DEVELOPMENT APPLICATION

APPLICATION NUMBER:	PLN-24-330
PROPOSED DEVELOPMENT:	Demolition and Change of Use from Residential to Manufacturing & Processing
LOCATION:	115 Howard Road Goodwood
APPLICANT:	Island Life Designers
ADVERTISING START DATE:	12/02/2025
ADVERTISING EXPIRY DATE:	4/03/2025

Plans and documentation are available for inspection at Council's Offices, located at 374 Main Road, Glenorchy between 8.30 am and 5.00 pm, Monday to Friday (excluding public holidays) and the plans are available on Glenorchy City Council's website (**www.gcc.tas.gov.au**) until **4/03/2025**.

During this time, any person may make representations relating to the applications by letter addressed to the Chief Executive Officer, Glenorchy City Council, PO Box 103, Glenorchy 7010 or by email to gccmail@gcc.tas.gov.au.

Representations must be received by no later than 11.59 pm on **4/03/2025**, or for postal and hand delivered representations, by 5.00 pm on **4/03/2025**.

374 Main Road, Glenorchy
PO Box 103, Glenorchy TAS 7010
(03) 6216 6800 | gccmail@gcc.tas.gov.au
www.gcc.tas.gov.au
ABN 19 753 252 493

GENERAL INFORMATION

Land Title Referene	59719/5
Building Class	TBC
Property Zone	Light Industrial
Wind Classification	N2
Soil Classification (AS 2870)	CLASS P
Climate Zone (NCC 3.12)	Zone 7
Alpine Area (900m above AHD) -	NA
BAL Rating (AS3959)	NA
Heritage Building	NO
Flood Prone Area	TBC
Coastal Ingress Area	NO
Coastal Erosion Area	NO
Corrosion Environment	Moderate

OTHER CONSULTANTS

Structural Engineer	T.B.C
Geological Report (Soil)	GES
Energy Assessment	T.B.C
Waste Water Report	NA
Bushfire Assessment	NA
Civil Engineer	TBC
Mechanical Engineer	NA
Electrical Engineer	NA
Site Survey	Lark & Creese Land & Engineering Surveyors
Hydrologist Report	NA
Contaminated Site Survey	NA

AREA SCHEDULE *(All measurements in m2)*

Site Plan	827m2
Existing Residence	NA
Residence (Ground Floor)	NA
Residence (First Floor)	NA
Alfresco Area	NA
Verandah Area	NA
Porch (Laundry)	NA
Porch	NA
Decking Area	NA
Balcony (existing)	NA
Garage	NA
Shed	293.41m2

Proposed Manufacturing & Sales Warehouse

No. 115 Howard Road Goodwood TAS 7010

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

Drawing Schedule:

Sheet number	Sheet name
01	TITLE PAGE
02	SITE PLAN - EXISTING/ DEMOLITION
03	SITE PLAN
04	LANDSCAPE PLAN
05	SITE PLAN - DRAINAGE
06	FLOOR PLAN
07	ROOF PLAN
08	GROUND FLOOR DRAINAGE PLAN
09	ELEVATIONS 1 & 2
10	ELEVATIONS 3 & 4
11	SHADOW DIAGRAM

ISLAND LIFE DESIGNERS

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
- [ ] preliminary design
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Proposed Manufacturing and Sales Warehouse

CLIENT :
Mr. M & S Askey

SITE :
115 Howard Road Goodwood
TAS 7010

DRAWING TITLE :
Title

REVISION NO. B

DRAWING NO 01

SCALE As noted on A3 paper size

DRAWN BY : NY

CHECKED BY : Nicholas Young

PROJECT NO. 24-003

Plot Date: 18/09/2024

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

N

Existing paling fence to be demolish and removed from site.

Existing picket fence to be demolish and removed from site.

Existing NBN to be removed from existing dwelling & reconnected to proposed warehouse.

Existing concrete path to be demolish and removed from site.

Remove power line from existing dwelling. Power to be run to proposed warehouse. To be confirmed with TAS Networks if above or under ground works required.

Existing Container to be removed from site.

Existing concrete crossover, grass, bitumen footpath & kerb to be demolish and reinstated to new as per proposed driveway dimensions.

Existing concrete driveway to be demolish and removed from site.

Existing paling fence to be demolish and removed from site.

Negara Crescent

NEGARA CRESCENT

HOWARD ROAD

DN225 Sewer Main per DBYD

DN100 Water Main per DBYD

DN38 Water Main per DBYD

Overhead Power

Kerb

Bitumen

Grass

Paling

Fence

Telstra Pit

Grass & Dirt

NBN Connection

Concrete

Path

Power Pole

5145 Existing crossover

Survey Spike AHD : 7.51

Damaged Driveway

Gutter

Footpath

Approx 100ø s

Block Wall

W/B House No.115 (Damaged)

Damaged Concrete

Container

Water Meter

Sewer Manhole

Colorbond Fence

Shed

Building No.111–113 Howard Rd

Site Plan - Existing/Demolition
scale 1:200@A3

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
- [ ] preliminary design
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME : Proposed Manufacturing and Sales Warehouse
CLIENT : Mr. M & S Askey
SITE : 115 Howard Road Goodwood TAS 7010
DRAWING TITLE : Site Plan - Existing/ Demolition
REVISION NO. B
DRAWING NO 02
SCALE As noted on A3 paper size
DRAWN BY : NY
CHECKED BY : Nicholas Young
PROJECT NO. 24-003
Plot Date: 18/09/2024

Certificate of Title: 59719/5
115 Howard Road Goodwood TAS 7010
Site Area: 827m2
Proposed Shed Cover 293.41m2
Total Site Cover: 35.47%

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

LEGEND & NOTES

Finished Floor Levels

Note: Site levels as per survey

Soil & Water Management Strategies
Downpipes to be connected as soon as the roof is installed.

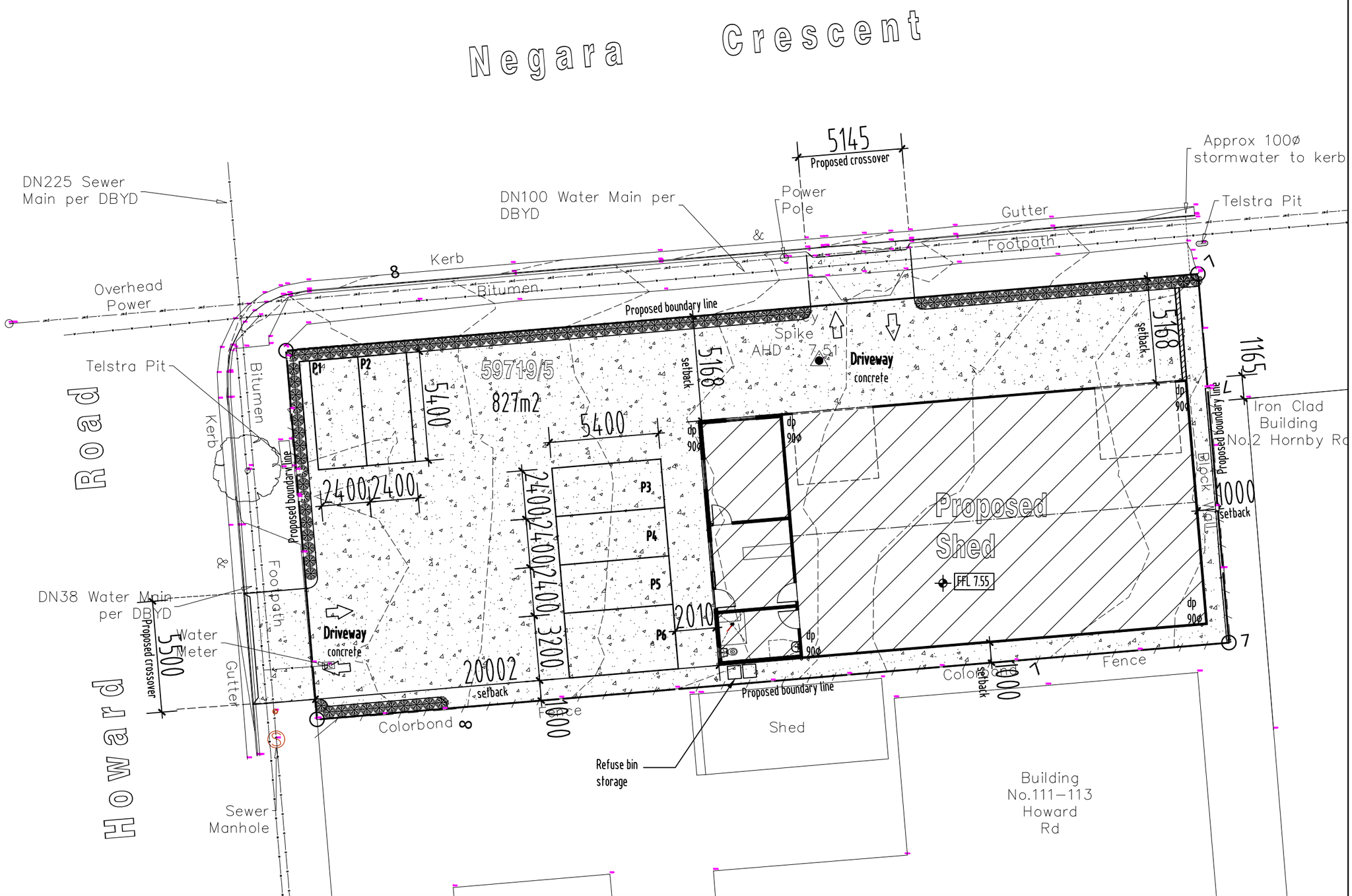
Install AG drain prior to footing excavation. See drawing

Excavated material placed up-slope of AG drain. To be removed when building works are complete and used as removed when building works are complete and used as fill on site for any low points. Install a sediment fence on the downslope side of material.

Construction vehicles to be parked on the street or the driveway once concreted, to prevent transferring debris onto Example Street.

All existing and proposed driveway and road connections to be confirmed and completed by Civil engineer.

Protection Work
(Section 121 of the Building Act)
If excavation is to a level below that of the adjoining owner's footings, along the title boundary or within 3 metres of a building belonging to an adjoining owner, the builder must (as a miniumum) provide and maintain a guard to supervise the excavation. Adjoining owner to be notified using Form 6 (Building and Protection Work Notice) by the Building Surveyor.



Site Plan
scale 1:200@A3

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
- [ ] preliminary design
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME : Proposed Manufacturing and Sales Warehouse
CLIENT : Mr. M & S Askey
SITE : 115 Howard Road Goodwood TAS 7010
DRAWING TITLE : Site Plan
REVISION NO. B
DRAWING NO 03
SCALE As noted on A3 paper size
DRAWN BY : NY
CHECKED BY : Nicholas Young
PROJECT NO. 24-003
Plot Date: 18/09/2024

LEGEND & NOTES

- CONCRETE
- RETAINING WALL
- LOMANDRA CONFERTIFOLIA 'SEASCAPE'
- FINISHED FLOOR LEVELS
- EXISTING FENCE

Soil & Water Management Strategies

Downpipes to be connected as soon as the roof is installed.

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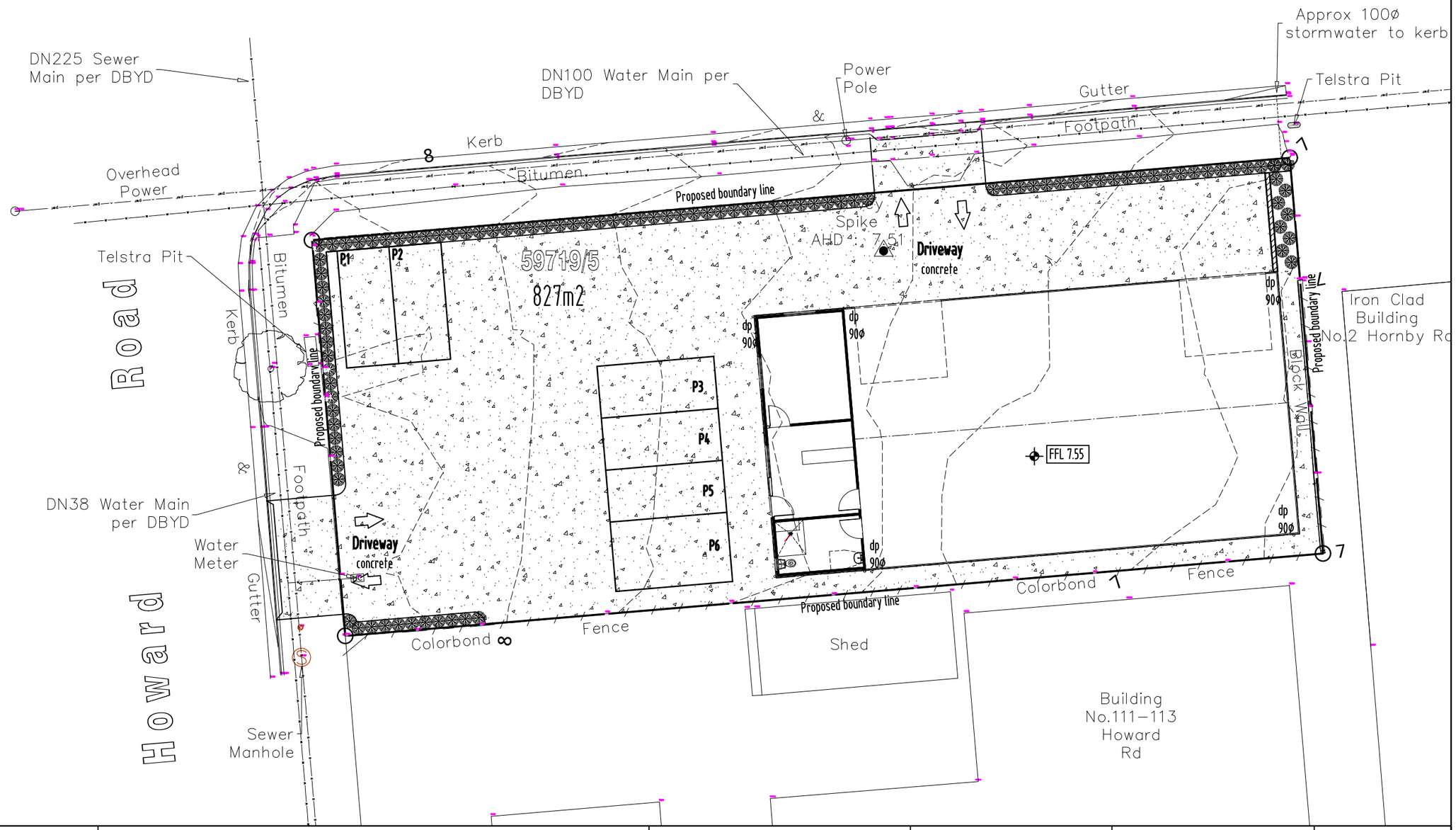
GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024



Landscape Plan
scale 1:200@A3

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LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- sketch design
- preliminary design
- contract documentation
- DA
- BA
- construction drawings

PROJECT NAME : Proposed Manufacturing and Sales Warehouse
CLIENT : Mr. M & S Askey
SITE : 115 Howard Road Goodwood TAS 7010
DRAWING TITLE : Landscape Plan
REVISION NO. B
DRAWING NO 04
SCALE As noted on A3 paper size
DRAWN BY : NY
CHECKED BY : Nicholas Young
PROJECT NO. 24-003
Plot Date: 18/09/2024

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

N

NEW PIPEWORK

SEWER DN100 uPVC
SUB SOIL DRAINAGE ø90
STORMWATER DN100 uPVC
COLD WATER DN20

Wet areas shown hatched to comply with current AS3740 & 2022 N.C.C. Refer to waterproofing details.

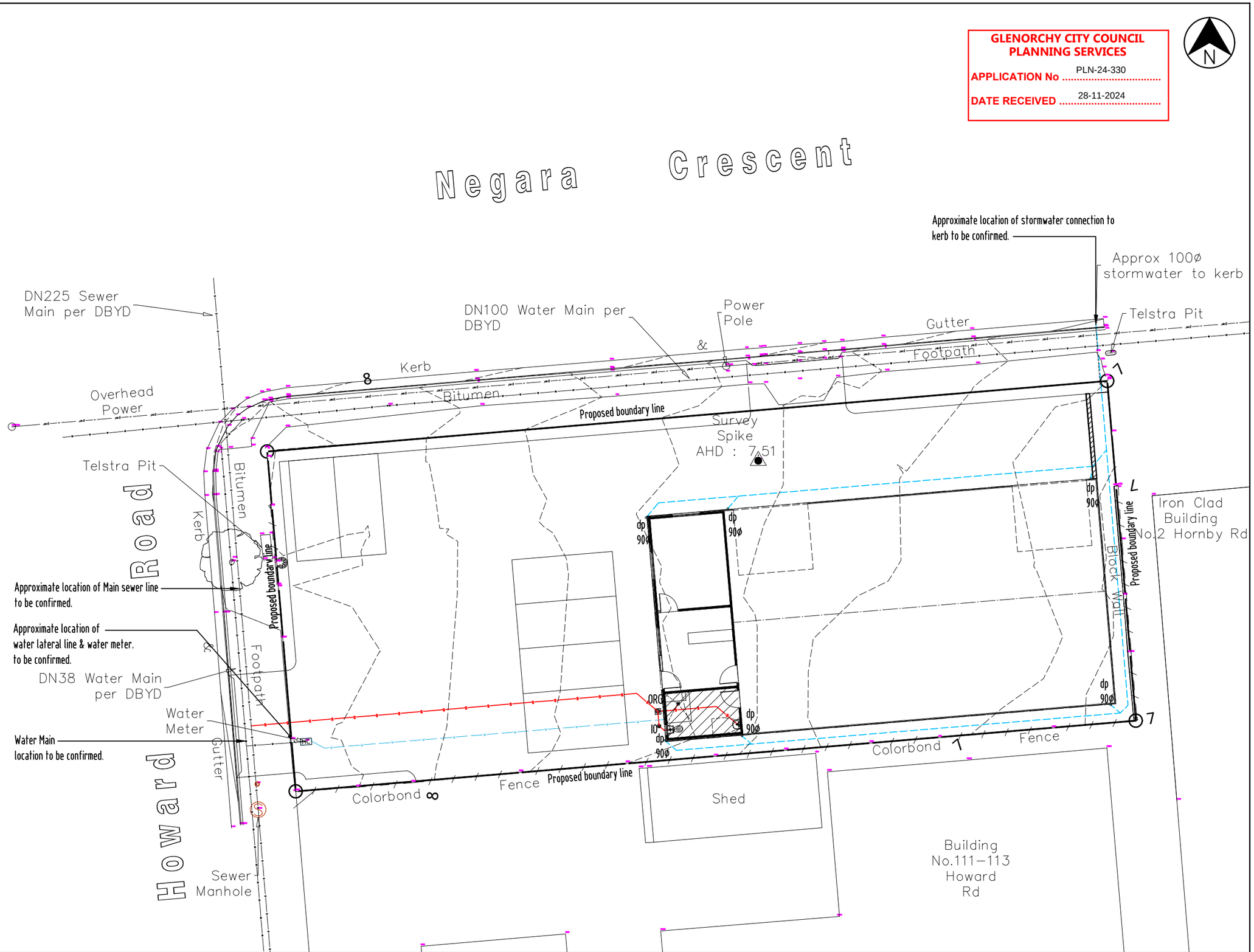
SYMBOLS

INSPECTION OPENING
FLOOR WASTE GULLY
OVERFLOW RELIEF GULLY
ISOLATION VALVE IN BOX
DROPPER/ RISER
PIT - (DETAILS BY CIVIL)
WATER TAP

ABBREVIATIONS

V	VENT PIPE
IO	INSPECTION OPENING
FWG	FLOOR WASTE GULLY
IOS	INSPECTION OPENING SHAFT
ORG	ORVERFLOW RELIEF GULLY
IV	ISLOLATION VALVE IN BOX
D/R	DROPPER/ RISER
Bth	BATH
Shr	SHOWER
B	BASIN
S	SINK
Tr	TROUGH
WC	WATER CLOSET
FWG	FLOOR WASTE GULLY
HWC	HOT WATER CYLINDER
IV	ISOLATION VALVE
PLV	PRESSURE LIMITING VALVE
CWM	COLD WATER METER
GD	GRATED DRAIN
GP	GRATED PIT
RP	ROD POINT
IS	INSPECTION SHAFT

NOTE:
ALL WORKS MUST BE IN ACCORDANCE WITH THE CURRENT:
- N.C.C., AS3500.2 & AS3500.3
- WATER SERVICES ASSOCIATION OF AUSTRALIA CODES (WSAA)
- LOCAL COUNCIL REQUIREMENTS
- TASWATER TECHNICAL STANDARDS
- ANY RELEVANT STANDARDS / MANUFACTURERS SPECIFICATIONS
REFER TO ROOF PLAN FOR ROOF CATCHMENT AREAS



Site Plan - Drainage Plan

scale 1:200@A3

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CONTACT: nick@islandlifedesigners.com

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage:
- sketch design
- preliminary design
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME :
Proposed Manufacturing and Sales Warehouse

CLIENT :
Mr. M & S Askey

SITE :
115 Howard Road Goodwood
TAS 7010

DRAWING TITLE :
Site Plan - Drainage plan

REVISION NO. B

DRAWING NO 05

SCALE As noted on A3 paper size

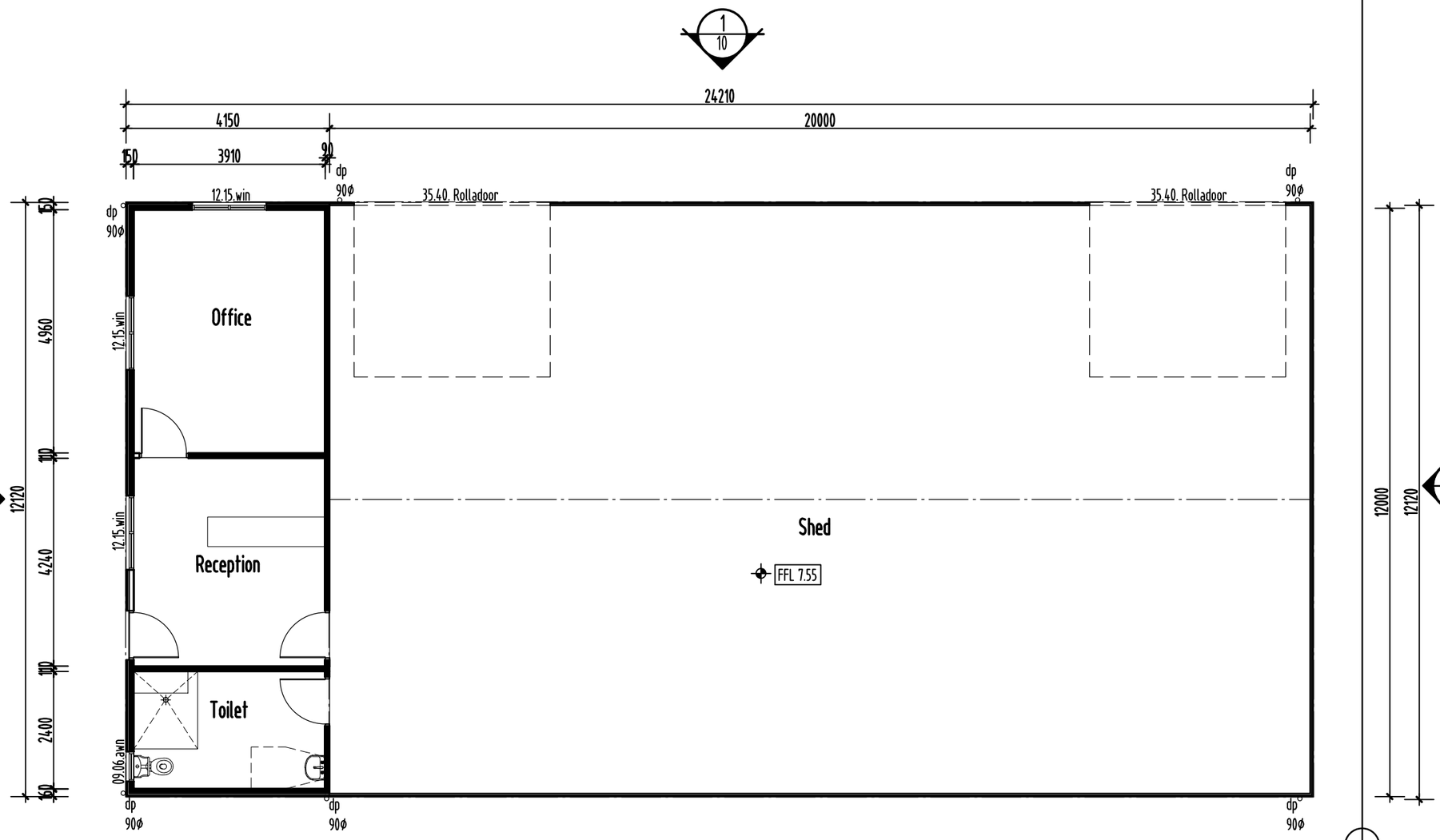
DRAWN BY : NY

CHECKED BY : Nicholas Young

PROJECT NO. 24-003

Plot Date: 18/09/2024

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024



AREAS

Shed:	243.12m2
Office/reception/toilet:	50.29m2
TOTAL FLOOR AREA:	293.41m2

Floor Plan
scale: 1:100 @A3

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
- [ ] preliminary design
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Proposed Manufacturing and Sales Warehouse

CLIENT :
Mr. M & S Askey

SITE :
115 Howard Road Goodwood
TAS 7010

DRAWING TITLE :
Floor plan

REVISION NO. B

DRAWING NO 06

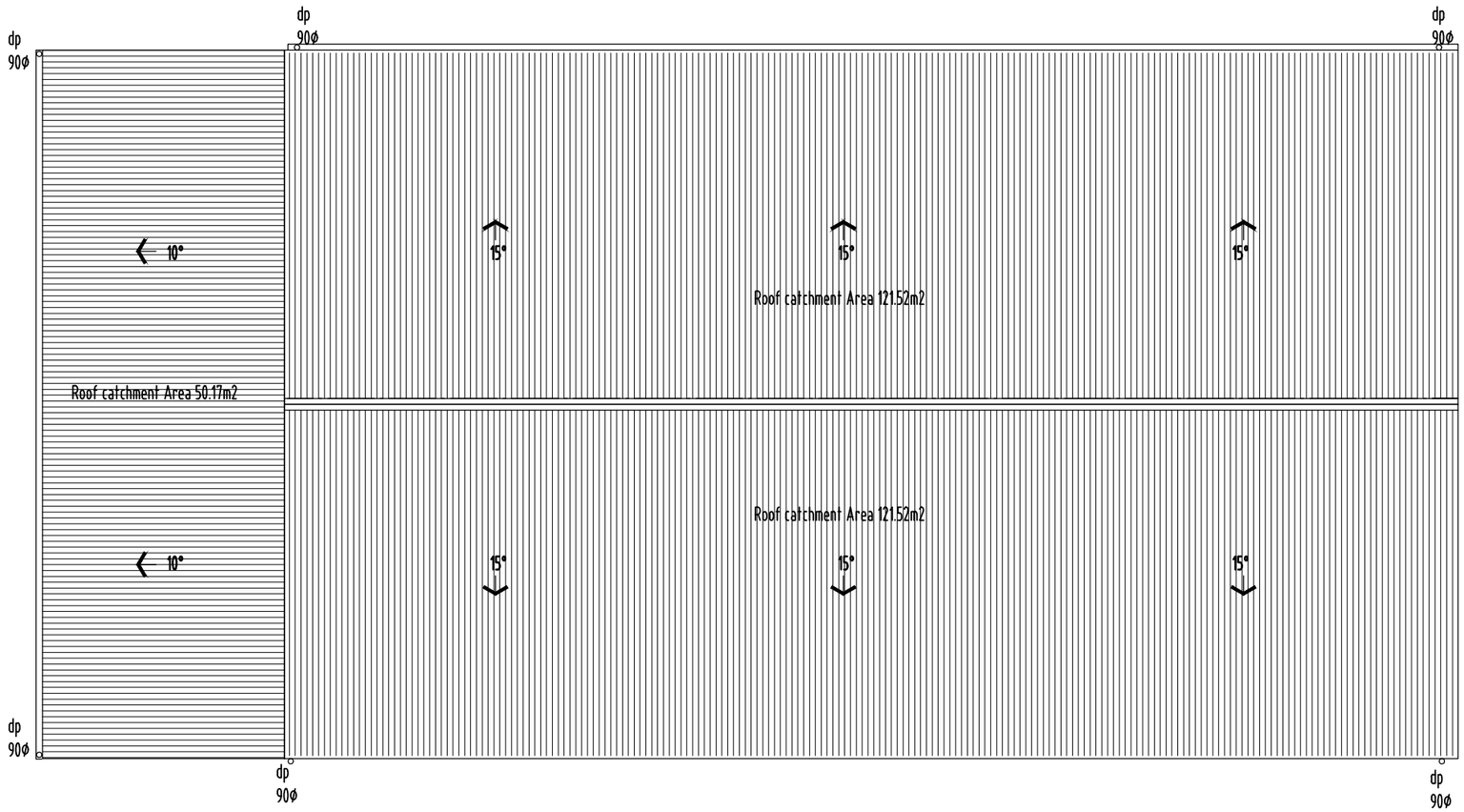
SCALE As noted on A3 paper size

DRAWN BY : NY

CHECKED BY : Nicholas Young

PROJECT NO. 24-003

Plot Date: 18/09/2024



Roof Plan
scale: 1:100 @A3

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
- [ ] preliminary design
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Proposed Manufacturing and Sales Warehouse

CLIENT :
Mr. M & S Askey

SITE :
115 Howard Road Goodwood
TAS 7010

DRAWING TITLE :
Roof plan

REVISION NO. B

DRAWING NO 07

SCALE As noted on A3 paper size

DRAWN BY : NY

CHECKED BY : Nicholas Young

PROJECT NO. 24-003

Plot Date: 18/09/2024

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

NEW PIPEWORK
SEWER DN100 uPVC —S—
SUB SOIL DRAINAGE ø90
STORMWATER DN100 uPVC
COLD WATER DN20 —W—

Wet areas shown hatched to comply with current AS3740 & 2022 N.C.C. Refer to waterproofing details.

SYMBOLS
INSPECTION OPENING
FLOOR WASTE GULLY
OVERFLOW RELIEF GULLY
ISOLATION VALVE IN BOX
DROPPER/ RISER
PIT - (DETAILS BY CIVIL)
WATER TAP

ABBREVIATIONS
V VENT PIPE
IO INSPECTION OPENING
FWG FLOOR WASTE GULLY
IOS INSPECTION OPENING SHAFT
ORG ORVERFLOW RELIEF GULLY
IV ISLOLATION VALVE IN BOX
D/R DROPPER/ RISER
Bth BATH
Shr SHOWER
B BASIN
S SINK
Tr TROUGH
WC WATER CLOSET
FWG FLOOR WASTE GULLY
HWC HOT WATER CYLINDER
IV ISOLATION VALVE
PLV PRESSURE LIMITING VALVE
CWM COLD WATER METER
GD GRATED DRAIN
GP GRATED PIT
RP ROD POINT
IS INSPECTION SHAFT

NOTE:
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- LOCAL COUNCIL REQUIREMENTS
- TASWATER TECHNICAL STANDARDS
- ANY RELEVANT STANDARDS / MANUFACTURERS SPECIFICATIONS
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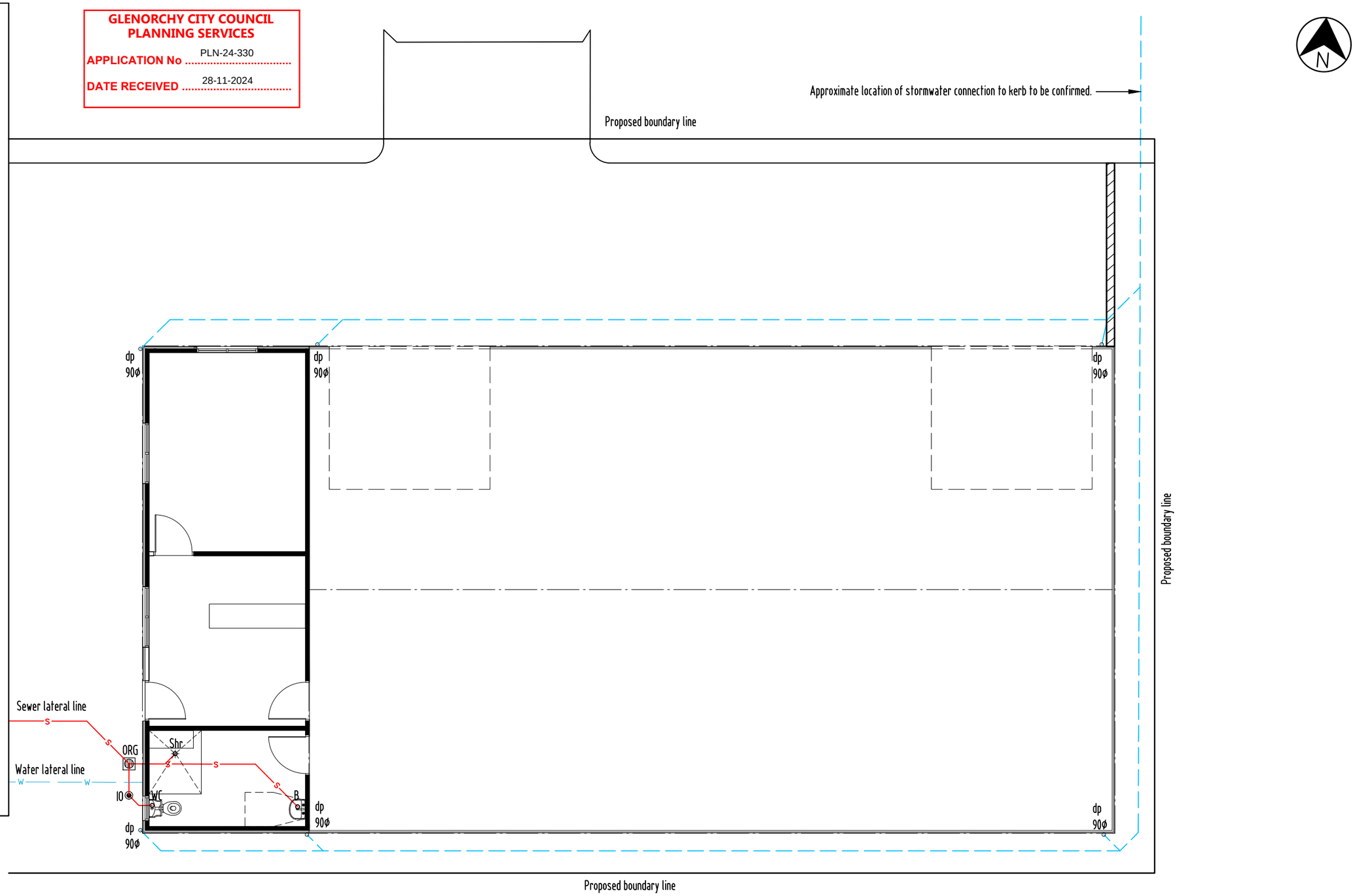

Ground Floor Drainage Plan
scale: 1:100 @A3

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- sketch design
- preliminary design
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME : Proposed Manufacturing and Sales Warehouse
CLIENT : Mr. M & S Askey
SITE : 115 Howard Road Goodwood TAS 7010
DRAWING TITLE : Ground Floor Drainage Plan
REVISION NO. B
DRAWING NO 08
SCALE As noted on A3 paper size
DRAWN BY : NY
CHECKED BY : Nicholas Young
PROJECT NO. 24-003
Plot Date: 18/09/2024

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

LEGEND & NOTES

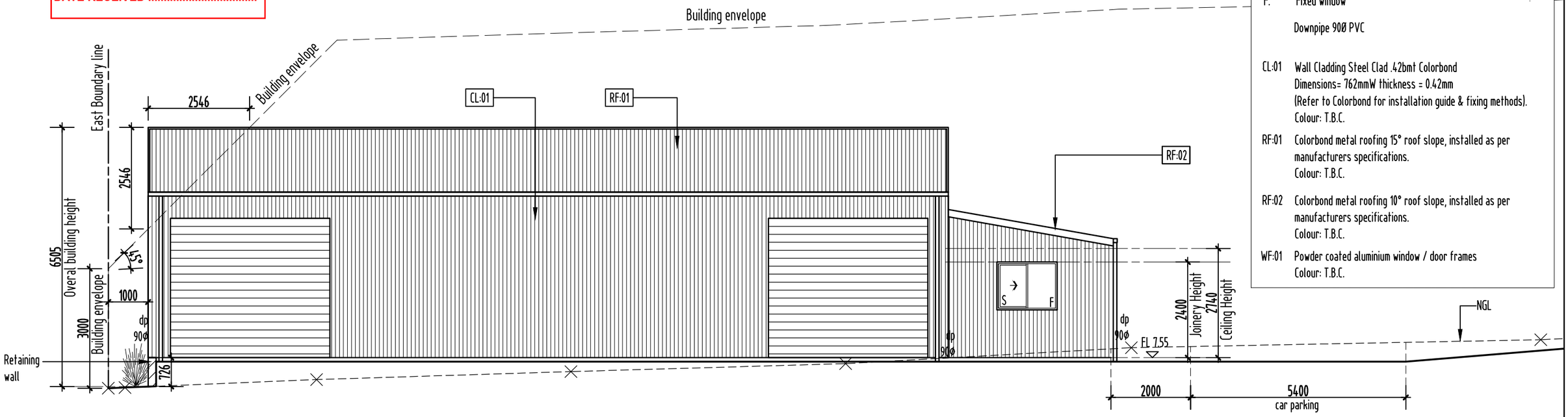
FL.	Floor level	S.	Sliding window
CL.	Ceiling level	AWN.	Awning window
F.	Fixed window		
	Downpipe 90Ø PVC		

CL:01 Wall Cladding Steel Clad .42bmt Colorbond
Dimensions= 762mmW thickness = 0.42mm
(Refer to Colorbond for installation guide & fixing methods).
Colour: T.B.C.

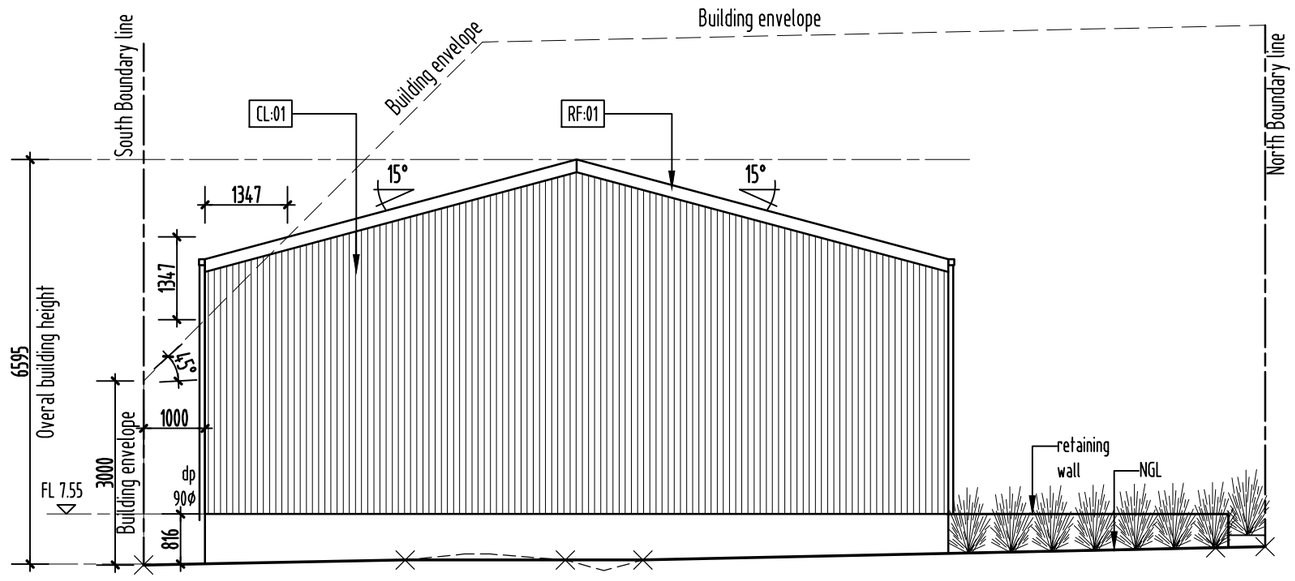
RF:01 Colorbond metal roofing 15° roof slope, installed as per manufacturers specifications.
Colour: T.B.C.

RF:02 Colorbond metal roofing 10° roof slope, installed as per manufacturers specifications.
Colour: T.B.C.

WF:01 Powder coated aluminium window / door frames
Colour: T.B.C.



Elevation 1 - North
scale 1:100@A3



Elevation 2 - East
scale 1:100@A3

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notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- sketch design
- preliminary design
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME : Proposed Manufacturing and Sales Warehouse
CLIENT : Mr. M & S Askey
SITE : 115 Howard Road Goodwood TAS 7010
DRAWING TITLE : Elevations 1 & 2
REVISION NO. B
DRAWING NO 09
SCALE As noted on A3 paper size
DRAWN BY : NY
CHECKED BY : Nicholas Young
PROJECT NO. 24-003
Plot Date: 18/09/2024

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
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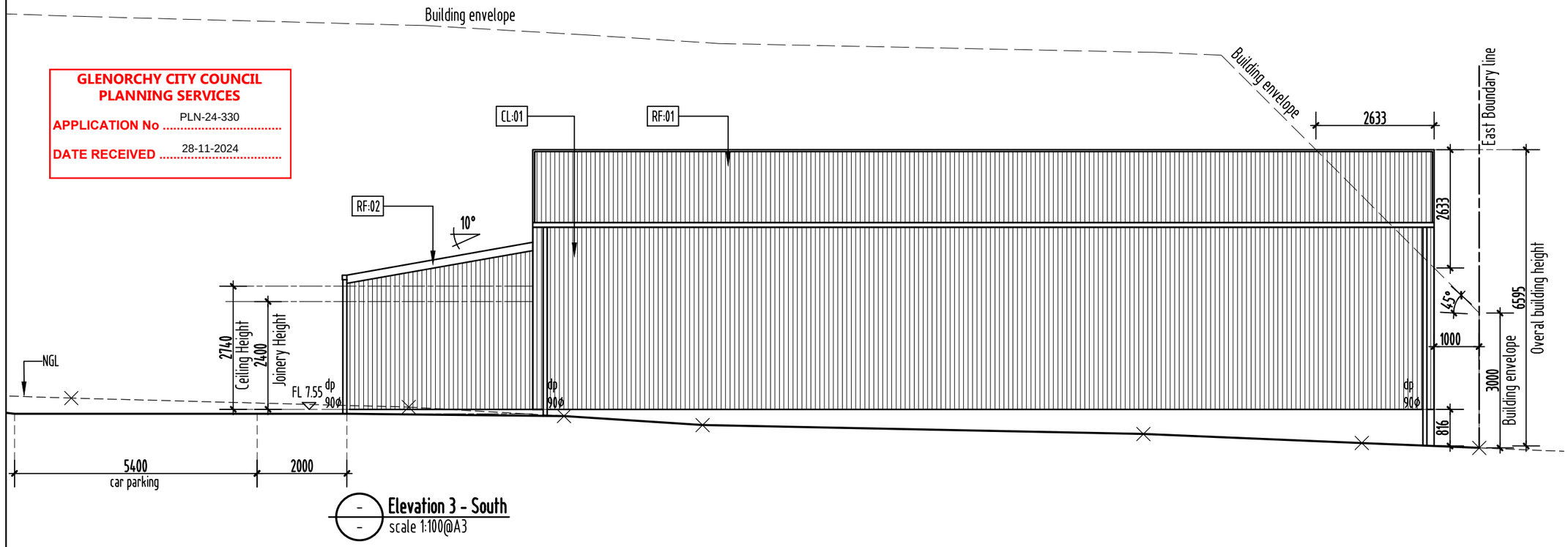
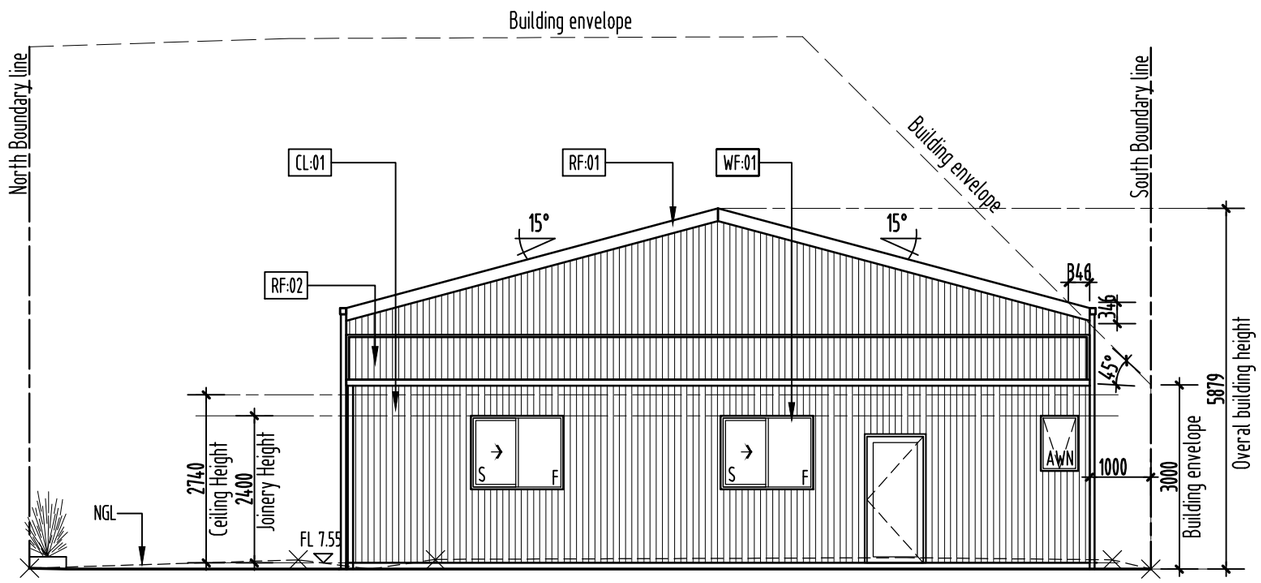


Elevation 3 - South
scale 1:100@A3



Elevation 4 - West
scale 1:100@A3

LEGEND & NOTES

FL. Floor level
CL. Ceiling level
F. Fixed window
S. Sliding window
AWN. Awning window

Downpipe 90Ø PVC

CL:01 Wall Cladding Steel Clad .42bmt Colorbond
Dimensions= 762mmW thickness = 0.42mm
(Refer to Colorbond for installation guide & fixing methods).
Colour: T.B.C.

RF:01 Colorbond metal roofing 15° roof slope, installed as per manufacturers specifications.
Colour: T.B.C.

RF:02 Colorbond metal roofing 10° roof slope, installed as per manufacturers specifications.
Colour: T.B.C.

WF:01 Powder coated aluminium window / door frames
Colour: T.B.C.

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notes	revision
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New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
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PROJECT NAME :
Proposed Manufacturing and Sales Warehouse

CLIENT :
Mr. M & S Askey

SITE :
115 Howard Road Goodwood
TAS 7010

DRAWING TITLE :
Elevations 3 & 4

REVISION NO. B

DRAWING NO 10

SCALE As noted on A3 paper size

DRAWN BY : NY

CHECKED BY : Nicholas Young

PROJECT NO. 24-003

Plot Date: 18/09/2024

SUN SHADOW DIAGRAM 21st JUNE-9am
SCALE NTS

SUN SHADOW DIAGRAM 21st JUNE-10am
SCALE NTS

SUN SHADOW DIAGRAM 21st JUNE-11am
SCALE NTS

SUN SHADOW DIAGRAM 21st JUNE-12am
SCALE NTS

SUN SHADOW DIAGRAM 21st JUNE-1pm
SCALE NTS

SUN SHADOW DIAGRAM 21st JUNE-2pm
SCALE NTS

SUN SHADOW DIAGRAM 21st JUNE-3pm
SCALE NTS

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No PLN-24-330
DATE RECEIVED 28-11-2024

ISLAND LIFE DESIGNERS

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Concept Layout	A
New Driveway/ crossover/ carparking	B

stage
- [ ] sketch design
- [ ] preliminary design
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Proposed Manufacturing and Sales Warehouse

CLIENT :
Mr. M & S Askey

SITE :
115 Howard Road Goodwood
TAS 7010

DRAWING TITLE :
Shadow Diagrams

REVISION NO. B

DRAWING NO 11

SCALE As noted on A3 paper size

DRAWN BY : NY

CHECKED BY : Nicholas Young

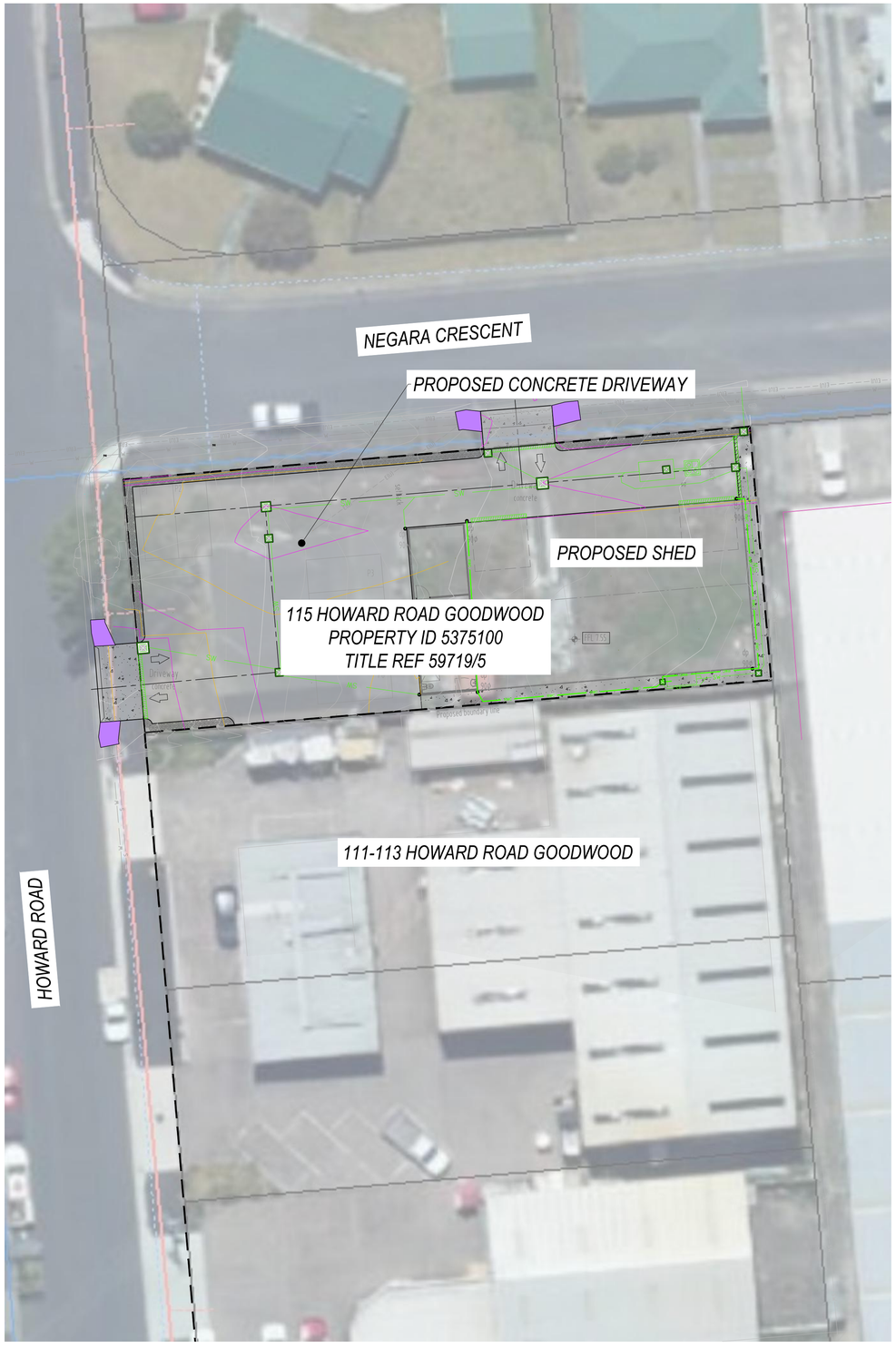
PROJECT NO. 24-003

Plot Date: 18/09/2024

CIVIL / HYDRAULIC DRAWINGS
PROPOSED DRIVEWAY (NEW WAREHOUSE)
MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

DRAWING SCHEDULE

SHEET	DRAWING TITLE	REV	DATE
C01	TITLE & OVERALL PLAN	3	15/01/2025
C02	NOTES & LEGEND	1	18/12/2024
C03	CIVIL OVERALL LAYOUT	1	18/12/2024
C04	CIVIL DETAILED LAYOUT 1	1	18/12/2024
C05	CIVIL DETAILED LAYOUT 2	3	15/01/2025
C06	PARKING LAYOUT	1	18/12/2024
C07	LONG SECTION	1	18/12/2024
C08	CROSS SECTIONS	1	18/12/2024
C09	CONSTRUCTION DETAILS 1	1	18/12/2024
C10	CONSTRUCTION DETAILS 2	0	15/01/2025



OVERALL PLAN
SCALE 1:200 (mm) (A1)

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THE EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

NOT FOR CONSTRUCTION

REV	DESCRIPTION		DATE
3	FOR DEVELOPMENT APPROVAL	CF	15/01/2025
2	FOR DEVELOPMENT APPROVAL	CF	09/01/2025
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

BASE SURVEY SUPPLIED BY
LEARY AND COX
SURVEYED ON: 13/05/2022
HORIZONTAL DATUM: MGA2020 AHD 83
GRID: GDA2020, ZONE 55
LEVEL DATUM: AHD

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 47981973

NORTH

PROPOSED DRIVEWAY (NEW WAREHOUSE)
CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010
DRAWING TITLE
TITLE AND OVERALL PLAN

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C01	3

DIAL BEFORE YOU DIG

LEGEND

NEW STORMWATER LINE(DN100 DWV SN6 @ MIN 1.0% GRADE

NEW DOMESTIC WATER

NEW DN100 DWV SN6 SEWER @ MIN 1.65% GRADE

NEW DN100 CHARGED STORMWATER LINE @ MIN 1.0% GRADE

SHAPED TABLE DRAIN

BOUNDARY LINE

EXISTING FENCE LINE

EXISTING OVERHEAD POWER LINE

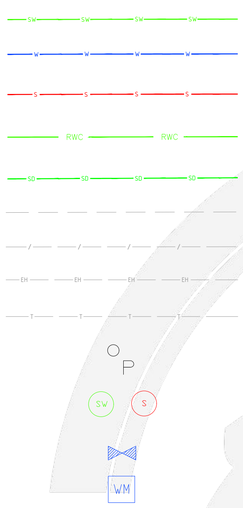
EXISTING TELECOMMUNICATIONS LINE

EXISTING POWER POLE

NEW STORMWATER/SEWER MANHOLE

WATER VALVE

WATER METER



GENERAL NOTES

1. ALL PRIVATE PLUMBING WORKS SHALL GENERALLY BE IN ACCORDANCE WITH THE AS3500, NATIONAL CONSTRUCTION CODE VOL 3 (PLUMBING CODE OF AUSTRALIA), & THE IPWEA MUNICIPAL STANDARD SPECIFICATION AND DRAWINGS AS APPLICABLE.
2. UNLESS NOTED OTHERWISE THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE WORKS INCLUDING ANY WORKS IN THE ROAD RESERVATION AND ON ADJACENT PRIVATE PROPERTIES.
3. THE CONTRACTOR SHALL CONFIRM THE PRESENCE & LOCATION OF ALL EXISTING SERVICES ON THE SITE & WITHIN THE AREA OF WORKS & CLEARLY IDENTIFY ALL DANGEROUS SERVICES UNDERGROUND & OVERHEAD.
4. ALL DRAIN AND SERVICES TIE IN LEVELS & LOCATIONS ARE TO BE CONFIRMED BEFORE COMMENCEMENT OF CONSTRUCTION WORK.
5. UNLESS NOTED OTHERWISE ALL SERVICE CONNECTIONS TO COUNCIL OR WATER AUTHORITY SERVICE SHALL BE UNDERTAKEN BY THE COUNCIL OR WATER AUTHORITY AT THE CONTRACTOR'S COST.
6. ALL REDUNDANT SERVICE LINES SHALL BE CUT AND PLUGGED AT EXTERNAL BOUNDARIES. WITHIN THE SITE BOUNDARY ALL REDUNDANT SERVICES SHALL BE REMOVED AND DISPOSED OF.
7. REDUNDANT SERVICE TRENCHES SHALL BE BACKFILLED WITH FULLY COMPACTED MATERIAL APPROPRIATE FOR THE AREA OF THE DEVELOPMENT SITE.
8. ALL UNDERGROUND WATER AND SEWER WORKS MUST BE TESTED AND INSPECTED BY COUNCIL OR TASWATER PRIOR TO BACKFILL.
9. ALL PIPES UNDER TRAFFIC ABLE AREAS ARE TO BE BACK FILLED FULL DEPTH WITH 20MM F.C.R. AND FULLY COMPACTED.

SERVICES NOTES:

WATER SUPLY

1. ALL WATER WORKS IN PUBLIC AREAS ARE TO BE IN ACCORDANCE WITH WATER SUPPLY CODE WSA 03-2011-3.1 MRWA ED 2 AND TASWATER'S SUPPLEMENT.
2. ALL WATER SUPPLY WORKS IN PRIVATE AREAS SHALL BE IN ACCORDANCE WITH IN ACCORDANCE WITH WITH AS3500.1 & AS3500.4
3. ALL INTERNAL WATER SUPPLY SERVICES SHALL BE PLANNED AND INSTALLED BY THE PLUMBING CONTRACTOR IN ACCORDANCE WITH AS3500.
4. ALL HOT WATER LINES ARE TO BE FULLY LAGGED.
5. ALL HOT WATER SERVICES TO BE INSTALLED WITH TEMPERING DEVICES PROVIDING WATER AT NO GREATER THAN 45 DEGREES C. IN ACCORDANCE WITH THE REQUIREMENTS OF AS 3500.4.
6. ALL MODIFICATIONS AND ADDITIONS TO WATER SERVICES THAT CONNECT DIRECTLY ONTO TASWATER MAINS MUST BE CARRIED BY TASWATER AT THE CONTRACTOR'S COST.
7. ALL WATER SUPPLY PIPES ARE TO BE LOCATED WITH MINIMUM CLEARANCES TO OTHER SERVICES IN ACCORDANCE WITH THAT SPECIFIED IN THE WATER SUPPLY CODE WSA 03-2011-3.1 MRWA ED E - TABLE 5.5.

SERVICES NOTES:

SEWER

1. ALL SEWER WORKS IN PUBLIC AREAS ARE TO BE IN ACCORDANCE WITH WSA 02-2002-2.3 MRWA EDITION 1.0 AND TASWATER'S SUPPLEMENT.
2. ALL SEWER WORKS IN PRIVATE AREAS SHALL BE IN ACCORDANCE WITH AS3500.2.
3. UNLESS NOTED OTHERWISE ALL SEWER DRAINS SHALL BE PVC SEWER CLASS "SN8" TO AS1260.
4. ALL SEWER MANHOLE LIDS TO BE GATIC TYPE, HEAVY DUTY FOR TRAFFIC AREAS, LIGHT DUTY FOR NON TRAFFIC AREAS.
5. WHERE NECESSARY ALL EXISTING MANHOLE & PIT TOPS SHALL BE ADJUSTED TO SUIT NEW SURFACE LEVELS. PROVIDE AND INSTALL NEW APPROVED LIDS WHERE NECESSARY.
6. PROVIDE ALL NECESSARY TESTING & INSPECTION OPENINGS TO PIPE WORK. WHERE RELEVANT PROVIDE ADDITIONAL INSPECTION OPENINGS TO ALLOW IDENTIFICATION OF THE ORIGIN OF BLOCKAGES.
7. ALL MAINTENANCE STRUCTURES ARE TO BE IN ACCORDANCE WITH WSA SEW1300 DRAWING SERIES.
8. NEW SEWER MAIN DRAINS SHALL BE DN150 UPVC CLASS 'SN8' TO AS 1260 - U.N.O.
9. ALL PRIVATE SEWER DRAINS TO BE DN100 (UNO) PVC TO AS1260.
10. MANHOLES WITH INTERNAL DROPS SHALL BE 1200 INTERNAL DIAMETER MINIMUM.

WORKPLACE HEALTH & SAFETY NOTES:

BEFORE THE CONTRACTOR COMMENCES WORK THE CONTRACTOR SHALL UNDERTAKE A SITE SPECIFIC PROJECT PRE-START HAZARD ANALYSIS / JOB SAFETY ANALYSIS (JSA) WHICH SHALL IDENTIFY IN DOCUMENTED FORM;

- THE TYPE OF WORK.
- HAZARDS AND RISKS TO HEALTH AND SAFETY.
- THE CONTROLS TO BE APPLIED IN ORDER ELIMINATE OR MINIMIZE THE RISK POSED BY THE IDENTIFIED HAZARDS.
- THE MANNER IN WHICH THE RISK CONTROL MEASURES ARE TO BE IMPLEMENTED.

THESE ARE TO BE SUBMITTED TO THE SUPERINTENDENT AND/OR OTHER RELEVANT WORKPLACE SAFETY OFFICERS.

FOR THIS PROJECT; POSSIBLE HAZARDS INCLUDE (BUT ARE NOT LIMITED TO):

- EXCAVATION OF ANY TYPE & DEPTHS
- CONTAMINATED SOILS
- CONSTRUCTION IN GROUND WITH HIGH WATER TABLE
- FELLING / LOPPING &/OR REMOVAL OF EXISTING TREES/VEGETATION
- UNDERGROUND STRUCTURES (MANHOLES / SUMPS / ETC)
- CONFINED SPACES
- OVERHEAD POWER LINES
- UNDERGROUND STORMWATER, WATER AND SEWER PIPES
- TELECOMMUNICATION CABLES - BOTH UNDERGROUND & OVERHEAD
- ELECTRICAL/POWER CABLES - BOTH UNDERGROUND & OVERHEAD
- WORKING AT HEIGHTS
- WORKING WITH ASBESTOS CONTAINING MATERIALS
- TRAFFIC MANAGEMENT

DEPTH TO INVERT OF OUTLET		MINIMUM INTERNAL DIMENSIONS mm	
		WIDTH	LENGTH
	≤600	450	450
>600	≤900	600	600
>900	≤1200	600	900
>1200		900	900

EARTHWORKS & DRIVEWAY NOTES:

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
2. ALL VEGETATION AND TOPSOIL SHALL BE STRIPPED AND GRUBBED IN THE AREA OF PROPOSED WORKS.
3. NEW OR MODIFIED DRIVEWAY CROSSINGS SHALL BE IN ACCORDANCE WITH IPWEA STANDARD DRAWING TSD-R09-v3 AND MUST BE INSPECTED AND APPROVED BY COUNCIL.
4. EXCAVATED AND IMPORTED MATERIAL USED AS FILL IS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. FILL MATERIAL SHALL BE WELL GRADED AND FREE OF BOULDERS OR COBBLES EXCEEDING 150mm IN DIAMETER UNLESS APPROVED TO BE OTHERWISE.
6. FILL REQUIRED TO SUPPORT DRIVEWAYS INCLUDING FILL IN EMBANKMENTS THAT SUPPORT DRIVEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   - TOP SOIL AND ORGANIC MATTER SHALL BE STRIPPED TO A MINIMUM OF 100mm.
   - THE SUB GRADE SHALL HAVE A MINIMUM BEARING CAPACITY OF 100 kPa.
   - FILL IN EMBANKMENTS SHALL BE KEYED 150mm INTO NATURAL GROUND.
   - THE FILL SHALL BE COMPACTED IN HORIZONTAL LAYERS OF NOT MORE THAN 200mm.
   - EACH LAYER SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 95% STD, IT IS THE BUILDERS RESPONSIBILITY TO ENSURE THAT THIS IS ACHIEVED.
7. WHERE THE ABOVE REQUIREMENTS CANNOT BE ACHIEVED THE ENGINEER SHALL BE CONSULTED AND THE FORMATION SHALL BE PROOF ROLLED (UNDER SUPERVISION OF THE ENGINEER) TO CONFIRM AN APPROVED BASE.
8. CONCRETE PAVEMENTS SHALL BE CURED FOR A MINIMUM OF 3 DAYS USING A CURRENT BEST PRACTICE METHOD.
9. SAWN CONTROL JOINTS SHALL BE CONSTRUCTED AS SOON AS POSSIBLE WITHOUT RAVELLING THE JOINT, GENERALLY THIS SHALL BE WITHIN 24 HOURS.
10. BATTERS SHALL BE SET TO A SAFE ANGLE OF REPOSE IN ACCORDANCE WITH THE BCA VOL 2 AS INDICATED BELOW:

NOTE: WHERE SITE CONDITIONS ARE UNSUITABLE FOR A BATTERED BANK CONSULT THE DESIGNER OR ENGINEER FOR A SUITABLE RETAINING WALL DESIGN. EMBANKMENTS THAT ARE TO BE LEFT EXPOSED MUST BE STABILISED BY VEGETATION OR SIMILAR WORKS TO PREVENT SOIL EROSION.

SEE TABLE BELOW

SOIL TYPE (* REFER BCA 3.2.4)		EMBANKMENT SLOPES H:L	
		COMPACTED FILL	CUT
STABLE ROCK (A*)		2:3	8:1
SAND (A*)		1:2	1:2
SILT (P*)		1:4	1:4
CLAY	FIRM CLAY	1:2	1:1
	SOFT CLAY	NOT SUITABLE	2:3
SOFT SOILS (P)		NOT SUITABLE	NOT SUITABLE

GENERAL NOTES

1. THE LOCATION OF UNDERGROUND SERVICES ARE INDICATIVE ONLY. THE EXACT POSITION OF EACH SERVICE PRESENT SHOULD BE ESTABLISHED ON SITE WITH THE RESPECTIVE SERVICE OWNERS PRIOR TO COMMENCING CONSTRUCTION.
2. ALL WORKS SHALL BE IN ACCORDANCE WITH LGAT STANDARD DRAWINGS (U.N.O.)
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE (U.N.O.)

CIVIL WORKS

1. THE CONTRACTOR SHALL PREPARE AND PROVIDE A SEDIMENT AND EROSION CONTROL PLAN FOR THE WORKS. NO WORK SHALL COMMENCE UNTIL THIS PLAN HAS BEEN APPROVED BY THE SUPERINTENDENT.
2. NO MACHINERY IS TO BE PLACED ON OR HAVE ACCESS TO ANY AREA OUTSIDE THE LIMIT OF WORKS UNLESS APPROVED BY THE PRINCIPAL.
3. THE LIMIT OF WORKS LINE SHALL BE TEMPORARILY FENCED WITH BUNTING BEFORE ANY WORKS COMMENCE.
4. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING DEPARTMENT OF STATE GROWTH SPECIFICATIONS:
   R21 - CLEARING AND GRUBBING, R22 - EARTHWORKS, R23 - SUBGRADE ZONE, R31 - OPEN DRAINS AND CHANNELS, R36 - KERB AND GUTTER, R40 - PAVEMENT BASE AND SUBBASE, R40.1 NOMINATION OF MATERIALS FORM, EXPLANATORY NOTES, R43 - PAVEMENT AND SHOULDER MAINTENANCE, R51 - SPRAYED BITUMINOUS SURFACING, R55 - ASPHALT PLACEMENT, R64 - PAVEMENT MARKING, R80 - MISCELLANEOUS CONCRETE SLABS.
5. NO CLEARING OF VEGETATION OR REMOVAL OF TOPSOIL IS PERMITTED IN ANY AREA NOT DIRECTLY RELATED TO THE CONSTRUCTION WORKS OR AS NOTED ON THE DRAWINGS OTHER THAN REMOVAL OF TREES IDENTIFIED AS IN A HAZARDOUS CONDITION.
6. ALL STRIPPED TOPSOIL IS TO BE STORED IN AN APPROVED MANNER FOR REHABILITATION WORKS AND VEGETATION RESEEDING.
7. SURFACE REINSTATEMENT & EROSION CONTROL.
   ALL DISTURBED AND BARE GROUND INCLUDING ALL CUT & FILL SURFACES SHALL BE REHABILITATED AS FOLLOWS:
   REPLACE TOPSOIL WITH THAT RESERVED WHEN THE SITE WAS STRIPPED (50 THICK). RE-SEED ALL DISTURBED GROUND USING SEED MIX APPROVED BY THE SUPERINTENDENT.
8. 140/mm TWO COAT SEAL TO BE IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH STANDARD SPECIFICATION R51 - BITUMINOUS SURFACING.
9. SUBGRADE CBR FOR ROAD PAVEMENTS AND FOOTPATHS TO BE A MINIMUM OF 5%
10. ALL PAVEMENT MARKING TO BE STANDARD PAINT IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH SPECIFICATION R64 - PAVEMENT MARKING.
11. TRAFFIC MANAGEMENT PLAN INDICATING HOW, SAFE USE McROBIES RD WILL BE MAINTAINED DURING CONSTRUCTION SHALL BE SUBMITTED PRIOR TO COMMENCEMENT OF WORK.
12. CONCRETE FOOTPATH TO BE CONSTRUCTED IN ACCORDANCE WITH LGAT STANDARD DRAWINGS TSD-R11-v3.
13. CONCRETE KERBS TO BE CONSTRUCTED IN ACCORDANCE WITH LGAT STANDARD DRAWINGS TSD-R14-v3.

SERVICES NOTES:

STORMWATER

1. ALL STORMWATER WORKS TO BE IN ACCORDANCE WITH AS3500.3.
2. ALL STORM WATER PIPES LESS THAN DN300 TO BE UPVC CLASS "SN8" TO AS 1254 UNO.
3. ALL STORMWATER PIPES DN300 & LARGER TO BE 'BLACKMAX' UNO.
4. ALL SUBSOIL DRAINS SHALL COMPRISE DN80 CLASS 400 SN8 POLYETHYLENE PIPE TO AS2439.1 WITH PROPRIETARY POLYESTER PIPE FILTER SOCK SLEEVING AND FREEE DRAINING BEDDING MATERIAL.
5. PROVIDE ANCHOR BLOCKS IN ACCORDANCE WITH MSD SD-5005 WHERE PIPE GRADES EXCEED 15 %.
6. CONNECTIONS TO LIVE COUNCIL MAINS TO BE CARRIED OUT BY COUNCIL AT DEVELOPERS COST.
7. ALL DRAIN AND TRENCH CONSTRUCTION SHALL COMPLY WITH THE MUNICIPAL STANDARD DRG MSD SD 5001.
8. ALL MANHOLE LIDS IN TRAFFICABLE AREAS SHALL COMPLY WITH CLASS "C" LOAD RATING TO AUSTRALIAN STANDARD AS 3996.
   PIT DIMENSIONS SHOWN HAVE BEEN DESIGNED BY PIT CAPACITY TABLES. THESE PITS MAY NEED TO BE INCREASED IN MINIMUM INTERNAL SIZE DUE TO THE DEPTH AS PER AS3500.3 AS PER TABLE BELOW WHICH IS THE CONTRACTORS RESPONSIBILITY TO ENSURE COMPLIANCE TO AS3500: (SEE ADJACENT)

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION		DATE
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

FYSH DESIGN

UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS

PH: 0414 149 394

ACCREDITATION: BSD LICENCE NO. 479819732

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

DRAWING TITLE

NOTES AND LEGEND

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C02	1

NEW BITUMEN TO BE LAID EITHER SIDE OF NEW CROSSOVER TO MIN. 1.5m WITH WITH WINGS AS PER LGAT TSD-R09 AT DEVELOPERS COST. WINGS TO BE USED TO TRANSITION FROM NEW DRIVEWAY LEVELS TO EXISTING FOOTPATH AS REQUIRED

DN150 PVC SN6 STORMWATER AT MIN. 1.0% FALL TO BOUNDARY TRANSITION PIT TO CONNECT TO NEW 75x250 STEEL RHS STORMWATER PROPERTY KERB CONNECTION IN ACCORDANCE WITH LGAT SW25 V3 DRAWINGS.

NEGARA CRESCENT

NEGARA CRESCENT

NEW 5.5M WIDE REINFORCED CONCRETE PROPERTY CROSSOVER

EXISTING CONCRETE 225mm TASWATER SEWER MAIN (A552977)

EXISTING CAST IRON 100mm TASWATER WATER MAIN (A343182)

EXISTING CAST IRON 100mm TASWATER WATER MAIN (A343182)

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

CH 0.00

CH 6.10

CH 0.00

CH 10.00

CH 20.00

CH 30.00

CH 40.00

CH 45.29

7.331m

7.384m

7.501m

7.453

PROPOSED 150mm REINFORCED CONCRETE DRIVEWAY, IN ACCORDANCE WITH AS2890.1

EXISTING TASWATER SEWER PROPERTY CONNECTION (A3310233)

PROPOSED SHED

NEW 5.5M WIDE REINFORCED CONCRETE PROPERTY CROSSOVER

HOWARD ROAD

CH 0.00

CH 5.00

CH 10.00

CH 10.00

CH 20.00

CH 23.58

CH 11.98

6.27m

Driveway

concrete

Proposed boundary line

115 HOWARD ROAD GOODWOOD
PROPERTY ID 5375100
TITLE REF 59719/5

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

EXISTING 225mm COUNCIL STORMWATER MAIN (ID 125014)

EXISTING 20mm TASWATER WATER PROPERTY CONNECTION AND METER (A333653)

EXISTING COPPER 38mm TASWATER WATER MAIN (A338078)

EXISTING CONCRETE 225mm TASWATER SEWER MAIN (A552977)

111-113 HOWARD ROAD GOODWOOD

NEW BITUMEN TO BE LAID EITHER SIDE OF NEW CROSSOVER TO MIN. 1.5m WITH WITH WINGS AS PER LGAT TSD-R09 AT DEVELOPERS COST. WINGS TO BE USED TO TRANSITION FROM NEW DRIVEWAY LEVELS TO EXISTING FOOTPATH AS REQUIRED

EXISTING 225mm COUNCIL STORMWATER MAIN (ID 125014)

OVERALL LAYOUT PLAN

SCALE 1:100 (mm)

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION		DATE	REV	DESCRIPTION	DATE
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024			
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024			

FYSH DESIGN
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CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

DRAWING TITLE
DETAILED OVERALL PLAN

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C03	1

150mm WIDE MIN. CLASS B TRENCH DRAIN WITH 450sq. SUMP PIT TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. TRENCH WITH INTERNAL FALL TO BE USED IF REQUIRED (TYPICAL)

EXISTING CAST IRON 100mm TASWATER WATER MAIN (A343182)

FOOTPATH

BOUNDARY

EXISTING COPPER 38mm TASWATER WATER MAIN (A338078)

EXISTING CONCRETE 225mm TASWATER SEWER MAIN (A552977)

CENTRELINE ALIGNMENT - DRIVEWAY 1

CENTRELINE ALIGNMENT - DRIVEWAY 2

CENTRELINE ALIGNMENT - DRIVEWAY 3

CENTRELINE ALIGNMENT - CROSSOVER 1

CH 0.00

CH 40.00

CH 45.39

CH 30.00

CH 6.10

CH 20.00

CH 23.58

CH 5.00

CH 10.00

CH 15.00

CH 11.98

5400

5500

2400

2400

DN150 DWV SN6 STORMWATER @ MIN 1.00% GRADE

DN100 DP

DN100 DP

DN100 DP

DN100 DP

ALL DRIVEWAY PITS TO HAVE OCEAN GUARDS WITH 200mm MESH BAGS (OG-200) INSTALLED IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS (TYPICAL FOR ALL PITS)

PROPOSED 150mm REINFORCED CONCRETE DRIVEWAY, IN ACCORDANCE WITH AS2890.1

600 SQ GRATED SAG PITS TO HAVE OCEAN GUARDS WITH 200mm MESH BAGS (OG-200) INSTALLED IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS (TYPICAL FOR ALL PITS)

NEW 5.5M WIDE REINFORCED CONCRETE PROPERTY CROSSOVER TO BE PROVIDED SITE TO ALLOW FOR PASSING IN ACCORDANCE WITH LGAT DRAWING TSD-R09-v3

DN100 DWV SN6 STORMWATER @ MIN 1.00% GRADE

150mm WIDE MIN. CLASS B TRENCH DRAIN WITH 450sq. SUMP PIT TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. TRENCH WITH INTERNAL FALL TO BE USED IF REQUIRED (TYPICAL)

NEW BITUMEN TO BE LAID EITHER SIDE OF NEW CROSSOVER TO MIN. 1.5m WITH WITH WINGS AS PER LGAT TSD-R09 AT DEVELOPERS COST. WINGS TO BE USED TO TRANSITION FROM NEW DRIVEWAY LEVELS TO EXISTING FOOTPATH AS REQUIRED

P1 P2 P3 P4 P5 P6

Driveway concrete

Proposed boundary line

DETAILED LAYOUT PLAN 1

SCALE 1:50 (mm)

NOT FOR CONSTRUCTION

REV	DESCRIPTION		DATE
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

DRAWING TITLE
DETAILED CIVIL PLAN 1

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C04	1

DIAL BEFORE YOU DIG

NEW 5.5M WIDE REINFORCED CONCRETE PROPERTY CROSSOVER TO BE PROVIDED SITE TO ALLOW FOR PASSING IN ACCORDANCE WITH LGAT DRAWING TSD-R09-v3
150mm WIDE MIN. CLASS B TRENCH DRAIN WITH 450sq. SUMP PIT TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. TRENCH WITH INTERNAL FALL TO BE USED IF REQUIRED (TYPICAL)
NEW BITUMEN TO BE LAID EITHER SIDE OF NEW CROSSOVER TO MIN. 1.5m WITH WITH WINGS AS PER LGAT TSD-R09 AT DEVELOPERS COST. WINGS TO BE USED TO TRANSITION FROM NEW DRIVEWAY LEVELS TO EXISTING FOOTPATH AS REQUIRED
5500
FOOTPATH
DN150 PVC SN6 STORMWATER AT MIN. 1.0% FALL TO BOUNDARY TRANSITION PIT TO CONNECT TO NEW 75x250 STEEL RHS STORMWATER PROPERTY KERB CONNECTION IN ACCORDANCE WITH LGAT SW25 V3 DRAWINGS.
ALL DRIVEWAY PITS TO HAVE OCEAN GUARDS WITH 200mm MESH BAGS (OG-200) INSTALLED IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS (TYPICAL FOR ALL PITS)
CENTRELINE ALIGNMENT - CROSSOVER 1
CENTRELINE ALIGNMENT - DRIVEWAY 1
CH 0.00
CH 6.10
CH 10.00
CH 20.00
CH 30.00
DN150 DWV SN6 STORMWATER @ MIN 1.00% GRADE
7.384m
7.331m
7.501m
7.453
DN100 DP
CONCRETE 2,800L UNDERGROUND DETENTION TANK INSTALLED WITH 75mm LOW FLOW ORIFICE AND 150mm OVERFLOW AS PER MANUFACTURERS SPECIFICATIONS AND DETAIL PROVIDED. REFER TO FYSH DESIGN STORMWATER REPORTING FOR SIZING INFORMATION
OCEANPROTECT JELLYFISH (JF-900) STORMWATER TREATMENT SYSTEM INSTALLED AS PER MANUFACTURERS SPECIFICATIONS
150mm WIDE MIN. CLASS B TRENCH DRAIN WITH 450sq. SUMP PIT TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. TRENCH WITH INTERNAL FALL TO BE USED IF REQUIRED (TYPICAL)
REFER TO C06 FOR PARKING PLAN AND GRADES
PROPOSED 150mm REINFORCED CONCRETE DRIVEWAY, IN ACCORDANCE WITH AS2890.1
600 SQ GRATED SAG PITS TO HAVE OCEAN GUARDS WITH 200mm MESH BAGS (OG-200) INSTALLED IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS (TYPICAL FOR ALL PITS)
CENTRELINE ALIGNMENT - DRIVEWAY 2
CENTRELINE ALIGNMENT - DRIVEWAY 3
CH 15.00
CH 11.98
CH 23.58
P3
P4
P5
P6
3000L SLIMLINE RAINWATER POLY RAINWATER DETENTION TANK, TO HAVE DN40 LOW ORIFICE SET AT HALF WAY HEIGHT, AND DN100 OVERFLOW LINE AT TOP (REFER TO TANK DETAIL)
EXACT LOCATION INDICATIVE AND SUBJECT TO FINAL DESIGN IN STAGE 2
Proposed boundary line

DETAILED LAYOUT PLAN 2

SCALE 1:50 (mm)

NOT FOR CONSTRUCTION

REV	DESCRIPTION		DATE
3	FOR DEVELOPMENT APPROVAL	CF	15/01/2025
2	FOR DEVELOPMENT APPROVAL	CF	09/01/2025
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

DIAL BEFORE YOU DIG

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

DRAWING TITLE
DETAILED CIVIL PLAN 2

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C05	3

B85 VEHICLE (8m RADIUS) (2004)

OVERALL LENGTH	*4.910m*
OVERALL WIDTH	*1.870m*
OVERALL BODY HEIGHT	*1.421m*
MIN BODY GROUND CLEARANCE	*0.159m*
TRACK WIDTH	*1.770m*
LOCK TO LOCK TIME	*4.00s*
CURB TO CURB TURNING RADIUS	*8.000m*

CHECKED WITH AUTODESK VEHICLE TRACKING SOFTWARE

PARKING LAYOUT
SCALE 1:50 (mm)

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION		DATE
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS

PH: 0414 149 394

ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

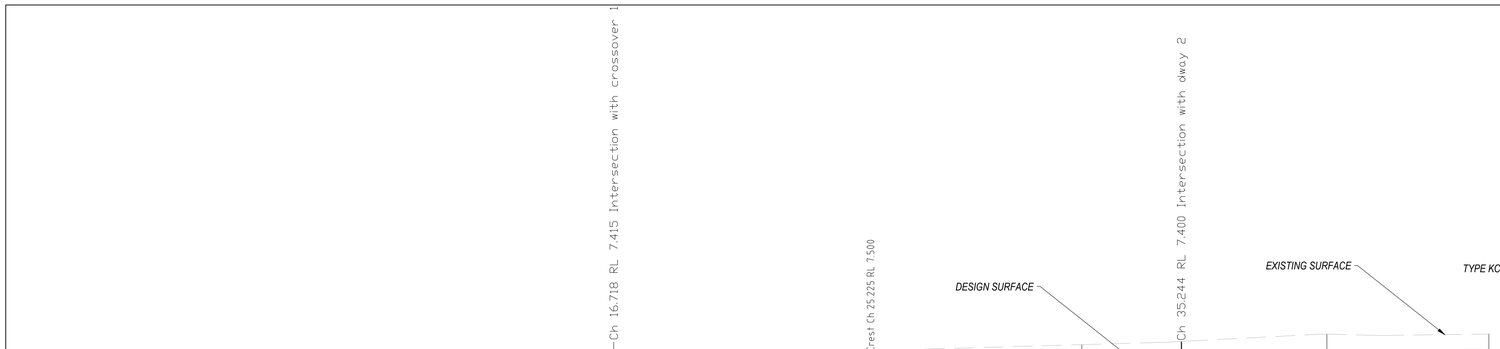
DRAWING TITLE
PARKING

SCALE 1:100

DESIGNED	*DRAWN*
CF	CF
PROJECT	*SHEET NO.*
CKD-CIV-127	C06

SCALE
1:100 @ A1

REVISION
1



EXISTING SURFACE	6.95	7.13	7.27	7.36	7.36	7.54	7.61	7.61	7.63	7.83	7.93	7.94	8.17	8.18
DESIGN SURFACE	7.248	7.328	7.379	7.408	7.415	7.451	7.488	7.490	7.500	7.432	7.400	7.400	7.510	7.633
Centreline Cut/Fill	0.299	0.202	0.106	0.051	0.059	-0.086	-0.122	-0.125	-0.134	-0.397	-0.534	-0.535	-0.662	-0.547
CHAINAGE	0.000	8.000	13.117	16.000	16.718	20.317	24.000	24.247	25.225	32.000	35.244	35.264	40.000	45.290

DWAY 1 - LONGITUDINAL SECTION

HORIZ 1:100 VERT 1:100

EXISTING SURFACE	8.43	8.49	8.48	8.49	8.23	8.23	8.23	8.21	8.20	8.19	8.19	8.19	8.09	8.05	8.00	7.96	7.93	7.93	7.92	7.87	7.85	7.82	7.80	7.77	7.74	7.71	7.68	7.67	7.65
DESIGN SURFACE	8.430	8.410	8.390	8.370	8.358	8.356	8.335	8.265	8.196	8.126	8.057	7.987	7.917	7.848	7.778	7.708	7.668	7.667	7.661	7.644	7.627	7.610	7.594	7.577	7.560	7.544	7.527	7.510	7.501
Centreline Cut/Fill	0.000	-0.077	-0.090	-0.119	0.126	0.125	0.108	0.051	-0.006	-0.065	-0.128	-0.199	-0.171	-0.197	-0.224	-0.252	-0.267	-0.268	-0.256	-0.230	-0.221	-0.213	-0.205	-0.193	-0.181	-0.167	-0.154	-0.155	-0.152
CHAINAGE	0.000	1.000	2.000	3.000	3.612	3.703	4.000	5.000	6.000	7.000	8.000	9.000	10.000	11.000	12.000	13.000	13.580	13.587	14.000	15.000	16.000	17.000	18.000	19.000	20.000	21.000	22.000	23.000	23.577

DWAY 3 - LONGITUDINAL SECTION

HORIZ 1:100 VERT 1:100

EXISTING SURFACE	7.44	7.46	7.40	7.38	7.38	7.36	7.36
DESIGN SURFACE	7.439	7.459	7.469	7.481	7.478	7.418	7.415
Centreline Cut/Fill	0.000	0.000	0.072	0.099	0.097	0.061	0.059
CHAINAGE	0.000	1.999	2.897	3.897	4.000	6.000	6.095

CROSSOVER 1 - LONGITUDINAL SECTION

HORIZ 1:100 VERT 1:100

EXISTING SURFACE	7.93	7.93	7.97	7.99	7.98	7.96	7.96	7.95	7.93
DESIGN SURFACE	7.400	7.400	7.328	7.334	7.344	7.366	7.366	7.381	7.400
Centreline Cut/Fill	-0.534	-0.534	-0.640	-0.656	-0.639	-0.593	-0.593	-0.568	-0.535
CHAINAGE	0.000	0.003	2.403	3.395	5.000	8.471	8.481	10.000	11.981

DRIVEWAY 2 - LONGITUDINAL SECTION

HORIZ 1:100 VERT 1:100

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION		DATE
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

FYSH DESIGN
CIVIL HYDRAULIC

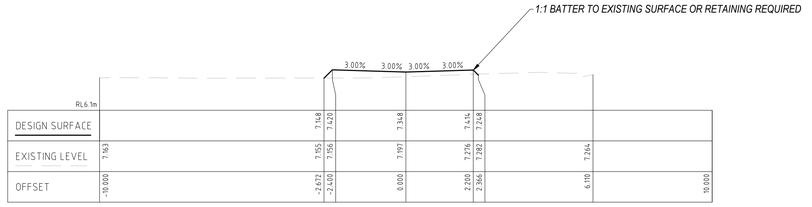
PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

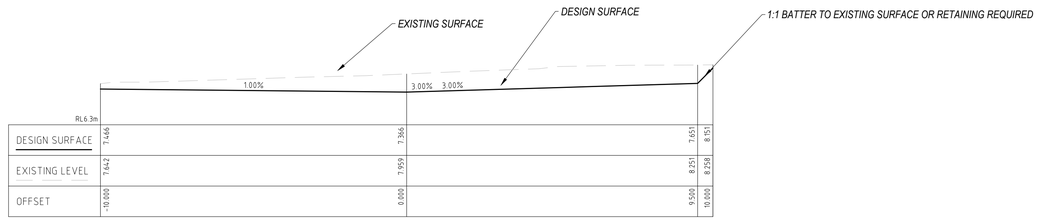
DRAWING TITLE
LONG SECTIONS

0 1 2 3 4 5
SCALE 1:100

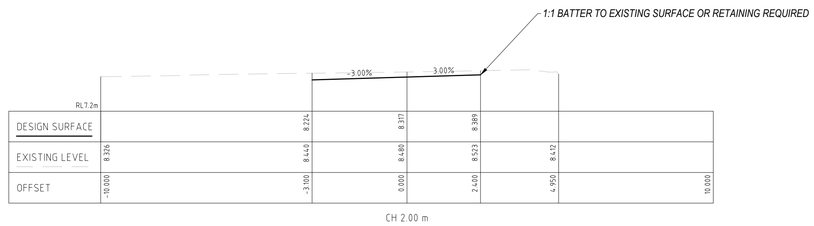
DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	**SHEET NO.**	**REVISION**
CKD-CIV-127	C07	1



CH 10.00 m



CH 8.47 m



CH 2.00 m

DWAY - CROSS SECTIONS

HORIZ 1:100 VERT 1:100

NOT FOR CONSTRUCTION

REV	DESCRIPTION		DATE
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0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

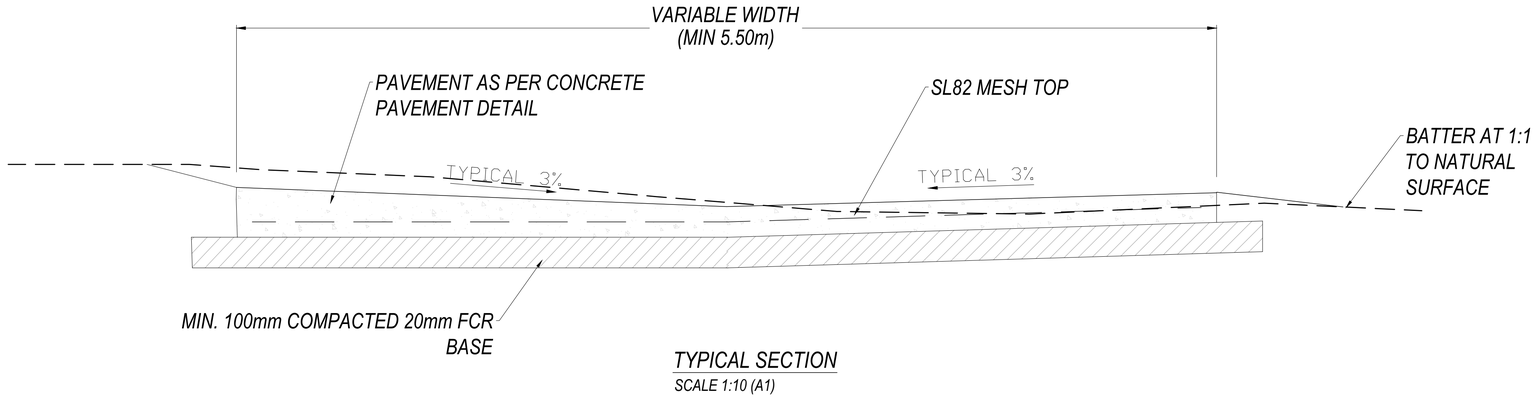
DRAWING TITLE
CROSS SECTIONS

SCALE 1:100

DESIGNED	DRAWN
CF	CF
PROJECT	SHEET NO.
CKD-CIV-127	C08

SCALE
1:100 @ A1

REVISION
1



TYPICAL SECTION
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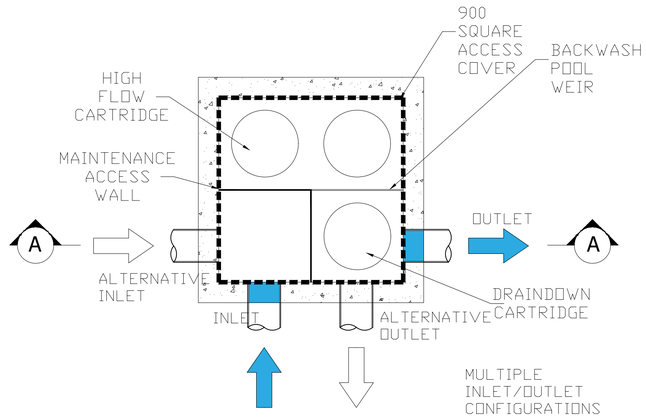
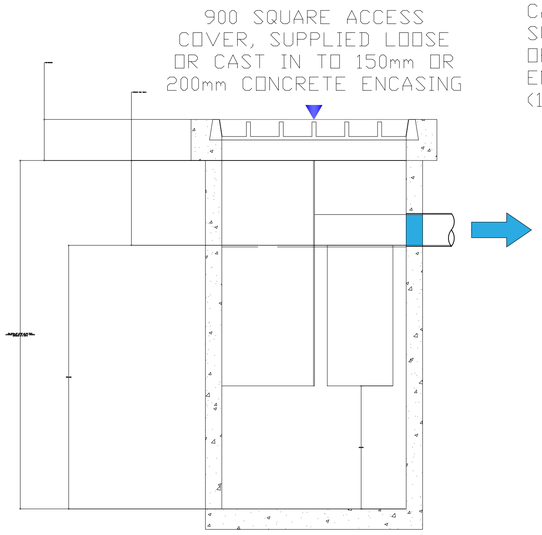
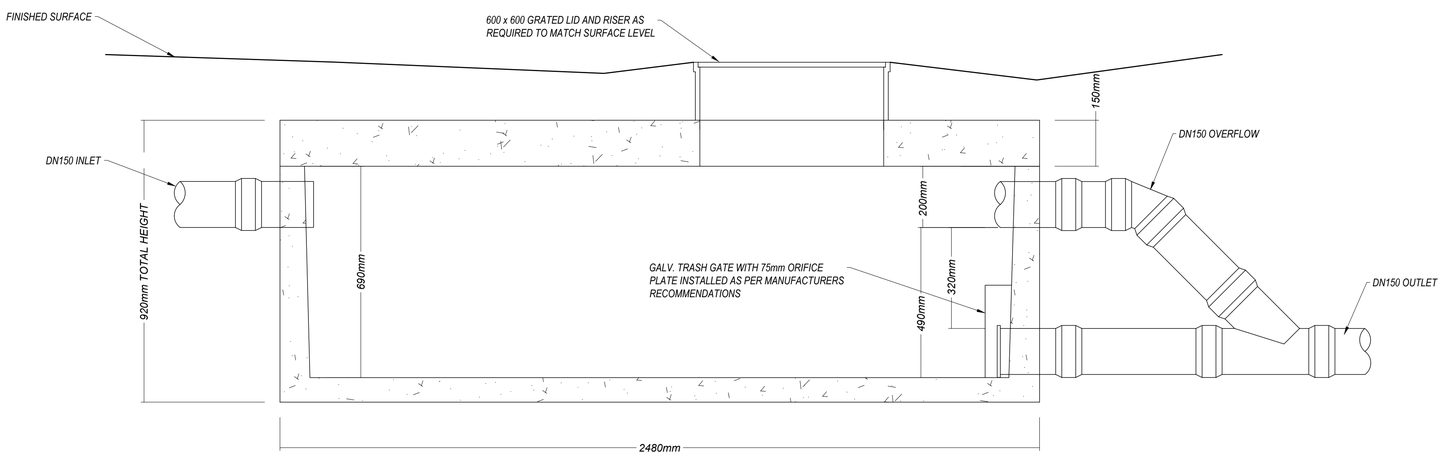


PLAN LAYOUT



SECTION A-A

OCEAN PROTECT FILTRATION SYSTEM DETAIL
NTS



2800L CONCRETE DETENTION TANK DETAIL
SCALE 1:10 (A1)

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION		DATE
1	FOR DEVELOPMENT APPROVAL	CF	18/12/2024
0	FOR DEVELOPMENT APPROVAL	CF	14/10/2024

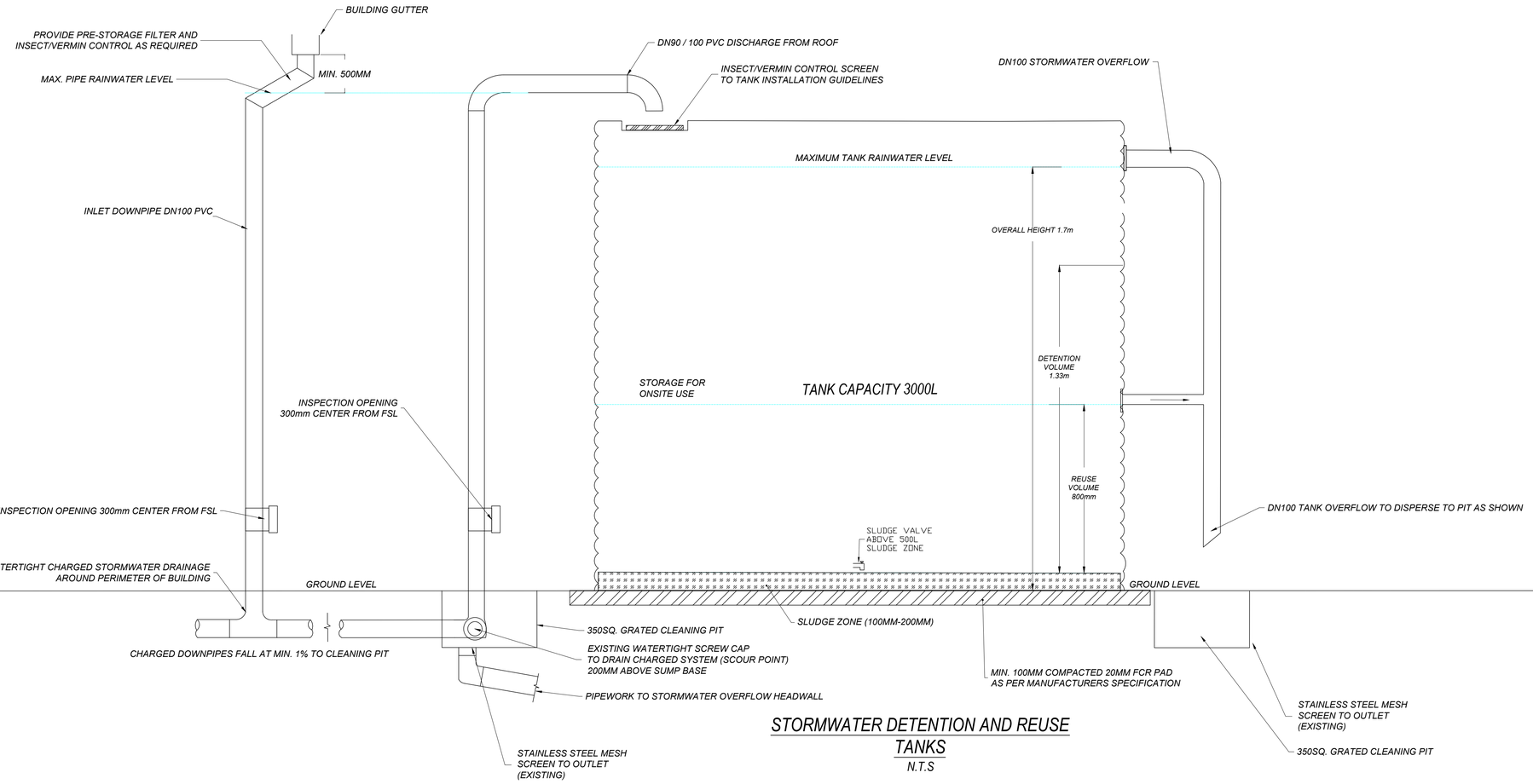
FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED DRIVEWAY (NEW WAREHOUSE)
CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010
DRAWING TITLE
CONSTRUCTION DETAILS

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C09	1



STORMWATER DETENTION AND REUSE TANKS

N.T.S

REV	DESCRIPTION	DATE	REV	DESCRIPTION	DATE
0	FOR DEVELOPMENT APPROVAL CF	15/01/2025			

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED DRIVEWAY (NEW WAREHOUSE)

CLIENT: MR M & S ASKEY
115 HOWARD ROAD, GOODWOOD TAS 7010

DRAWING TITLE
CONSTRUCTION DETAILS 2

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	1:100 @ A1
PROJECT	SHEET NO.	REVISION
CKD-CIV-127	C10	0

STORMWATER DESIGN REPORT

Mr M & S Askey
Island Life Designers

115 Howard Road, Goodwood TAS

CF Design Reference: ***CKD-CIV-127***

Date:15/01/2025

For DA Approval Rev 3

Table of Contents

1. INTRODUCTION AND SCOPE OF ENGAGEMENT

Fysh Design have been engaged to design a detention stormwater system for the proposed light commercial development at 115 Howard Road Goodwood. As a condition of the Glenorchy City Council Stormwater Policy, for a development adding an additional impervious area greater than 250 square meters, engineering calculations must be provided for a stormwater detention system to ensure the sites post-development peak discharge must does exceed previous existing run-off for the 5% AEP peak storm event. The following report outlines the methodology and assumptions used to ensure the proposed development complies with the Glenorchy City Council Stormwater Policy.

The site itself currently includes one single dwelling, which discharges to a stormwater kerb connection. This existing dwelling will be demolished. The proposed development involves the addition of a new large-scale shed and an associated driveway at the front of the

property. The site itself slopes gently at approximately 5-8% away from the street frontage. It is the intention of Fysh Design to upgrade the stormwater kerb connections capacity and upgrade the connection in line with the latest standards.

2. DETENTION MODEL

Rainfall depths used for the analysis are as follows (ARR DATA HUB). Multiple durations of the 5% AEP event were simulated to determine the critical storm duration for the post-development scenario:

TABLE 1: IFD DEPTHS

Design Storm Event	*Design Rainfall (mm/hr)*
5% AEP 5 min	*84.9*
5% AEP 10 min	*63.9*
5% AEP 20 min	*44.1*
5% AEP 30 min	*34.7*
5% AEP 60 min	*22.7*
5% AEP 120 min	*15.1*

Table | Chart | Unit: mm/h

	Annual Exceedance Probability (AEP)						
Duration	**63.2%**	**50%#**	**20%***	**10%**	**5%**	**2%**	**1%**
1 min	60.7	68.9	96.5	117	138	169	194
2 min	52.3	58.9	80.2	95.1	110	129	143
3 min	46.2	52.2	71.5	85.2	99.1	117	131
4 min	41.6	47.1	65.1	78.0	91.2	109	123
5 min	38.0	43.1	59.9	72.2	84.8	102	117
10 min	27.5	31.3	44.1	53.7	63.8	78.5	90.8
15 min	22.3	25.3	35.7	43.6	51.8	63.9	74.1
20 min	19.1	21.7	30.5	37.1	44.1	54.3	62.8
25 min	16.9	19.2	26.9	32.7	38.7	47.4	54.7
30 min	15.3	17.3	24.2	29.3	34.7	42.3	48.7
45 min	12.2	13.8	19.2	23.1	27.1	32.7	37.2
1 hour	10.4	11.8	16.2	19.5	22.7	27.2	30.7
1.5 hour	8.32	9.42	12.9	15.4	17.8	21.1	23.6
2 hour	7.12	8.06	11.0	13.1	15.1	17.7	19.7
3 hour	5.72	6.49	8.89	10.5	12.0	14.1	15.6
4.5 hour	4.59	5.23	7.18	8.47	9.71	11.3	12.6
6 hour	3.92	4.47	6.17	7.30	8.37	9.79	10.9
9 hour	3.11	3.56	4.97	5.90	6.79	7.99	8.91
12 hour	2.62	3.01	4.23	5.04	5.83	6.90	7.73
18 hour	2.02	2.33	3.32	3.98	4.64	5.55	6.26
24 hour	1.67	1.93	2.75	3.32	3.89	4.68	5.31
30 hour	1.42	1.64	2.36	2.86	3.36	4.06	4.61
36 hour	1.24	1.44	2.07	2.51	2.96	3.58	4.08
48 hour	0.996	1.15	1.66	2.02	2.39	2.89	3.30
72 hour	0.718	0.826	1.18	1.44	1.71	2.06	2.35
96 hour	0.564	0.648	0.921	1.12	1.32	1.58	1.80
120 hour	0.468	0.535	0.756	0.911	1.07	1.28	1.44
144 hour	0.402	0.459	0.643	0.771	0.898	1.07	1.20
168 hour	0.354	0.404	0.562	0.669	0.775	0.919	1.03

Figure 1: IFD Design Rainfall intensity for Goodwood TAS

Site Catchments:

Pre-development:

Total site area: ≈ 827m^2

Post-Development:

Post-development Impervious areas (roofs): ≈ 294m^2
Post-development impervious areas (sealed driveway): ≈ 461m^2
Post-development undeveloped pervious areas: ≈ 72m^2

Pre-development entire catchment: C = 0.55
Post-development roof: C = 1.0
Post-development sealed driveway: C = 0.9
Post-development pervious: C = 0.40

Timing of Flows:

The following flow travel times have been adapted for the simulation.

Pre-development entire catchment:	TOC = 30 mins (GCC Policy)
Post-development roof:	TOC = 5 mins (Recommended for roof drainage)
Post-development sealed driveway:	TOC = 5 mins (Standard inlet times)
Post-development pervious:	TOC = 5 mins (Standard inlet times)

Calculations have been based on the Modified Rational Method for stormwater run-off:

$$Q = \frac{C \times I \times A}{3600}$$

Where: Q = Design Volumetric Flow Rate [L/s]
C = Runoff Coefficient
I = Rainfall Intensity [mm/hr] (5 minute - 5% AEP storm)
A = Sum of all equivalent areas [m^2]

Pre-Existing Run off calculations

$$Q_{PSD} = \frac{(0.55 \times 827) \times 34.7}{3600} = 4.38\ \mathrm{L/s}$$

Post-Development:

$$Q_{Post} = \frac{(1.0 \times 294 + 0.9 \times 461 + 0.40 \times 72) \times 84.8}{3600} = 17.37\mathrm{L/s}$$

As shown above the post development flow Q_{Post} is **12.99 L/s** additional than the permissible site discharge Q_{PSD} and therefore on-site detention (OSD) is required. To determine the volume of storage required to reduce the post development peak discharge to the permissible site discharge Autodesk Software - Storm and Sanitary Analysis was utilised.

Due to the large differential from pervious existing surfaces to post development roof and sealed surfaces, the stormwater detention solution focuses on the use of below ground detention via a 2800L concrete detention tank and a 3000L above ground rainwater tank (refer to figure 5 and 6) connected to all drainage lines from roof and driveway pits

The model simulated both the proposed shed and proposed driveway discharging to the below ground tank system, connected to the roof area via a gravity storm water system. This below tank was simulated being fitted with a 75mm low flow orifice to restrict outflow and a DN150 overflow outlet.

The model also included the shed roof being fitted with a 3,000 L slimline detention tank, connected to the roof area via a charged stormwater system. This tank was simulated being fitted with a 40mm low flow orifice to restrict outflow.

TABLE 2: SITE OUTFLOW RESULTS

Scenario	*Site Runoff (L/s)*
Pre-development	*4.38*
Post-development (No Detention)	*17.37*
Post- development (Detention)	*4.56 (5% AEP 5-min duration)*

Table 3 further breaks down the post-development flow to demonstrate what flows are being generated and where particular catchments are draining to within the site.

TABLE 3: SITE OUTFLOW BREAKDOWN

Catchment	*Detained – Yes/No*	*Catchment runoff (L/s)*	*Total Site Runoff (L/s)*
Proposed Shed	*Yes – Above ground 2000L detention tank*	*6.92*	*4.56*
Driveway	*Yes – Central below ground detention Tank*	*9.77*	
Pervious Landscape	*No Detention*	*0.67*	

As can be seen, the peak post development run-off is still greater than the pre-development, therefore a capacity check on the kerb and gutter in Negara Crescent will be required. To assess the capacity of the kerb and gutter, the Hydraulic Capacity Graph as detailed on IPWEA LGAT TSD-RF03-v2 was utilised (see Figure 2 below).

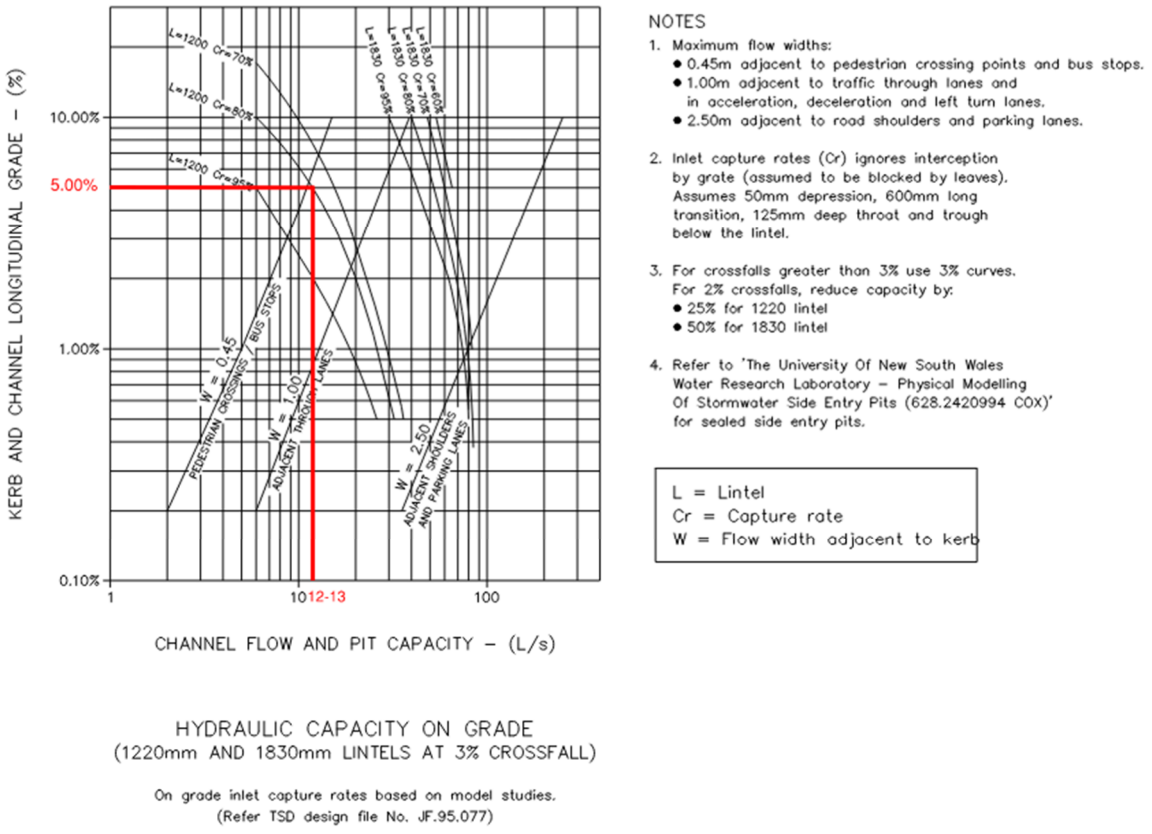


FIGURE 2: IPWEA LGAT TSD-RF03-V2

With an approx. 5.00% longitudinal fall on the kerb and channel, a road crossfall off greater than 3%, Lintel width of 1200, mid-range Capture rate of 80% and allowable flow width of 1.0m, it is proposed a new 75X250 RHS channel is required and has an approximate hydraulic capacity of 12 to 13 L/s. The site outflow hydrograph can be seen below in Figure 3.

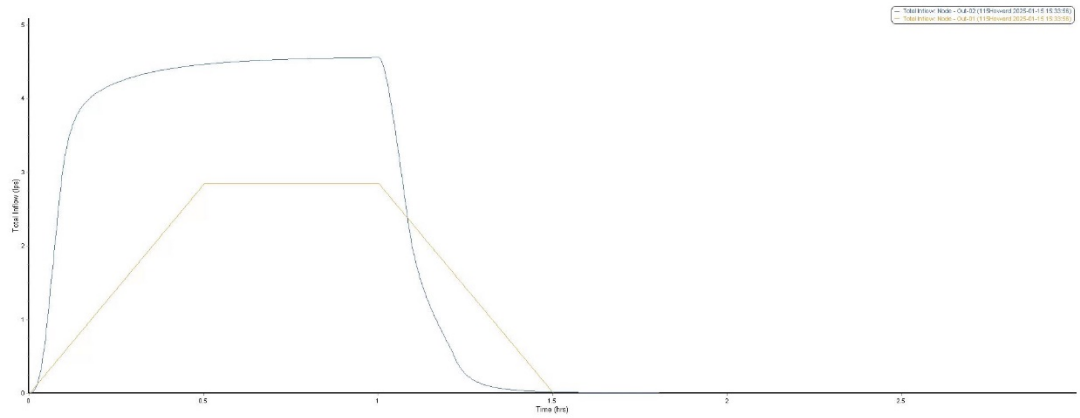


Figure 3: Site outflow hydrograph shows detained post development flows in blue TOC 5 mins, Existing flows (TOC 30 mins in Yellow) for a 5% AEP event

The peak storage volume required was analysed with results as follows:

TABLE 4: PEAK STORAGE VOLUME

Duration	*Catchment*	*Peak Volume (L)*
5 min	*Proposed Development*	*3867*
6 min	*Proposed Development*	*4204*
10 min	*Proposed Development*	*5178*
20 min	*Proposed Development*	*5388*
30 min	*Proposed Development*	*4878*
60 min	*Proposed Development*	*900*
120 min	*Proposed Development*	*1224*

As can been seen the 20-min duration 5% AEP event is the critical in terms of storage requirement, requiring **5388L** of storage volume. However, the combination of the 3000L above ground rainwater tank and the specified below ground 2,800 L tank has more than adequate storage to handle the expected volume, with additional redundant capacity in the case of an extreme storm event.

3. DRAINAGE LAYOUT

The stormwater arrangement for the site is shown in the Fysh Design civil drawing package or figure 4 below

As discussed in the Detention section, the proposed site will be fitted with a 2800L below ground concrete detention tank, fitted with a 75mm low flow orifice outlet (refer to figure 5), as well as a DN150 overflow outlet and a surcharge pit which collects the proposed driveway and hardstand areas

It is proposed shed roof being fitted with a minimum 3000 L slimline detention tank, connected to the roof area via a charged stormwater system. This tank was simulated being fitted with a 40mm low flow orifice to restrict outflow.

By using this method, this allows for the minimum storage required on the most demanding storm event over different time durations as well as achieving lesser discharge outflows to the stormwater connection

The entire site will discharge to a new kerb connection and roadside gutter in Negara Crescent via a new 450sq. dispersion pit and 250 x 75 x 3 galvanised RHS kerb connection as per IPWEA LGAT TSD-SW29

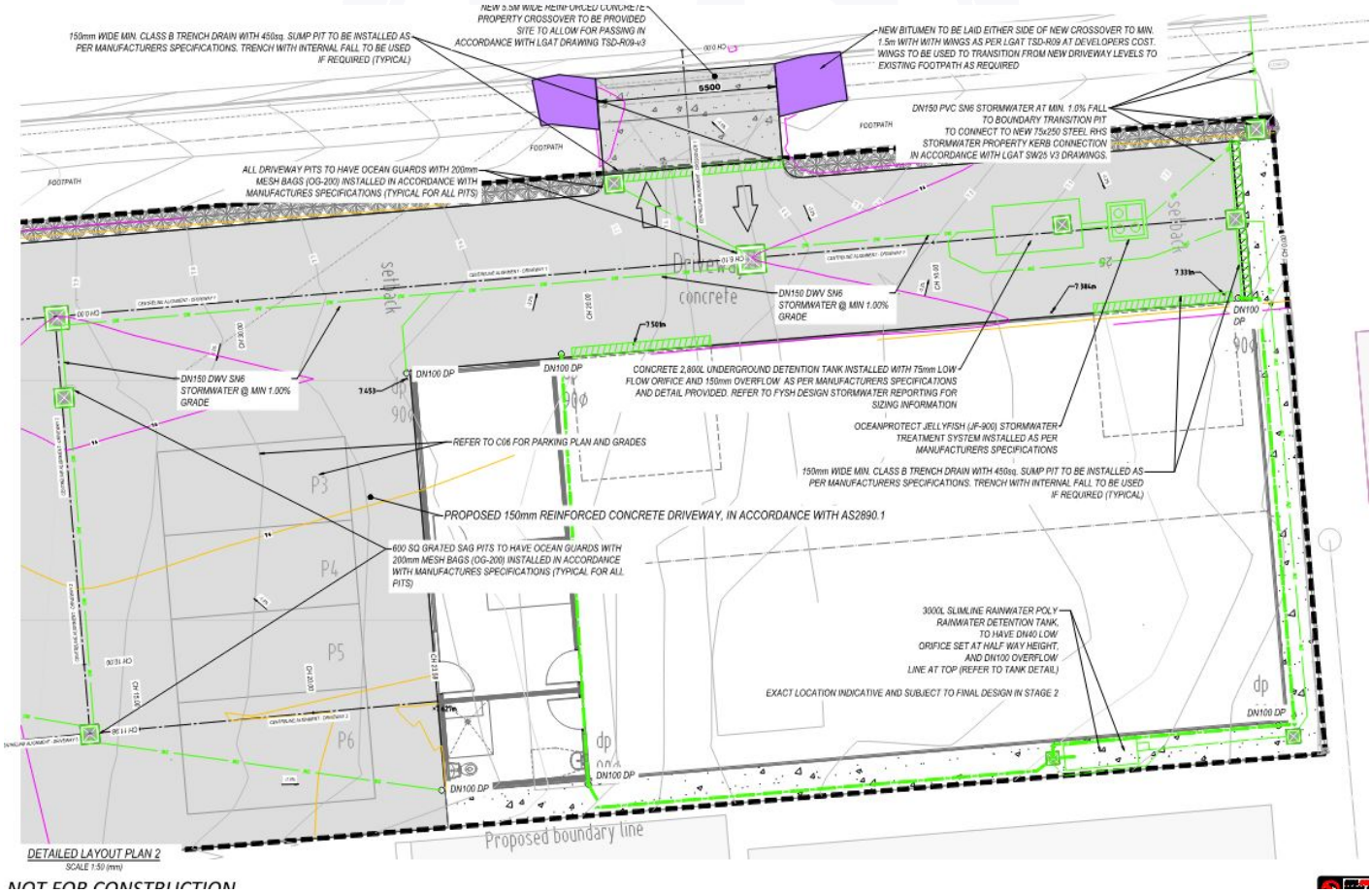


FIGURE 4: SITE DRAINAGE LAYOUT

3a. Pipe Sizing

Pipe sizing calculations conveying stormwater from roof and hardstand catchments, rainwater tank overflow outlets have been sized to cope with a 5% AEP storm event on the Modified Rational Method and AS3500.3

$$Q = \frac{C \times I \times A}{3600}$$

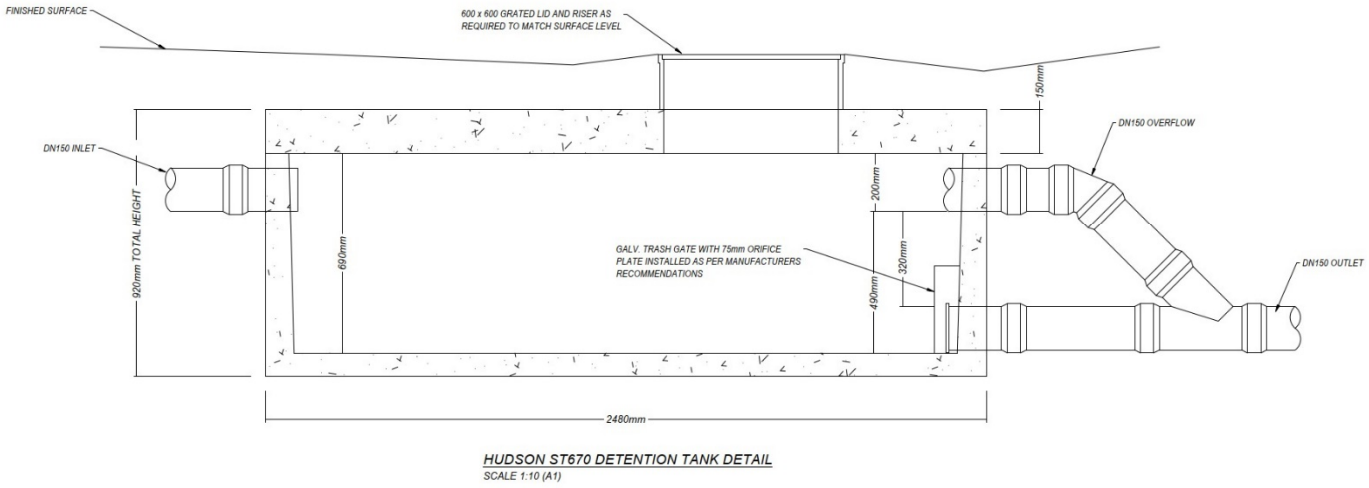
Where: Q = Design Volumetric Flow Rate [L/s]
C = Runoff Coefficient
I = Rainfall Intensity [mm/hr] (5 minute - 5% AEP storm
A = Sum of all equivalent areas [m^2]

Pipework Material PVC with Colebrook-White roughness coefficient K = 0.015
(From AS3500.3 Table 5.4.11.2)

Minimum grade of pipework of 1% (HG 1:100)

Pipe size selected from AS3500.3 Figure 5.4.11.2(a)

$$Q_{Post} = \frac{(1.0 \times 294 + 0.9 \times 461 + 0.30 \times 30) \times 84.8}{3600} = 17.20 L/s$$ = DN150 PVC



HUDSON ST670 DETENTION TANK DETAIL
SCALE 1:10 (A1)

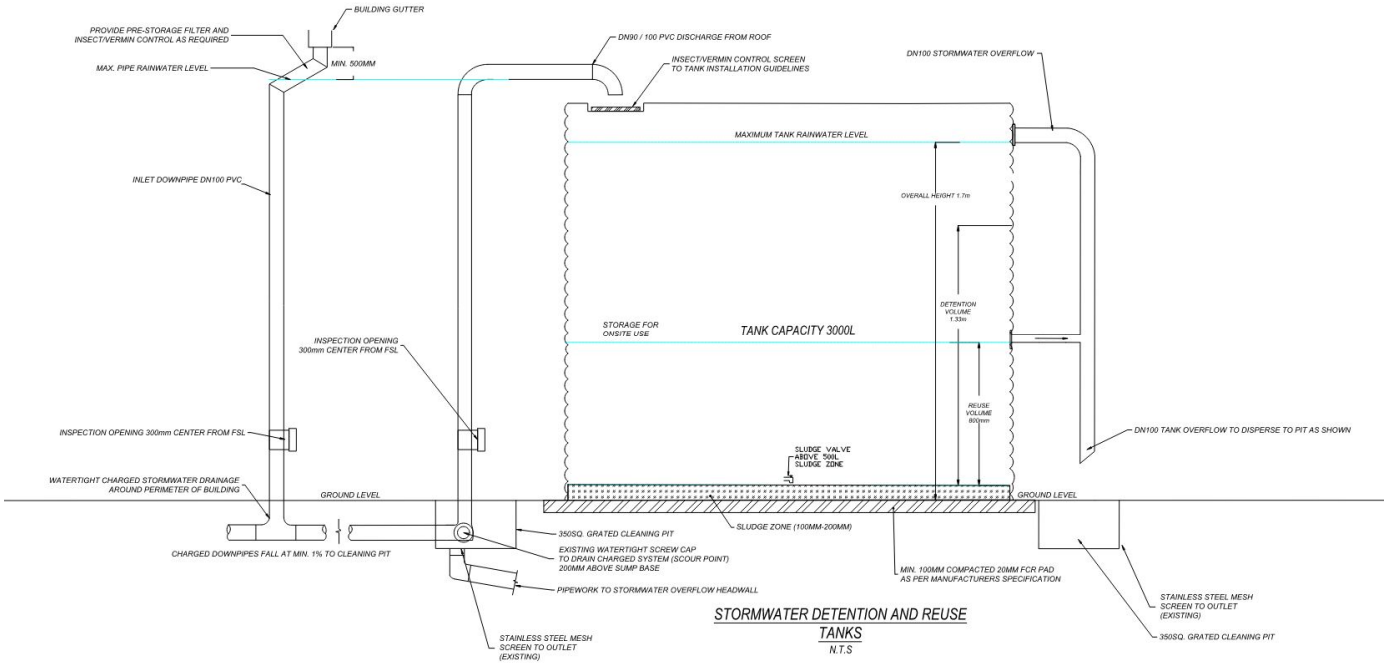


FIGURE 4: ABOVE GROUND 2200L DETENTION TANK DETAIL

4. TREATMENT

In partnership with proprietary stormwater treatment supplier Ocean Protect, Model for Urban Stormwater Improvement Conceptualisation (MUSIC Version 6.3.0) will be used to model the site roof drainage and impervious areas with effectiveness of various treatment devices to achieve the stormwater quality targets outlined in the State Stormwater Strategy (2010) of:

- An 80% reduction in the average annual load of total suspended solids (TSS)
- An 45% reduction in the average annual load of total phosphorous (TP)
- An 45% reduction in the average annual load of total nitrogen (TN)
- 90% Gross Pollutant Reduction

Figure 6 displays a site area breakdown modeled within the MUSIC software and the system meeting the required treatment targets.

As shown in Figure 6, Ocean Protect has proposed the use of a JellyFish JF900-1-1 (686mm cartridges) to treat the stormwater run-off from the development. MUSIC modelling can be provided to Council to ensure compliance with treatment targets once the detailed design has been completed. This system is to be installed as close as possible to the property connection to ensure as much runoff as possible is treated.

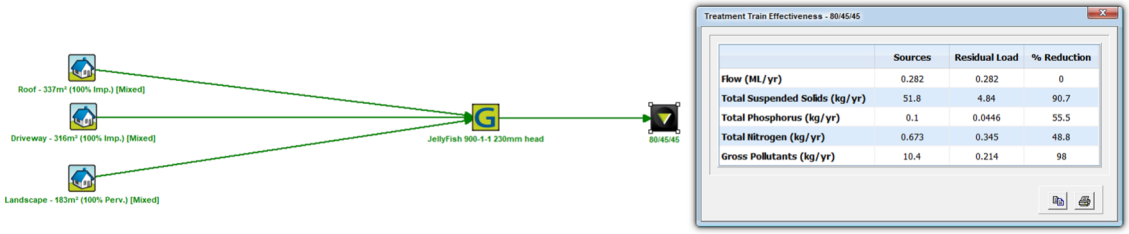


FIGURE 6: MUSIC MODEL

6. MAINTENANCE

Maintenance requirements for grated stormwater pits:

Regular inspections and clean outs of grated stormwater pits when required. This should be performed every 6 months to annually, dependant on site conditions.

Maintenance requirements for below ground detention tanks:

Regular monthly inspection of the low flow orifice outlet and galvanized trash guard for foreign debris to prevent blockage, ensuring sludge zones of the tank does not reach orifice height. External visual inspection is to be performed annually, checking the overall condition of tank and pipework.

Vacuum tank silt and sediment from detention tank and pits approximately every 4-5 years

Maintenance requirements for Ocean Protect treatment system.

Maintenance of the OceanGuard is simple, effective and seldom requires confined space entry or specialized equipment, often being completed by hand without the need for vacuum equipment. Simply remove the OceanGuard from the pit with the tags provided and invert the bag into a waste bin. Inspect the liner and brush by hand or spray with a pressure washer if required to rejuvenate the filtration bag. Record the information and replace the filtration bag. The Ocean Guard® system should be inspected at regular intervals from 1-2 months during the first year of installation to ensure optimum performance. The frequency at which the OceanGuard will need to be maintained will depend on site activities, land uses, catchment area and this size of OceanGuard installed, 1- 6 times annually (3-4 typ.).

For further information please refer to the OceanGuard Operations and Maintenance Manual.

7. CONCLUSION

This report has demonstrated that the proposed development 115 Howard Road Goodwood complies with the stormwater quantity and quantity conditions of the Glenorchy City Council Stormwater Policy.

Note:

- This report assumes the Council stormwater main or roadside kerb has capacity for permissible site discharge.
- It is the responsibility of Council to assess their infrastructure and determine the impact (if any) of altered inflows into their stormwater network.

Please contact cfysh@fyshdesign.com.au if you require any additional information.

Yours sincerely

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