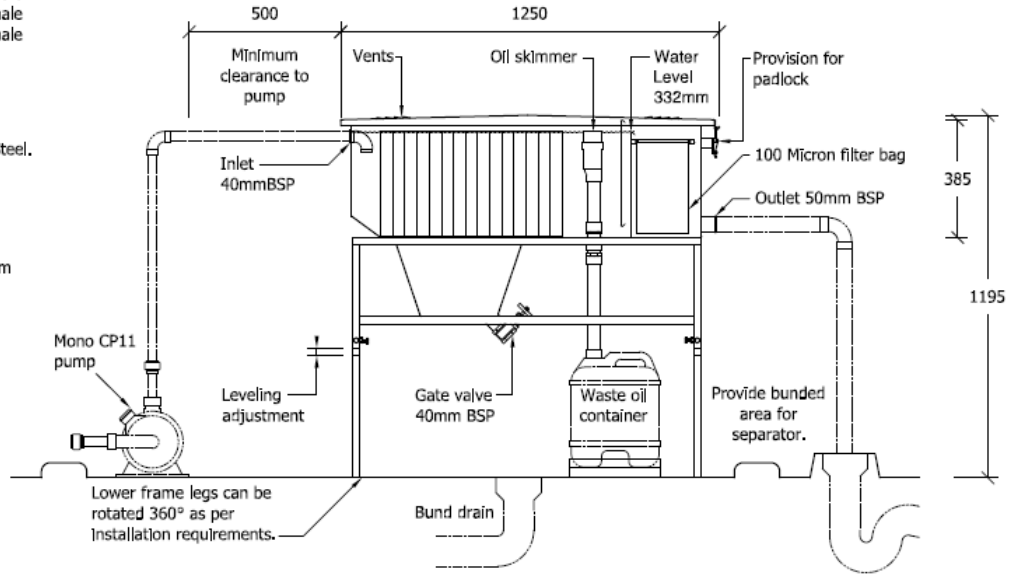
Material -	Tank	1.6mm 304 stainless steel
	Lid	1.2mm 304 stainless steel
	Stand	25mm SHS stainless steel
Maximum flow rate		1000 litres per hour
Actual flow rate		720 litres per hour
Pump type		Mono CP11
Separation process		Enhanced gravity
Coalescing medium		Vertical tube pack
Weight (empty)		44 kg
Weight (full)		165kg
Volume		120 litres net
Polishing filter		100 micron bag
Inlet		40mm BSP Female
Outlet		50mm BSP Female
Gate Valve		40mm BSP Female

Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	42 mm Dia.
Block Size	294x630x350mm
Volume	0.06 m³
Surface Area	16 m²





FOX ENVIRONMENTAL SYSTEMS

This is a schematic representation only. Slab size and gradient to engineers details as arranged by customer. All plumbing and electrical connections to be installed by certified tradesmen in accordance with relative authorities requirements. Tradesmen to be engaged by the purchaser. System to be approved by relative Local Authorities before Installation.

Project
Fox FX1000SS Specification

Drawing Title
FX1000SS Oil/ Water Separator

Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1020

Specification FX1000SS-D Oil/Water Separator

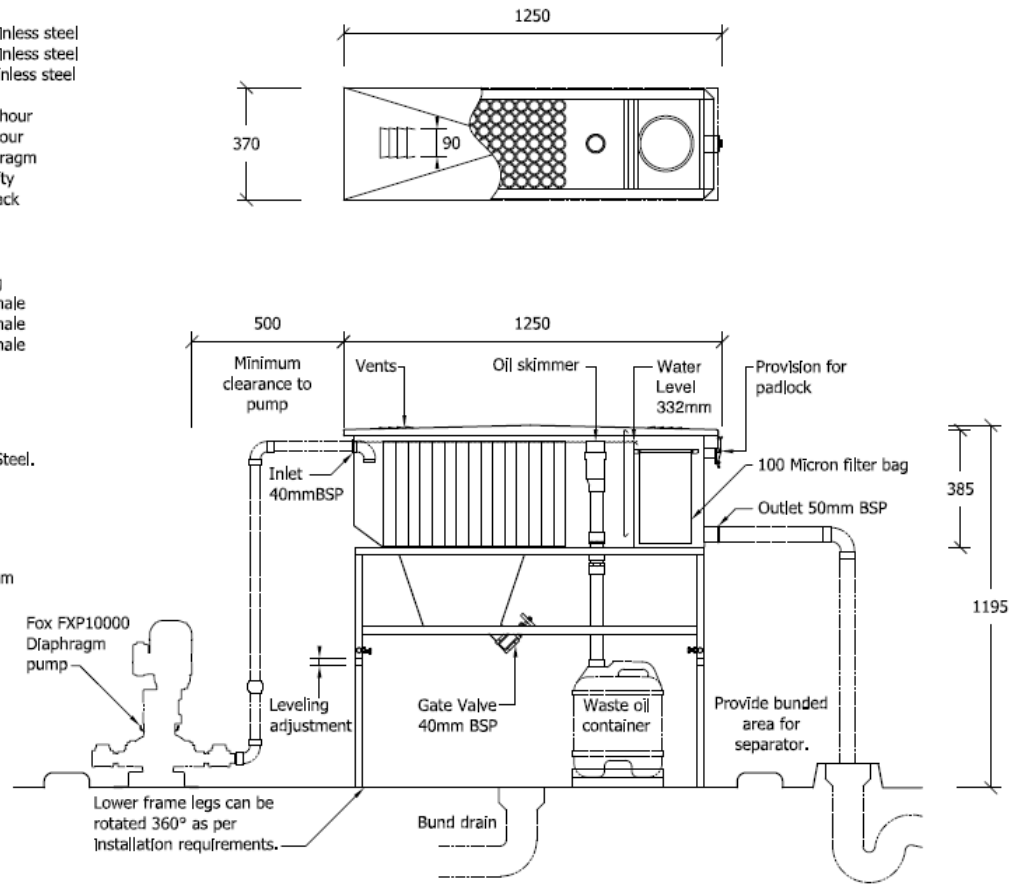
SPECIFICATIONS

Material -	Tank	1.6mm 304 stainless steel
	Lid	1.2mm 304 stainless steel
	Stand	25mm SHS stainless steel
Maximum flow rate		1000 litres per hour
Actual flow rate		800 litres per hour
Pump type		FXP1000 Diaphragm
Separation process		Enhanced gravity
Coalescing medium		Vertical tube pack
Weight (empty)		44 kg
Weight (full)		165kg
Volume		120 litres net
Polishing filter		100 micron bag
Inlet		40mm BSP Female
Outlet		50mm BSP Female
Gate Valve		40mm BSP Female

Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	42 mm Dia.
Block Size	294x630x350mm
Volume	0.06 m³
Surface Area	16 m²



FOX ENVIRONMENTAL SYSTEMS

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Project
Fox FX1000SS-D Specification

Drawing Title
FX1000SS-D Oil/Water Separator

Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1020

Specification FX1500SS Oil/ Water Separator

SPECIFICATIONS

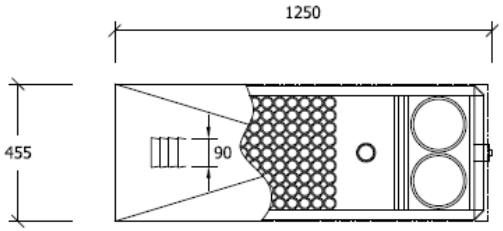
Material -	Tank	1.6mm 304 stainless steel
	Lid	1.2mm 304 stainless steel
	Stand	25mm SHS stainless steel

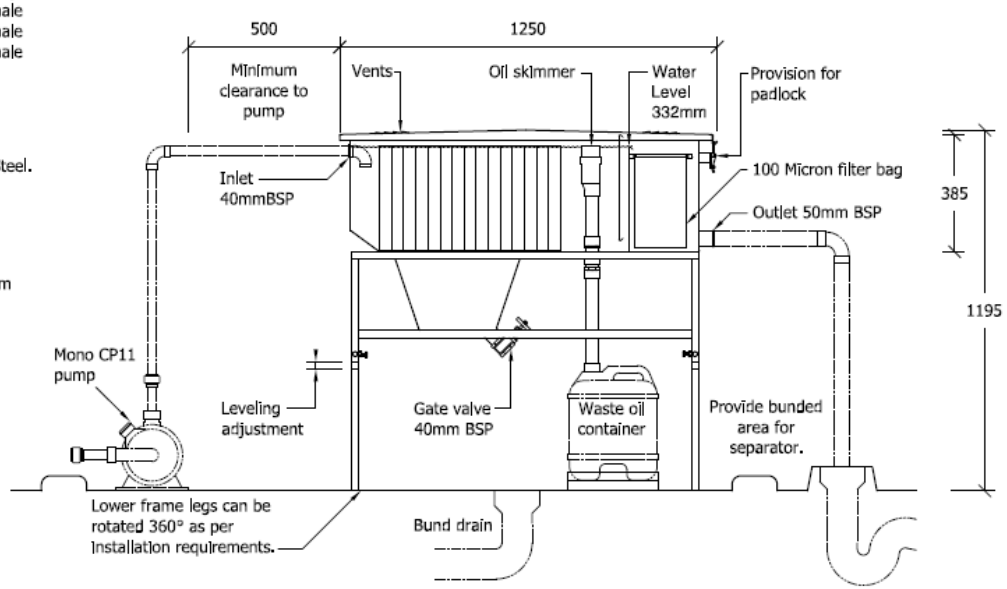
Maximum flow rate	1500 litres per hour
Actual flow rate	720 litres per hour
Pump type	Mono CP11
Separation process	Enhanced gravity
Coalescing medium	Vertical tube pack
Weight (empty)	56 kg
Weight (full)	220 kg
Volume	160 litres net
Polishing filter	2x100 micron bag
Inlet	40mm BSP Female
Outlet	50mm BSP Female
Gate Valve	40mm BSP Female

Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	42 mm Dia.
Block Size	378x630x350mm
Volume	0.08 m³
Surface Area	21 m²





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Project
Fox FX1500SS Specification

Drawing Title
FX1500SS Oil/ Water Separator

Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1021

Specification FX1500SS-D Oil/Water Separator

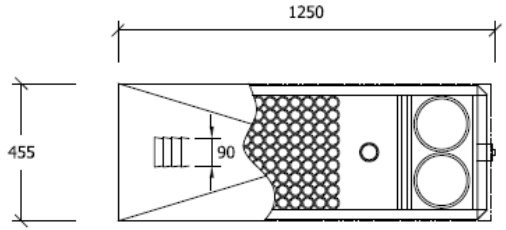
SPECIFICATIONS

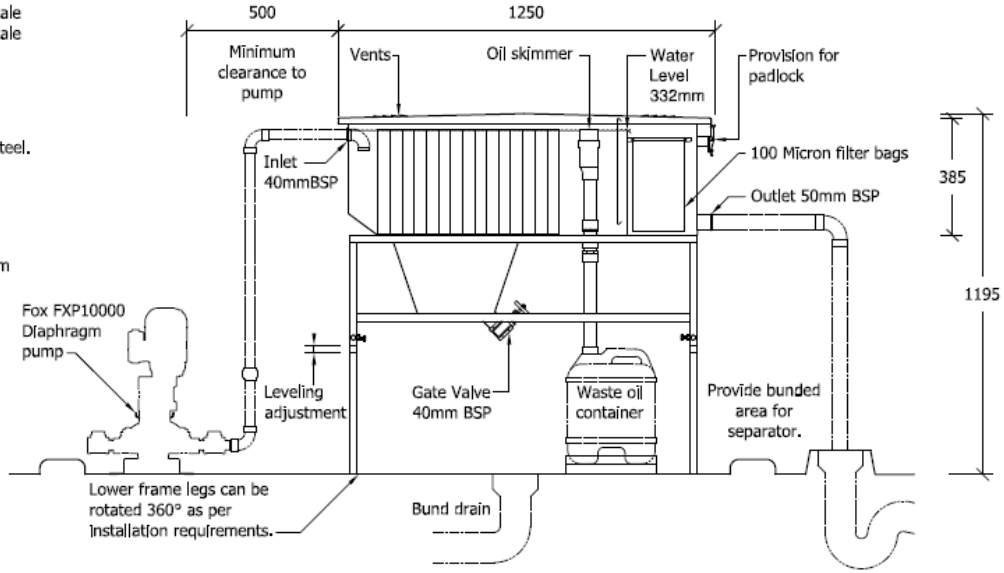
Material -	Tank	1.6mm 304 stainless steel
	Lid	1.2mm 304 stainless steel
	Stand	25mm SHS stainless steel
Maximum flow rate		1500 litres per hour
Actual flow rate		1170 litres per hour
Pump type		FXP1500 Diaphragm
Separation process		Enhanced gravity
Coalescing medium		Vertical tube pack
Weight (empty)		56 kg
Weight (full)		220 kg
Volume		160 litres net
Polishing filter		2x100 micron bag
Inlet		40mm BSP Female
Outlet		50mm BSP Female
Gate Valve		40mm BSP Female

Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	42 mm Dia.
Block Size	378x630x350mm
Volume	0.08 m³
Surface Area	21 m²





FOX ENVIRONMENTAL SYSTEMS

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Project
Fox FX1500SS-D Specification

Drawing Title
FX1500SS-D Oil/Water Separator

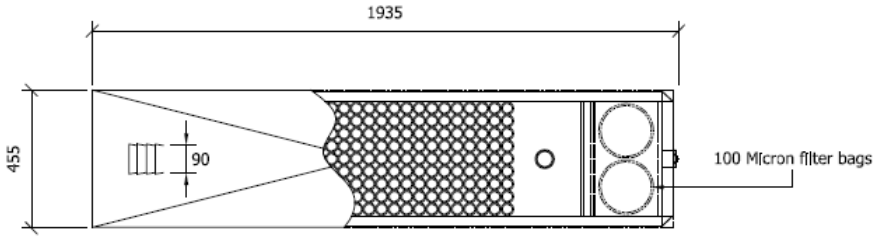
Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1021

Specification FX3000SS Oil/ Water Separator

SPECIFICATIONS

Material -	Tank	1.6mm 304 stainless steel
	Lid	1.2mm 304 stainless steel
	Stand	25mm SHS stainless steel

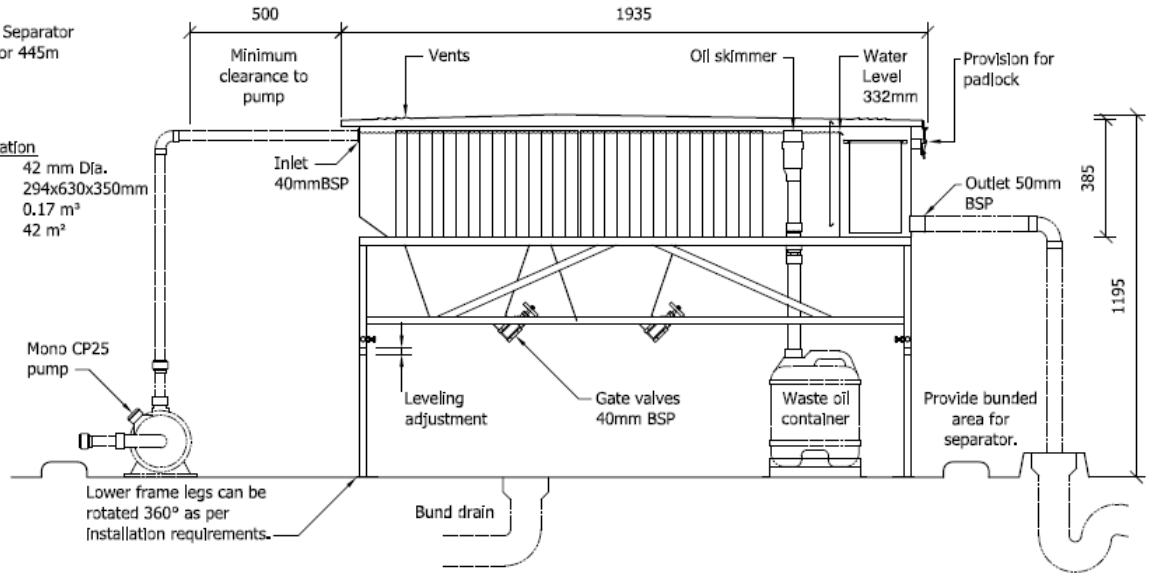
Maximum flow rate	3000 litres per hour
Actual flow rate	1660 litres per hour
Pump type	Mono CP25
Separation process	Enhanced gravity
Coalescing medium	Vertical tube pack
Weight (empty)	80 kg
Weight (full)	430 kg
Volume	350 litres net
Polishing filter	2x100 micron bag
Inlet	40mm BSP Female
Outlet	50mm BSP Female
Gate Valve	2x40mm BSP Male



Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	42 mm Dia.
Block Size x 2	294x630x350mm
Volume	0.17 m³
Surface Area	42 m²



FOX ENVIRONMENTAL SYSTEMS

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Project
Fox FX3000SS Specifications

Drawing Title
FX3000SS Oil/ Water Separator

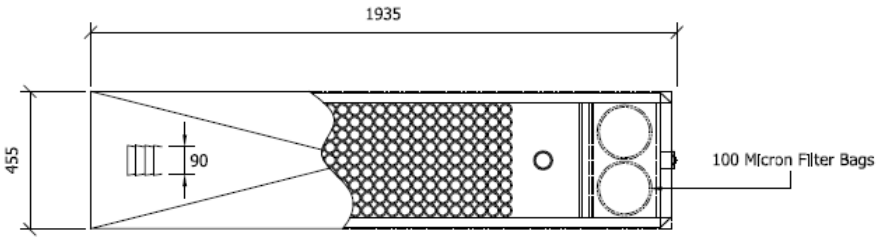
Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1022

Specification FX3000SS-D Oil/ Water Separator

SPECIFICATIONS

Material -	Tank	1.6mm 304 stainless steel
	Lid	1.2mm 304 stainless steel
	Stand	25mm SHS stainless steel

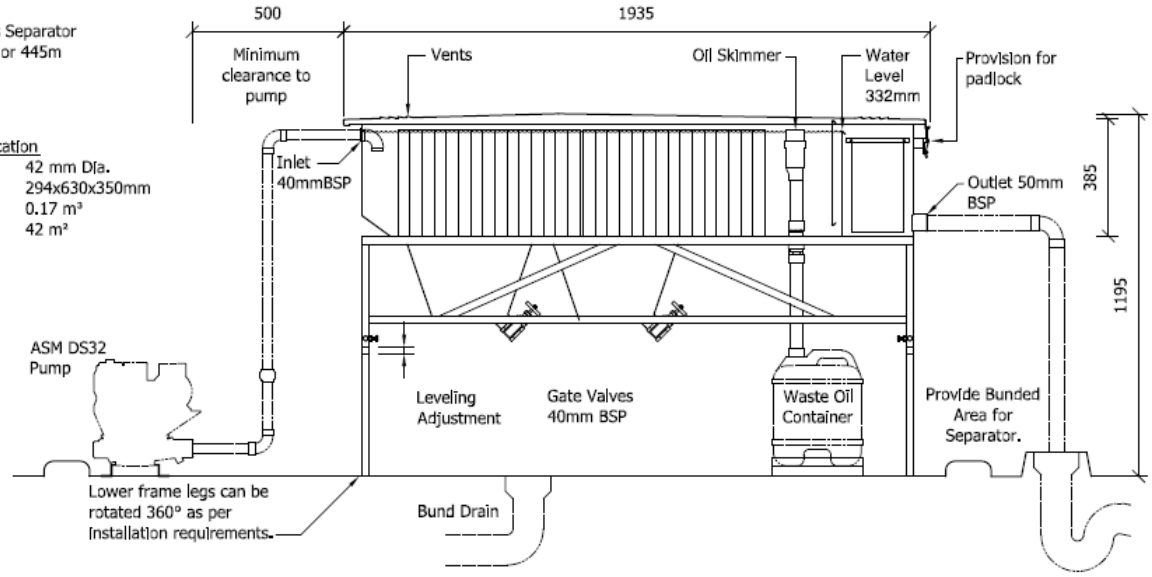
Maximum flow rate	3000 litres per hour
Actual flow rate	2580 litres per hour
Pump type	ASM DS32
Separation process	Enhanced gravity
Coalescing medium	Vertical tube pack
Weight (empty)	80 kg
Weight (full)	430 kg
Volume	350 litres net
Polishing filter	2x100 micron bag
Inlet	40mm BSP Female
Outlet	50mm BSP Female
Gate Valve	2x40mm BSP Male



Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	42 mm Dia.
Block Size x 2	294x630x350mm
Volume	0.17 m³
Surface Area	42 m²



FOX ENVIRONMENTAL SYSTEMS

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Project
Fox FX3000SS-D Specification

Drawing Title
FX3000SS-D Oil/ Water Separator

Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1022

Specification FX6000SS-D Oil/ Water Separator

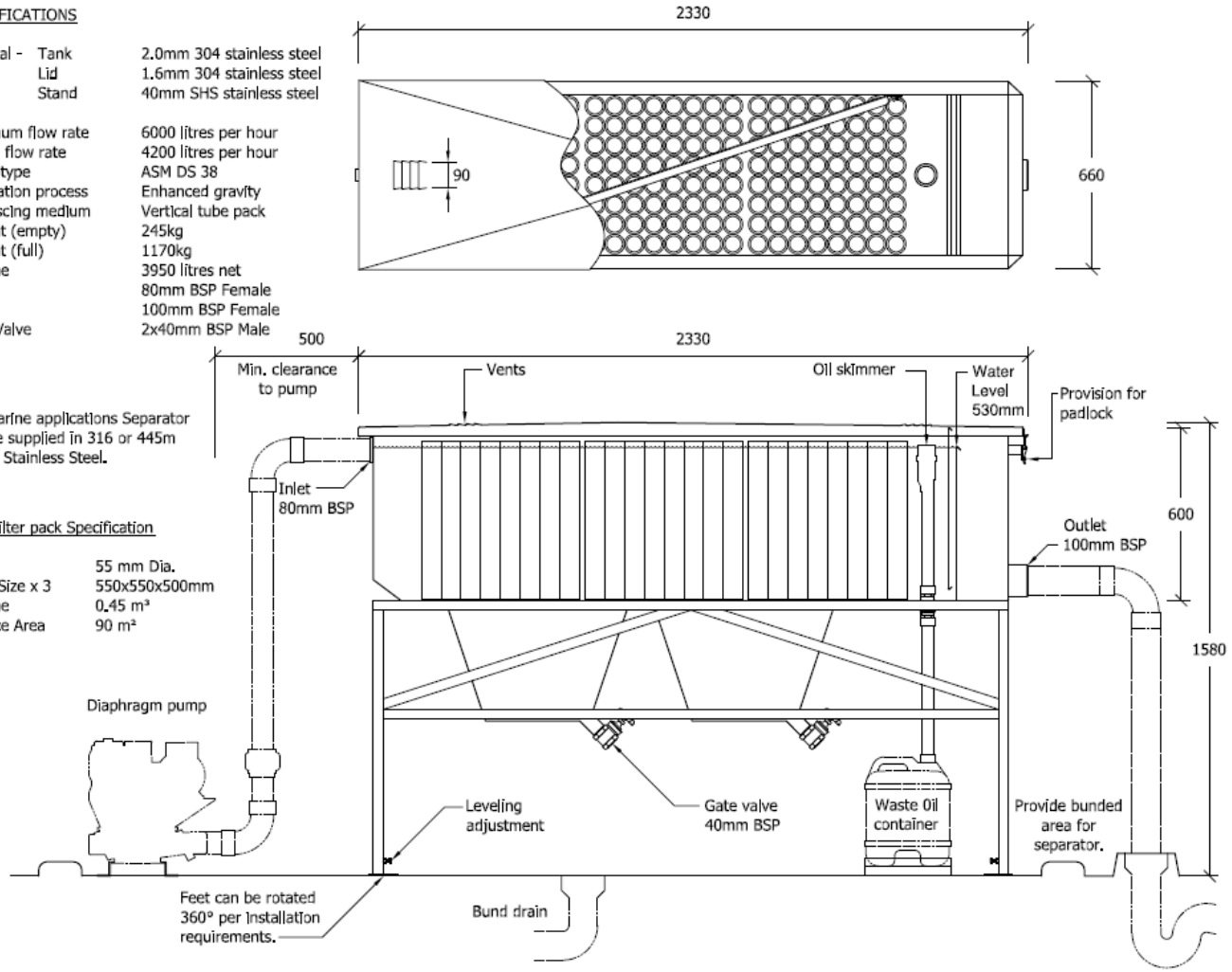
SPECIFICATIONS

Material -	Tank	2.0mm 304 stainless steel
	Lid	1.6mm 304 stainless steel
	Stand	40mm SHS stainless steel
Maximum flow rate		6000 litres per hour
Actual flow rate		4200 litres per hour
Pump type		ASM DS 38
Separation process		Enhanced gravity
Coalescing medium		Vertical tube pack
Weight (empty)		245kg
Weight (full)		1170kg
Volume		3950 litres net
Inlet		80mm BSP Female
Outlet		100mm BSP Female
Gate Valve		2x40mm BSP Male

Note:
For marine applications Separator can be supplied in 316 or 445m Grade Stainless Steel.

VTC Filter pack Specification

Tube	55 mm Dia.
Block Size x 3	550x550x500mm
Volume	0.45 m³
Surface Area	90 m²



FOX ENVIRONMENTAL SYSTEMS

This is a schematic representation only. Slab size and gradient to engineers details as arranged by customer. All plumbing and electrical connections to be installed by certified tradesmen in accordance with relative authorities requirements. Tradesmen to be engaged by the purchaser. System to be approved by relative Local Authorities before Installation.

Project
Fox FX6000SS Specifications

Drawing Title
FX6000SS-D Oil/ Water Separator

Drawn by:	JFS
Date:	01/11/2010
Scale:	1:20
Drawing No:	A4-SPEC-1023

Appendix D Supplier Contacts

NATIONAL DISTRIBUTION NETWORK

All Tradelink, Reece, PHD, and Samios Plumbing Supply trade outlets
(Graham Abraham – Samios – 07-54934105)

North Queensland Environmental Services - Cairns (sales)
(Fred Briffa – 0422988648)

Vok Plumbing - Cairns (service)
(Van Kanakis – 0417784519)

Tony Ireland Russco – Townsville (sales and service)
(Ben Quinlan – 0419709131)

Complete Environmental Solutions – Mackay (sales and service)
(Shane Wilson – 040324003)

Plumfix – Rockhampton (sales and service)
(Glen Soboll – 0409285600)

Fox Environmental Systems – South Queensland (sales and service)
(Dave Dickson – 0317724144)

Environmental Separator Maintenance - Brisbane (service)
(Wayne Sixsmith – 0418734737)

Pro Clean Equipment – Brisbane (service)
(Stuart Bowes – 0429320020)

Plumbers NSW – Northern NSW (sales and service)
(Darren Evans – 0427485178)

Action Environmental - Sydney (sales and service)
(Dave Marshall – 0414751300)

Little Holland – Victoria (sales and service)
(Graeme Little – 041552219)

Northern Territory Acrylic and Plastics (sales and service)
(Anna Commons – 08 89844585)

Burdens Distributors – WA (sales and service)
(Charles Batey – 0404054006)

Genhaust Power and Water – SA (sales and service)
(Martin Oates – 08 82697000)

All Pump Supplies – SA (sales and service)
(Russell Grace – 08 82758000)

Pumptec – TAS – (sales and service)
(Grant Petterwood – 0427436400)

INTERNATIONAL DISTRIBUTORS

Environmental Equipment Engineering Inc. – Virginia USA
(Ted Mentz – 00111 804 7301280)

Swords and Associates – Hawaii – USA
(00111 8086765475)

Environmental Vessels and Tanks Ltd. – Canada
(Teresa Goldberg – 00111 2504682784)

WATER SERVICES ASSOCIATION
OF AUSTRALIA

Melbourne Office

Level 8, 469 Latrobe Street
Melbourne VIC 3000

PO Box 13172
Law Courts Post Office
Melbourne VIC 8010

Phone: (03) 9606 0678
Fax: (03) 9606 0376

Sydney Office
Suite 1, Level 30
9 Castlereagh St
SYDNEY NSW 2000

GPO Box 915
Sydney NSW 2001

Phone: (02) 92221 5966
Fax: (02) 9221 5977

www.wsaa.asn.au

Chemical Laboratory Test Result

TFA Project Group

BRISBANE (HEAD OFFICE)
166 Knapp Street
Fortitude Valley QLD 4006
ABN: 34 612 132 233

H/O Phone: +61 7 3854 2900
Fax: +61 7 3854 2999

SYDNEY
Suite 315
33 Lexington Drive
Bella Vista NSW 2153

NSW Phone: +61 2 8814 5219
Website: www.tfa.com.au

MELBOURNE
Suite 1401
401 Docklands Drive
Docklands Vic 3205

VIC Phone: +61 3 9640 0206
Australia Wide: 1300 794 300

Simmonds & Bristow
Established 1965 ACN 010 252 418 Pty Ltd

P/O Box 3160 Yeronga 4104
40 Reginald St
Rocklea, Qld 4106

Attention: Erica Harris

Client: Environmental Separator Maintanence
PO Box 3002

VICTORIA POINT WEST, QLD 4165

Client Order No.:

Batch Reference No.: J-1010-287

Job Description: Influent & Effluent Analysis for Separator 3000

Ph: 07 3286 5557

Fax:

Chemical Analytical Results

	Sample Reference	J-1010-287-01	J-1010-287-02
	Sample Point	Separator 3000 Effluent	Separator 3000 Influent
	Date Collected	13/10/2010	13/10/2010
	Date Received	13/10/2010	13/10/2010
	Date Testing Completed	20/10/2010	20/10/2010
GC030	Benzene - Water	< 1 µg/L	< 1 µg/L
	Ethyl Benzene	< 1 µg/L	1.3 µg/L
	O - Xylene	1.1 µg/L	6.2 µg/L
	P, M - Xylene	< 2.0 µg/L	10 µg/L
	Toluene - Water	4.1 µg/L	8.8 µg/L
	TPH water C6-C9	44 µg/L	310 µg/L
GC040	TPH water C10-C14	< 50 µg/L	800 µg/L
	TPH water C15-C28	< 100 µg/L	1500 µg/L
	TPH water C29-C36	< 50 µg/L	570 µg/L
WC405.31	Total Oil & Grease	< 10 mg/L	29 mg/L
WP090.	pH Value @ 25øC	6.8	7.0
WP100.X	Suspended Solids	110 mg/L	900 mg/L

Notes:

Samples are disposed of 14 days after completion of testing.
Results reported on an 'as received' basis

Note: All tests covered by NATA accreditation except where marked *

Authorised for release:

FRANKIE LOOK
Scientist

Date: 21/10/2010

...Helping you make good clean water.

NATA
WORLD RECOGNISED ACCREDITATION

NATA Corporate Accreditation Number: 1500
Chemical Laboratory Corporate Site Number: 1493
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NATA ENDORSED TEST REPORT
This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025.

6.2.5 INDUSTRY ZONE CODE

Table 6.2.5.3—Industry zone code - For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Development Response
For accepted development subject to requirements and assessable development		
Height		
PO1 Building height takes into consideration and respects the following: (a) the height of existing buildings on adjoining premises; (b) the development potential, with respect to height, on adjoining premises; (c) the height of buildings in the vicinity of the site; (d) site area and street frontage length.	**AO1** Development has a maximum building height of: (a) 8.5 metres within 10 metres of any common boundary with land in the Low density residential zone, the Medium density residential zone or the Rural residential zone; (b) 35 metres for all buildings and structures where involving a Telecommunication facility; and (c) 12 metres otherwise.	**Complies with Acceptable Outcome** The proposed development will not exceed a maximum height of 12 metres given the proposed tank will be approximately 3 metres high.
Siting		
PO2 Development is sited in a manner that considers and respects: (a) the siting and use of adjoining premises; (b) appearance of building bulk; and (c) relationship with road corridors.	**AO2** Buildings and structures include a minimum setback of: (a) 3 metres from any road frontage; (b) 6 metres from side and rear boundaries where adjoining land in the Low density residential zone, the Medium density residential zone or the Rural residential zone; and (c) 0 metres from side and rear boundaries otherwise.	**Complies with Acceptable Outcome** The proposed development will be setback approximately 3 metres from the side boundary and 10 metres from the road frontage. The proposed tank will be setback approximately 8.5 metres from the side boundary and 11.5 metres from the road frontage.
For assessable development		
Site cover		
PO3 Buildings and structures occupy the site in a manner that: (a) makes efficient use of land; (b) is consistent with the bulk and scale of surrounding buildings.	**AO3** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal is considered to be appropriately located within the Mareeba Industrial Park and consistent with the surrounding and emerging industrial uses.

Performance outcomes	Acceptable outcomes	Development Response
Building design		
PO4 Building facades are appropriately designed to maintain and enhance the character of the surrounds.	**AO4** Buildings in the Industrial zone include: (a) a main entrance which is easily identifiable and is directly accessible from the primary road frontage; and (b) any office space sited and oriented towards the primary road frontage.	**Not Applicable** No buildings proposed. The proposal will include an ablution block in the northeast corner of the property appropriately setback from any road frontage to maintain the industrial character of the area.
PO5 Development complements and integrates with the established built character of the Industry zone, having regard to: (a) roof form and pitch; (b) building materials, colours and textures; and (c) window and door size and location.	**AO5** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal will comply where applicable.
Non-industrial uses		
PO6 Development involving a non-industrial use: (a) has access to adequate infrastructure and essential services; (b) is complementary in nature to the character and amenity of the Industry zone; and (c) does not negatively impact on the operation of existing uses within the Industry zone.	**AO6** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposed unmanned truck refuelling facility will connect to the necessary service infrastructure and provide a refuelling service for customers within the area. The operations are not considered to negatively impact the existing and future operations of the industrial park.

Performance outcomes	Acceptable outcomes	Development Response
Amenity		
PO7 Development must not detract from the amenity of the local area, having regard to: (a) noise; (b) hours of operation; (c) traffic; (d) advertising devices; (e) visual amenity; (f) privacy; (g) lighting; (h) odour; and (i) emissions.	**AO7** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposed development is not considered to detract from the surrounding area having regard to the existing industrial air, noise or odour emissions nor does the site adjoin a sensitive land use.
PO8 Development must take into account and seek to ameliorate any existing negative environmental impacts, having regard to: (a) noise; (b) hours of operation; (c) traffic; (d) advertising devices; (e) visual amenity; (f) privacy; (g) lighting; (h) odour; and (i) emissions.	**AO8** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal is not considered to be bound by negative environmental impacts over the site within the locality.

7.2.2 MAREEBA LOCAL PLAN CODE

Table 7.2.2.3—Mareeba local plan - For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Development Response
For accepted development subject to requirements and assessable development		
If affected by the vegetated buffer area element		**Not Applicable**
If in the Stable precinct		**Not Applicable**
If on a site with a frontage to the Byrnes Street core element		**Not Applicable**
If on a site affected by the Town centre fringe 6 metre setback element		**Not Applicable**
If in the Town centre fringe precinct		**Not Applicable**
For assessable development		
PO6 Development in the Mareeba local plan area: (a) promotes and does not prejudice the ongoing operation of Mareeba as the major regional activity centre of the Shire; (b) provides growth or redevelopment in areas within close proximity to the Town centre core precinct; (c) locates Community facilities in accessible locations within walking distance of the Town centre core precinct; and (d) contributes to the vibrancy and local identity of the Mareeba community.	**AO6** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposed development will support the existing and emerging industrial park precinct by providing a refuelling service to vehicles within the area.
PO7 Development does prejudice the future construction of the Mareeba Bypass.	**AO7** Development involving permanent buildings or structures does not occur on land affected by the Mareeba bypass element.	**Complies with Acceptable Outcome** The proposal does not include structures within or adjoining the Mareeba bypass element.
PO8 Development integrates the following elements identified on the Mareeba local plan maps: (a) open space elements; (b) indicative collector roads as higher order road linkages; (c) indicative minor roads in a similar design as shown as mapped; and (d) possible connections as important road linkages between developments.	**AO8** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal will be located within the industrial park precinct.

Performance outcomes	Acceptable outcomes	Development Response
PO9 Development integrates small-scale local retail centres that: (a) service the local neighbourhood; and (b) do not prejudice the ongoing operation of the Mareeba town centre.	**AO9** No acceptable outcome is provided.	**Not Applicable** Given the scale and nature of the proposed use within the industrial park locality, providing small-scale local retail is not considered necessary.
If in the Stable precinct		**Not Applicable**
If in the Mareeba Airport precinct		**Not Applicable**
If in the Town centre core precinct		**Not Applicable**
If in the Town centre fringe precinct		**Not Applicable**
If in the Noxious and hazardous industry precinct		**Not Applicable**
If in the Industrial park precinct		
PO16 Development that attracts the public into the Industrial park precinct does not develop within the Industrial park precinct.	**AO16** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposed unmanned truck refuelling facility will operate 24 hours per day, seven days per week and payment of diesel fuel will be made to customers via swipe card technology.
If in the Northern investigation precinct		**Not Applicable**
If in the North-eastern expansion precinct, South-eastern expansion precinct or South-western expansion precinct		**Not Applicable**

9.3.2 COMMERCIAL ACTIVITIES CODE

Table 9.3.2.3—Commercial activities code – For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Development Response
For accepted development subject to requirements and assessable development		
PO1 Buildings are finished with high quality materials, selected for their durability and contribution to the character of the area.	**AO1** Building design does not incorporate: (a) highly reflective materials such as high performance glass or untreated galvanised metals; or (b) unrelieved, unpainted or un-rendered finishes; or (c) unarticulated concrete finishes; or (d) unarticulated cladding systems; or (e) fluorescent or iridescent paints; or (f) use of single colour or surface treatment.	**Not Applicable**
If for Sales office		**Not Applicable**
For assessable development		
Visual amenity and character		
PO4 Commercial activities protect and enhance the character and amenity of the locality and streetscape through the appropriate location and screening of: (a) air conditioning; (b) refrigeration plant; (c) mechanical plant; and (d) refuse bin storage areas.	**AO4** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal is not considered to detract from the character and amenity of the industrial park locality given the scale and nature of the use.
Location and size		
PO5 Commercial activities are located and designed: (a) to be commensurate to the scale and nature of land uses located and intended to be located in the immediate vicinity; and (b) consistent with the intent of the activity centre hierarchy for Mareeba Shire.	**AO5** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal is not considered to be appropriately located within the industrial park locality given the scale and nature of the use.

Performance outcomes	Acceptable outcomes	Development Response
If for Service station or Car wash		
PO6 The site is of a suitable size, shape and configuration to accommodate all aspects of the use, such as: (a) the building/s and associated storage areas; (b) any ancillary activities; (c) fuel delivery and service vehicles; (d) vehicle access and on site manoeuvrability; and (e) landscaping.	**AO6.1** The site has a: (a) minimum area of 1500m^2; and (b) minimum frontage of: (i) 30 metres to each road where the site is a corner site; or (ii) 40 metres otherwise.	**Complies with Acceptable Outcome** The subject site comprises 4,271 m^2 in area. The site has frontages to Gowan Street and Keegan Street with approximate lengths of 56m and 52m respectfully.
	AO6.2 Bulk fuel storage tanks are situated on the site no closer than 8 metres to any road frontage.	**Complies with Acceptable Outcome** The proposed split tank will be setback approximately 11.5 metres from the Gowan Street frontage.
	AO6.3 Bulk fuel storage tanks are situated on the site: (a) so that fuel delivery vehicles are standing wholly within the site when discharging fuel into the tanks; and (b) ensuring that the movement of other vehicles on the site is not restricted when fuel delivery occurs.	**Complies with Acceptable Outcome** The proposed unmanned truck refuelling facility will comply as required.
	AO6.4 Fuel pumps, car wash bays and facilities including air and water points are: (a) orientated to minimise vehicle conflicts associated with manoeuvring on site; and (b) located so that vehicles using or waiting to use the facilities are standing wholly within the site and in locations which do not restrict the movement of other vehicles on the site.	**Complies with Acceptable Outcome** The proposed tank will include in-built fuel pumps at the front of the tank. The proposal does not include car wash bays or facilities including air and water points.
PO7 The use must provide for the collection, treatment and disposal of all solid and liquid wastes such that: (a) the off-site release of contaminants does not occur; and (b) there are no significant adverse impacts on the quality of surface water or ground water resources.	**AO7** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal will include appropriate controls for oily water management so that the impacts on water quality in receiving waters is minimised. Refer to the proposed oily water holding plan (Drwg No. 18175-MR-A06) in **Appendix B** and the Oily Water Management Statement in **Appendix C.**

9.3.5 INDUSTRIAL ACTIVITIES CODE

Table 9.3.5.3—Industrial activities code– For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Development Response
For accepted development subject to requirements and assessable development		
Separation		
PO1 Industrial activities are appropriately separated from sensitive uses to ensure their amenity is maintained, having regard to: (a) noise; (b) odour; (c) light; and (d) emissions. Note—Development proposed to be located closer than the separation distances specified in AO2 requires supporting investigations to demonstrate that the expected impacts from the industry use have been adequately mitigated in consideration of the local context.	**AO1** Development is separated from sensitive uses as follows: (a) medium impact industry– 250 metres; or (b) high impact industry–500 metres; or (c) special industry– 1.5 kilometres.	**Complies with Acceptable Outcome** The proposed unmanned refuelling facility will be suitably distanced from any sensitive land use.
For assessable development		
Amenity		
PO2 Industrial activities protect and enhance the character and amenity of the locality and streetscape through the appropriate location and screening of: (a) air conditioning; (b) refrigeration plant; (c) mechanical plant; and (d) refuse bin storage areas.	**AO2** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal is considered to support the character and amenity of the industrial park locality through appropriately locating amenities on site. No air conditioning, refrigeration plant, mechanical plant or refuse bin storage areas are proposed as part of this application.
PO3 Development avoids and, where unavoidable, mitigates impacts on ground water, particularly where ground water is heavily drawn upon for irrigation or domestic purposes.	**AO3** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposed development will comply where applicable.
If for Extractive industry		**Not Applicable**

9.4.1 ADVERTISING DEVICES CODE

Table 9.4.1.3A—Advertising devices code - For accepted development subject to requirements and assessable development

Performance Outcomes	Acceptable Outcomes	Development Response
For accepted development subject to requirements and assessable development		
Public safety		
PO1 Advertising devices are designed, sited and constructed to maintain the efficient function of road infrastructure and not impede safe vehicular and pedestrian movements.	**AO1** Advertising devices do not: (a) resemble traffic control devices; or (b) give instructions to traffic; or (c) resemble a hazard or warning light through colour or method of operation, if visible from a road; or (d) cause interference with the visibility and effectiveness of hazard or warning lights; or (e) encroach onto any part of a road, road reserve, pedestrian or cycle path; or (f) incorporate highly reflective materials and finishes; or (g) cause significant visual or physical obstruction of, or distraction to, vehicular or pedestrian traffic.	**Complies with Acceptable Outcome** The proposed pylon sign is not considered to obscure motorists' views of vehicles, pedestrians or potentially hazardous road features.
Character and amenity		
PO2 Advertising devices are designed and located to: (a) avoid visual clutter; (b) avoid overshadowing of adjoining premises or public places; (c) prevent loss of daylight or sunlight access for nearby uses; (d) be consistent with the built and natural character of the immediate surrounds; and allow for the identification of premises, uses and business.	**AO2** Advertising devices: (a) do not move, revolve, strobe or flash; (b) are not painted or erected on a roof (excluding awnings) or structure (such as a silo or tank); (c) do not incorporate overt or explicit language or visual content that is likely to be offensive to the general public; (d) primarily advertise a business and/or commercial premises rather than products; (e) are located on the property to which the advertising relates; (f) do not protrude above the roofline or parapet; and	**Complies with Acceptable Outcome** The proposed signage will not be animated or include any flashing lights.

	(g) are limited to those devices identified in Table 9.4.1.3B.	
	AO2.2 The number, type and design of advertising devices complies with Table 9.4.1.3D.	**Complies with Acceptable Outcome** The proposed pylon sign will be located on a lot greater than 1,000 m^2 and will be 6 metres high with a total sign face area of less than 6 m^2.
For assessable development		
Character and amenity		
PO3 Development includes landscaping and fencing along side and rear boundaries that: (a) designed and engineered to a standard that satisfies the wind classification for the particular area; (b) appropriately secured and supported so as to cause no injury or damage to persons or property; (c) not displayed on or attached to a tree, roadside pole or official traffic or safety sign; and (d) appropriately separated from any electricity infrastructure.	**AO3.1** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposed signage will comply as required.
PO4 Freestanding advertising devices, where located on land fronting a state-controlled road, are appropriately located and designed to: (a) not impact on the safety and efficiency of the state controlled road network; and (b) preserve rural character and landscape values.	**AO4.1** Freestanding advertising devices: (a) have a maximum sign face area of 18m2 and a maximum sign face width of 6 metres; (b) are sited a minimum of 1 kilometre from all existing freestanding advertising devices whether or not they are on the same side of the road; (c) are of a design and colour that is compatible with existing adjacent development; and (d) are only located on properties with frontage to either side of the sections of State-controlled road identified in Table 9.4.1.3C.	**Not Applicable**

9.4.2 LANDSCAPING CODE

Table 9.4.2.3A—Landscaping code - For accepted development subject to requirements and assessable development

Performance Outcomes	Acceptable Outcomes	Development Response
For accepted development subject to requirements and assessable development		
PO1 Development, other than in the Rural zone, includes landscaping that: (a) contributes to the landscape character of the Shire; (b) compliments the character of the immediate surrounds; (c) provides an appropriate balance between built and natural elements; and (d) provides a source of visual interest.	**AO1** Development, other than in the Rural zone, provides: (a) a minimum of 10% of the site as landscaping; (b) planting in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species; (c) for the integration of retained significant vegetation into landscaping areas; (d) on-street landscaping works in accordance with the Design Guidelines set out in Section D9 Landscaping, of the Planning Scheme Policy 4 - FNQROC Regional Development Manual. Note—Where development exceeds a site cover of 90%, areas of landscaping may be provided above ground level to achieve a total supply of landscaping equivalent to 10% of the site area.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
PO2 Development, other than in the Rural zone, includes landscaping along site frontages that: (a) creates an attractive streetscape; (b) compliments the character of the immediate surrounds; (c) assists to break up and soften elements of built form; (d) screen areas of limited visual interest or servicing; (e) provide shade for pedestrians; and (f) includes a range and variety of planting.	**AO2** Development, other than in the Rural zone, includes a landscape strip along any site frontage: (a) with a minimum width of 2 metres where adjoining a car parking area; (b) with a minimum width of 1.5 metres in all other locations; and (c) in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species. Note—Where development is setback from a frontage less than 1.5 metres, the setback area is provided as a landscape strip	**Complies with Acceptable Outcome** The proposal will comply where applicable.

Performance Outcomes	Acceptable Outcomes	Development Response
PO3 Development includes landscaping and fencing along side and rear boundaries that: (a) screens and buffer land uses; (b) assists to break up and soften elements of built form; (c) screens areas of limited visual interest; (d) preserves the amenity of sensitive land uses; and (e) includes a range and variety of planting.	**AO3.1** Development provides landscape treatments along side and rear boundaries in accordance with **Table 9.4.2.3B**.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
	AO3.2 Shrubs and trees provided in landscape strips along side and rear boundaries: (a) are planted at a maximum spacing of 1 metre; (b) will grow to a height of at least 2 metres; (c) will grow to form a screen of no less than 2 metres in height; and (d) are mulched to a minimum depth of 0.1 metres with organic mulch.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
	AO3.3 Any landscape strip provided along a side or rear boundary is designed in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
PO4 Car parking areas are improved with a variety of landscaping that: (a) provides visual interest; (b) provides a source of shade for pedestrians; (c) assists to break up and soften elements; and (d) improves legibility.	**AO4.1** Landscaping is provided in car parking areas which provides: (a) a minimum of 1 shade tree for every 4 parking spaces, or part thereof, where the car parking area includes 12 or more spaces; (b) a minimum of 1 shade tree for every 6 parking spaces, or part thereof, otherwise; and (c) where involving a car parking area in excess of 500m^2: (i) shade structures are provided for 50% of parking spaces; and (ii) a minimum of 10% of the parking area as landscaping. Note—Where a shade structure is provided over part of a car parking area, shade tree planting is not required in this area of the car parking area.	**Complies with Acceptable Outcome** The proposal will comply where applicable.

Performance Outcomes	Acceptable Outcomes	Development Response
	AO4.2 Landscaping in car parking areas is designed in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species.	**Not Applicable**
PO5 Landscaping areas include a range and variety of planting that: (a) is suitable for the intended purpose and local conditions; (b) contributes to the natural character of the Shire; (c) includes native species; (d) includes locally endemic species, where practical; and (e) does not include invasive plants or weeds.	**AO5.1** Plant species are selected from the Plant Schedule in Planning Scheme Policy 6 - Landscaping and preferred plant species.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
	AO5.2 A minimum of 25% of (new and existing) plants is provided as larger, advanced stock with a minimum plant height of 0.7 metres and mulched to a minimum depth of 0.1 metres with organic mulch.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
PO6 Landscaping does not impact on the ongoing provision of infrastructure and services to the Shire.	**AO6.1** Tree planting is a minimum of (a) 2 metres from any underground water, sewer, gas, electricity or telecommunications infrastructure; and (b) 4 metres from any inspection chamber.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
	AO6.2 Vegetation below or within 4 metres of overhead electricity lines and power poles has a maximum height of 3.5 metres at maturity.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
	AO6.3 Vegetation adjoining an electricity substation boundary, at maturity, will have: (a) a height of less than 4 metres; and (b) no foliage within 3 metres of the substation boundary, unless the substation has a solid wall along any boundary.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
For assessable development		

Performance Outcomes	Acceptable Outcomes	Development Response
PO7 Landscaping areas are designed to: (a) be easily maintained throughout the ongoing use of the site; (b) allow sufficient area and access to sunlight and water for plant growth; (c) not cause a nuisance to occupants of the site or members of the public; and (d) maintain or enhance the safety of pedestrians through the use of Crime Prevention Through Environmental Design principles.	**AO7** No acceptable outcome is provided.	**Complies with Acceptable Outcome** The proposal will comply where applicable.

9.4.3 PARKING AND ACCESS CODE

Table 9.4.3.3A—Parking and access code – For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Development Response
For accepted development subject to requirements and assessable development		
Car parking spaces		
PO1 Development provides sufficient car parking to accommodate the demand likely to be generated by the use, having regard to the: (a) nature of the use; (b) location of the site; (c) proximity of the use to public transport services; (d) availability of active transport infrastructure; and (e) accessibility of the use to all members of the community.	**AO1** The number of car parking spaces provided for the use is in accordance with **Table 9.4.3.3B**. Note—Car parking spaces provided for persons with a disability are to be considered in determining compliance with AO1.	**Not Applicable** It is considered that the proposal does not require carparking spaces given the proposed use does not include an ancillary shop on site.
Vehicle crossovers		
PO2 Vehicle crossovers are provided to: (a) ensure safe and efficient access between the road and premises; (b) minimize interference with the function and operation of roads; and (c) minimise pedestrian to vehicle conflict.	**AO2.1** Vehicular access to/from Council roads is designed and constructed in accordance with the Standard drawings in Planning Scheme Policy 4 - FNQROC Regional Development Manual.	**Complies with Acceptable Outcome** The proposal will comply as required.
	AO2.2 Development on a site with two or more road frontages provides vehicular access from: (a) the primary frontage where involving Community activities or Sport and recreation activities, unless the primary road frontage is a State-controlled road; or (b) from the lowest order road in all other instances.	**Complies with Acceptable Outcome** The proposal has two road frontages which are both lower order roads for the industrial park.
	AO2.3 Vehicular access for particular uses is provided in accordance with **Table 9.4.3.3E**.	**Complies with Acceptable Outcome** The proposal will comply as required

Performance outcomes	Acceptable outcomes	Development Response
PO3 Access, manoeuvring and car parking areas include appropriate pavement treatments having regard to: (a) the intensity of anticipated vehicle movements; (b) the nature of the use that they service; and (c) the character of the surrounding locality.	**AO3** Access, manoeuvring and car parking areas include pavements that are constructed in accordance with **Table 9.4.3.3C**.	**Complies with Performance Outcome** General on-site manoeuvring areas will consist of a new all weathered driveway surface and new concrete bunded area. This surface is considered to be supported within the Mareeba Industrial Park given the surrounding industrial uses which include all-weather gravel driveways and manoeuvring areas. Further, there are no sensitive land uses within proximity to the industrial park and the proposed development will incorporate appropriate erosion and sediment control measures during construction. For further details of the all-weather driveway surface, refer to the proposed site layout plan in **Appendix B**.
For assessable development		
Parking area location and design		
PO4 Car parking areas are located and designed to: (a) ensure safety and efficiency in operation; and (b) be consistent with the character of the surrounding locality.	**AO4.1** Car parking spaces, access and circulation areas have dimensions in accordance with AS/NZS 2890.1 Off-street car parking.	**Not Applicable** No car parking proposed.
	AO4.2 Disabled access and car parking spaces are located and designed in accordance with AS/NZS 2890.6 Parking facilities - Off-street parking for people with disabilities.	**Not Applicable** As above.
	AO4.3 The car parking area includes designated pedestrian routes that provide connections to building entrances.	**Not Applicable** As above.

Performance outcomes	Acceptable outcomes	Development Response
	AO4.4 Parking and any set down areas are: (a) wholly contained within the site; (b) visible from the street where involving Commercial activities, Community activities, Industrial activities or a use in the Recreation and open space zone; (c) are set back behind the main building line where involving a Dual occupancy, Multiple dwelling, Residential care facility or Retirement facility; and (d) provided at the side or rear of a building in all other instances.	**Not Applicable** As above.
Site access and manoeuvring		
PO5 Access to, and manoeuvring within, the site is designed and located to: (a) ensure the safety and efficiency of the external road network; (b) ensure the safety of pedestrians; (c) provide a functional and convenient layout; and (d) accommodate all vehicles intended to use the site.	**AO5.1** Access and manoeuvrability is in accordance with : (a) AS28901 – Car Parking Facilities (Off Street Parking); and (b) AS2890.2 – Parking Facilities (Off-street Parking) Commercial Vehicle Facilities. Note—Proposal plans should include turning circles designed in accordance with AP34/95 (Austroads 1995) Design Vehicles and Turning Path Templates.	**Complies with Acceptable Outcome** Refer truck turning path in Appendix B.
	AO5.2 Vehicular access has a minimum sight distance in accordance with Part 5 of AUSTROADS.	**Complies with Acceptable Outcome** Will comply as required.
	AO5.3 Vehicular access is located and designed so that all vehicles enter and exit the site in a forward gear.	**Complies with Acceptable Outcome** The purpose of the turning path drawings in Appendix B is to illustrate how the largest anticipated vehicle (B-Double) can safely access, manoeuvre throughout and exit the site in a forward gear. The majority of vehicles accessing the site are anticipated to be B-double heavy vehicles.

Performance outcomes	Acceptable outcomes	Development Response
	AO5.4 Pedestrian and cyclist access to the site: (a) is clearly defined; (b) easily identifiable; and (c) provides a connection between the site frontage and the entrance to buildings and end of trip facilities (where provided).	**Not Applicable** Pedestrian and cyclist access is not proposed given the scale and nature of the proposed unmanned truck refuelling facility.
PO6 Development that involves an internal road network ensures that it's design: (a) ensure safety and efficiency in operation; (b) does not impact on the amenity of residential uses on the site and on adjoining sites, having regard to matters of: (i) hours of operation; (ii) noise (iii) light; and (iv) odour; (c) accommodates the nature and volume of vehicle movements anticipated to be generated by the use; (d) allows for convenient access to key on-site features by pedestrians, cyclists and motor vehicles; and (e) in the Rural zone, avoids environmental degradation.	**AO6.1** Internal roads for a Tourist park have a minimum width of: (a) 4 metres if one way; or (b) 6 metres if two way.	**Not Applicable**
	AO6.2 For a Tourist park, internal road design avoids the use of cul-de-sacs in favour of circulating roads, where unavoidable, cul-de-sacs provide a full turning circle for vehicles towing caravans having: (a) a minimum approach and departure curve radius of 12 metres; and (b) a minimum turning circle radius of 8 metres.	**Not Applicable**
	AO6.3 Internal roads are imperviously sealed and drained, apart from those for an Energy and infrastructure activity or Rural activity.	**Not Applicable**
	AO6.4 Speed control devices are installed along all internal roads, apart from those for an Energy and infrastructure activity or Rural activity, in accordance with Complete Streets.	**Not Applicable**
	AO6.5 Internal roads, apart from those for an Energy and infrastructure activity or Rural activity, are illuminated in accordance with AS 4282 (as amended) - Control of Obtrusive effects of outdoor lighting.	**Not Applicable**

Performance outcomes	Acceptable outcomes	Development Response
	AO6.6 Where involving an accommodation activity, internal roads facilitate unobstructed access to every dwelling, accommodation unit, accommodation site and building by emergency services vehicles.	**Not Applicable**
	AO6.7 For an Energy and infrastructure activity or Rural activity, internal road gradients: (a) are no steeper than 1:5; or (b) are steeper than 1:5 and are sealed.	**Not Applicable**
Servicing		
PO7 Development provides access, maneuvering and servicing areas on site that: (a) accommodate a service vehicle commensurate with the likely demand generated by the use; (b) do not impact on the safety or efficiency of internal car parking or maneuvering areas; (c) do not adversely impact on the safety or efficiency of the road network; (d) provide for all servicing functions associated with the use; and (e) are located and designed to minimise their impacts on adjoining sensitive land uses and streetscape quality.	**AO7.1** All unloading, loading, service and waste disposal areas are located: (a) on the site; (b) to the side or rear of the building, behind the main building line; (c) not adjacent to a site boundary where the adjoining property is used for a sensitive use.	**Not Applicable** No waste disposal areas proposed.
	AO7.2 Unloading, loading, service and waste disposal areas allow service vehicles to enter and exit the site in a forward gear.	**Not Applicable** As above.
	AO7.3 Development provides a servicing area, site access and maneuvering areas to accommodate the applicable minimum servicing vehicle specified in **Table 9.4.3.3B**.	**Complies with Acceptable Outcome** Will comply where applicable.
Maintenance		
PO8 Parking areas are used and maintained for their intended purpose.	**AO8.1** Parking areas are kept and used exclusively for parking and are maintained in a suitable condition for parking and circulation of vehicles.	**Not Applicable**
	AO8.2 All parking areas will be compacted, sealed, drained, line marked and maintained until such time as the development ceases.	**Not Applicable**

Performance outcomes	Acceptable outcomes	Development Response
End of trip facilities		
PO9 Development within the Centre zone; Industry zone or Emerging community zone provides facilities for active transport users that: (a) meet the anticipated demand generated from the use; (b) comprise secure and convenient bicycle parking and storage; and (c) provide end of trip facilities for all active transport users.	**AO9.1** The number of bicycle parking spaces provided for the use is in accordance with **Table 9.4.3.3D**.	**Not Applicable**
	AO9.2 End of trip facilities are provided in accordance with **Table 9.4.3.3D**.	**Not Applicable**
If for Educational establishment or Child care centre where involving more than 100 vehicle movements per day or Renewable energy facility, Sport and recreation activities or Tourist park		**Not Applicable**
If for Educational establishment or Child care centre where involving more than 100 vehicle movements per day or Renewable energy facility, Sport and recreation activities or Tourist park		**Not Applicable**

9.4.5 WORKS, SERVICES AND INFRASTRUCTURE CODE

Table 9.4.5.3 - Works, services and infrastructure code – For accepted development subject to requirements and assessable development

Performance outcomes	Acceptable outcomes	Development Response
For accepted development subject to requirements and assessable development		
Water supply		
PO1 Each lot has an adequate volume and supply of water that: (a) meets the needs of users; (b) is adequate for fire-fighting purposes; (c) ensures the health, safety and convenience of the community; and (d) minimises adverse impacts on the receiving environment.	**AO1.1** Development is connected to a reticulated water supply system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located: (a) in the Conservation zone, Rural zone or Rural residential zone; and (b) outside a reticulated water supply service area.	**Complies with Acceptable Outcome** The proposed development will connect to Council's reticulated water system as required.
	AO1.2 Development, where located outside a reticulated water supply service area and in the Conservation zone, Rural zone or Rural residential zone is provided with: (a) a bore or bores are provided in accordance with the Design Guidelines set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; or (b) on-site water storage tank/s: (i) with a minimum capacity of 90,000L; (ii) fitted with a 50mm ball valve with a camlock fitting; and (iii) which are installed and connected prior to the occupation or use of the development.	**Not Applicable**
Wastewater disposal		

Performance outcomes	Acceptable outcomes	Development Response
PO2 Each lot provides for the treatment and disposal of effluent and other waste water that: (a) meets the needs of users; (b) is adequate for fire-fighting purposes; (c) ensures the health, safety and convenience of the community; and (d) minimises adverse impacts on the receiving environment.	**AO2.1** Development is connected to a reticulated sewerage system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located: (a) in the Conservation zone, Rural zone or Rural residential zone; and (b) outside a reticulated sewerage service area.	**Complies with Acceptable Outcome** The proposed development will connect to Council's sewer system as required.
	AO2.2 An effluent disposal system is provided in accordance with ASNZ 1547 On-Site Domestic Wastewater Management (as amended) where development is located: (a) in the Conservation zone, Rural zone or Rural residential zone; and (b) outside a reticulated sewerage service area.	**Not Applicable**
Stormwater infrastructure		
PO3 Stormwater infrastructure is designed and constructed to collect and convey the design storm event to a lawful point of discharge in a manner that mitigates impacts on life and property.	**AO3.1** Where located within a Priority infrastructure area or where stormwater infrastructure is available, development is connected to Council's stormwater network in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	**Complies with Acceptable Outcome** The proposed development will connect to Council's stormwater water system as required.
	AO3.2 On-site drainage systems are constructed: (a) to convey stormwater from the premises to a lawful point of discharge; and (b) in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	**Not Applicable**

Performance outcomes	Acceptable outcomes	Development Response
Electricity supply		
PO4 Each lot is provided with an adequate supply of electricity	**AO4** The premises: (a) is connected to the electricity supply network; or (b) has arranged a connection to the transmission grid; or (c) where not connected to the network, an independent energy system with sufficient capacity to service the development (at near average energy demands associated with the use) may be provided as an alternative to reticulated electricity where: (i) it is approved by the relevant regulatory authority; and (ii) it can be demonstrated that no air or noise emissions; and (iii) it can be demonstrated that no adverse impact on visual amenity will occur.	**Complies with Acceptable Outcome** The proposed development will connect to the electricity supply network as required.
Telecommunications infrastructure		
PO5 Each lot is provided with an adequate supply of telecommunication infrastructure	**AO5** Development is provided with a connection to the national broadband network or telecommunication services.	**Complies with Acceptable Outcome** The proposed development will connect to the national broadband network where required.
Existing public utility services		
PO6 Development and associated works do not affect the efficient functioning of public utility mains, services or installations.	**AO6** Public utility mains, services are relocated, altered or repaired in association with the works so that they continue to function and satisfy the relevant Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	**Complies with Acceptable Outcome** Will comply where applicable.

Performance outcomes	Acceptable outcomes	Development Response
Excavation or filling		
PO7 Excavation or filling must not have an adverse impact on the: (a) streetscape; (b) scenic amenity; (c) environmental values; (d) slope stability; (e) accessibility; or (f) privacy of adjoining premises.	**AO7.1** Excavation or filling does not occur within 1.5 metres of any site boundary.	**Complies with Acceptable Outcome** The proposed development will comply where conditioned.
	AO7.2 Excavation or filling at any point on a lot is to be no greater than 1.5 metres above or below natural ground level.	**Complies with Acceptable Outcome** The proposal will comply where conditioned.
	AO7.3 Earthworks batters: (a) are no greater than 1.5 metres in height; (b) are stepped with a minimum width 2 metre berm; (c) do not exceed a maximum of two batters and two berms (not greater than 3.6 metres in total height) on any one lot; (d) have a slope no greater than 1 in 4; and (e) are retained.	**Not Applicable** No batters are proposed.
	AO7.4 Soil used for filling or spoil from excavation is not stockpiled in locations that can be viewed from: (a) adjoining premises; or (b) a road frontage, for a period exceeding 1 month from the commencement of the filling or excavation.	**Complies with Acceptable Outcome** The proposal will comply where applicable.
	AO7.5 All batters and berms to be constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	**Not Applicable** No batters or berms are proposed.

Performance outcomes	Acceptable outcomes	Development Response
	AO7.6 Retaining walls have a maximum height of 1.5 metres and are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	**Not Applicable** No retaining walls proposed.
	AO7.7 Excavation or filling at any point on a lot is to include measures that protect trees at the foot or top of cut or fill batters by the use of appropriate retaining methods and sensitive earth removal or placement and in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	**Complies with Acceptable Outcome** The proposal will comply via condition.
For assessable development		
Transport network		
PO8 The development has access to a transport network of adequate standard to provide for the safe and efficient movement of vehicles, pedestrians and cyclists.	**AO8.1** Vehicle access, crossovers, road geometry, pavement, utilities and landscaping to the frontage/s of the site are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	**Complies with Performance Outcome**
	AO8.2 Development provides footpath pavement treatments in accordance with Planning Scheme Policy 9 – Footpath Paving.	**Not Applicable**
Public infrastructure		
PO9 The design, construction and provision of any infrastructure that is to be dedicated to Council is cost effective over its life cycle and incorporates provisions to minimise adverse impacts.	**AO9** Development is in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	**Complies with Acceptable Outcome** Will comply where applicable.

Performance outcomes	Acceptable outcomes	Development Response
Stormwater quality		
PO10 Development has a non-worsening effect on the site and surrounding land and is designed to: (a) optimise the interception, retention and removal of waterborne pollutants, prior to the discharge to receiving waters; (b) protect the environmental values of waterbodies affected by the development, including upstream, on-site and downstream waterbodies; (c) achieve specified water quality objectives; (d) minimise flooding; (e) maximise the use of natural channel design principles; (f) maximise community benefit; and (g) minimise risk to public safety.	**AO10.1** The following reporting is prepared for all Material change of use or Reconfiguring a lot proposals: (a) a Stormwater Management Plan and Report that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; and (b) an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation Control Guidelines (Institute of Engineers Australia), including: (i) drainage control; (ii) erosion control; (iii) sediment control; and (iv) water quality outcomes.	**Complies with Performance Outcome** The proposal will include appropriate controls for oily water management so that the impacts on water quality in receiving waters is minimised. Dispensing and unloading of fuel will occur in a bunded concrete slab with a centre sump pit connected to a collection chamber fitted with a Fox Environmental spill control valve (diversion valve). This device has a hydrocarbon sensor that detects the presence of fuel and in the event of a spill it will automatically direct the flow to an enclosed and roofed oily water holding tank with a minimum capacity of 10,000 litres, otherwise clean stormwater runoff will be discharged to the site's stormwater drainage network. Treated water will be discharged from the oily water treatment system to the Council's trade waste / sewer network. For further information, refer to the proposed oily water holding plan (Drwg No. 18175-MR-A06) in Appendix B and the Oily Water Management Statement in Appendix C.

Performance outcomes	Acceptable outcomes	Development Response
	AO10.2 For development on land greater than 2,500m^2 or that result in more than 5 lots or more than 5 dwellings or accommodation units, a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) is prepared that demonstrates that the development: (a) meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning Guideline and the Queensland Water Quality Guideline; (b) is consistent with any local area stormwater water management planning; (c) accounts for development type, construction phase, local climatic conditions and design objectives; and (d) provides for stormwater quality treatment measures reflecting land use constraints, such as soil type, landscape features (including landform), nutrient hazardous areas, acid sulfate soil and rainfall erosivity.	**Complies with Performance Outcome** As above.
PO11 Storage areas for stormwater detention and retention: (a) protect or enhance the environmental values of receiving waters; (b) achieve specified water quality objectives; (c) where possible, provide for recreational use; (d) maximise community benefit; and (e) minimise risk to public safety.	**AO11** No acceptable outcome is provided.	**Complies with Performance Outcome** The proposal will include appropriate controls for oily water management so that the impacts on water quality in receiving waters is minimised. Refer to the proposed oily water holding plan (Drwg No. 18175-MR-A06) in Appendix B and the Oily Water Management Statement in Appendix C.

Performance outcomes	Acceptable outcomes	Development Response
Excavation or filling		
PO12 Traffic generated by filling or excavation does not impact on the amenity of the surrounding area.	**AO12.1** Haul routes used for transportation of fill to or from the site only use major roads and avoid residential areas.	**Complies with Acceptable Outcome** Will comply where applicable.
	AO12.2 Transportation of fill to or from the site does not occur: (a) within peak traffic times; and (b) before 7am or after 6pm Monday to Friday; (c) before 7am or after 1pm Saturdays; and (d) on Sundays or Public Holidays.	**Complies with Acceptable Outcome** Will comply via condition.

Performance outcomes	Acceptable outcomes	Development Response
PO13 Air pollutants, dust and sediment particles from excavation or filling, do not cause significant environmental harm or nuisance impacts.	**AO13.1** Dust emissions do not extend beyond the boundary of the site.	**Complies Acceptable Outcome** Will comply as required.
	AO13.2 No other air pollutants, including odours, are detectable at the boundary of the site.	**Complies Acceptable Outcome** Will comply as required.
	AO13.3 A management plan for control of dust and air pollutants is prepared and implemented.	**Complies Acceptable Outcome** Will comply as required.
PO14 Access to the premises (including driveways and paths) does not have an adverse impact on: (a) safety; (b) drainage; (c) visual amenity; and (d) privacy of adjoining premises.	**AO14** Access to the premises (including all works associated with the access): (a) must follow as close as possible to the existing contours; (b) be contained within the premises and not the road reserve, and (c) are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	**Complies Acceptable Outcome** Will comply as required.
Weed and pest management		
PO15 Development prevents the spread of weeds, seeds or other pests into clean areas or away from infested areas.	**AO15** No acceptable outcome is provided.	**Complies with Performance Outcome** Will comply where applicable.
Contaminated land		
PO16 Development is located and designed to ensure that users and nearby sensitive land uses are not exposed to unacceptable levels of contaminants	**AO16** Development is located where: (a) soils are not contaminated by pollutants which represent a health or safety risk to users; or (b) contaminated soils are remediated prior to plan sealing, operational works permit, or issuing of building works permit.	**Complies with Acceptable Outcome** Will comply where applicable.
Fire services in developments accessed by common private title		**Not Applicable**