FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

Our Ref: 6035/01
L-EC2005

19 March 2018

Chief Executive Officer
Mareeba Shire Council
PO Box 154
MAREEBA QLD 4880

Attention: Brian Millard

Dear Sir,

SUBMISSION OF DEVELOPMENT APPLICATION
1687 CHEWKO ROAD, CHEWKO
ENTEGRA SIGNATURE SOLUTIONS ON BEHALF OF HOWE FARMING ENTERPRISES PTY LTD

Please find attached one (1) hard copy and one (1) electronic copy of the Supporting Information Report for a Development Application for a Material Change of Use for Rural Industry (packing and processing shed) at 1687 Chewko Road, Chewko.

To assist Council with their assessment of the Application, the following is also attached:

- DA Form 1 – Development application details;
- Howe Farming Enterprises Pty Ltd owner's consent.
- Site Plan – 6035-SK01A.

Please note that the Applicant will pay the Application fees associated with the Development Application to Council directly following lodgement.

Should you have any further questions regarding the attached, you are encouraged to contact the undersigned on (07) 4724 5737 or erin@flanaganconsulting.com.au

Yours faithfully
FLANAGAN CONSULTING GROUP

ERIN CAMPBELL
Senior Planner

DA Form 1 – Development application details

Approved form (version 1.0 effective 3 July 2017) 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**, 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*)	Entegra Signature Structures
Contact name *(only applicable for companies)*	C/- Flanagan Consulting Group (Erin Campbell)
Postal address *(P.O. Box or street address)*	PO Box 891
Suburb	TOWNSVILLE
State	QLD
Postcode	4810
Country	Australia
Contact number	(07) 4724 5737
Email address *(non-mandatory)*	erin@flanaganconsulting.com.au
Mobile number *(non-mandatory)*	0434 692 073
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	

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 (*all 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
		1687	Chewko Road	Mareeba
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
	4880	515	NR6791	Mareeba
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)*:

Packing and processing facility defined as Rural Industry (Packing Shed)

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)*
Packing and processing shed	Rural Industry		6,816m^2

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 – state-controlled roads
☐ Land within Port of Brisbane's port limits
☐ SEQ development area
☐ 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 – residential development
☐ SEQ regional landscape and rural production area or SEQ Rural living area – urban activity
☐ Tidal works or works 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 2 or 3 levees only)*
☐ Wetland protection area

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

☐ Airport land
☐ Environmentally relevant activities (ERA) (*only 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
☐ Strategic port land

Matters requiring referral to the **relevant port operator:**
☐ Brisbane core port land (below high-water mark and within port limits)

Matters requiring referral to the **chief executive of the relevant port authority:**
☐ Land within limits of another port

Matters requiring referral to the **Gold Coast Waterways Authority:**
☐ Tidal works, or development in a coastal management district in Gold Coast waters

Matters requiring referral to the **Queensland Fire and Emergency Service:**

☐ Tidal works, or development in a coastal management district

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	2001/252	27 December 2001	Mareeba Shire Council
☐ 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 – the yellow local government/private certifier's 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

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
$		

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 EM941) 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 "EM941" 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.justice.qld.gov.au for further information.*

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation 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 is accompanied by written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

***Note**: See www.qld.gov.au for further information.*

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.ehp.qld.gov.au for further information.*

Water resources

23.6) Does this development application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, taking overland flow water or waterway barrier works**?

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

☒ No

***Note**: DA templates are available from www.dilgp.qld.gov.au.*

23.7) Does this application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water** under the *Water Act 2000*?

☐ Yes – I acknowledge that a relevant water authorisation under the *Water Act 2000* may be required prior to commencing development

☐ No

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

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 and Mines at www.dnrm.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 Heritage Protection at www.ehp.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.dews.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.ehp.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.ehp.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 *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	

The *Planning Act 2016,* the Planning Regulation 2017 and the DA Rules are administered by the Department of Infrastructure, Local Government and Planning. This form and all other required development application materials should be sent to the assessment manager.

Company owner's consent to the making of a development application under the *Planning Act 2016*

I, *Dennis Howe*

Director of the company mentioned below.

and I, *James Howe*

Secretary of the company mentioned below.

Of

Howe Farming Enterprises P/L (ACN: 099 827 791)

the company being the owner of the premises identified as follows:

1687 Chewko Road, Chewko described as Lot 515 on NR6791

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

Entegra Signature Structures

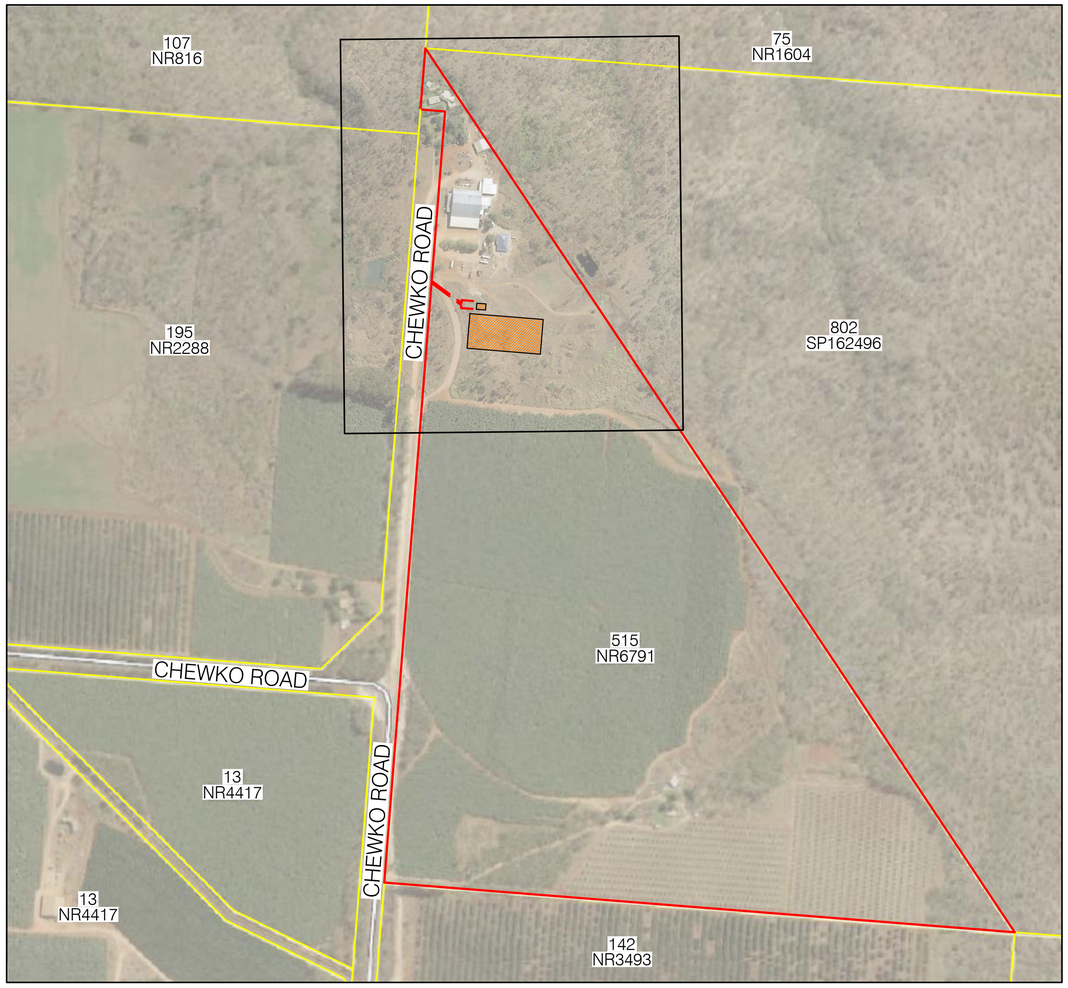
on the premises described above for:

Development Application for a Material Change of Use – Rural Industry (Packing/Processing Shed)

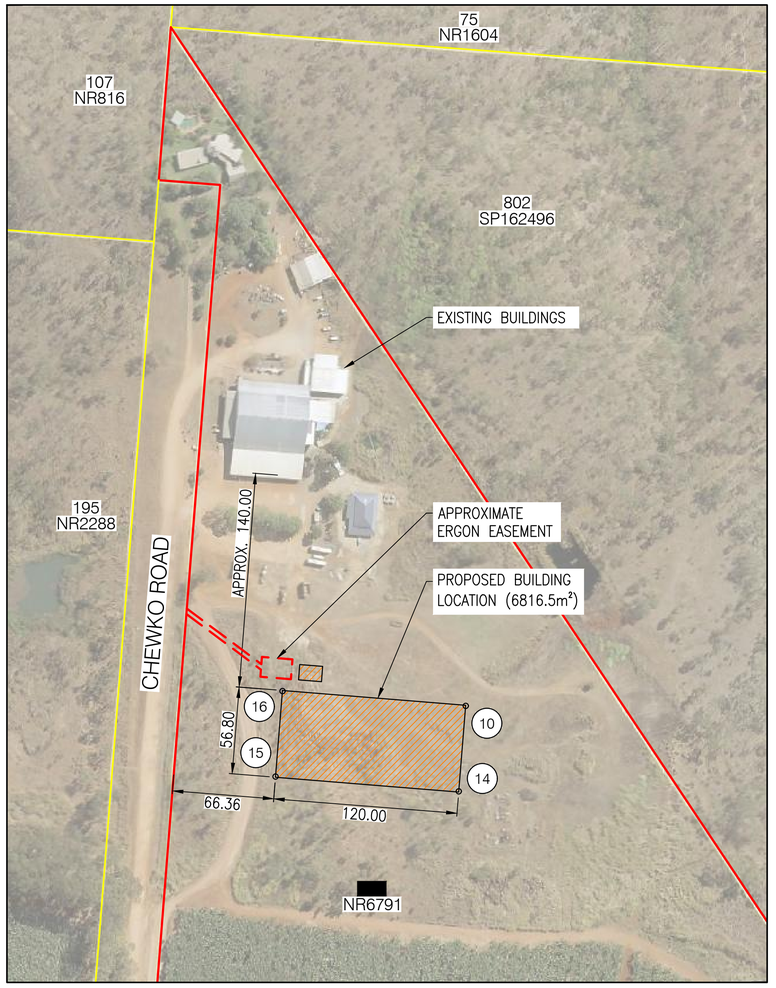
Company Name and ACN: *Howe Farming Enterprises P/L (ACN: 099 827 791)*

Signature of Director	Signature of Secretary
19/2/18 Date	19/2/18 Date

Notes



SITE PLAN
SCALE: 1:5000



BUILDING LAYOUT
SCALE: 1:2000

LEGEND

- EXISTING LOT BOUNDARIES
- SITE BOUNDARY
- EASEMENT BOUNDARY
- PROPOSED BUILDING LOCATION

SETOUT POINTS

POINT	EASTING	NORTHING
16	331149.710	8109419.470
10	331269.322	8109409.825
14	331264.821	8109354.006
15	331145.209	8109363.651

0 50 100 150 200 250m 1:5000

0 20 40 60 80 100m 1:2000

FLANAGAN CONSULTING GROUP
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www.flanaganconsulting.com.au

1687 CHEWKO ROAD
MAREEBA

SITE PLAN & BUILDING LAYOUT

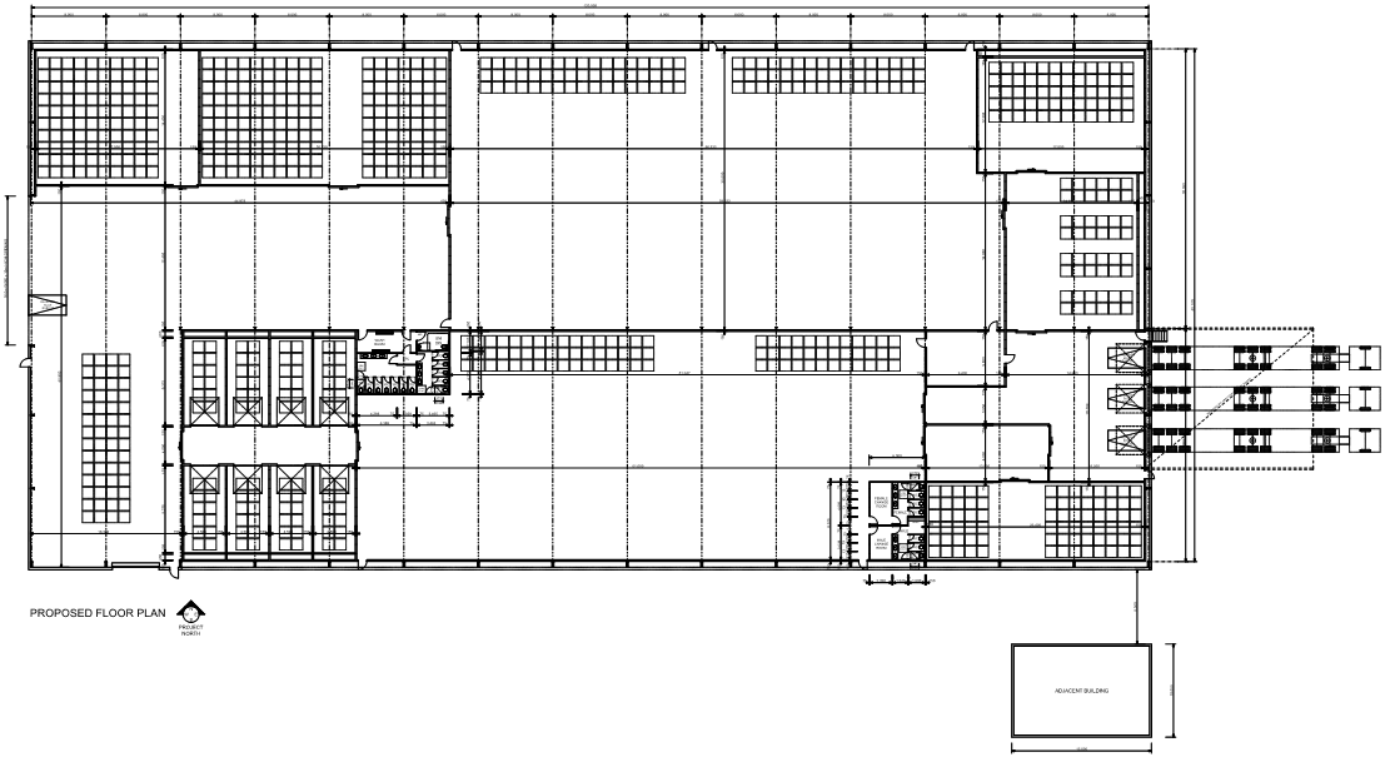
6035-SK01A A1 Full Size

Acad No. 6035-SK01A 16 February 2018

FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

SUPPORTING INFORMATION REPORT

Howe Farming Enterprises Pty Ltd
Development Application for a Material Change of Use – Rural Industry (Processing and Packing Shed)



Project No. 6035/01

Reference No. R-EC1985

Date: 19 March 2018

HOWE FARMING COMPANY

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DEVELOPMENT PARTICULARS

Proposal	Development Application for a Material Change of Use – Rural Industry (Processing/Packing Shed)
Applicant	Entegra Signature Structures
Land Owner	Howe Farming Enterprises Pty Ltd
Site Description	Lot 515 on NR6791
Street Address	1687 Chewko Road, Walkamin
Total Site Area	68.36 hectares
Planning Scheme	Mareeba Shire Planning Scheme – Alignment Amendment 2017
Zone	Rural Zone
Overlays	• Agricultural land • Airport environs • Bushfire hazard
Assessment Manager	Mareeba Shire Council
SARA	Not applicable
EMR/CLR	The site is not listed on DEHP's CLR or EMR

DEFINITIONS

'Applicant'	Entegra Signature Structures
'Categorising Instrument'	Mareeba Shire Planning Scheme – Alignment Amendment 2017
'CLR'	Contaminated Land Register
'Council'	Mareeba Shire Council
'DA Rules'	Development Assessment Rules
'DEHP'	Department of Environment and Heritage Protection
'EMR'	Environmental Management Register
'FNQ Regional Plan'	Far North Queensland Regional Plan
'PA'	*Planning Act 2016*
'PR'	*Planning Regulations 2017*
'RLRPA'	Regional Landscape and Rural Production Area
'SARA'	State Assessment and Referral Agency
'SPP'	State Planning Policy

1.0 INTRODUCTION

This Report has been prepared as Supporting Information for a Development Application for a Material Change of Use by Howe Farming Enterprises Pty Ltd on land located at 1687 Chewko Road, Walkamin.

The proposal involves a new processing and packing shed on the site and includes the following elements:

- processing (freezing and drying) bananas; and
- packing and dispatching avocados to market.

This Report sets out in detail the following:

- The Site;
- Previous Approvals;
- The Proposal;
- Supporting Information Reports;
- *Planning Act 2016* provisions;
- Decision making framework;
- Potential Impacts and Mitigation Measures
- Recommendations and conclusions.

2.0 THE SITE

2.1 Site Description

The land the subject of this Application is described as Lot 515 on NR6791. The location of the site is detailed on **Figure 1 – Locality Plan**. The subject land is identified as being located in the Rural Zone of the Planning Scheme.

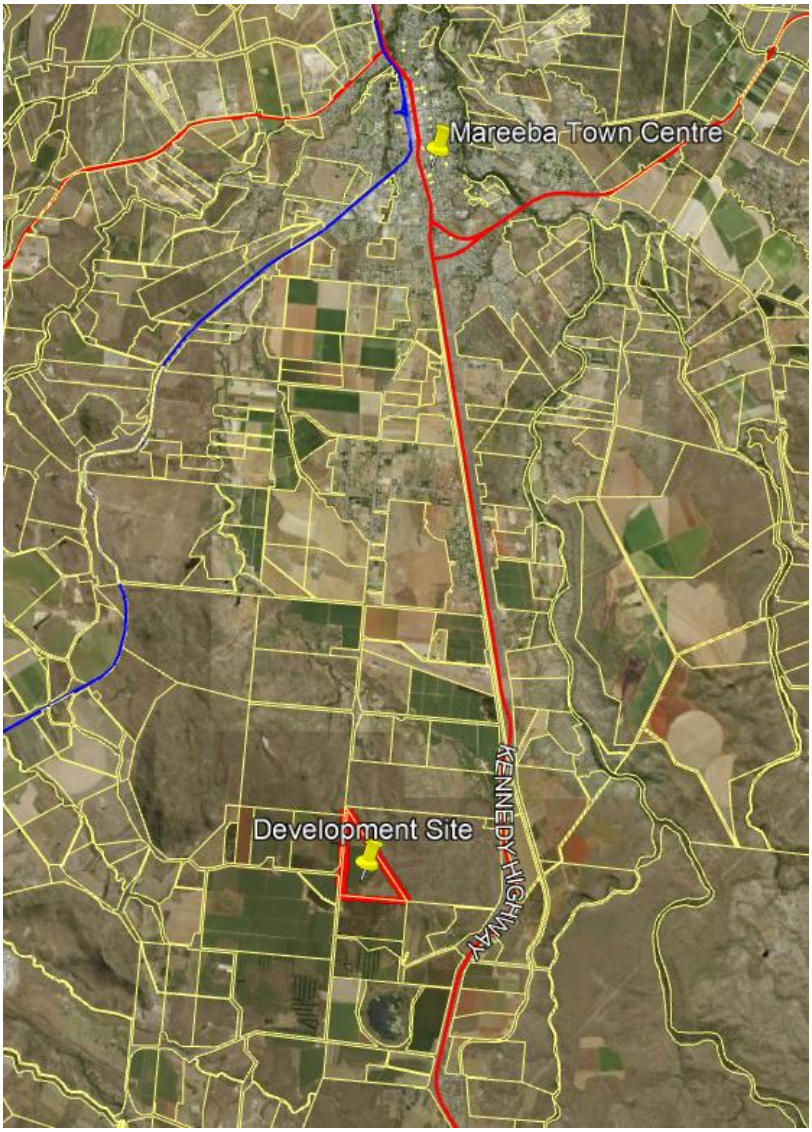


Figure 1 – Locality Plan (Not to Scale)

The subject allotment is serviced by bore water, power and telecommunications. An on-site effluent disposal system services waste disposal. The site has an approximate frontage of 1.25km to Chewko Road, and currently includes:

- dwelling house and associated outbuildings; and
- existing packing shed;

Lot 515 on NR6791 is not listed on DEHP's CLR or EMR (please refer to **Appendix A**). The subject land is not encumbered by easements as detailed on the Survey Plan attached at **Appendix B**.

Lot 515 on NR6791 is owned by Howe Farming Enterprises Pty Ltd in Fee Simple. A copy of the relevant Title Search is attached at **Appendix C**.

2.2 Surrounding Land Uses

The subject land has road frontage to Chewko Road on the western boundary. Land in the immediate locale includes farming and agricultural land on the southern and western boundaries (across Chewko road). Land immediately to the east and north includes large vegetated freeholds allotments, characterised by single detached dwellings and associated outbuildings on the eastern boundaries of the lots.

The Planning Scheme includes land immediately surrounding the development site in the Rural Zone. The following **Figure 2 – Planning Scheme Zone Map – Southeastern Region Zone Map – ZM004** extract refers.

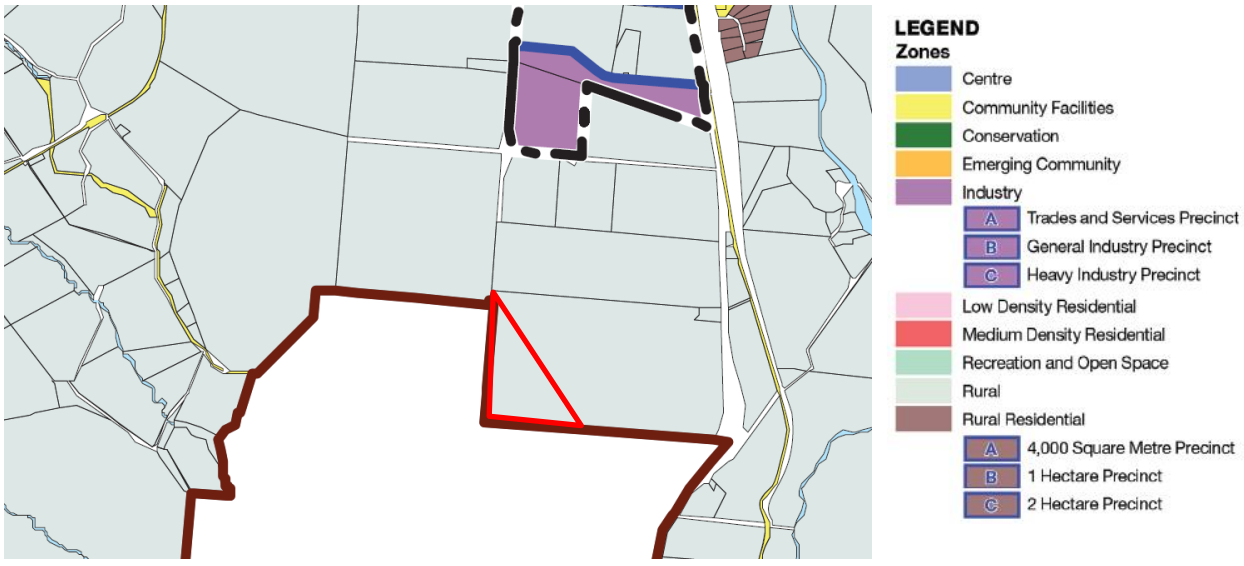


Figure 2 – Planning Scheme Zone Map ZM-004 Extract

2.3 Previous Approvals

2.3.1 Development Application Decision Notice 2001/252

On 27 December 2001, Council issued a Development Application Decision Notice in associated with a proposed new packing shed on the subject land. The development was Approved subject to Conditions. A copy of the Development Application Decision Notice is attached at **Appendix D**.

3.0 THE PROPOSAL

The development proposal involves the establishment of a second 6,800m^2 processing and packing shed at the Howe Farming Co. at 1687 Chewko Road, Walkamin.

A copy of the Site Plan and Development Plans prepared by Flanagan Consulting Group and Entegra Signature Structures are attached at **Appendix E**. A summary of the Development Plans is provided in the following **Table 1**.

Table 1: Development Plans

Drawing Type	Drawing No.	Date
Site Plan	6035-SK01A	8 February 2018
Proposed Floor Plan	NA	NA

The proposed development will involve packing and processing bananas in frozen and dried form. The left-over banana peels will be composted on the farm.

The processing operations will commence at 6am and operate through to 6pm and will be staffed by twenty-five (25) personnel. Staff already employed at the Howe Farming Co. will continue to operate the existing packing shed.

The bananas will be transported to the development site in 300kg bins, ripened, peeled and either frozen or dried. The freezing operations will commence immediately; however, the drying operations will ramp up over the first year or so, and will depend on market conditions.

The packing operations will also commence at 6am and operate through to 6pm. Thirty-five (35) staff will be employed in the packing operations, from February to June each year. Howe Farming Co. will transport employees to the site in 50-seater buses from Atherton and Mareeba. Employees who do not utilise the bus service will self-drive or share-ride to the site each day.

The packing operations involves transporting avocados to the site in 300kg bins. Once the avocados arrive at site, they are washed and packed on commercial equipment. The packed pallets are then stored in cold rooms for up to 72 hours and dispatched to market.

3.1 On-site Effluent System

3.1.1 Existing Infrastructure

A Dial-Before-You-Dig application undertaken in February 2018 reveals that no authority-owned sewerage infrastructure exists within the vicinity of the proposed development. The existing packing shed is serviced by an upgraded on-site effluent system in accordance with the Wastewater Disposal Assessment Report prepared by Wastewater Consultants, dated 11 May 2009. A copy of this Report is attached at **Appendix F**.

According to this report, the current system appears to be a secondary aerated wastewater treatment system (AWTS) with capacity for 20EP and an adopted minimum 1000m2 of irrigation networks. **Figure 3** shows the existing effluent system arrangement on site in relation to the proposed packing shed facility.

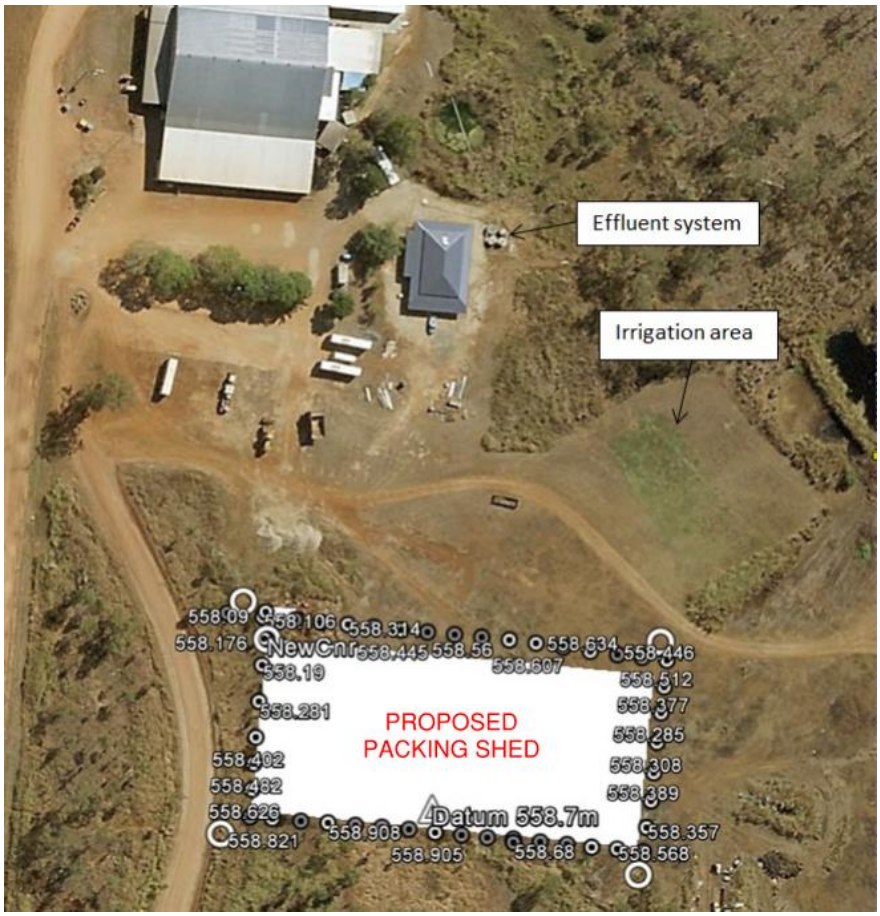


Figure 3 – Location of Existing Effluent System and Irrigation Area (Not to Scale)

3.1.2 Resultant Sewer Loading

The estimated sewer load for the proposed packing and processing shed development is based on DEWS Planning Guidelines for Water Supply & Sewerage - Chapter 5. The calculations summarised below are based on an assumed maximum equivalent persons (EP) of 60 staff personnel during the months of February to June. According to DEWS Planning Guidelines for Water Supply & Sewerage - Chapter 5 - Section 5.2.2, the Average Dry Weather Flow normally ranges between 150 - 275 L/EP/day. It is therefore conservatively assumed the proposed development will generate approximately 230 L/EP/day.

The estimated total sewer loading generated from the proposed development is summarised below:

Average Dry Weather Flow (ADWF) *= No. of EP x Design Flow*

= 60 EP x 230L/EP/day

= 13,800 L/day

Peak Dry Weather Flow (PDWF) *= C2 x ADWF*

= 3.06 x 13,800 L/day

= 42,200 L/day

Peak Wet Weather Flow (PWWF) *= Greater of either 'C1 x ADWF' or '5 x ADWF'*

= 7.83 x 13,800 L/day

= 108,088 L/day

= 1.25 L/s

Refer to **Appendix G** for detailed sewer loading calculations.

3.1.3 Proposed Effluent System

The impact on the existing on-site effluent system could not be accurately determined at this stage due to a lack of information relating to the proposed number of normal fixtures, existing soil types, and available spare capacity of the existing on-site effluent system. However, it is noted the system recommended (and understood to be adopted) in the Wastewater Disposal Assessment Report prepared by Wastewater Consultants, dated 11 May 2009, is a minimum 20EP Approved Secondary recycling AWTS. Therefore, it is assumed this system will not have capacity to service the proposed development and additional EP. It is proposed to adopt an equivalent on-site effluent removal process to accommodate the anticipated resultant sewer loading.

Consistent with the existing facility, it is proposed to trap the fruit and shed washdown wastewater from the new packing shed in an underground drain to be pumped to a proposed small settling dam for treatment and re-use as irrigation.

Additional investigations will be undertaken during the detailed design stage to determine the impacts of the development on the existing on-site effluent system and if any further mitigation measures are required.

3.2 Water Supply

3.2.1 Existing Infrastructure

A Dial-Before-You-Dig application undertaken in February 2018 reveals that no authority-owned water infrastructure exists within the vicinity of the proposed development. The existing packing shed and surrounding area is serviced by bore water and it is understood that water demand averages approximately 1370 L/day for the existing facility (excluding irrigation). Previously approved engineering plans suggest the existing fresh water supply is from two bores at approximately 10L/sec.

Approved site plans show an existing fire hydrant located 10m north of the existing packing shed which draws its supply from an existing 450kL turkey nest dam at a height of approximately 1.2m above the fire hydrant. This hydrant is suitable for fire-fighting purposes around the existing facility, however will not be within proximity of the proposed packing shed development and therefore cannot be assumed to be appropriate for future fire-fighting of the new facility.

3.2.2 Resultant Water Loading

The estimated additional average water supply demand for the proposed packing shed and processing facility may be in the order of 2,000 L/day. This figure has been based on the approximate current water usage of 1370 L/day, with consideration to the relevant increased size and scale of the proposed packing shed facility operations and anticipated staff numbers.

With reference to DEWS Planning Guidelines for Water Supply & Sewerage – Chapter 5 – Table 5.4, the estimated peak daily and hourly water usage based on an assumed average water supply demand of 2,000 L/day is summarised below:

Water Demand

Peak Day Factor (PDF) = 2.3 (for populations below 5000)

Peak Hour Factor (PHF) = 4.5 (for populations below 5000)

Average Day Demand (AD) = 2,000 L/day

= 0.02 L/s

Peak Day Demand (PD) = AD x PDF

= 2,000 L/day x 2.3

= 4,600 L/day

= 0.05 L/sec

Peak Hour Demand (PH) = AD x PHF

= 2,000 L/day x 4.5

= 9,000 L/day

= 0.10 L/sec

With reference to DEWS Planning Guidelines for Water Supply & Sewerage – Chapter 6 – Section 6.6.2, the estimated minimum fire-fighting two-hour duration water supply flow rate based on a 'small community category' of non-residential buildings is 15 L/sec. However, further negotiation and discussion with the Queensland Fire & Emergency Service (QFES) and Rural Fire Service Area Office in Cairns is necessary to confirm this minimum requirement.

Refer to **Appendix G** for detailed water demand calculations.

3.2.3 Proposed Water System

The capacity of the existing bores is currently unknown and further investigation to determine whether additional on-site bores are necessary to adequately supply the proposed development is required. It is anticipated that additional water supply infrastructure will be necessary to supply the proposed facility and to provide adequate fire-fighting capacity to new hydrants. New hydrants for fire-fighting purposes shall be installed as part of the development in accordance with QFES requirements and shall be located adjacent maintenance tracks or internal roads capable of transporting fire service vehicles.

Once the capacity and pressure of the existing bores is determined, a water network model will be developed to determine the size of new internal water mains and to ensure minimum service pressure is achieved.

3.3 Stormwater Drainage

3.3.1 Existing Infrastructure

A Dial-Before-You-Dig application undertaken in February 2018 reveals that Council do not own formal drainage infrastructure within the vicinity of the proposed development.

Investigations reveal the broader catchment surrounding the 1687 Chewko Road property generally falls northeast, however the local area north of the proposed packing shed site appears to be located at a relative higher ridge zone as indicated by the contouring shown in **Figure 4** below.

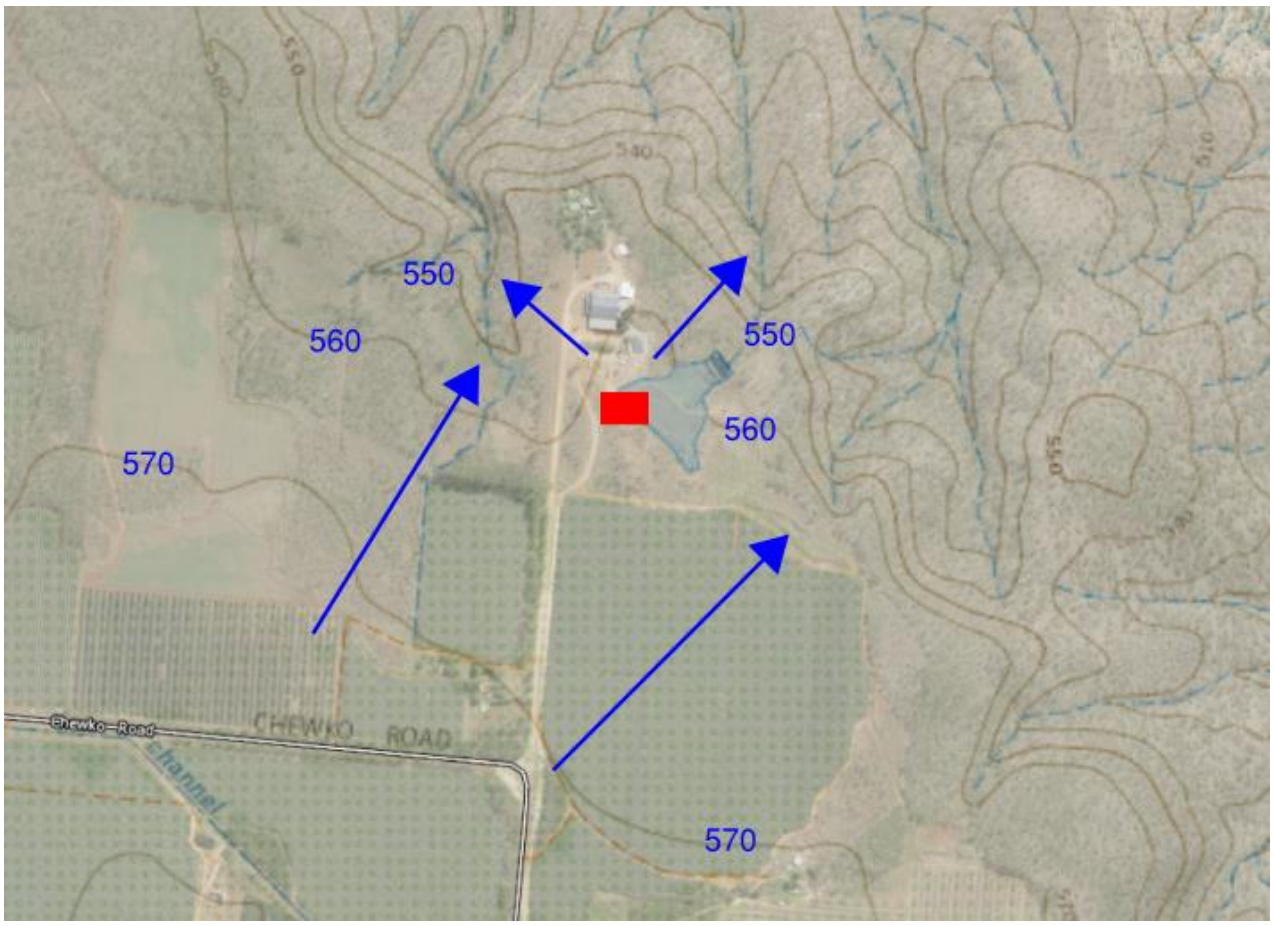


Figure 4 – Location of Existing Effluent System and Irrigation Area (Not to Scale)

Runoff generated by the existing packing shed and development area discharges overland to the downstream creek systems located north, northeast and northwest. An existing dam is located almost 200m east of the existing packing shed, however it cannot be determined at this time whether overland flow from the packing shed is directed to the dam.

3.3.2 Resultant Stormwater Runoff

Using rainfall data sourced through the Bureau of Meteorology (BOM), the hydrology for the site has been analysed through the use of the Rational Method, and calculations for design flows are based on the current Queensland Urban Drainage Manual (QUDM). Estimated five (5) year Average Recurrence Interval (ARI) peak flows for the 7,000m2 area where the proposed packing shed development will be located, have been calculated for both the pre-developed and post-developed scenarios as summarised in **Table 2** below.

Pre-developed Scenario

The existing site consists of grassed areas and sparse vegetation and has therefore been assigned a fraction impervious of 0%. A surface roughness coefficient (n*) of 0.1 has been assumed to calculate the time of concentration at approximately 30 minutes.

Post-developed Scenario

The post-developed shed building scenario was calculated to have the minimum time of concentration of five minutes based on a fraction impervious value of 90% and roughness coefficient (n*) of 0.01.

Table 2: Pre vs Post Developed Flow Estimates

	Design ARI	Area (m2)	Tc (min)	Intensity (mm/hr)	Flow (L/sec)
Pre-Developed Flow Estimate	5	7,000	30	82	94
Post-Developed Flow Estimate	5	7,000	5	168	270

Refer to **Appendix G** for detailed stormwater calculations.

3.3.3 Proposed Stormwater System

The design philosophy to be adopted for the proposed stormwater drainage system is to discharge the proposed shed runoff on to splash pads and overland flow to the downstream dam and creek systems by way of shallow swale drainage. Swale drains will also be used to treat the stormwater runoff prior to discharge to the collecting waterways. Site grading will ensure overland flow in events greater than the Q5 will also be directed to the receiving drainage network and away from all buildings and structures.

3.4 Power and Telecommunications

A Dial-Before-You-Dig application undertaken in February 2018 reveals overhead power infrastructure is present along the east side of the site entry road. Existing telecommunications are located in close proximity to the development. A padmount and associated easement for electricity purposes will be provided to the development for the provision of power. The Site Plan attached at Appendix E refers.

3.5 Biosecurity

On 15 March 2015, Panama Tropical Race 4 was confirmed to be found on a banana farm in Tully. Since 2015, quarantine procedures across all banana farms in North Queensland has changed. In response to this biosecurity matter, Howe Farming Enterprises has introduced new biosecurity measures on all their banana farming properties. These measures include:

- vehicle wash down stations at all main entrances to the farms;
- foot baths at all main entrances;
- minor entrances closed and barricaded; and
- screening of all inbound vehicles.

Suppliers (i.e. pick-up and delivery services) are required to wash down their vehicles prior to entering the site. All drivers and passengers are required to walk through a foot bath before entering the site. Any vehicles containing excess mud or dirt will be refused entry until they are appropriately washed down.

Considering the potential biosecurity impacts to the Howe Farming Enterprises, the company has also ceased all on-farm sales, including the sale of waste bananas for stock feed.

4.0 SUPPORTING INFORMATION

As a precursor to development, a desktop Traffic Impact Assessment was also prepared to accompany the Development Application to Council.

4.1 Desktop Traffic Impact Assessment

A high-level desktop traffic impact assessment has been undertaken to assess the impact of traffic the proposed additional processing and packing facility will pose to the existing Chewko Road and surrounding road network. **Figure 5** below shows the location of the proposed development site in relation to the surrounding arterial road network.

Figure 5 – Road Network Plan (Source: Google Map)

4.1.1 Existing and Future Operation Characteristics

The following provides a summary of the current operational characteristics of Howe Farming Enterprises Pty Ltd (Farm):

- In the existing banana packing facility there are approximately 70 staff working in the facility full time throughout the day and a further 14 administration/other staff that commute in and out throughout day.
- There are eight semi-trailers for pickups and drop offs each day for the banana packing facility.
- There are a further 90 staff which work out in the paddocks and come back to the shed for lunch.
- The existing avocado packing operation employs a maximum of 30 staff.

- The new packing/processing facility will add additional 25 new full-time staff.
- The proposed packing/processing facility will attract one additional semi-trailer load for processing per day, four semi-trailer movements for avocado pickups and one additional drop off per day.

4.1.2 Future Operation Characteristics

Future operational characteristics of the Farm are summarised as follows:

- The new packing/processing facility will add additional 25 new full-time staff.
- The proposed packing/processing facility will attract one additional semi-trailer load for processing per day, four semi-trailer movements for avocado pickups and one additional drop off per day.

It is understood the majority of the existing workforce come from either Mareeba towards the north or from Atherton from the south by buses that are provided by the Farm. The buses are understood to travel along Kennedy Highway and arrive at the existing processing and packing facilities via Chewko Road. Fruit used in packing and processing operations is transported by semi-trailer along the Kennedy Highway every operational day for pickup and dropoff.

4.1.3 Project operation and Maintenance Requirements

The processing and packing operation of Howe farming Enterprises Pty Ltd operates 12 hours per day from 6am to 6pm, all year round. The operations are typically undertaken during the day time, except for breakdown and maintenance of critical systems.

4.1.4 Operation Traffic Generation

Once the additional facility is in operation there will be a low level of traffic accessing the site. Traffic will generally comprise of 'to and from' work trips by the additional 25 staff. It is anticipated that most of the new staff will use the existing bus services provided by the Farm. There will be total additional 6 trips of semi-trailer to and from the new facility per day with trips timed by the freight companies to avoid peak traffic with other operations of the facility. Haul routes for the new operations will be the same as existing routes for current processing and packing operation because the points of origin will be the same. Overall, the traffic impact during the operational phase will be negligible

4.1.5 Conclusions

The operational phase for the additional processing and packing facility will require low levels of vehicular access to the site via local roads and accordingly will have negligible impacts on local traffic.

5.0 PLANNING ACT 2016

The PA 2016 is Queensland's principal planning legislation that coordinates planning at a local, regional and State level. The PA 2016 came into effect on 3rd July 2017, and replaces the previous *Sustainable Planning Act 2009*.

The PA 2016 identifies the following hierarchy between statutory planning instruments:

- State Planning Policy;
- Regional Plans;
- Local planning instruments;
- Other statutory instruments (e.g. DA Rules).

The PR 2017 states which entity is responsible for assessing and deciding the Application.

5.1 Development Application

The proposal requires the issue of a Development Permit for a Material Change of Use for Rural Industry (Processing and Packing Shed).

5.2 Assessment Manager

In accordance with Schedule 8, Table 2, Item 1 of the PR 2017, Mareeba Shire Council is the Assessment Manager for the Development Application.

6.0 DEVELOPMENT ASSESSMENT FRAMEWORK

6.1 Mareeba Shire Planning Scheme – Alignment Amendment 2017

The Mareeba Shire Planning Scheme commenced on 1st July 2016. On 21st June 2017, the Mareeba Shire Planning Scheme made the PA 2016 alignment amendment to the Planning Scheme. The alignment amendment commenced on 3rd July 2017, and is the categorising instrument for the Mareeba Shire Council local government area. The Planning Scheme sets out the Council's intention for future development in the Planning Scheme area over the next 20 years.

6.2 State Planning Policy

The new State Planning Policy commenced on 3rd July 2017 and replaces the SPP dated April 2016.

The SPP applies to the development proposal. Specifically, the following State interests apply to the development as detailed on **Figure 6 – SPP Interactive Mapping System.**

- Agriculture – (agricultural land classification – class A & B);
- Biodiversity – (MSES – regulated vegetation category R);
- Natural Hazards, Risk and Resilience - (bushfire prone areas – medium potential bushfire intensity & potential impact area);
- Energy and Water Supply - (pipelines and channels – Sunwater);
- Strategic Airports and Aviation Facilities – (Obstacle limitation surface area, lighting area buffer 6km, wildlife hazard buffer zone – 3km & 6km).

However, it is noted that these State interests have been incorporated in the Planning Scheme. Therefore, an assessment against the provisions of the SPP is not required where State interests have been included in the categorising instrument.

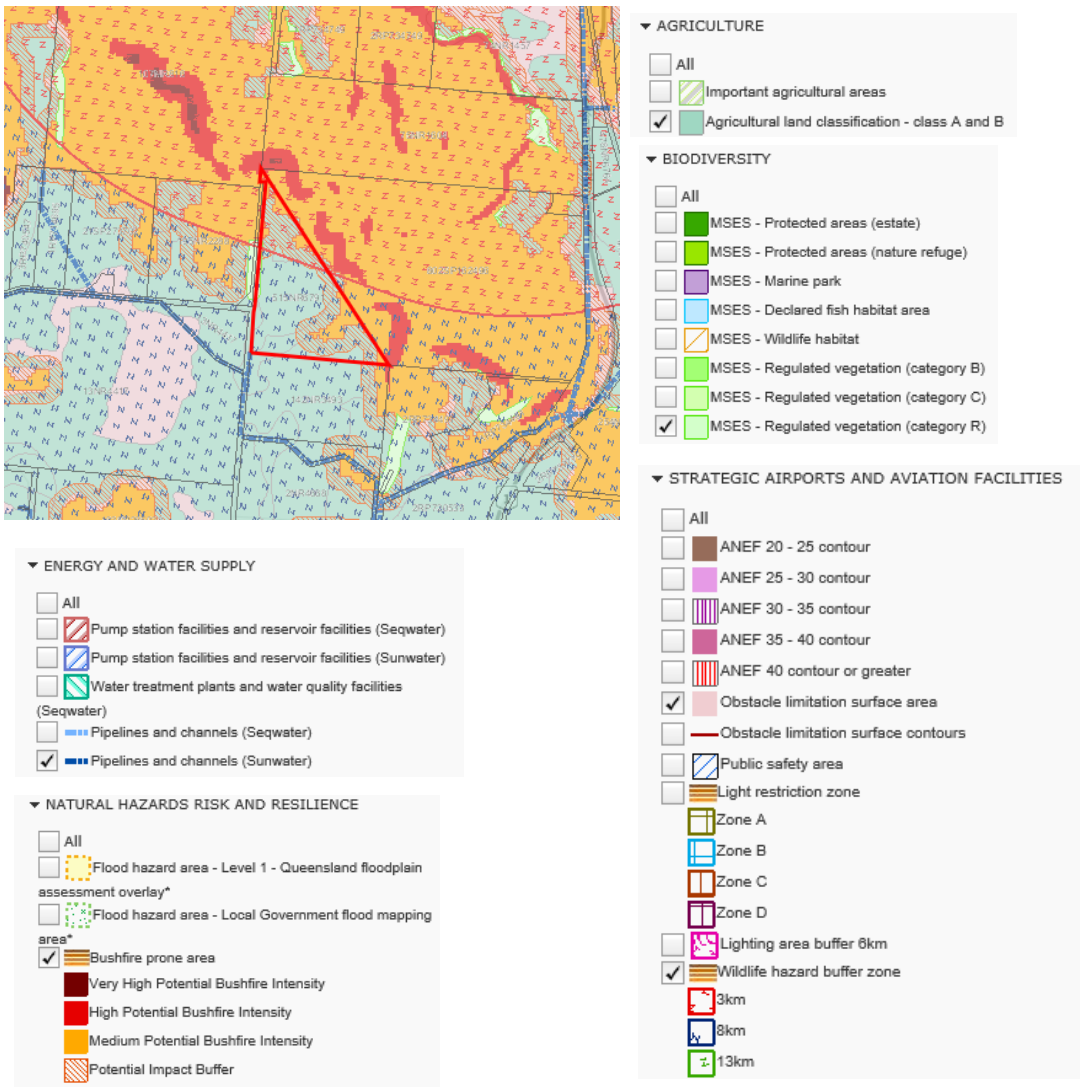


Figure 6 – SPP Interactive Mappin System

6.3 FNQ Regional Plan

The FNQ Regional Plan 2009-2031 applies to the development proposal. The subject land is identified as being located in the Regional Landscape and Rural Production Area.

The intent of the RLRPA is to protect areas of land that include regional landscapes, rural production or other non-urban values from encroachment by inappropriate development.

Having regard to the full range of State and local planning matters considered as part of this Application, it is considered that the proposal satisfies the intent of the Regional Plan for development of the site.

7.0 MAREEBA SHIRE PLANNING SCHEME

7.1 Strategic Framework

The Mareeba Shire Planning Scheme – Alignment Amendment 2017 comprises a number of components including the Strategic Framework. The Strategic Framework sets out the policy direction for the Categorising Instrument and forms the basis for ensuring appropriate development occurs within the Planning Scheme area for the life of the Categorising Instrument.

The policy direction is set through a number of themes which support and represent the strategic intent of the Categorising Instrument. These themes include:

- Settlement pattern and built environment;
- Natural resources and environment
- Community identity and diversity
- Transport and infrastructure
- Economic development

Having regard to the full range of local planning matters considered as part of this Application, it is considered that the proposed development is consistent with the Strategic Framework Themes.

7.2 Rural Zone Code

To comply with the purpose of the Rural zone code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 3**.

Table 3: Rural zone code

Performance Outcomes	Development Compliance
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) access to sunlight and daylight for the site and adjoining sites; e) privacy and overlooking; and f) site area and street frontage length.	The proposed building height is consistent with the existing packing shed on the site.

Performance Outcomes	Development Compliance
Siting, where not involving a dwelling house	
PO2 Development is sited in a manner that considers and respects: a) the siting and use of adjoining premises; b) access to sunlight and daylight for the site and adjoining sites; c) privacy and overlooking; d) air circulation and access to natural breezes; e) appearance of building bulk; and f) relationship with road corridors.	The proposed processing and packing shed is sufficiently set back from western and southern boundaries such that adjoining land uses will not be impacted. It is noted that land in the immediate vicinity also includes rural and agricultural land uses.
Accommodation density	
PO3 The density of Accommodation activities: a) respects the nature and density of surrounding land use; b) is complementary and subordinate to the rural and natural landscape values of the area; and c) is commensurate to the scale and frontage of the site.	The proposed development does not involve an accommodation activity.
Site cover	
PO4 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 buildings in the surrounding area; and c) appropriately balances built and natural features.	The proposed new processing and packing shed makes efficient use of the land and is located in proximity to existing packing operations currently being conducted at the site.
PO5 Development complements and integrates with the established built character of the Rural zone, having regard to: a) roof form and pitch; b) eaves and awnings; c) building materials, colours and textures; and d) window and door size and location.	The proposed development is consistent with existing rural land uses on the site. The proposed development is also consistent and integrates with other existing rural and agricultural land uses in the vicinity.
Amenity	
PO6 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.	The proposed development is consistent with existing operations at the site.

Performance Outcomes	Development Compliance
PO7 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.	The proposed development is consistent with existing operations at the site.

The proposed development is considered to comply with the Performance Outcomes of the Rural zone code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

7.3 Development Codes

The following Development codes are applicable to the proposed development:

- Rural activities code;
- Parking and access code;
- Works, services and infrastructure code.

7.3.1 Rural Activities Code

To comply with the purpose of the Rural activities code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 4**.

It is noted Performance Outcomes PO1-PO3, PO4, PO5, PO6-PO7, PO8, PO11, PO12-PO15 and PO16-PO18 are not relevant to the development proposal. As such these Performance Outcomes have not been considered in the following assessment of the Rural activities code.

Table 4: Rural activities code

Performance Outcomes	Development Compliance
If for Rural industry	
PO9 Rural industry is located on sites which have sufficient area to: a) accommodate all buildings, structures and infrastructure associated with the use; and b) provide sufficient separation between the use and adjoining premises and uses.	The subject is of sufficient area to accommodate the proposed new packing and processing shed. The proposed new shed is sufficiently set back from property boundaries so as to not impact on adjoining land uses, noting that land in the immediate vicinity includes agricultural uses.

Performance Outcomes	Development Compliance
For Rural activities	
PO10 A site specific Environmental Management plan is provided addressing (as appropriate): a) farming / nursery operations; b) erosion and sediment control; c) surface water and storm water management; d) groundwater protection; e) nutrient management for substrate utilisation or sprat irrigation program; f) use and storage of chemicals and pesticides; g) integrated pest management; h) operations and maintenance requirements; i) composting; j) air quality management; k) odour reduction and management; l) emergency preparedness plan; m) wastewater management; n) spent substrate management; o) waste management and disposal; p) separation distances between farm uses and surrounding properties; and q) other matters appropriate to the use, as determined by Government regulations, guidelines, licence requirements and industry best practice.	The proposed new packing and processing shed is consistent with existing packing operations at the site. Packing and processing will be located wholly within the new shed.

The proposed development is considered to comply with the Performance Outcomes of the Rural activities code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

7.3.2 Parking and Access Code

To comply with the purpose of the Parking and access code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 5**.

It is noted that Performance Outcomes PO9, PO10 and PO11 are not relevant to the development proposal. As such these Performance Outcomes have not been considered in the following assessment of the Parking and access code.

Table 5: Parking and access code

Performance Outcomes	**Development Compliance**
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.	The subject land is of sufficient area to accommodate parking associated with the use, noting that employees are mostly transported to the site by bus. Existing parking arrangements will remain unchanged.
Vehicle crossovers	
PO2 Vehicle crossovers are provided to: a) ensure safe and efficient access between the road and the premises; b) minimising interference with the function and operations of roads; and c) minimise pedestrian to vehicle conflict.	The existing access to Chewko Road is not changing. Access to the proposed new shed will be provided via the existing access from Chewko Road.
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 the character of the surrounding locality.	Existing bus parking areas on the site will remain unchanged.
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.	Existing car parking and bus parking areas on the site will remain unchanged.

Performance Outcomes	Development Compliance
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.	Existing access and manoeuvring areas at the site will remain unchanged.
PO6 Development that involves an internal road network ensures that its design: a) ensures 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, avoid environmental degradation.	The proposed development does not involve new internal roads.
Servicing	
PO7 Development provides access, manoeuvring 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 manoeuvring 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.	Existing access and manoeuvring areas at the site will remain unchanged.
Maintenance	
PO8 Parking areas are used and maintained for their intended purpose.	Parking areas will continue to be maintained.

The proposed development is considered to comply with the Performance Outcomes of the Parking and access code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

7.3.3 Works, Services and Infrastructure Code

To comply with the purpose of the Works, services and infrastructure code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 6**.

It is noted that Performance Outcome PO17 is not relevant to the development proposal. As such, this Performance Outcomes have not been considered in the following assessment of the Works, services and infrastructure code.

Table 6: Works, services and infrastructure code

Performance Outcomes	Development Compliance
For 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.	Water supply to the development will be provided via bore water.
Wastewater disposal	
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.	It is proposed to adopt an equivalent on-site effluent removal process to accommodate the anticipated resultant sewer loading.
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.	Stormwater discharge will generally be overland flow via shallow swale systems to nearest existing point of discharge.
Electricity supply	
PO4 Each lot is provided with an adequate supply of electricity.	The proposed development is able to be connected to an electricity supply. A new transformer will be provided for this purpose.
Telecommunications infrastructure	
PO5 Each lot is provided with an adequate supply of telecommunication infrastructure.	The proposed development is able to be provided with telecommunications infrastructure.

Performance Outcomes	Development Compliance
Existing public utility services	
PO6 Development and associated works do not affect the efficient functioning of public utility mains, services or installations.	The proposed development will not impact on existing public utility services.
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.	The proposed development does not necessitate excavation or filling.
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.	Access to the development will be provided via the local road network including Chewko Road.
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.	The proposed development does not necessitate the construction or provision of infrastructure that will be dedicated to Council.
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 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.	The design philosophy to be adopted for the proposed stormwater drainage system is to discharge the proposed shed runoff to splash pads and overland flow to the downstream dam and creek systems by way of shallow swale drainage. Swale drains will also be used to treat stormwater runoff prior to discharge to the collecting waterways. Site grading will ensure overland flow in events greater than Q5 will also be directed to the receiving drainage network and away from all buildings and structures.

Performance Outcomes	Development Compliance
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.	Stormwater discharge will generally be overland flow via shallow swale systems to nearest existing point of discharge.
Excavation or filling	
PO12 Traffic generated by filling or excavation does not impact on the amenity of the surrounding area.	The proposed development does not necessitate filling or excavation.
PO13 Air pollutants, dust and sediment particles from excavation or filling, do not cause significant environmental harm or nuisance impacts.	As above.
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.	As above.
Weed and pest management	
PO15 Development prevents the spread of weeds, seeds or other pests into clean areas or away from infested areas.	Howe Farming Enterprises have biosecurity measures in place to prevent the spread of weeds, seeds and other pests. Refer to section 3.5 of this Report.
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.	The proposed development involves packing and processing contained wholly within the packing and processing shed.

The proposed development is considered to comply with the Performance Outcomes of the Parking and access code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

7.4 Overlay Codes

The following Overlay codes are applicable to the proposed development:

- Agricultural land;
- Airport environs; and
- Bushfire hazard.

7.4.1 Agricultural land overlay code

To comply with the purpose of the Agricultural land overlay code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 7**.

It is noted that Performance Outcomes PO4-PO6 are not relevant to the development proposal. As such these Performance Outcomes have not been considered in the following assessment of the Agricultural land overlay code.

Table 7: Agricultural land overlay code

Performance Outcomes	Development Compliance
For assessable development	
PO1 The fragmentation or loss of productive capacity of land within the 'Class A' or 'Class B' area identified in the Agricultural land overlay map (OM-001a-n) is avoided unless: a) an overriding need exists for the development in terms of public benefit; b) no suitable alternative site exists; and c) loss or fragmentation is minimised to the extent possible.	The proposed development does not result in the loss of productive capacity of the land. The proposed development complements existing packing activities currently being conducted on the land.
PO2 Sensitive land uses in the 'Class A' area, 'Class B' area or 'Broadhectare rural' are designed and located to: a) avoid land use conflict; b) manage impacts from agricultural activities, including chemical spray drift, odour, noise, dust, smoke and ash; c) avoid reducing primary production potential; and d) not adversely affect public health, safety and amenity.	As above.
PO3 Development in 'Class A' area or 'Class B' area: a) ensures that agricultural land is not permanently alienated; b) ensures that agricultural land is preserved for agricultural purposes; and c) does not constrain the viability or use of agricultural land.	As above.

The proposed development is considered to comply with the Performance Outcomes of the Agricultural land overlay code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

7.4.2 Airport Environs Overlay Code

To comply with the purpose of the Airport environs overlay code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 8**.

It is noted that Performance Outcomes PO1 and PO3-PO7 are not relevant to the development proposal. As such, these Performance Outcomes have not been considered in the following assessment of the Airport environs overlay code.

Table 8: Agricultural land overlay code

Performance Outcomes	Development Compliance
For assessable development	
Lighting	
PO2 Development does not include lighting that: a) has the potential to impact on the efficient and safe operation of Mareeba Airport or an aerodrome; or b) could distract or confuse pilots.	The proposed development does not necessitate the installation of external lighting that would cause potential impacts to the Mareeba Airport.
Managing bird and bat strike hazard to aircraft	
PO8 Development in the environs of Mareeba Airport or an aerodrome does not contribute to the potentially serious hazard from wildlife (bird or bat) strike.	Packing and processing operations are conducted wholly within the packing and processing shed.

The proposed development is considered to comply with the Performance Outcomes of the Airport environs overlay code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

7.4.3 Bushfire Hazard Overlay Code

To comply with the purpose of the Bushfire hazard overlay code, development is required to comply with the Performance Outcomes of this Code. The proposal's compliance with the relevant provisions of this Code are detailed in the following **Table 9**.

It is noted that Performance Outcomes PO3 is not relevant to the development proposal. As such, this Performance Outcomes have not been considered in the following assessment of the Bushfire hazard overlay code.

Table 9: Bushfire hazard overlay code

Performance Outcomes	Development Compliance
For assessable development	
Water supply for fire-fighting purposes	
PO1 Development where within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' maintains the safety of people and property by providing adequate, accessible and reliable water supply for fire-fighting purposes which is safely located and has sufficient flow and pressure characteristics.	Water supply will be provided via a bore. Fire hydrants will be installed as part of the development in accordance with requirements in accessible locations.
Land use	
PO2 Development within a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)' is appropriate to the bushfire hazard risk having regard to the: a) the bushfire risk compatibility of development; b) the vulnerability of and safety risk to persons associated with the use; and c) consequences of bushfire in regard to impacts on essential infrastructure, buildings and structures.	The subject land is currently used for agricultural purposes including an existing packing facility. the proposed new development is considered consistent with existing uses on the land and in the immediate vicinity and does not pose an additional bushfire risk.
Firebreaks and access	
PO4 In a 'Bushfire hazard area' and 'Potential impact buffer (100 metres)', vehicular access is designed to mitigate against bushfire hazard by: a) ensuring adequate access for fire-fighting and other emergency vehicles; b) ensuring adequate access for the evacuation if residents and emergency personnel in an emergency situation, including alternative safe access routes should access in one direction be blocked in the event of a fire; and c) providing for separation of developed areas and adjacent bushland.	Existing access from the Chewko Road to the subject land will not change. The existing access is considered adequate access for fire-fighting purposes.
Hazardous materials	
PO5 Public safety and the environment are not adversely affected by the detrimental impacts of bushfire of hazardous materials manufactured or stored in bulk.	The proposed development does not involve the manufacture or storage of hazardous materials in bulk.

Performance Outcomes	Development Compliance
Landscaping	
PO6 Landscaping within a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' does not result in a material increase in the extent, duration or severity of bushfire hazard having regard to: a) fire ecology; b) slope of site; and c) height and mix of plant species.	The proposed development is located on rural land in the rural zone. Existing landscaping will be retained.
Infrastructure	
PO7 Infrastructure services located in a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' are protected from damage or destruction in the event of a bushfire.	Infrastructure services are located on the site such that they are sufficiently removed from any bushfire threat.
Private Driveways	
PO8 All premises located in a 'Bushfire hazard area' and a 'Potential impact buffer (100 metres)' are provided with vehicular access that enables safe evacuation for occupants and easy access by fire-fighting appliances.	The existing access from the development site to Chewko Road will remain unchanged.

The proposed development is considered to comply with the Performance Outcomes of the Bushfire hazard overlay code having regard to the Acceptable Outcomes. It is therefore considered that the development meets the purpose of the Code.

8.0 POTENTIAL IMPACTS AND MITGATION MEASURES

The establishment of a second packing/processing shed on the subject land will not result in any additional impacts on the surrounding locality.

The proposed development is considered consistent with rural and agricultural uses in the locale and is an appropriate land use on the subject land. Existing access to the development from Chewko Road will be maintained.

The development is provided with an on-site effluent system which will be upgraded if necessary. Water will be provided via bore water. A padmount for a transformer will be provided to supply electricity to the packing/processing shed. Telecommunications infrastructure is provided to the property.

The desktop Traffic Assessment indicates that the proposed development will have negligible impacts on the surrounding road network. Existing car parking and bus parking areas will be retained.

9.0 RECOMMENDATIONS AND CONCLUSIONS

Having regard to the facts and circumstances outlined in this Report, it is hereby recommended that Mareeba Shire Council approve the Development Application for a Material Change of Use for Rural Industry (packing and processing shed) at 1687 Chewko Road, Chewko.

It is considered that Council can reasonably approve the Development Application, subject to reasonable and relevant Conditions on the following grounds:

- The proposed complements and supports existing rural and agricultural land uses in the locale.
- The proposed development is considered consistent with the provisions of the Mareeba Shire Planning Scheme – Alignment Amendment 2017.
- The subject land is of sufficient area to accommodate the second packing/processing shed.
- The development is connected to appropriate infrastructure services including on-site effluent disposal and bore water.

In accordance with the above, the proposal is hereby recommended to Mareeba Shore Council for its favourable consideration.

FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

APPENDIX: A

DEHP's CLR & EMR - Lot 515 on NR6791

Department of Environment and Heritage Protection (EHP)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.ehp.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50432272 EMR Site Id: 23 January 2018
This response relates to a search request received for the site:
Lot: 515 Plan: NR6791

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if EHP has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if EHP has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

Administering Authority

FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

APPENDIX: B

Survey Plan - Lot 515 on NR6791

101 P.8

FOLDED OR MUTILATED PLANS WILL BE REJECTED - PLAN MAY BE ROLLEI

D.M.S. Form S.B.9

POR. Nº	TENURE
~~80, 515~~	~~A.F. 2203~~
80	A.F. 2203 A L
515	A.F. 2203 B L

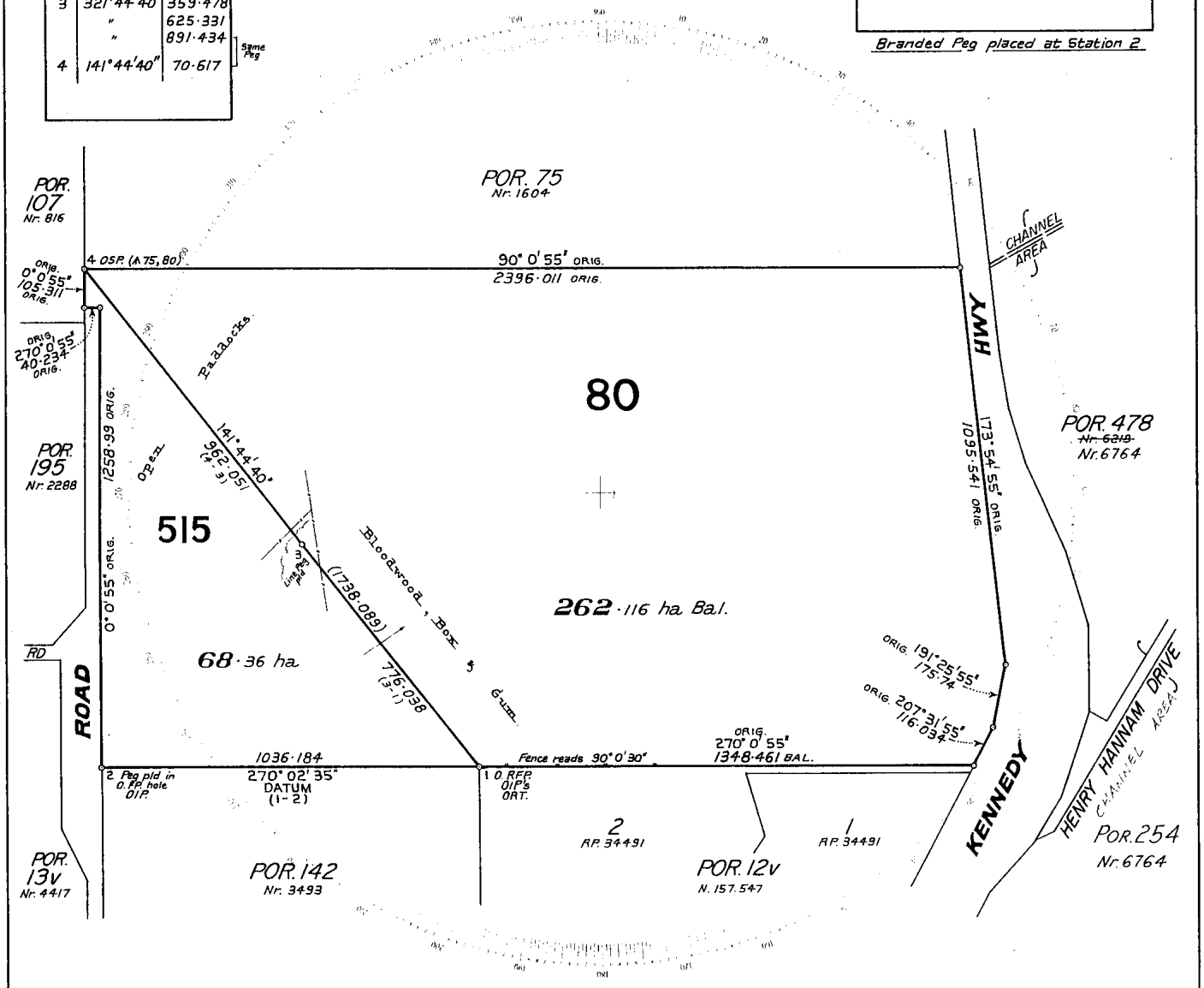
REFERENCE MARKS

STN	TO	BEARING	DIST.	BRAND
1	O/P.	0° 01'	0·604	
	"	21° 40'	1·912	(Noted & Checked)
	ORT.	253° 14'	14·27	∧ I
2	O/P.	270° 02'	1·006	
3	Pin	231° 44'	0·833	
4	Pin	184° 30'	1·255	
	Box	134° 54'	9·423	∧ 80, 515

Branded Peg placed at Station 2

LINE PEGS

STN	BEARING	DIST.	
1	270° 02' 35"	500·787	
1	321° 44' 40"	108·715	
	"	367·488	
	"	651·006	Same Peg
3	141° 44' 40"	125·032	
3	321° 44' 40"	359·478	
	"	625·331	
	"	891·434	Same Peg
4	141° 44' 40"	70·617	



For Additional Plan & Document Notings Refer to CISP

Original Information compiled from Nr. 1604 and Nr. 3493 in the Department of Mapping and Surveying.

DRAWING OF PLAN MUST BE RESTRICTED TO THE SPACE INSIDE THE BLUE LINES

DRAWING OF PLAN MUST BE RESTRICTED TO THE SPACE INSIDE THE BLUE LINES

I, Cecil Ross Hunter hereby certify that I/the company have surveyed the land comprised in this plan (either personally or by personally for whose work I/the company accept responsibility), that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act 1977 and the Surveyors Regulations 1978 and that the said survey was completed on 15.12.1980

Licensed Surveyor

Date: 22.12.1980

SURVEY RECORDS NOT LODGED

MERIDIAN

LINE	PLAN BEARING	A.M.G. BEARING
Meridian of Nr. 3493		

PLAN OF Portions 80 & 515

SCALE 1 : 10 000

AUTHORITY	D.M.S. REF.	DRAWN	REGISTERED	CHARTED	MAP REF.
F.2203 Cairns	81 K2/42	A.R.L. 19.12.80	S.J.B. 16.2.81	L.R.B.	P.M. Sh. 2 7065-11

PARISH TINAROO

County Nares

L.A. District Cairns

PLAN Nr. 6791

FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

APPENDIX: C

Title Search - Lot 515 on NR6791

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 27811836
Search Date: 23/01/2018 14:49 **Title Reference: 21378106**
Date Created: 11/11/1988

REGISTERED OWNER

Dealing No: 714591576 26/07/2012

HOWE FARMING ENTERPRISES PTY LTD A.C.N. 099 827 791

ESTATE AND LAND

Estate in Fee Simple

LOT 515 CROWN PLAN NR6791
Local Government: MAREEBA

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
   Deed of Grant No. 21378106 (Lot 515 on CP NR6791)

2. MORTGAGE No 715012567 03/04/2013 at 13:57
   NATIONAL AUSTRALIA BANK LIMITED A.B.N. 12 004 044 937

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

Requested By: D-ENQ CITEC CONFIRM

FLANAGAN CONSULTING GROUP
Trusted Advisor to Northern Australia

APPENDIX: D

MSC - Development Application Decision Notice 2001/252

FORM 6 – DEVELOPMENT APPLICATION DECISION NOTICE

Integrated Planning Act 1997 S3.5.15

Approval No. 2001/252

OWNER: Howe Farming Co P/L
Chewko Road
WALKAMIN 4872

APPLICANT: Howe Farming Co P/L
Chewko Road
WALKAMIN 4872

BUILDER: A Floreancie
2 Country View
ATHERTON
REG NO.: 78163

BILLING NO. 7478

FULL SITE ADDRESS: Lot 515 Kennedy Highway, MAREEBA 4880

PROPERTY DESCRIPTION: Lot 515 NR6791, Parish Tinaroo

Dear Applicant/Submitter/Referral Agency.

The Development Application No. APB/168/01/BK to construct a new packing shed at Lot 515 Kennedy Highway, MAREEBA 4880 was assessed and approved with conditions.

The decision was made on 27 December, 2001.

The following schedule provides all the relevant details.

(1) **Referral agencies**
Concurrence Agencies
name and address _____

Advice Agency
name and address _____

(2) **Conditions of approval** See Attachment

Concurrence Agency
Conditions _____

(3) **Reasons for refusal if applicable**
Explanation of refusal
See *Section 3.5.15(2) (e) of IPA* _____

(4) **Approval Type**

☐ Preliminary Approval _____

☒ Development Permit _____

(5) **Further Development Permits**
Required if applicable _____

(6) **Rights of Appeal**
See appeal provisions attached _____

(7) **Certifying Officer** **Lew Rojahn** **Acting Chief Executive Officer**

Signature _____ 27 December, 2001

(8) **Assessment Manager:** **Mareeba Shire Council**

LAPSE OF APPROVAL

The approval for building shall become void if the work is not commenced within two (2) years after the date on which this approval is given. Building work relating to demolition or relocation must be commenced within two (2) months of the approval being given and completion within six (6) months. However the currency period for any development work may be extended by written application to the Local Authority as per Part 5 of the *Integrated Planning Act 1997.*

NOMINATED CONDITIONS WHICH MAY APPLY TO YOUR APPROVAL

(1) Noise from Building Works is only permitted between the hours of 6.30am and 6.30pm Monday to Saturday inclusive.

(2) Cut and fill batters are to comply with Section 52 and 54 of Part 4 of the Standard Building Regulations.

(3) Roof stormwater to be taken to kerb and channelling or other legal point of discharge.

(4) Before the use is commenced, adequate provision shall be made for the drainage and retainment of the site to the satisfaction of Council's Building Surveyor. Such drainage shall be designed and constructed in accordance with design standards adopted by Council from time to time to convey waters that flow on or through the site to a lawful point of discharge that will not cause damage, nuisance or annoyance to other landowners.

(5) Termite Control: Before work commences a specification is to be submitted to Council and at the time of Final Inspection a durable notice must be located in a prominent location (i.e. Meter Box) indicating the following:-

(a) The method of protection; and

(b) The date of installation of the system; and

(c) Where a chemical barrier is used, its life expectancy as listed on the National Registration Authority label; and

(d) The installer's or manufacturer's recommendation for the scope and frequency of future inspection for termite activity

(e) As per part B1.3 i (ii) of the Building Code of Australia

(6) Smoke alarms to be installed and must comply with Part 3.7 of the Building Code of Australia and the appropriate installation Certificate be provided at the time of Final Inspection.

(7) Wet area waterproofing Certificate to be provided at the time of Final Inspection.

(8) Engineered frame or roof Certificate to be provided at the time of Final Inspection.

(9) Glazing certificate which complies with AS1288and AS 2208 to be provided at the time of Final Inspection.

AT LEAST 48 HOURS NOTICE MUST BE GIVEN PRIOR TO ALL INSPECTIONS

The following inspections will be required for your building project:

FOOTINGS

UNDERSLAB PLUMBING

FLOOR

PLUMBING/DRAINAGE

SEPTIC TANK AND TRENCHES/SEWER CONNECTION

BONDBEAM

FRAMEWORK

FINAL

Application No.:	APB/168/01/BK
Full site address:	Lot 515 Kennedy Highway, MAREEBA 4880
Owner or Builder's Name:	Howe Farming Co P/L

Please phone or fax for inspections on:-

Phone: (07) 40 303 954 **Fax:** (07) 40 303 978

"Under the *Integrated Planning Act 1997*, the applicant and the referral agency have a right to appeal against this decision to the Planning and Environment Court (Section 4.1.27) or a Building Development Tribunal, (Section 4.2.9, 4.2.10). The relevant provisions are as follows:-

APPEAL PROVISIONS

Division 3 – Appeals to tribunals relating to development applications

Appeals by Applicants

4.2.9 (1) An applicant for a development application may appeal to a tribunal against the following:-

(a) the refusal, or the refusal in part, of a development application;
(b) a matter stated in a development approval, including any condition applying to a development, but not including the identification of a code under section 3.1.6;
(c) the decision to give a preliminary approval when a development permit was applied for;
(d) the length of a currency period;
(e) a deemed refusal.

(2) An appeal under subsection (1) (a) to (d) must be started within 20 business days (the **"the applicant's appeal period"**) after the day the decision notice or negotiated decision notice is given to the applicant.

(3) An appeal under subsection (1) (e) may be started at any time after the last day a decision on the matter should have been made.

Appeal by Advice Agency

4.2.10 (1) An advice agency may, within the limits of its jurisdiction, appeal to a tribunal about the giving of a development approval if the development application involves code assessment for the aspect of building works to be assessed against the *Building Act 1975*.

(2) The appeal must be started within 10 business days after the day the decision notice or negotiated decision notice is given to the advice agency.

Division 8 - Appeals to court relating to development applications

Appeals by Applicants

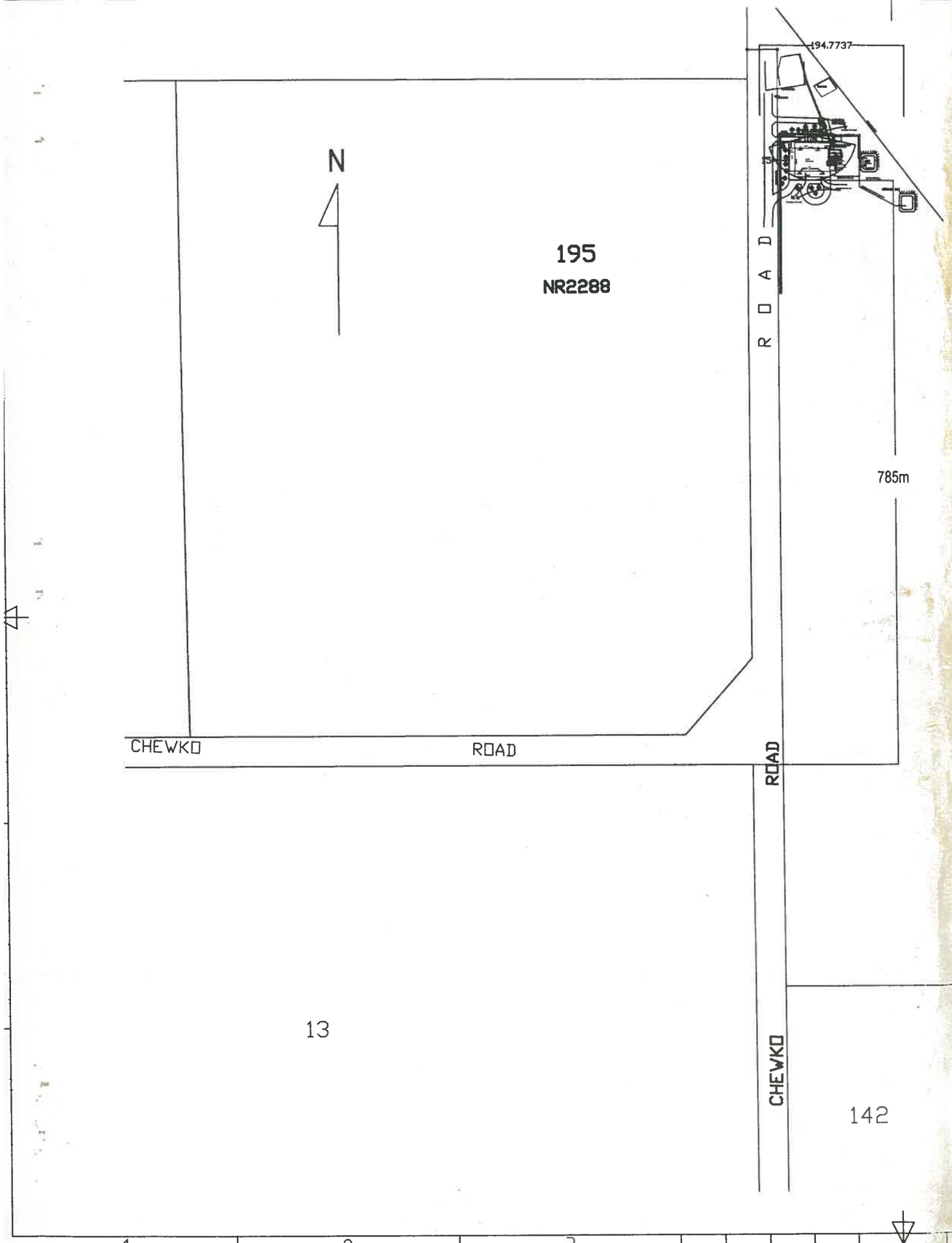
4.1.27 (1) An applicant for a development application may appeal to the court against any of the following:-

(a) the refusal, or the refusal in part, of a development application;
(b) a matter stated in a development approval, including any condition applying to the development, and the identification of a code under section 3.1.6;
(c) the decision to give a preliminary approval when a development permit was applied for;
(d) the length of a currency period;
(e) a deemed refusal.

(2) An appeal under subsection (1) (a) to (d) must be started within 20 business days (the **"applicant's appeal period"**) after the day the decision notice or negotiated decision notice is given to the applicant.

(3) An appeal under subsection (1) (e) may be started at any time after the last day a decision on a matter should have been made.

RevNo	Revision note	Date	Signature	Checked



Notes

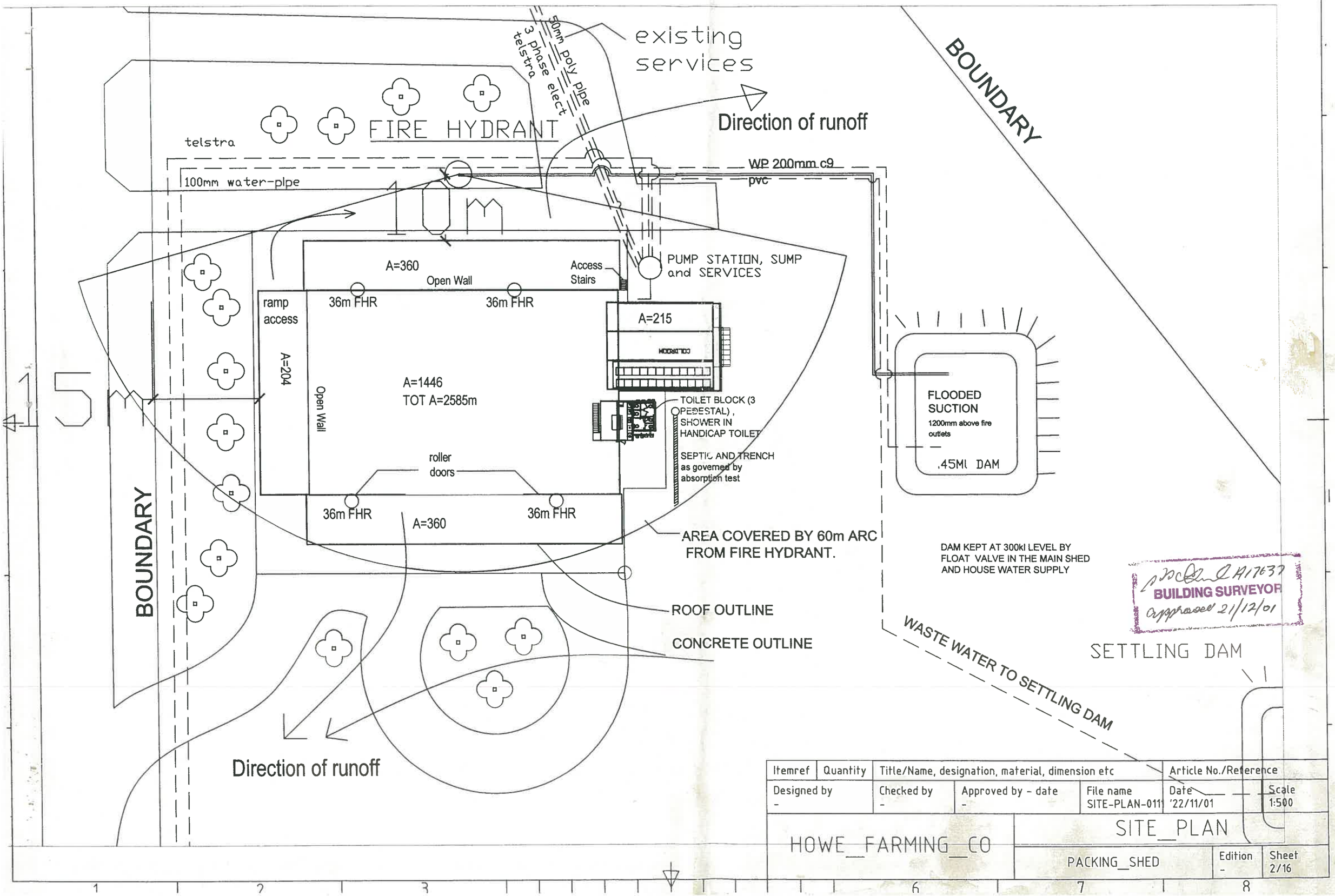
1. Shed to be used to pack our own bananas and avocados.
2. During the peak of the avocado season will employ up to 30 people in the shed.
3. The Fire Hydrant will be a 150mm female Storz fitting with blanking cap and valve.
It will be located 10m north of the middle of the northern edge of the shed. A 60m radius from there covers virtually all of the shed. It is beside the truck access road so has all weather access. The water is supplied from a 450kl turkey nest dam located near the shed at a height of 1.2m above the fire hydrant. Water delivery is via a 200mm class 9 PVC pipe fed from a screened flooded suction in the dam. The dam water will also be used for washing down banana bunches prior to dehanding (4l/sec)so it will be maintained. It will be kept full by a 2 l/sec valve at the full level and by an APEX PVC 2 LEVEL 50mm FLOAT VALVE, (13.3l/s @ 689kpa) at the 300kl level. This will ensure that there is always >300kl of water for fire emergencies.
The fresh water supply is 10 l/sec from 2 bores and does not use the shed power supply.
4. 4 by 36m Fire Hose Reels will be installed in readily accessable locations. These will be used for washdown purposes as well as be available in emergencies.
5. Washdown water (shed and banana bunches) will be trapped in an under floor drain and will be pumped into a settling dam after which it can be recycled for irrigation water.
6. Any chemicals used (fruit fly control, fungicides etc) will be recycled and disposed of when no longer usefull by spraying on the orchard.
7. The septic trench will head south from the shed into Tolga type krazonen soil so absorption should not be a problem. This will be determined by the plumber. There are no permanent creeks nearby. The nearest gullies are 200m from the septic tank.
7. All steel work to be hot-dip galvanised

R Condell A17637
BUILDING SURVEYOR
approved 21/12/01

Itemref	Quantity	LOT515 NR6791			Article No./Reference	
Designed by		Checked by	Approved by - date	File name	Date	Scale
_		_	_	SITE-PLAN-011	22/11/01	1:6000

HOWE_FARMING_CO	SHED_LOCATION		
	PACKING-SHED	Edition	Sheet
		_	1/16

RevNo	Revision note	Date	Signature	Checked

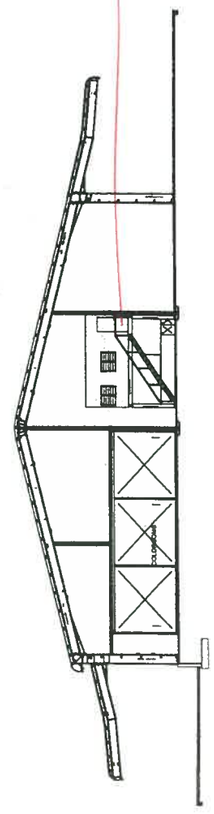


Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference
Designed by -	Checked by -	Approved by - date -	File name SITE-PLAN-011	Date '22/11/01	Scale 1:500

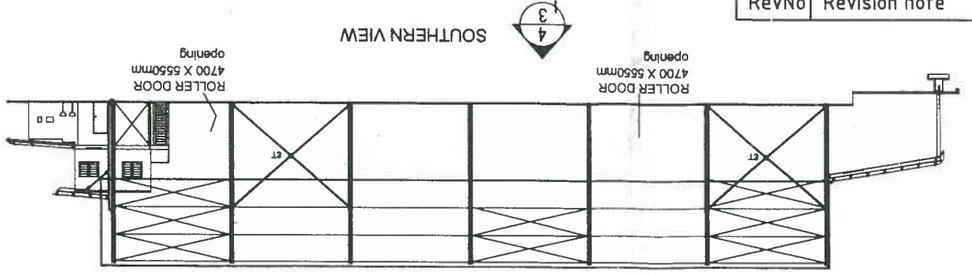
HOWE_FARMING_CO	SITE_PLAN		
	PACKING_SHED	Edition -	Sheet 2/16

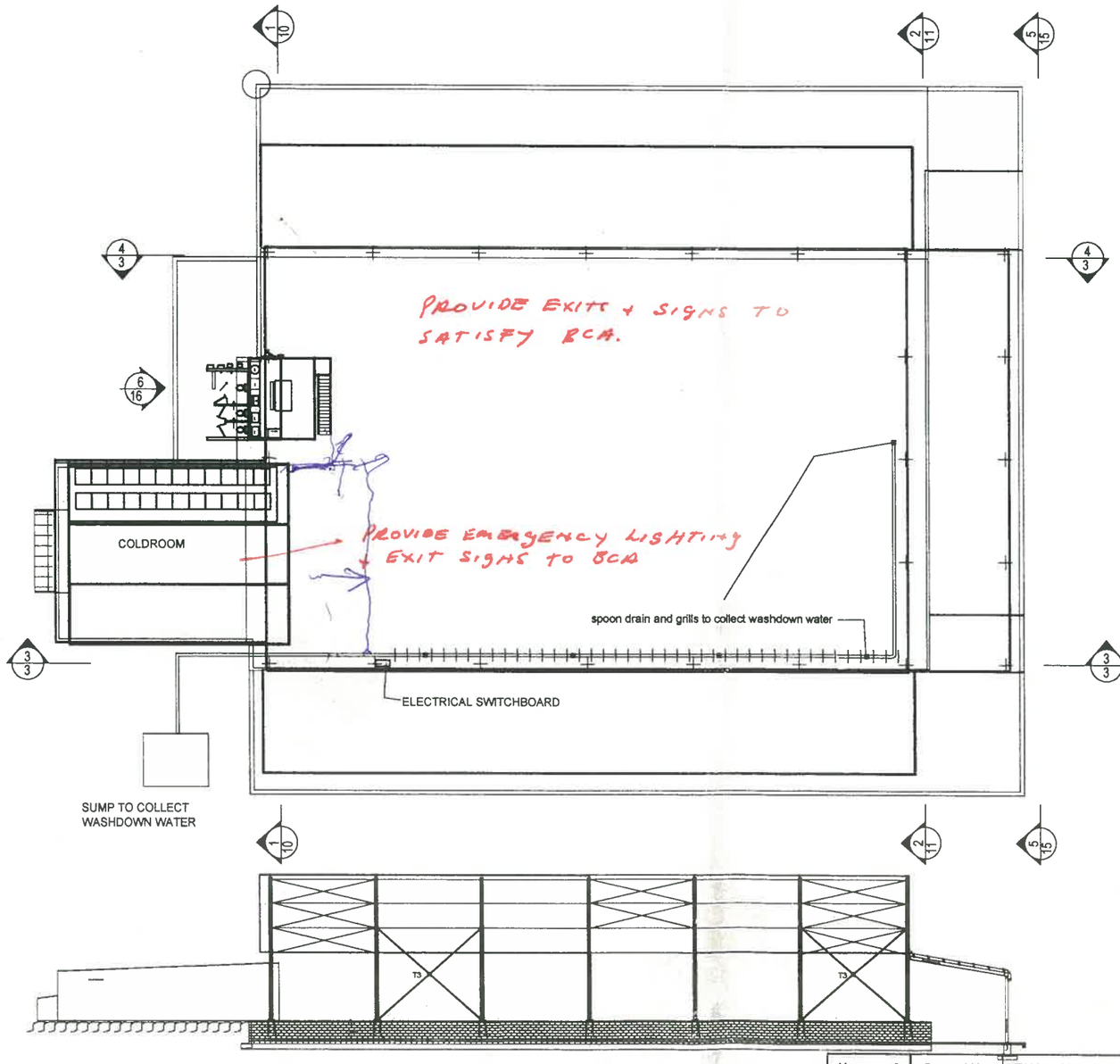
RevNo	Revision note	Date	Signature	Checked

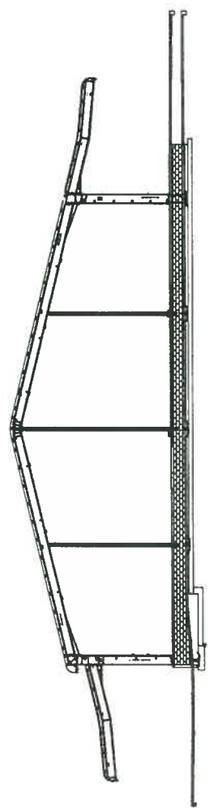
1 Ms HIGH HANDRAILS TO BCA REQUIREMENT BALUSTRADE ETC



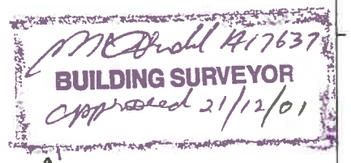
SECTION 4/3 EAST WALL







ELEVATION. WEST WALL



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Trevor S. Adil
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Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference
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HOWE_FARMING_CO

SHED_LAYOUT

PACKING_SHED

Edition	Sheet
-	3/16

RevNo	Revision note	Date	Signature	Checked

N

DATUM PEG

0

-1593

7800 7800 7800 7800 7800 7800 7368

P1 P1 P1 P1 P1 P1 P1

GL1

-1541

-1593

-2144

P4

P3

P3

P4

P4

P4

P4

P3

P4

-2257

-2693

P4

7492 7492 7492 7492 7492 693

35458

34550

7492

96

1250

1450

3550

1338

13777

4798

1207

693

42

45

DETAIL
P1--Sheet 7
P2--Sheet 6
P3--Sheet 7
P4--Sheet 8

1234 DENOTES COMPACTED SOIL LEVELS AT BASE OF FOOTING RELATIVE TO DATUM PEG WHICH IS ZERO AT TOP OF CONCRETE AT PIER P1

Footing for Amenities
As per Edge Beam(sheet 6)
Y12 starters @ 800 centres

DETAIL SF3
Sheet 8

-1541

-1716

-2141

-1900

5350

-2241

2251

47749

800

P2 P2 P2 P2 P2 P2 P2

-2241

-2241

DETAIL SF1-A
Sheet 6

DETAIL SF1-B
Sheet 6

DETAIL SF-2
Sheet 8

-2141

800

48251

5644

1724

56419

1693
400

McArdle A17637
BUILDING SURVEYOR
Approved 21/12/01

18.12.01

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HOWE_FARMING_CO

FOOTINGS_PLAN

PACKING_SHED

Edition
-

Sheet
4/16

RevNo	Revision note	Date	Signature	Checked

71184

1500 | 8780 | 6121 | 49319 | 6965

edge beam 300 x 300mm 1 layer TM11 3 bar

-253 -253 -253

-211

-1593

RAMP UP 840mm (15%)

-175 -175

-259 -300

P1 P1 P1 P1 P1 P1 P1

P4 -1068

-xxxx Denotes level of compacted fill below concrete relative to datum peg where 0 is concrete level at Pier P1. Formwork levels are fill levels +175mm

-259 P3 -209

-209 P3 P4 -1105

slab level -800

125mm 32Mpa concrete, 1 layer F72 mesh, 40mm top cover, 200um Visqueen vapour barrier

-300 P3 -243

-243 P3 P4 -1144

125mm 32Mpa concrete, 1 layer F72 mesh, 40mm top cover, 200um Visqueen vapour barrier

Saw Cuts 30mm deep @ 6000mm centres (fill with approved polysulphide joint Sealant)

Construction Joints 7800mm centres

-287 P3 P4 -1182

-1205

RAMP UP 470mm (11%)

-350 -317 -327 -1676

-327 -1676 -1676

slab level -1350

DETAIL EDGE-BEAM Sheet 7

-1726 -1726

12588 | 15065 | 24468 | 3403 | 6000 | 3650 | 1999 | 9044

26037 | 12464 | 4230 | 9018

51748 | 6071 | 847 | 11718 | 471

1500 | 14219 | 56965

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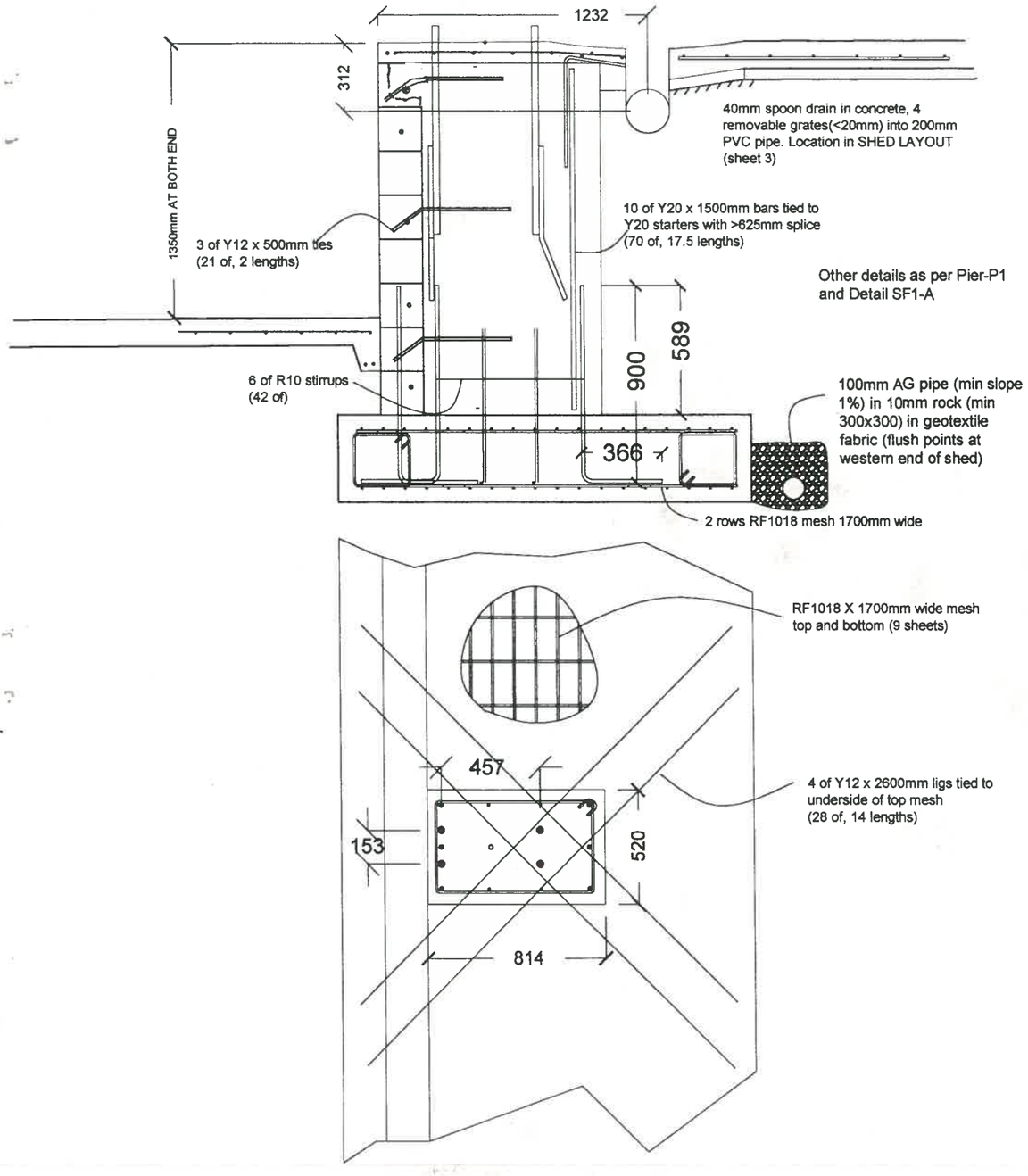
HOWE_FARMING_CO

SLAB_PLAN

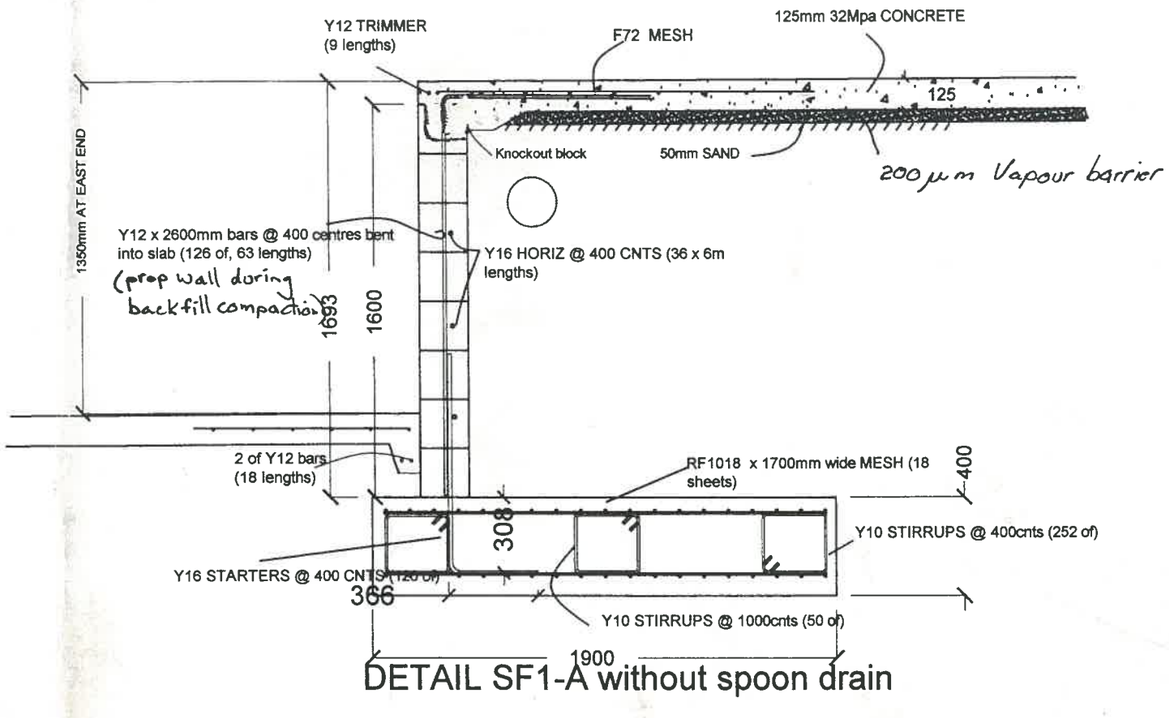
PACKING_SHED | Edition - | Sheet 5/18

RevNo	Revision note	Date	Signature	Checked

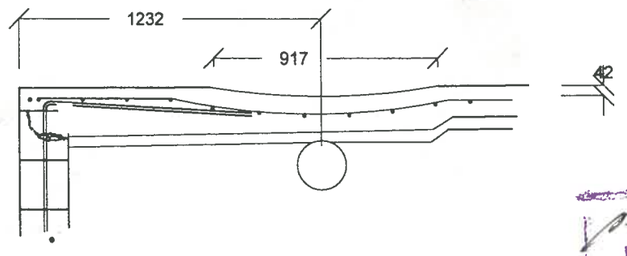


DETAIL SF1-B

DETAIL-PIER-P2



DETAIL SF1-A without spoon drain



DETAIL SF1-A with spoon drain

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BUILDING SURVEYOR
Approved 21/12/01

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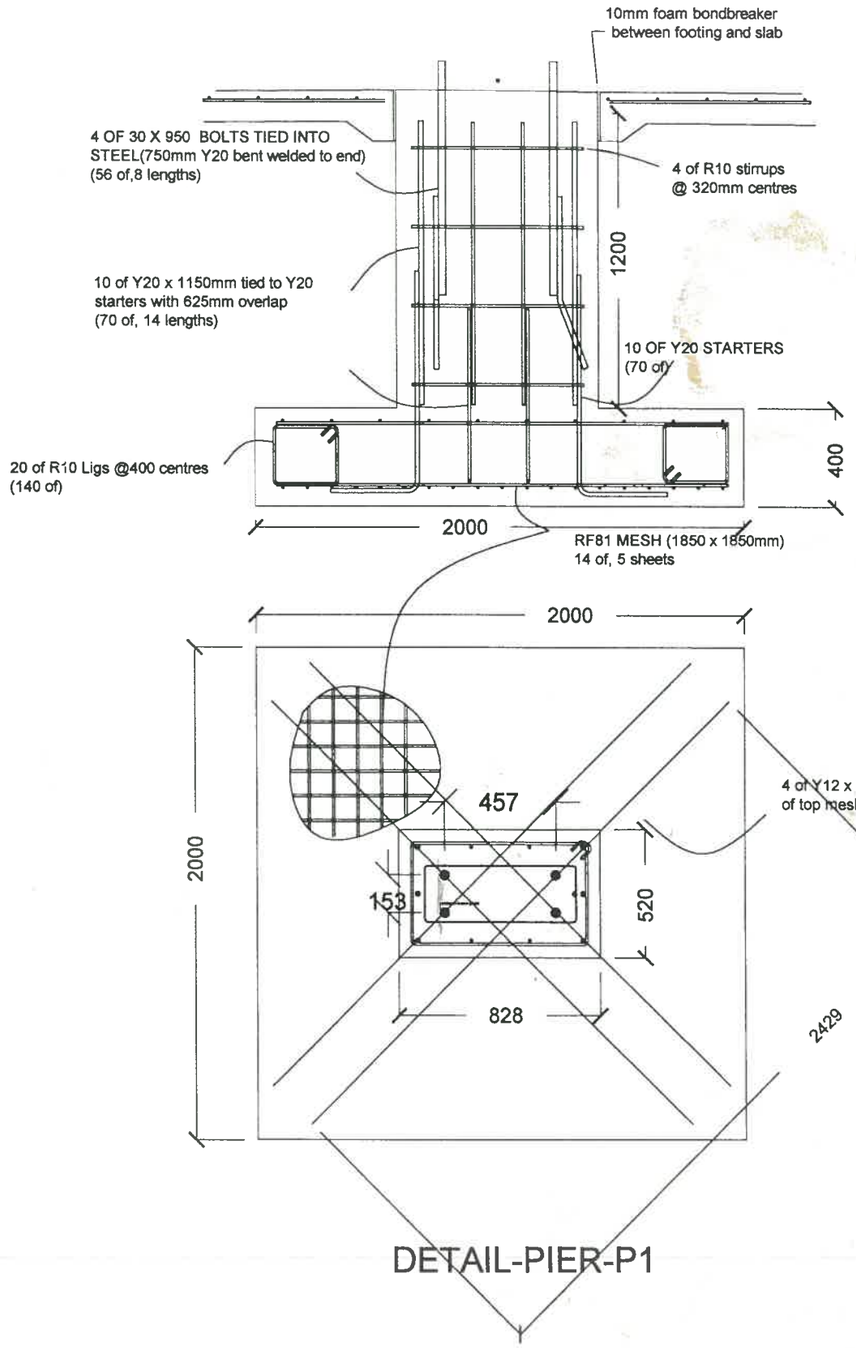
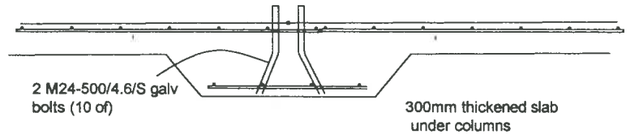
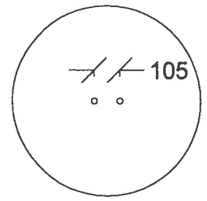
Itemref	Quantity	LOT515 NR6791			Article No./Reference	
Designed by -		Checked by -	Approved by - date -	File name SHED-311001	Date 22/11/01	Scale 1:25
HOWE_FARMING_CO			FOOTINGS_DETAIL_1			
			PACKING_SHED		Edition _	Sheet 6/16

RevNo	Revision note	Date	Signature	Checked

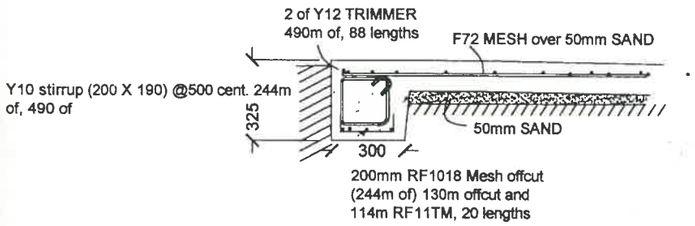


DETAIL-PIER-P1





DETAIL-PIER-P3



DETAIL EDGEBEAMS

Arnold Hirst
BUILDING SURVEYOR
Approved 21/12/01

TH 13.12.01

Trevor S. Adil
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I E Aust

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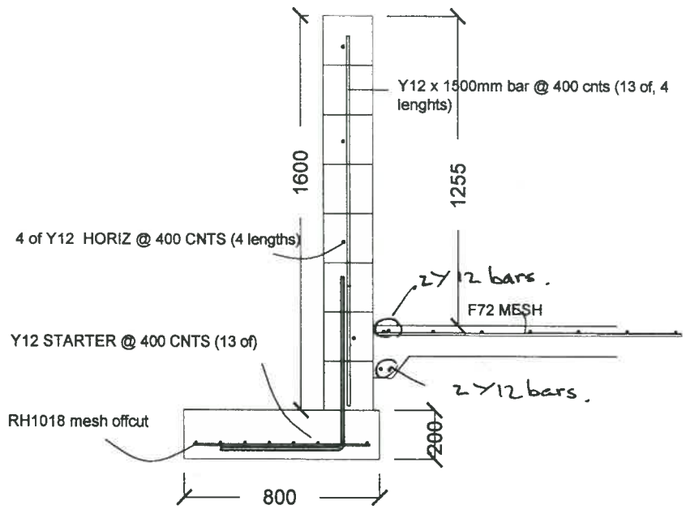
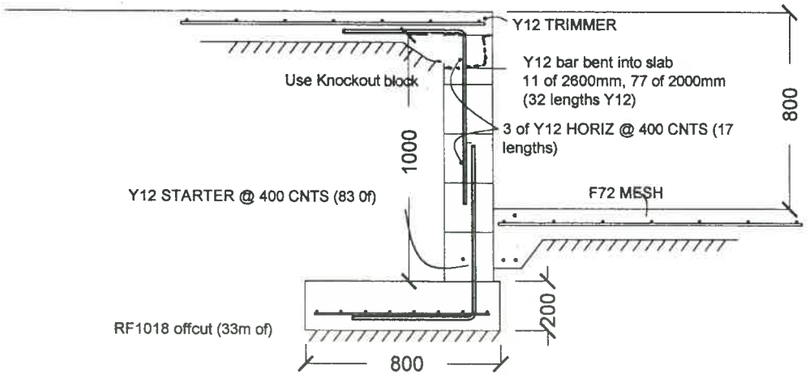
Designed by		Checked by	Approved by - date	File name	Date	Scale
_		_	_	SHED_311001	22/11/01	1:25

HOWE_FARMING_CO	FOOTING_DET_2		
	PACKING_SHED	Edition	Sheet
		_	7/16

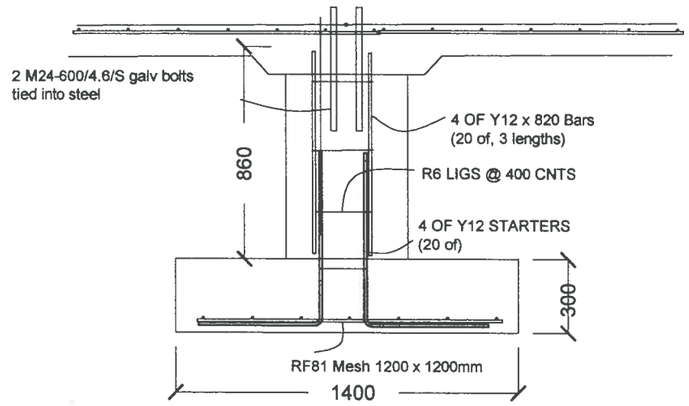
RevNo	Revision note	Date	Signature	Checked

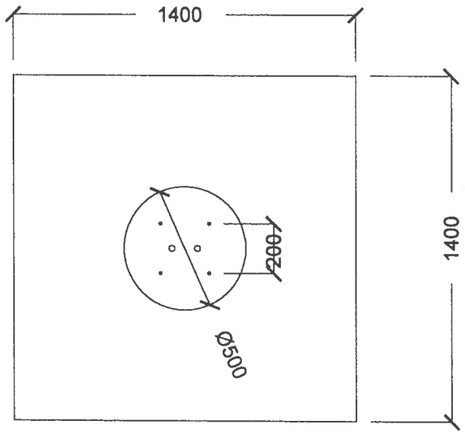


DETAIL-SF2



DETAIL-SF3





DETAIL-PIER-P4

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BUILDING SURVEYOR
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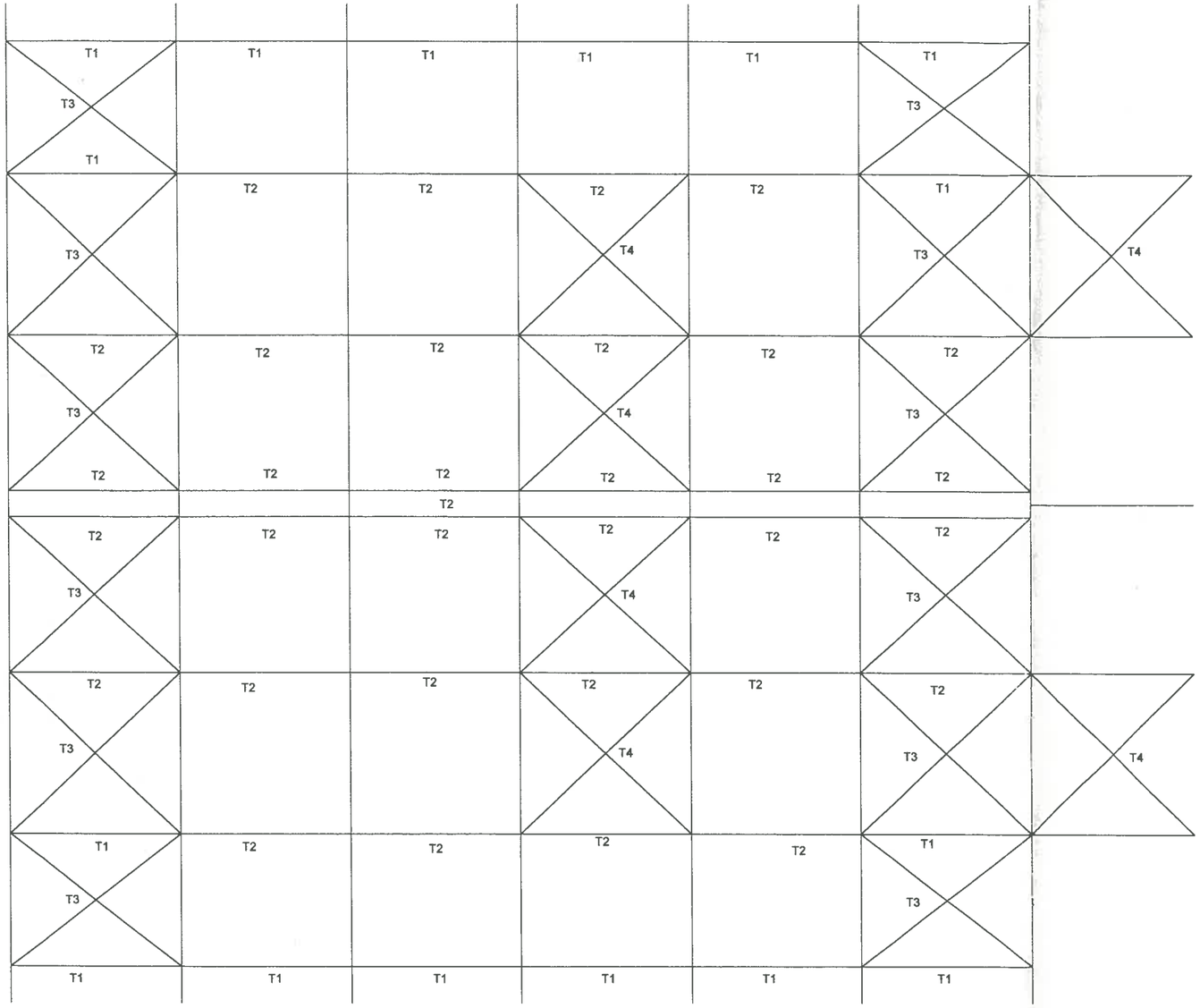
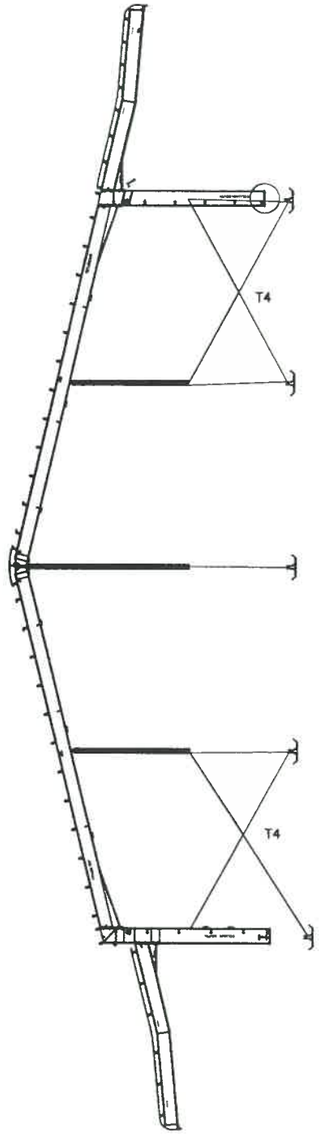
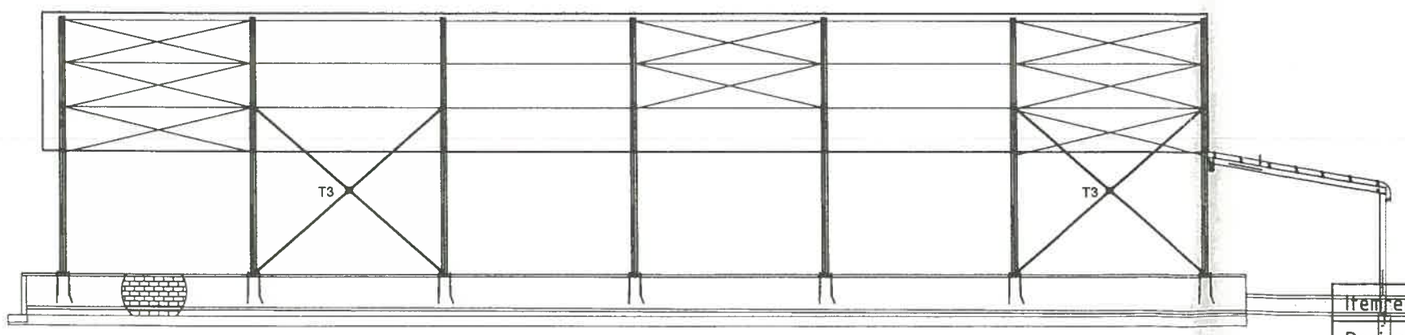
Designed by		Checked by	Approved by - date	File name SHED-311001	Date 22/11/01	Scale 1:25
HOWE_FARMING_CO				FOOTING_DET_3		
				PACKING_SHED	Edition	Sheet 8/16

RevNo	Revision note	Date	Signature	Checked







TUBE & DIAG BRACING
T1 125 X 125 X 4mm SHS
T2 100 X 100 X 4mm SHS
T3 30mm ROUND BAR
T4 20mm ROUND BAR

M Arnold A17637
BUILDING SURVEYOR
Approved 21/12/01

18.12.01

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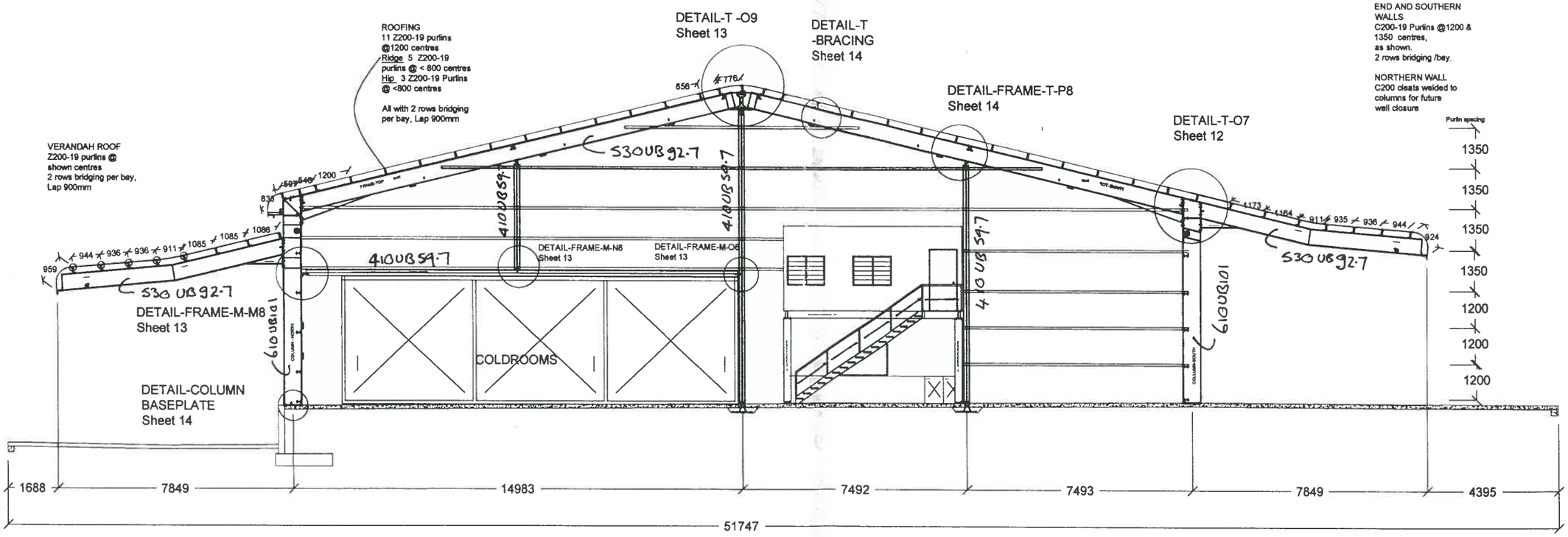
Item/ref	Quantity	LOT515 NR6791			Article No./Reference
Designed by —	Checked by —	Approved by - date —	File name SHED_311101	Date DATE	Scale 1:250

HOWE_FARMING_CO

BRACING_DETAILS

PACKING_SHED | Edition — | Sheet 9/16

RevNo	Revision note	Date	Signature	Checked



EAST WALL

(SECTION)

BUILDING SURVEYOR
Approved 21/12/01

Trevor S. Adil
MIEAust CPEng
Chartered Professional Engineer
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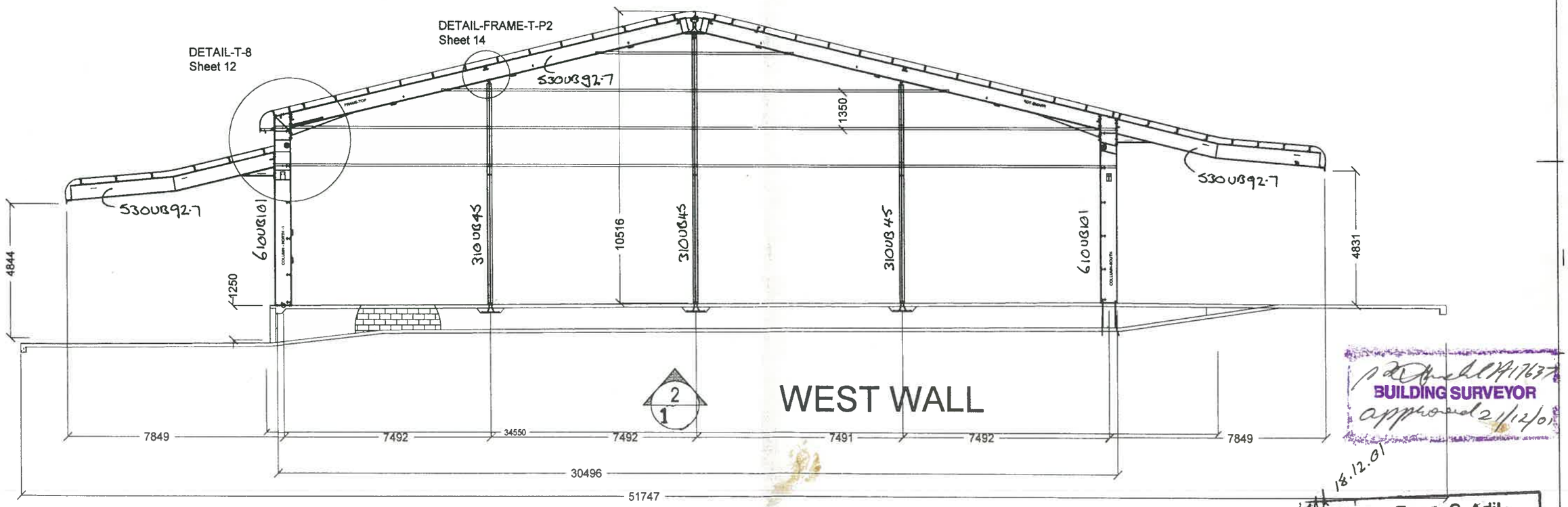
The Institution of Engineers, Australia
18.12.01

Itemref	Quantity	LOT515 NR6791			Article No./Reference	
Designed by		Checked by	Approved by - date	File name	Date	Scale
—		—	—	SHED_311001	22/11/01	1:150

HOWE_FARMING_CO	EAST_WALL		
	PACKING_SHED	Edition	Sheet 10/16

RevNo	Revision note	Date	Signature	Checked



P2 Adil PA17637
BUILDING SURVEYOR
approved 21/12/01

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Trevor S. Adil
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Chartered Professional Engineer
Membership No. 371004
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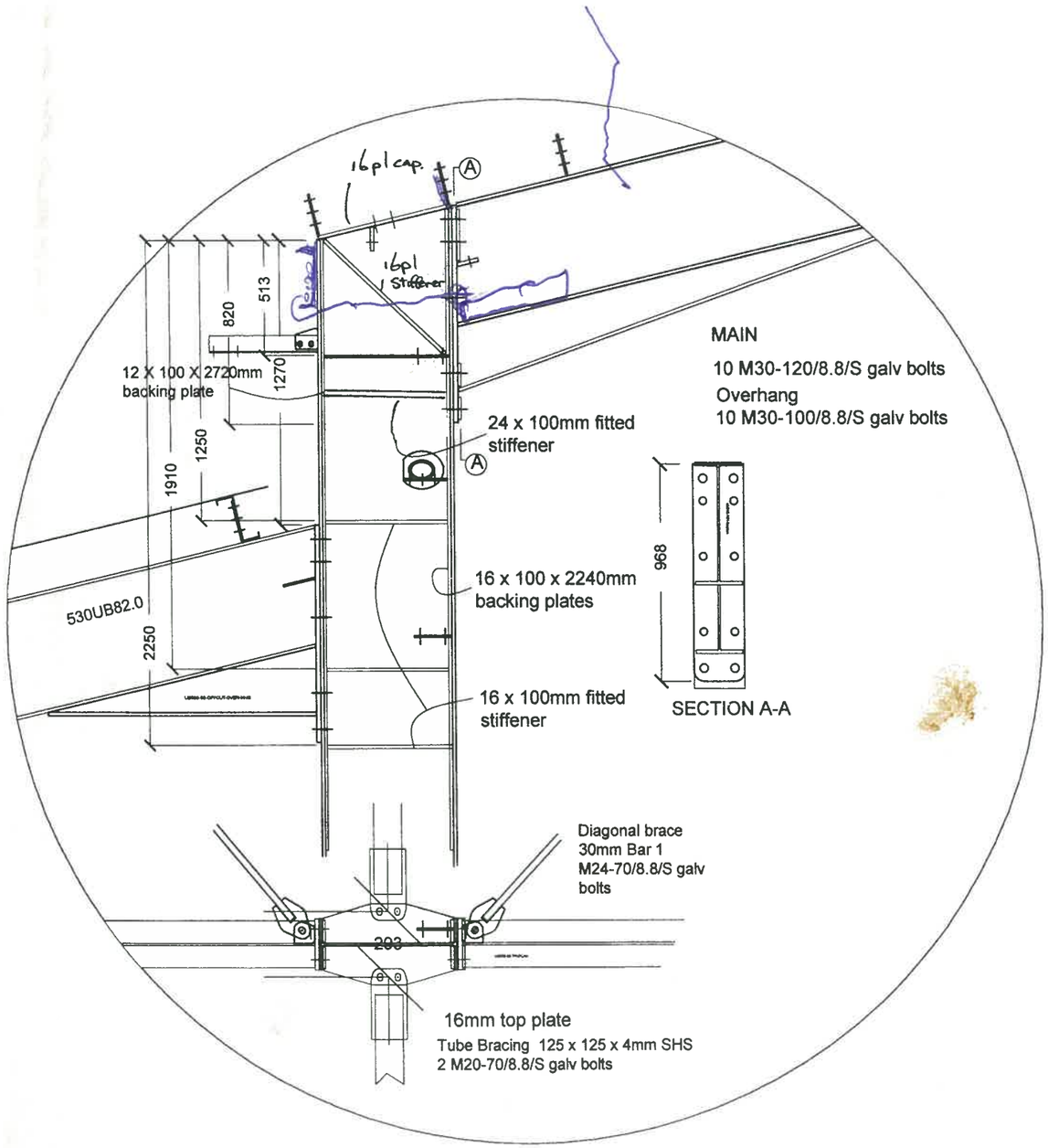
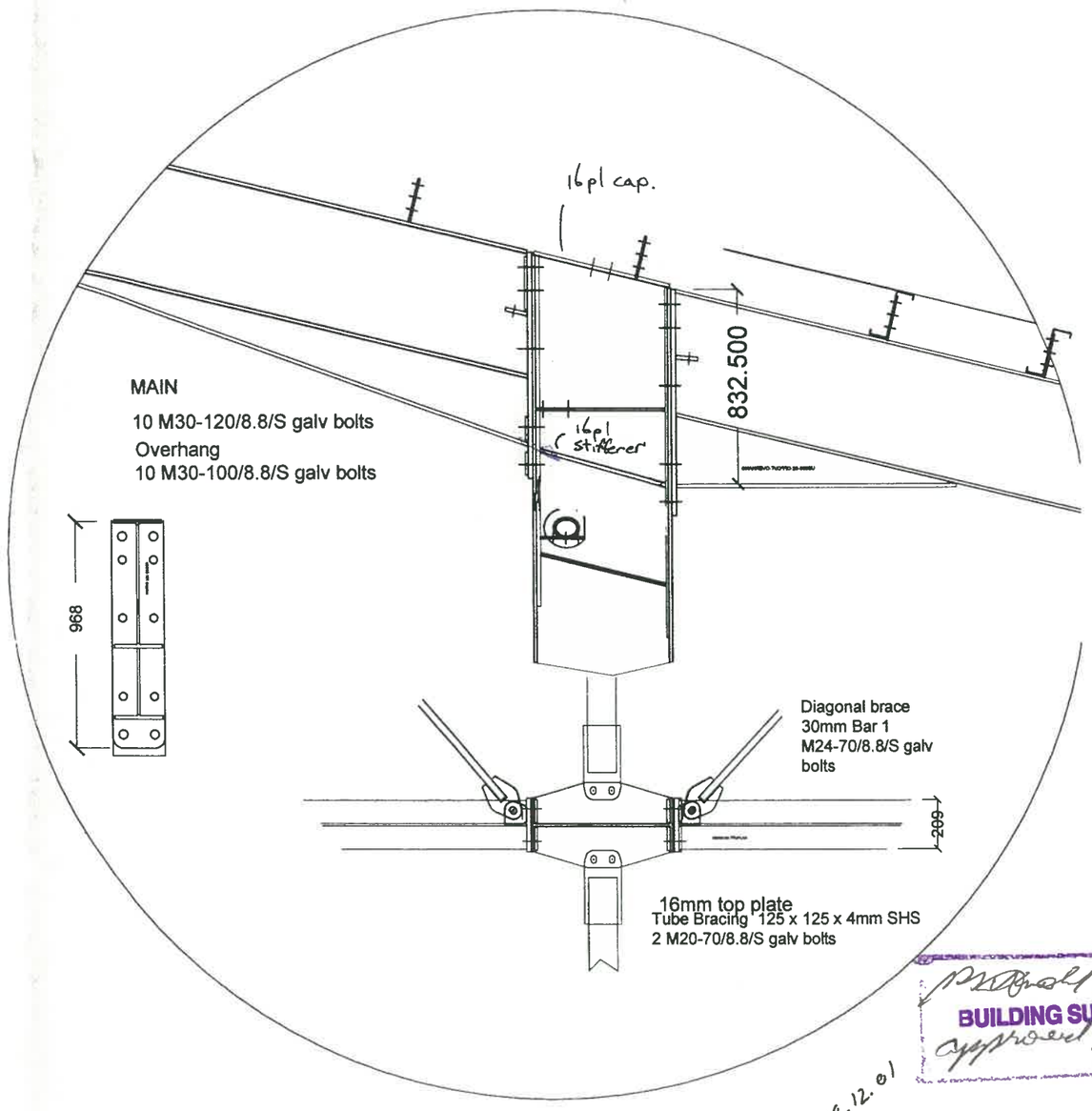
Itemref	Quantity	LOT 515 NR6791			Article No./Reference	
Designed by: —		Checked by: —	Approved by - date: —	File name: SHED_311001	Date: 22/11/01	Scale: 1:150
HOWE_FARMING_CO		WEST_WALL				
PACKING_SHED					Edition: —	Sheet: 11/16

RevNo	Revision note	Date	Signature	Checked



DETAIL-T-M8



DETAIL-T-07

NOTE
ALL WELDS UNLESS OTHERWISE STATED SHALL BE 10MM FILLET WELDS

BUILDING SURVEY
Approved 21/12/01

18.12.01

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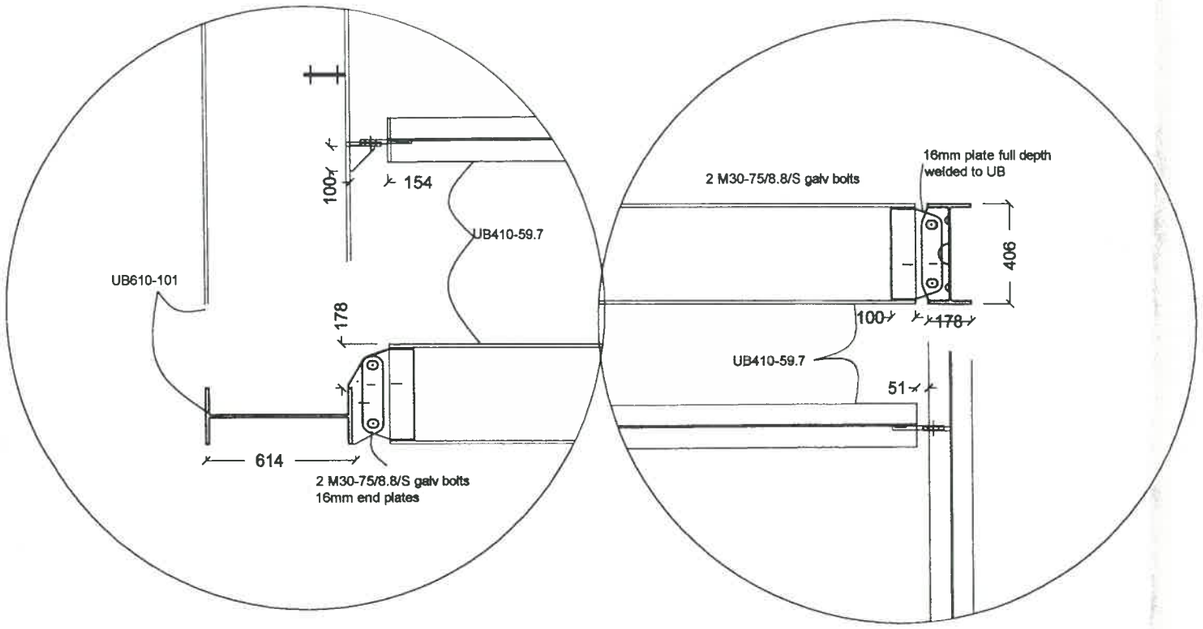
Itemref	Quantity	LOT515 NR6791			Article No./Reference	
Designed by		Checked by	Approved by - date	File name	Date	Scale
—		—	—	SHED_311001	22/11/01	1:25
HOWE_FARMING_CO		JOINT_DET_1				
		PACKING_SHED			Edition	Sheet
					—	12/16

RevNo	Revision note	Date	Signature	Checked



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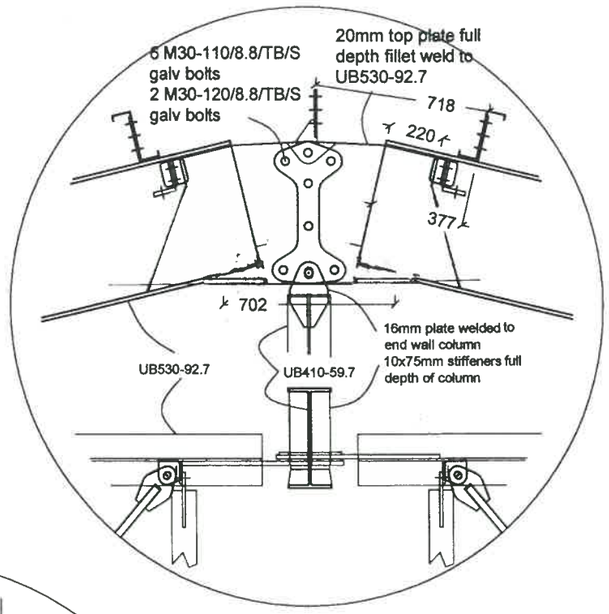

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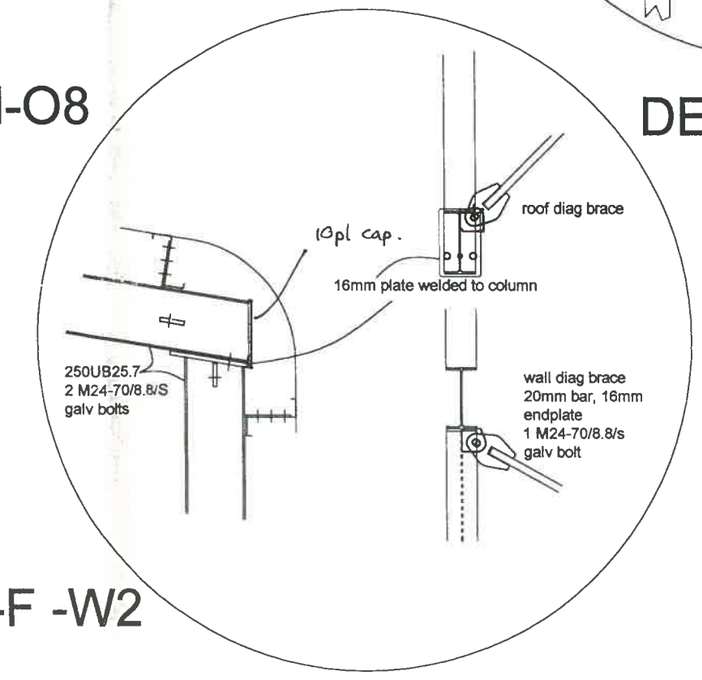
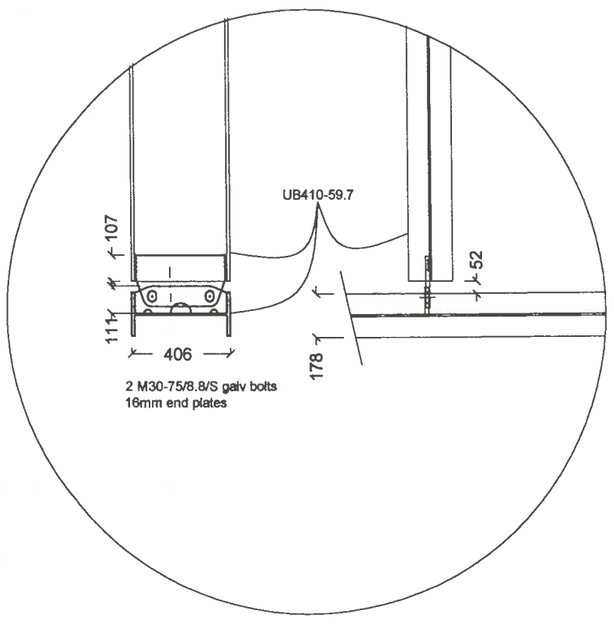


DETAIL-F -W2



DETAIL-FRAME-M-N8

DETAIL-FRAME-M-O8

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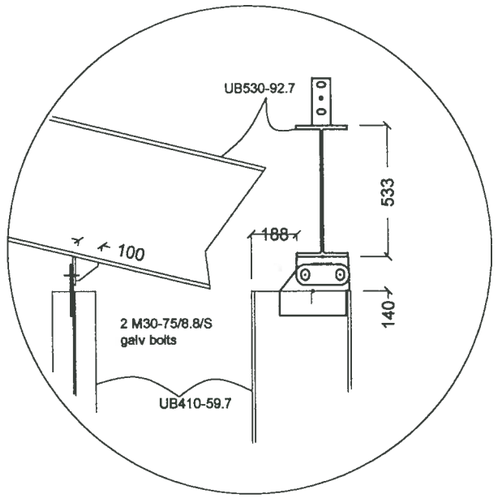
Itemref	Quantity	LOT515 NR6791			Article No./Reference	
Designed by		Checked by	Approved by - date	File name	Date	Scale
—		—	—	SHED_311001	22/11/01	1:25
HOWE_FARMING_CO		JOINT_DET_2				
		PACKING_SHED			Edition	Sheet
					—	13/16

RevNo	Revision note	Date	Signature	Checked



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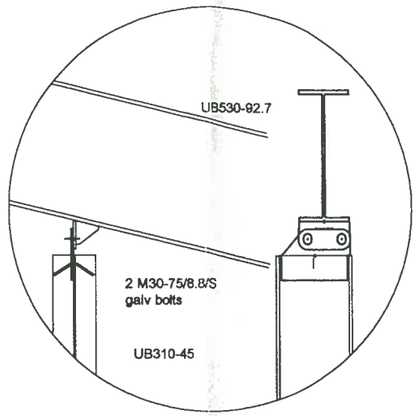

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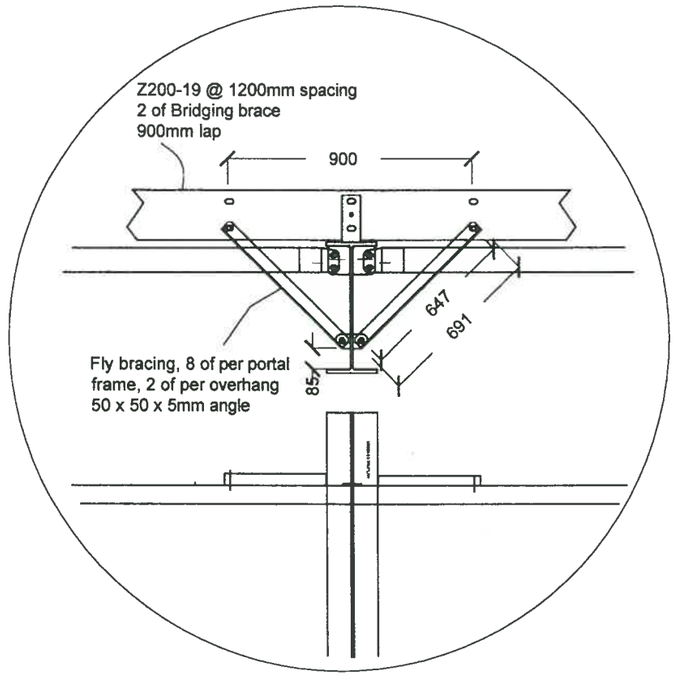

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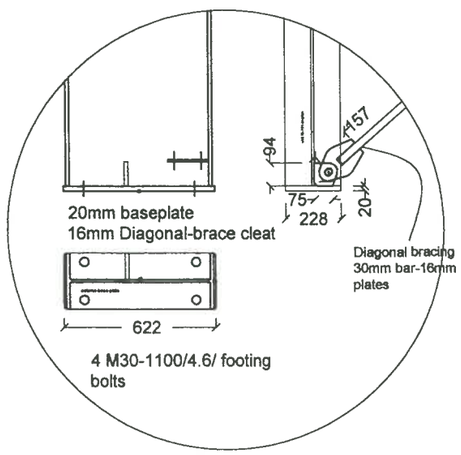
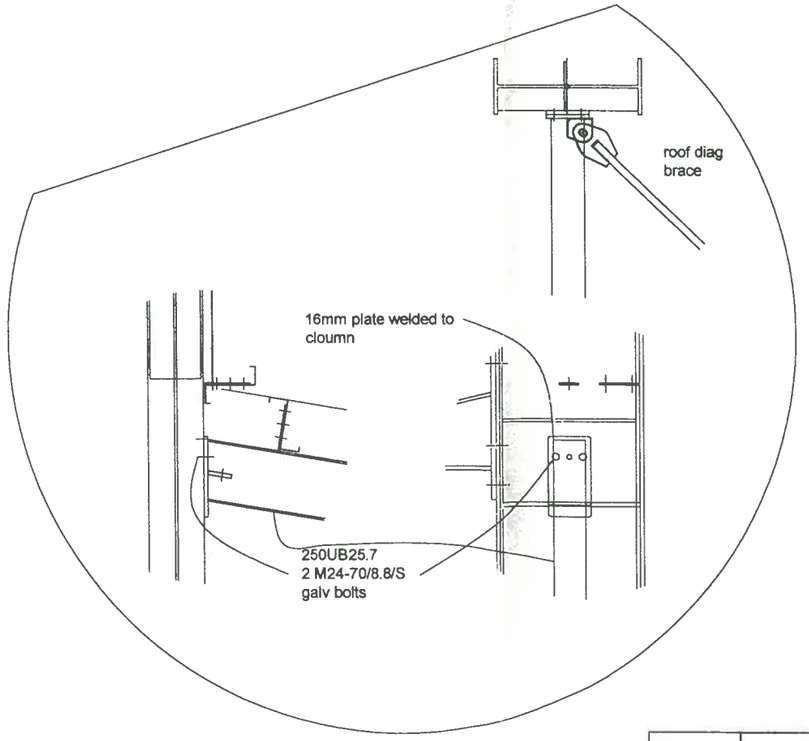


DETAIL-COLUMN-BASEPLATE



DETAIL-F-W1

18.12.01
BUILDING SURVEY
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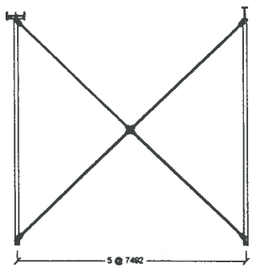
Designed by	Checked by	Approved by - date	File name	Date	Scale
_	_	_	SHED_311001	22/11/01	1:25

HOWE_FARMING_CO

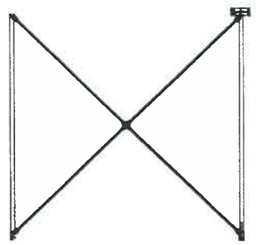
JOINT_DET_3

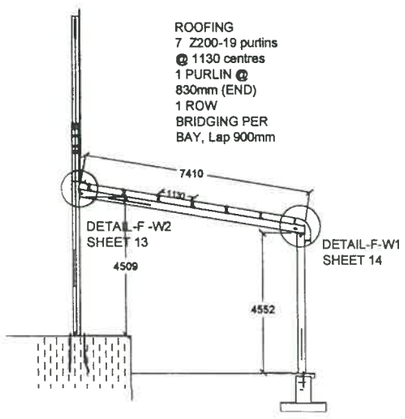
PACKING_SHED | Edition _ | Sheet 14/16

RevNo	Revision note	Date	Signature	Checked

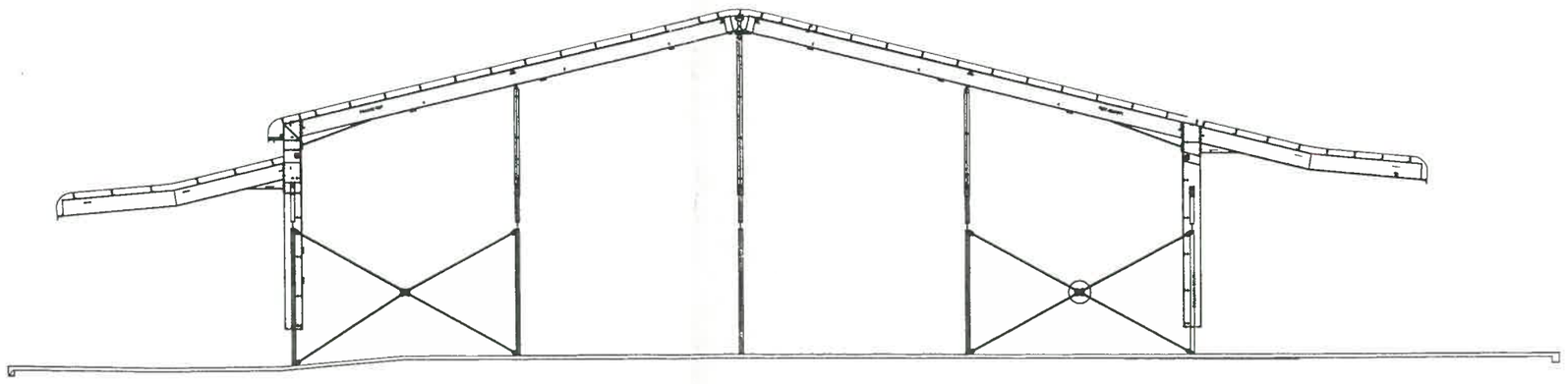


PLAN





SIDE ELEV



END ELEVATION

5
15

UNLOADING BAY

13.12.01 PRDnaly A17637
BUILDING SURVEYOR
approved 21/12/01

Trevor S. Adil
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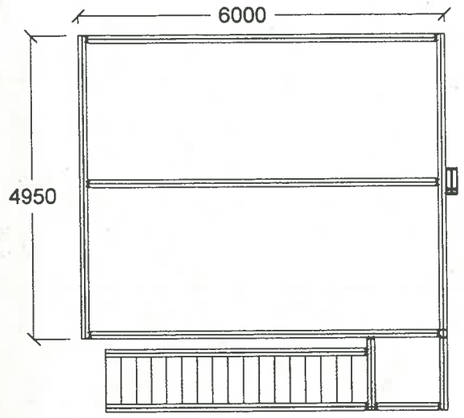
Designed by -		Checked by -	Approved by - date -	File name SHED-311001	Date 22/11/01	Scale 1:200

HOWE_FARMING_CO	UNLOADING_BAY		
	PACKING_SHED	Edition -	Sheet 15/16

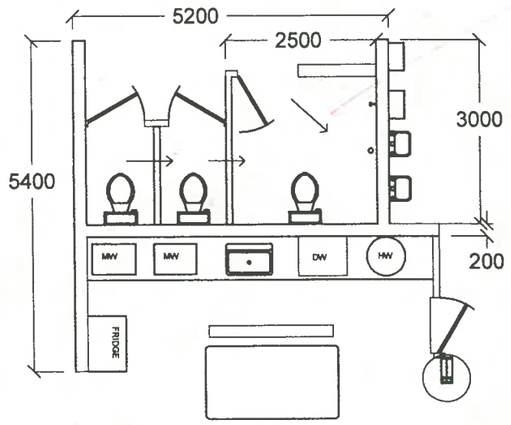
RevNo	Revision note	Date	Signature	Checked

SEE REQUIREMENTS OF AS 1428.1 + AS 1428.1 SUPPLEMENT FOR PROPER POSITIONING OF PEDESTAL & GRABRAILS.

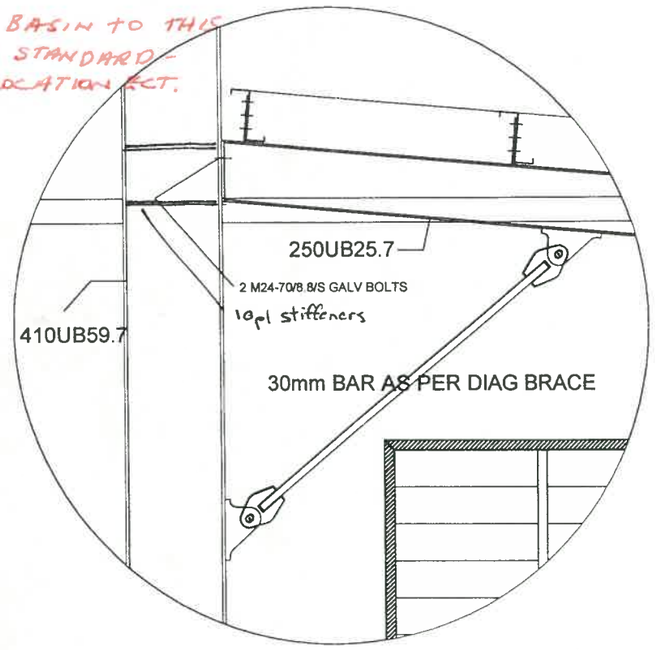
ALSO PROVIDE BASIN TO THIS ROOM PER THE STANDARD - NO HEIGHT & LOCATION SPECT.



AMENITIES FIRST FLOOR

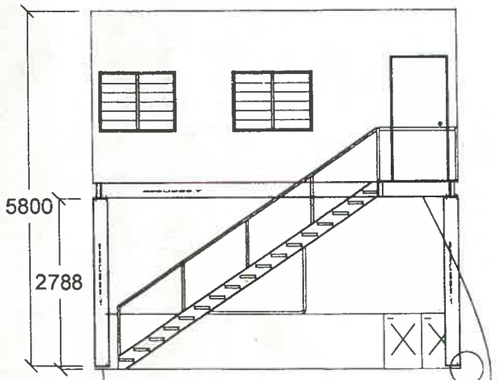


AMENITIES GROUND FLOOR



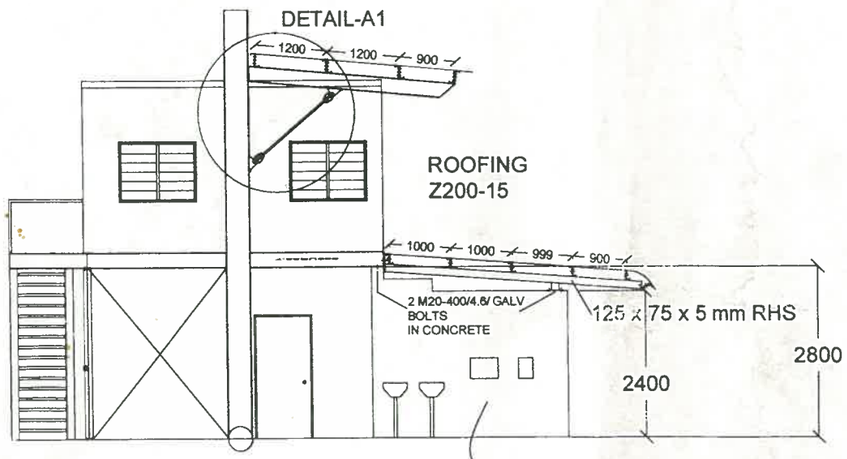
DETAIL-A1 SCALE1:25

PANEL (75mm) OFFICE FROM NORFOAM (pre fabricated)



250UB25.7 FLOOR FRAME AND COLUMNS

AMENITIES WEST ELEV



AMENITIES SOUTH ELEV

CONC BLOCK CONCRETE FILLED, Y12 HORIZ @600 CENTRES

18.12.01

National A17637
BUILDING SURVEYOR
Approved 21/12/01

Trevor S. Adil
MIEAust CPEng
Chartered Professional Engineer
Membership No. 371004
The Institution of Engineers, Australia

6
16

AMENITIES AND OFFICE

Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference	
Designed by -		Checked by -	Approved by - date -	File name SHED-311001	Date 22/1/01	Scale 1:100

HOWE_FARMING_CO	AMENITIES_AND_OFFICE		
	PACKING_SHED	Edition -	Sheet 16/16

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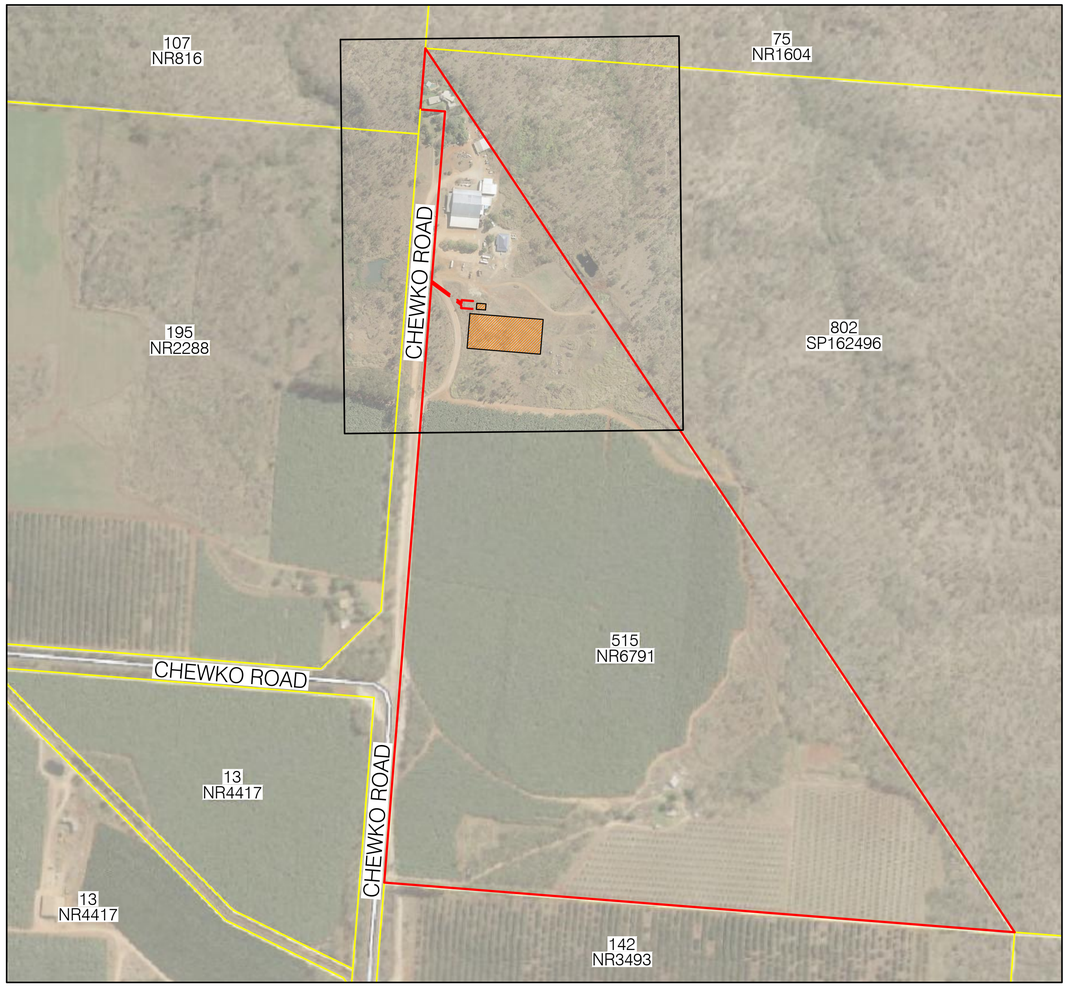
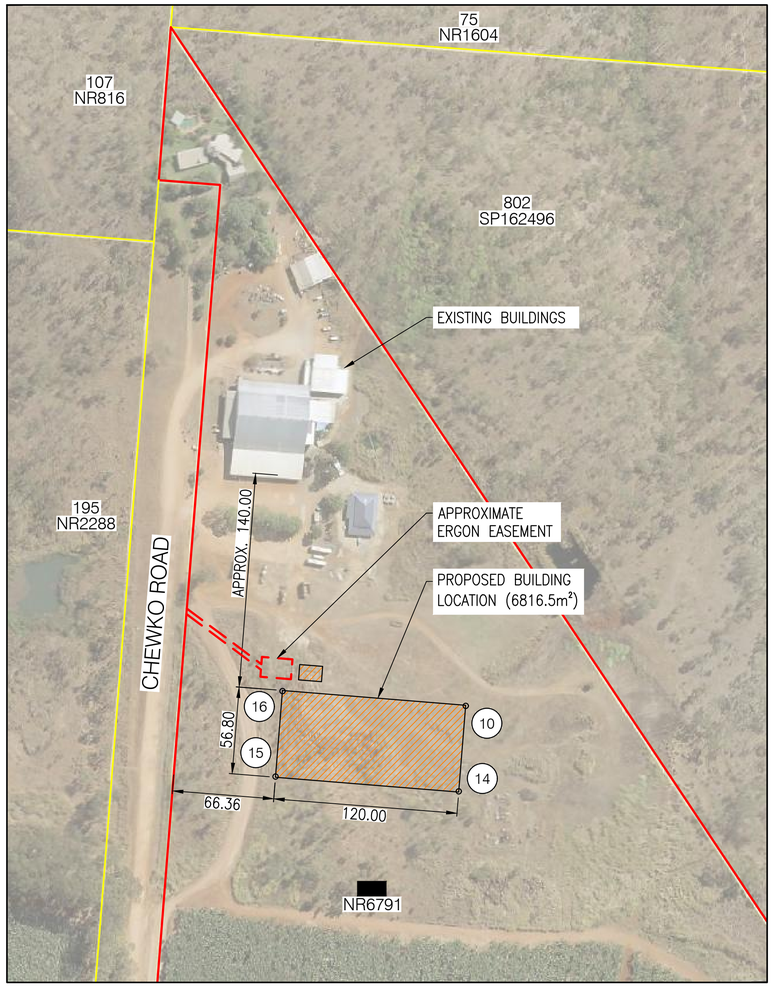
APPENDIX: E

Site Plan and Development Plans

Notes



SITE PLAN
SCALE: 1:5000



BUILDING LAYOUT
SCALE: 1:2000

LEGEND

- EXISTING LOT BOUNDARIES
- SITE BOUNDARY
- EASEMENT BOUNDARY
- PROPOSED BUILDING LOCATION

SETOUT POINTS

POINT	EASTING	NORTHING
16	331149.710	8109419.470
10	331269.322	8109409.825
14	331264.821	8109354.006
15	331145.209	8109363.651

0 50 100 150 200 250m 1:5000

0 20 40 60 80 100m 1:2000

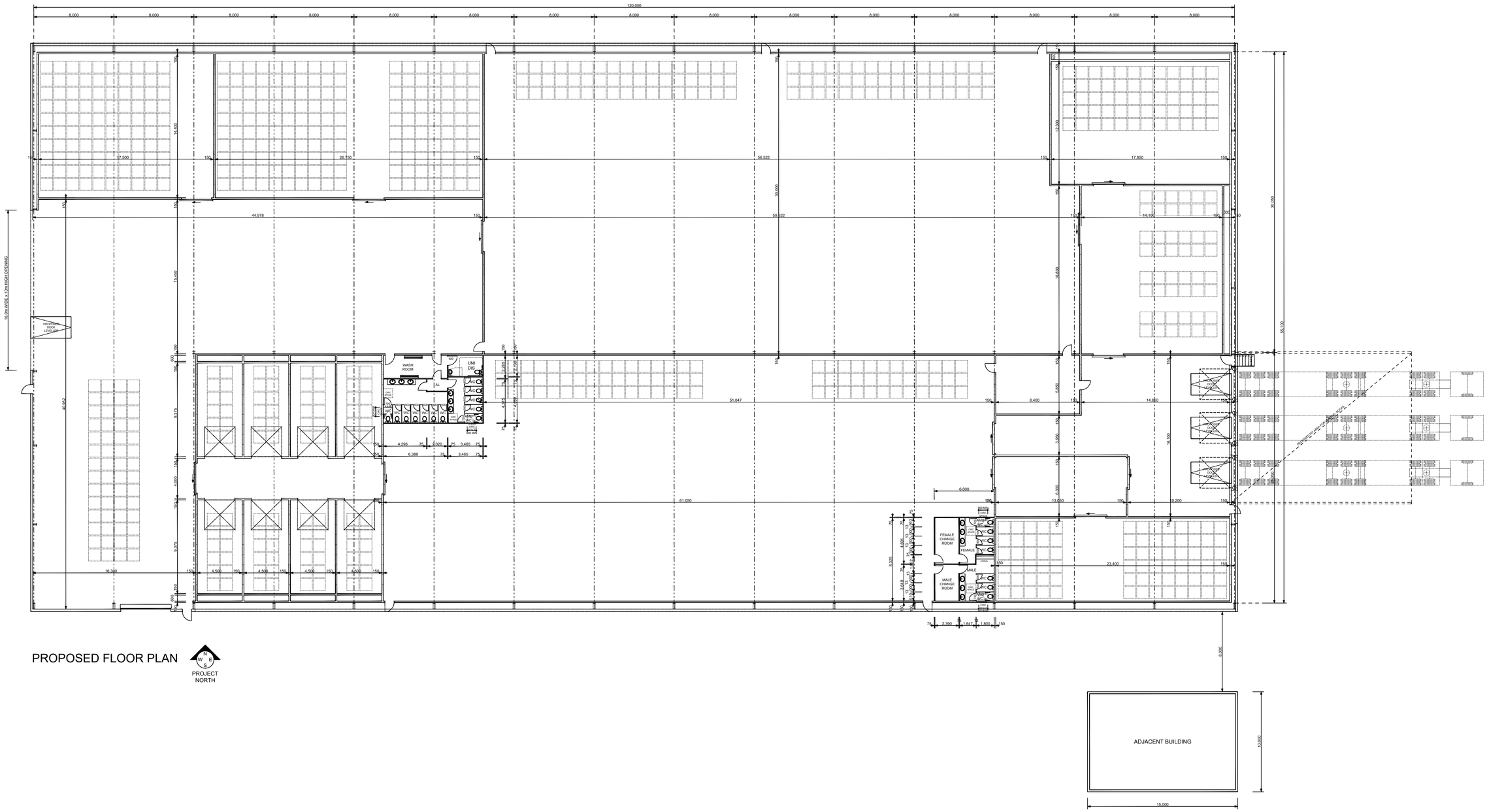
FLANAGAN CONSULTING GROUP
DEVELOPMENT CONSULTANTS • PROJECT MANAGERS • ENGINEERS • PLANNERS
CAIRNS (07) 4031 3199 DARWIN (08) 8943 0620 MACKAY (07) 4944 1200 TOWNSVILLE (07) 4724 5737
www.flanaganconsulting.com.au

1687 CHEWKO ROAD
MAREEBA

SITE PLAN & BUILDING LAYOUT

6035-SK01A A1 Full Size

Acad No. 6035-SK01A 16 February 2018



PROPOSED FLOOR PLAN

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APPENDIX: F

Wastewater Disposal Assessment Report

1913074

Tableland Wastewater Consultants Pty. Ltd. T/As.

Wastewater Consultants

Email: wastewaterbrett@bigpond.com

46 Kennedy Highway,
Tolga. Qld. 4882
(P.O. Box 747, Tolga. Qld. 4882)
Phone::- (07) 40955 211
Fax:- (07) 40955 349

ABN-98 101 739 477
BSA Licence No-1032472

- Providing Approved Sewage, Wastewater & Water Services

- Site & Soil Assessment Reports.
- Land Application Designs.
- Subdivisional & Development Assessment Reports.
- Pre Purchase Reports.

- Domestic & Commercial Septic Disposal Systems.
- Domestic Wastewater Aerated Treatment Systems.
- Commercial Wastewater Aerated Treatment Systems.
- Domestic & Commercial Advanced Secondary Systems.
- Secondary Systems.

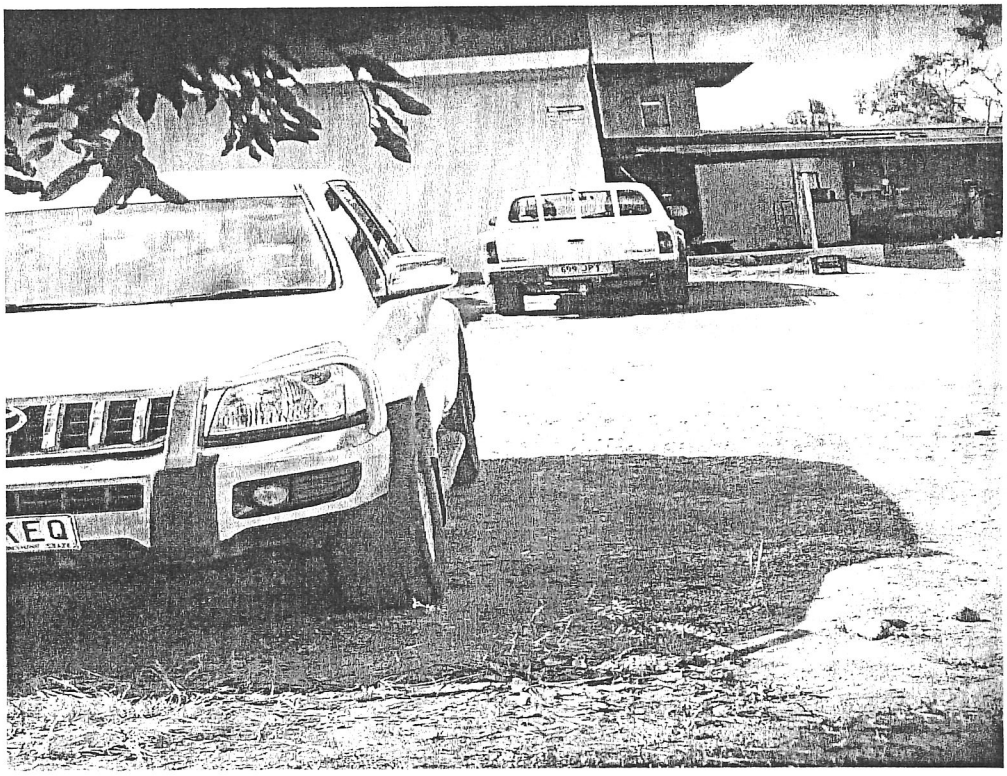
- Trench Systems or Trench Beds.
- Evapo-Transpiration Trench Beds.
- Recycling (CNL) Irrigation Networks.

- Domestic & Commercial Servicing & Reporting.
- Replacement New & Reconditioned Compressors & Pumps.
- Concrete & Polymer Septic Tanks & Grease Traps.
- Rain Water or Storage Water Tanks.
- Chemical Storage or Dosing Tanks.

- Submersible Borehole Pumps.
- Domestic or Commercial Pressure Pumps.
- Submersible Cutter / Macerator

- Water Analysis Services & Testing.
- Filtration Systems & Replacement Filters.
- Chlorinator, RO and UV Filter Systems.

WASTEWATER DISPOSAL ASSESSMENT REPORT FOR AN UPGRADED WASTEWATER DISPOSAL SYSTEM AT 1687 CHEWKO ROAD HOWE FARMING PACKING SHED



Report No. WC 20460

SITE ASSESSMENT DATE: 15th April 2009

Prepared For:
Howe Farming Pty Ltd
PO Box
Mareeba Qld 4880

11th May 2009

TABLELANDS REGIONAL COUNCIL
APPROVED PLAN
The plumbing/drainage work detailed on this plan/document is to be carried out in accordance with the provisions of the Plumbing/Drainage Act 2002 and the conditions of the plumbing approval
26 JUN 2009
PLUMBING INSPECTOR

www.wastewaterconsultants.com.au

Wastewater Practitioners Association

ON-SITE SEWAGE DISPOSAL
SITE AND SOIL EVALUATION REPORT
WC20460

Tableland Regional Council
Mareeba Qld 4880

Attn: John Stevens
Re: Proposed wastewater disposal system upgrade.

Wastewater Consultants have been commissioned by Howe Farming Pty Ltd to provide an upgraded wastewater system and on site assessment report to determine and satisfy the increased current disposal of sewage & sullage waste for the existing banana packing shed at rural number 1687 Chewko road, Walkamin.

On visiting and further inspections of the existing standard Aqua-nova AWTS and understanding the increased daily loading from the packing shed over the last five years with increased staff numbers during the seasonal months from when the existing AWTS was previously installed, we propose to upgrade the system and disposal irrigation networks to further cope and manage with the current and possible future daily flows.

It's proposed so as to satisfy the current regulations with on-site wastewater and previous discussions with "TRC" wastewater system sizing and selection shall be determined by flows, or using the guidelines within AS1547-2000, the use of actual flows is an advantage however in many cases these figures are not readily available, however since we installed the existing Aqua-nova AWTS and have serviced this system regularly for Howe Farming since its installation we have seen the occasional problems and issues arise with it, therefore we installed a flow metre to prove our theory of ever increasing and daily peak surge flows, therefore from our checked flows the system has remained around 3000 litres and up to a peak maximum of 3750 litres per day, suffering with larger increased surges in very short periods, which indicate the influx surges at smoko and lunch breaks, therefore its recommended the proposed upgraded system will remain within local government jurisdiction and a flow metre shall be installed on the upgraded system with recording the daily flows to ensure it remains within compliance.

Therefore we propose to upgrade and install a suitable AWTS that can further manage and handle the suggested increased daily flows and peak surges, we have further allowed a total of 4000 litres per day and carried our calculations out based on this as a maximum daily flow, we have calculated the system and disposal based on seven days per week,

although these works are generally only six days per week or a less amount of staff working on the weekends, further we have confirmed all selected setback and separation distances can be achieved on site for this proposal.

Therefore based on soil permeability, associated health risks it is recommended by our selection an approved 20EP secondary wastewater recycling system (AWTS) complete with surge and peak control be installed with the minimum of 1000m2 of (CNL) drip irrigation disposal networks satisfying all setback and separation distances with AS1547-2000 and shall further prove satisfactory for this upgrade and application.

Appropriate cover is required of the selected land application area such as turf or grass for sub-surface irrigation, if selecting garden beds the minimum of 100mm of mulch for final cover is required and with selected suitable plants planted throughout shall be utilised within the proposed land application disposal area/s, noting the total irrigation land application area/s requires tiling or rotary hoeing to a minimum depth of 300mm prior installation of the irrigation networks.

A: SITE EVALUATOR

Author: Brett Trebley

B: DESK TOP EVALUATION

Location Details:

Locality Address: **1687 Chewko Road, Walkamin**

Owner's Details: **Dennis Howe**

Plan Details: **RP** **Lot No.**

Local Govt: **"TRC" Cairns** Parish: **Barron** County: **Nares**

Site Plan Details: **Proposed Wastewater Disposal System**

Soil Type from Soil Maps, etc: **N/A.**

Climate *(BOM * ESTIMATED WALKAMIN)*

Annual Rainfall: ***1100mm** Annual Evaporation: ***1800mm**

This site may experience heavier seasonal rainfall during December-March

Intended Water Supply Source:

- ❑ Reticulated Town Water Supply
- ❑ **Reticulated Bore/Well**
- ❑ **On-Site Rainwater**
- ❑ **Dam**

Local Experience With Existing On-Site Disposal Systems In Area:

Type:

- **Primary**
- **Secondary**
- Advanced Secondary

If known number of systems in locality: **4 +**

- **Satisfactory**
- Failed
- Problems evident

C: SITE ASSESSMENT

Topography

Slope: **LAA to be constructed basically level < 5%**

Ground Cover: **Machine finished / Sparse Grass**

Geology: **N/A**

Drainage Patterns Contours: **Flow Over Land**

Available Clearances:

Boundaries: **> 4 Metres**

Non-Potable Bores, Wells and Watercourses: **30 Metres**

Buildings: **> 4 Metres**

Embankments: **N/A**

Stand of Trees, Shrubs: **Existing**

Other _____

Site History (Previous Land Use) **Rural Farming**

Environmental Issues: **N/A**

Site Stability: **Good**

Drainage Control

Depth of seasonal water table: (assumed greater than)

Winter: **> 2.0M** Summer: **> 2.0M**

Need for groundwater cut-off drains? **No**

Need for surface water collection / cut-off drains? **No**

Availability of Reserve / Setback Areas

Reserve area available for disposal: **100%**

Assessment Photographs attached: **Yes**

D: SOIL INVESTIGATION

Method Of Tests:

- **Test Hole / Pit**
- **Soil Texture**
- **Ribbon Test**
- Falling Water
- **Site Exposure**
- Other (Soil Test Report)

Individual Soil Report:

By:_____**Report No.**_____

Soil Category:

Description (TICK ONE ONLY)

- 1. Gravels and Sands
- 2. Sandy Loams
- 3. Loams
- **4. Clay Loams**
- 5. Light Clays
- 6. Medium to Heavy Clays

Reason for placing in Stated Soil Category: **On-Site Soil Test, Texture & Ribbon Tests.**

Reason for Design Load Rate (DLR) & (DIR) recommendation: **Based on minimum of secondary treatment and irrigation, improved soils a DIR of 28mm/week with a K-sat rating assumed at 0.5m/day has been adopted and shall prove satisfactory for this application.**

Need for groundwater protection: **No**

Type of disposal system best suited to site for Land Application:

- ❑ PRIMARY
- ❑ **SECONDARY**
- ❑ ADVANCED SECONDARY OR EQUIVALENT

Evaluator's preliminary assessment of Land Application Area and best suited disposal option for site: **Secondary treatment, utilising a minimum of 1000m2 of (CNL) drip irrigation networks.**

Estimated Daily Flow: **Based on the existing commercial banana packing shed, employing up to 120 staff in peak seasonal periods and as to the seasonal months for packing of fruit, based on our previous peak flow metre reading up to 3750 litres per day in the busiest seasonal periods we have selected and adopted 4000 litres per day as a maximum daily flow.**

Design Consideration: **Maximum flow of 4000 litres per day, all fixtures allowed with "standard reduction fixtures". No allowance for expansion or additional flows allowed with this design.**

Any specific environmental constraints? **No**

Any specific public health constraints? **No**

If Yes see attached or reason:_____

Results of consultation or observations with any other interested parties: Neighbours, Local Council, Environmental agencies and or groups, etc:

- ❑ Neighbours
- ❑ **Local Council (Previous Discussions Ray O'Brien)**
- ❑ Environmental Agencies and Groups
- ❑ Not Applicable
- ❑ Report Attached

DISPOSAL SYSTEM for EFFLUENT from DOMESTIC PREMISES AS 1547-2000 SIZING of DISPOSAL AREA

REDUCTION FIXTURES REQUIRED: **Yes**

TYPE OF FLOW FIXTURES

	RETICULATED SUPPLY	ON-SITE RAIN WATER
❑ Normal Fixtures	180L/P/Day	140L/P/Day
❑ Standard Reduction	145L/P/Day	115L/P/Day
❑ Full Reduction	110L/P/Day	80L/P/Day

Notes: These above flows are minimum rates unless actual flows from past experience can be demonstrated.
Standard water-reduction fixtures included the combined use of reduced flush 6/3 litre water closets, shower-flow restrictors, aerator faucets (taps) and water-conserving automatic washing machines.
Full water-reduction fixtures include the combined use of 6/3 litre water closets, shower-flow restrictors, aerator faucets, front load washing machines and flow /pressure control valves on all water-use outlets

ADOPTED DISPOSAL CONCLUSIONS:

1) ABSORPTION TRENCH BED: **N/A**

2) EVAPO-TRANSPIRATION: AREA m2 REQUIRED: **N/A**

3) IRRIGATION AREA: AREA m2 REQUIRED: **1000m2**

EVALUATORS CONCLUSION:

As to the assessed loams and improved soils at this property, achievable setback and separation distances with installation of a purposely designed secondary treatment disposal system, we have provided a suitable option for the local government to consider for the recommended disposal system upgrade on this site.

Therefore a ***SECONDARY AERATED WASTEWATER TREATMENT SYSTEM (AWTS)*** will further prove satisfactory for on this site; there is sufficient area available for disposal of all treated effluent including a reserve land application area if required with this option.

Therefore it is our recommendation a minimum ***20EP Approved secondary recycling AWTS with an adopted minimum 1000m2 of irrigation networks*** shall be installed on this property, it's further recommended utilising a (CNL) drip irrigation network for the irrigation

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Trusted Advisor to Northern Australia

APPENDIX: G

Combined Engineering Calculations

FLANAGAN CONSULTING GROUP

PROJECT No. 6035/01

CALCULATION BY JB DATE 12/03/18

SHEET 1 OF 1

Packaing Shed Development - 1687 Chewko Road

Sewage Flow Tabulation

Proposed Development:

Unit	*Type*	*No. of Bedroom*	*No. of Person*
Packing	*N/A*	*N/A*	*35*
Processing	*N/A*	*N/A*	*25*
		Total	***60***

- **Packing** – we understand the development also involves a packing element. Details of the packing element are required including:
  - hours of operation including staff arrival and departure times and truck arrival and departure times – 6am to 6pm
  - number of staff associated with the packing (existing & proposed) – 35 staff from Feb to June
- **Processing** – we understand that the development proposal will also include a processing plant. The following information is required with respect to the processing plan including:
  - type of processing –banana waste – frozen and dried
  - hours of operation including staff arrival and departure times and truck arrival and departure times – likely to be staffed from 6am to 6pm
  - waste by-products and disposal methods – banana peels – composted on farm
  - number of staff associated with the processing (existing & proposed) – 25 new FTE

Assumptions:

1. According to DEWS Planning Guidelines for Water Supply & Sewerage - Chapter 5 - Section 5.2.2, the ADWF normally range btw 150 - 275 L/EP/day.
2. Hence, adopt the average ADWF as design flow = 230 L/EP/day

Formula (refer to DEWS Planning Guidelines for Water Supply & Sewerage - CL 5.2.2):

PDWF = C_2 x ADWF where $C_2 = 4.7 \times (EP)^{-0.105}$

PWWF = (5 x ADWF) OR (C_1 x ADWF), whichever is the larger

$C_1 = 15 \times (EP)^{-0.1587}$ (note: the minimum value for C_1 = 3.5)

Calculations:

Number of EP = 60 *- conservative approach using number of person as EP*

1. Average Dry Weather Flow (ADWF)

ADWF = Number of EP x Design Flow
= 60 x 230
= 13,800 L/day
= **0.16** L/s

C_2 = 4.7 x $(EP)^{-0.105}$
= **3.06**

3. Peak Dry Weather Flow (PDWF)

PDWF = C_2 x ADWF
= 42,200 L/day
= **0.49** L/s

3. Peak Wet Weather Flow (PWWF)

PWWF = (5 x ADWF) or (C1 x ADWF) whichever is the larger

PWWF (1) = ADWF x 5
= 13,800 x 5
= 69,000 L/day
= **0.80** L/s

PWWF (2) = C_1 x ADWF
= 7.83 x 13800
= 108088 L/day
= **1.25** L/s

Adopted PWWF = **1.25** L/s *- adopt higher value between PWWF (1) and PWWF (2)*

FLANAGAN CONSULTING GROUP

PROJECT No.	6035/01		
CALCULATION BY	JB	DATE	12/03/18
CHECKED BY		DATE	
SHEET	1	OF	1

Packaing Shed Development - 1687 Chewko Road

Water Demand Tabulation

Proposed Development:

Unit	Type	No. of Bedroom	No. of Person
Packing	*N/A*	*N/A*	*35*
Processing	*N/A*	*N/A*	*25*
		Total	***60***

- **Packing** – we understand the development also involves a packing element. Details of the packing element are required including:
  - hours of operation including staff arrival and departure times and truck arrival and departure times – 6am to 6pm
  - number of staff associated with the packing (existing & proposed) – 35 staff from Feb to June
- **Processing** – we understand that the development proposal will also include a processing plant. The following information is required with respect to the processing plan including:
  - type of processing –banana waste – frozen and dried
  - hours of operation including staff arrival and departure times and truck arrival and departure times – likely to be staffed from 6am to 6pm
  - waste by-products and disposal methods – banana peels – composted on farm
  - number of staff associated with the processing (existing & proposed) – 25 new FTE

Assumptions:

1. Existing water use is understood to be approximately 0.5ML per year (or 1,370 L/day) excluding irrigation
2. Proposed facility is slightly larger in scale and EP, therefore assumed resultant water demand could be in the order of **2,000 L/day**
2. Peaking Factors (refer DEWS Planning Guidelines for Water Supply & Sewerage - Chapter 5 - Table 5.4):

Peak Day Factor, PDF =	1.9	to	2.3	*- for populations below 5000*
Adopted PDF =	2.3			
Peak Hour Factor, PHF =	3.6	to	4.5	*- for populations below 5000*
Adopted PHF =	4.5			

Demand Calculations:

1. Water Demand

Total Average Day Demand, AD =	2000	L/day	
=	**0.02**	L/s	
Peak Day Demand, PD =	AD	x	PDF
=	2000	x	2.3
=	4600	L/day	
=	**0.05**	L/s	
Peak Hour Demand, PH =	AD	x	PHF
=	2000	x	4.5
=	9000	L/day	
=	**0.10**	L/s	

2. Fire fighting requirements (refer DEWS Planning Guidelines for Water Supply & Sewerage - Chapter 6 - Section 6.6.2):

Minimum requirements =	**15**	L/s	*- for 2 hour duration (for small community category with non-residential buildings up to 2 storeys)*

Chewko Road - Mareeba QLD

Rainfall Intensity-Frequency-Duration Calculation to AR&R

Location : Mareeba **(Adjust to suit location)**

1 HR DUR 2 ARI	47.05	mm/hr	**(Use Raw Data from Bureau of Metereology IFD Table)**
12 HR DUR 2 ARI	8.72	mm/hr	
72 HR DUR 2 ARI	2.66	mm/hr	
1 HR DUR 50 ARI	82.88	mm/hr	
12 HR DUR 50 ARI	17.25	mm/hr	
72 HR DUR 50 ARI	5.89	mm/hr	
G (skewness)	0.1	mm/hr	
F2 Geo factor 2 ARI	3.86		
F50 Geo factor 50 ARI	16.99		

6 min DUR 2 ARI	123.5637		
6 min DUR 50 ARI	240.5821		
X 6min	2.0388	**S 6min**	0.1667
X 1hr	1.6195	**S 1hr**	0.1456
X 12hr	0.8874	**S 12hr**	0.1701
X 72hr	0.3718	**S 72hr**	0.1939

K2	K5	K10	K20	K50	K100	K200	K500
-0.016662037	0.83673831	1.29220539	1.67292426	2.10729512	2.39935735	2.67005535	2.99995625

CC2	CC5	CC10	CC20	CC50	CC100	CC200	CC500
1.13	1.0500	1	1	1	1	1	1

Duration	**1 ARI**	**2 ARI**	**5 ARI**	**10 ARI**	**20 ARI**	**50 ARI**	**100 ARI**	**200 ARI**	**500 ARI**
0.1	95.0	122.8	158.3	179.6	207.9	245.6	274.7	304.8	346.0
1	36.8	46.8	57.9	64.2	72.9	84.4	93.1	101.9	113.8
12	6.7	8.7	11.2	12.8	14.9	17.6	19.7	22.0	25.0
72	2.0	2.6	3.6	4.2	5.0	6.0	6.9	7.8	9.0

Interpolation constants	**1 ARI**	**2 ARI**	**5 ARI**	**10 ARI**	**20 ARI**	**50 ARI**	**100 ARI**	**200 ARI**	**500 ARI**
For 6m - 1hr (I_U / I_L) =	0.3872	0.3811	0.3656	0.3575	0.3510	0.3436	0.3387	0.3343	0.3290
For 1hr - 12hr (I_U / I_L) =	0.1818	0.1852	0.1943	0.1994	0.2037	0.2088	0.2122	0.2155	0.2196

Intensity-Frequency-Duration Table

Location: 17.000S 145.450E NEAR.. Mareeba Issued: 13/3/2018

Rainfall intensity in mm/h for various durations and Average Recurrence Interval

Average Recurrence Interval

Duration	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
5Mins	100	130	168	191	221	261	293
6Mins	94.2	122	157	179	207	245	275
10Mins	79.3	102	131	148	171	202	226
20Mins	61.6	78.8	99.4	111	128	149	166
30Mins	51.6	65.9	82.5	92.1	105	122	136
1Hr	35.9	45.8	57.0	63.4	72.3	83.9	92.7
2Hrs	23.2	29.7	37.1	41.4	47.3	55.1	61.0
3Hrs	17.6	22.5	28.4	31.8	36.4	42.5	47.2
6Hrs	10.8	13.9	17.7	20.1	23.1	27.2	30.4
12Hrs	6.69	8.67	11.3	12.8	14.9	17.7	19.9
24Hrs	4.28	5.58	7.37	8.46	9.90	11.8	13.4
48Hrs	2.72	3.57	4.80	5.56	6.56	7.91	8.97
72Hrs	1.99	2.63	3.58	4.18	4.96	6.02	6.86

(Raw data: 47.05, 8.72, 2.66, 82.88, 17.25, 5.89, skew=0.10, F2=3.86, F50=16.99)

Chewko Road - Mareeba QLD

PRE DEVELOPED STORMWATER FLOW - 5 Year ARI

Catchment Area(A)	7000	m2
Catchment Area(A)	0.70	ha
Catchment Area(A)	0.0070	km2
Fraction Impervious (f)	0%	

Flow (Q) = (C*I*A) / 360 m3/sec

Determine 'C'

Co-efficient of Runoff (C_{10}) = $0.9f + {}^{1}C_{10}(1 - f)$ (AR&R 1987 - Eq. 14.11)

${}^{1}C_{10} = 0.1 + ((0.7 - 0.1)({}^{10}I_1 - 25)) / (70 - 25)$ (AR&R 1987 - Eq. 14.12)

${}^{10}I_1$ = Intensity for 1 hour storm in 10 year ARI (mm/hr)

${}^{10}I_1$ =	64.2	(Derived from B.O.M. IFD Table)
${}^{1}C_{10}$ =	0.623	
Calculated C_{10} =	0.623	
C_5 =	0.592	(AR&R 1997 Book 8 - Tbl 14.6)

Determine 'I' (AR&R 1997 Book VIII Section 1 - Urban Stormwater Management)

Time of Concentration (T_c) = $6.94 \times (L \times n^*)^{0.6} / (I^{0.4} \times S^{0.3})$ (AR&R 1997 Book 8 - Eq. 1.2)

L = Length of flow path (m)

n* = Surface roughness

I = Rainfall Intensity (mm/hr)

S = Slope of flow path (m/m)

Roof Flow

L =	150	m	(Assumed Maximum Overland Flow Path Length)
n* =	0.1		(AR&R 1997 Book 8 - Tbl 1.4)
S =	0.0050	m/m	(Calculated based on estimated roof pitch)
T_c (x $I^{0.4}$) =	172.71		
Actual Tc (Total) =	30.00		Lookup from Table below
Adopt Tc (Total) =	30.00	min	
I =	82.00	mm/hr	(Interpolate from Relevant 'IFD tI0.4' Table)
Adopt Tc (Total) =	30.00	min	(Refer Council's or Authority Stormwater Drainage Guidelines)
I_5 =	**82.00**	**mm/hr**	(Interpolate from Relevant 'IFD tI0.4' Table)

Flow 'Q'

Flow (Q) = (C*I*A) / 360

Q_5 =	**0.094**	**m3/sec**
	94.33	**l/sec**

Table of frequency factors	
ARI years	**Frequency Factors (fy)**
1	0.8
2	0.85
5	0.95
10	1
20	1.05
50	1.1
100	1.2

n*	
Surface Type	**Roughness Coefficient**
Concrete or Asphalt	0.010 - 0.013
Bare Sand	0.010 - 0.016
Graveled Surface	0.012 - 0.030
Bare Clay-Loam Soil	0.012 - 0.033
Sparse Vegetation	0.053 - 0.130
Shod Grass Prairie	0.100 - 0.200
Lawns	0.170 - 0.480

Chewko Road - Mareeba QLD

POST DEVELOPED STORMWATER FLOW - 5 Year ARI

Catchment Area(A)	7000	m2
Catchment Area(A)	0.70	ha
Catchment Area(A)	0.0070	km2
Fraction Impervious (f)	90%	

Flow (Q) = (C*I*A) / 360 m3/sec

Determine 'C'

Co-efficient of Runoff (C_{10}) = $0.9f + {}^{1}C_{10}(1 - f)$ (AR&R 1987 - Eq. 14.11)

${}^{1}C_{10} = 0.1 + ((0.7 - 0.1)({}^{10}I_1 - 25)) / (70 - 25)$ (AR&R 1987 - Eq. 14.12)

${}^{10}I_1$ = Intensity for 1 hour storm in 10 year ARI (mm/hr)

${}^{10}I_1$ =	64.2	(Derived from B.O.M. IFD Table)
${}^{1}C_{10}$ =	0.623	
Calculated C_{10} =	0.872	
C_5 =	0.829	(AR&R 1997 Book 8 - Tbl 14.6)

Determine 'I' (AR&R 1997 Book VIII Section 1 - Urban Stormwater Management)

Time of Concentration (T_c) = $6.94 \times (L \times n^*)^{0.6} / (I^{0.4} \times S^{0.3})$ (AR&R 1997 Book 8 - Eq. 1.2)

L = Length of flow path (m)

n* = Surface roughness

I = Rainfall Intensity (mm/hr)

S = Slope of flow path (m/m)

Roof Flow

L =	100	m	(Assumed Maximum Overland Flow Path Length)
n* =	0.01		(AR&R 1997 Book 8 - Tbl 1.4)
S =	0.1000	m/m	(Calculated based on estimated roof pitch)
T_c (x $I^{0.4}$) =	13.85		
Actual Tc (Total) =	5.00		Lookup from Table below
Adopt Tc (Total) =	5.00	min	
I =	167.83	mm/hr	(Interpolate from Relevant 'IFD tI0.4' Table)
Adopt Tc (Total) =	5.00	min	(Refer Council's or Authority Stormwater Drainage Guidelines)
I_5 =	167.83	**mm/hr**	(Interpolate from Relevant 'IFD tI0.4' Table)

Flow 'Q'

Flow (Q) = (C*I*A) / 360

Q_5 =	**0.270**	**m3/sec**
	270.42	**l/sec**

Table of frequency factors	
ARI years	**Frequency Factors (fy)**
1	0.8
2	0.85
5	0.95
10	1
20	1.05
50	1.1
100	1.2

n*	
Surface Type	**Roughness Coefficient**
Concrete or Asphalt	0.010 - 0.013
Bare Sand	0.010 - 0.016
Graveled Surface	0.012 - 0.030
Bare Clay-Loam Soil	0.012 - 0.033
Sparse Vegetation	0.053 - 0.130
Shod Grass Prairie	0.100 - 0.200
Lawns	0.170 - 0.480