Brighton Council

ATTACHMENTS

PLANNING AUTHORITY

6 MAY 2025

Brighton going places

0m 25m 50m

SCALE 1:250 FOR A1 SIZE DRAWING

GRAVEL PATHWAY

GRAVEL ROAD BASE DRIVEWAY

GRAVEL ROAD BASE PICK UP/ DROP OFF AREA

GRAVEL ROAD BASE PARKING

EXISTING DAM

HOLDING LINES

ASHPHALT SURFACE SHOWN HATCHED.

OVERFLOW PARKING

WHEEL STOPS TO ALL PARKING SPACES

TURNING BAY

ENTRY/EXIT (EXIT BUS ONLY)

HOLDING LINE SETBACK 2m FROM THROUGH LANE.

WHITE PAVEMENT MARKINGS AS PER AS1742.2.

DELIVERIES

BUILDING F - AMENITIES (CAMPING) FL. 50.50

BUILDING C - MEALS FL. 50.50

COVERED AREA

BUILDING D - LAUNDRY FL. 50.70

BUILDING E - COVERED SHELTER x2 FL. 50.50

AMENITIES 1 (TYPE B) FL. 50.60

AMENITIES 2 (TYPE B) FL. 50.60

ONE WAY ONLY

ENTRY ONLY

SCREENING

LAND-SCAPING

LANDSCAPING/EXISTING TREES

BOUNDARY

20m WIDE ENTRY

BRIGGS ROAD

R1-2A

R2-4A

R2-2(R)A

BS.

A1 FL. 51.40
A2 FL. 51.40
A3 FL. 51.40
A4 FL. 51.40
A5 FL. 52.40
A6 FL. 52.40
A7 FL. 52.40
A8 FL. 52.30
A9 FL. 52.40
A10 FL. 52.30
A11 FL. 53.20
A12 FL. 53.20
A13 FL. 53.20
A14 FL. 54.10

TRAFFIC MANAGAMENT PLAN

SCALE 1:250 @ A1

LEGEND

R1-2A	R2-2(R)A	R2-4A	BS.
3 REQUIRED	2 REQUIRED	2 REQUIRED	1 REQUIRED ARROW LEFT 1 REQUIRED ARROW RIGHT

GIVE WAY

ONE WAY

NO ENTRY

NO PARKING BUS STOP

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Project and Address:
Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

Drawing Title:
Traffic Management Plan

Please note: - Verify all dimensions on site. Figured dimensions take precedence over scale readings.

Plot Date: 03/03/2025	Drawn: KJR
Approval: preliminary	Scale: 1:250, NTS@ A1

NORTH

Project No.: 22.20

Drawing No.: sk08 Rev. -

0m 25m 50m

SCALE 1:250 FOR A1 SIZE DRAWING

TURNING
B.A.

REVISION A: - 04/08/23
- REVISED PLAN REMOVING BUILDING F AMENITIES & 5x BUILDING E SHELTERS.

REVISION B: - 30/08/23
UPDATED FROM SITE PLAN
- REVISED PLAN ADDING BUILDING F
- CAMPING AREA RELOCATED
- LAUNDRY SLIGHTLY MOVED.

REVISION C: - 28/09/23
- UPDATED FROM SITE PLAN REVISIONS ADDITIONAL PARKING AREAS LOCATED TO OVERFLOW AREA & LOWER AREA.

REVISION D: - 03/03/25
- DRAWING UPDATED TO REFLECT SITE PLAN
- REVISED ACCOMMODATION BUILDINGS
- CARPARKING RELOCATED
- MINOR NOTES

IRRIGATION SYSTEM. REFER TO GES REPORT FOR IRRIGATION SIZING.

PROVIDE 3000 LITRE UNDERGROUND DETENTION TANK FOR STORMWATER DISCHARGE.

AWTS ECONOCYCLE ENC80-7 WASTE WATER SYSTEM WITH 3-WAY SEQUENCING VALVE.

UPGRADE EXISTING CONNECTION FOR DOMESTIC & FIRE SERVICES. LOW HAZARD ABOVE GROUND AS PER TASWATER STANDARDS HOUSED IN HINGED LOCKABLE ANTI-VANDAL CAGE AS PER TASWATER STANDARD DRWG. TW-SD-W-20 SHT. 10. BY TASWATER AT DEVELOPERS COST.

EXISTING WATER METER INSIDE PROPERTY BOUNDARY.

GRAVEL ROAD BASE DRIVEWAY

EXISTING DAM

CONCRETE HEADER WALL WITH ROCK OUTFALL.

ASHPHALT SURFACE SHOWN HATCHED.

BUILDING E - COVERED SHELTER x2 FL. 50.50

COVERED AREA

BUILDING C - MEALS FL. 50.50

BUILDING F - AMENITIES (CAMPING) FL. 50.50

BUILDING D - LAUNDRY FL. 50.70

AMENITIES 1 (TYPE B) FL. 50.60

AMENITIES 2 (TYPE B) FL. 50.60

A1 FL. 51.40
A2 FL. 51.40
A3 FL. 51.40
A4 FL. 51.40
A5 FL. 52.40
A6 FL. 52.40
A7 FL. 52.40
A8 FL. 52.30
A9 FL. 52.40
A10 FL. 52.30
A11 FL. 53.20
A12 FL. 53.20
A13 FL. 53.20
A14 FL. 54.10

HYDRANT

ENTRY/EXIT /EXIT BUS ONLY

GIVE WAY SIGN.

7m WIDE TYPE 2 EXIT

BRIGGS ROAD

BASKERVILLE ROAD

EX. W.M.

EX. W.

DN40

DN90 (HYDRANT)

400 METRES TO WATER CONNECTION SEE ABOVE.

EXISTING HYDRANT.

NEW WATER CONNECTION FROM EDGE OF BASKERVILLE RD. SEE ABOVE. PROVIDE WATER MAINS CONNECTION & HYDRANT.

EX. 100mm DIA. W.

BOUNDARY

ASHPHALT SURFACE SHOWN HATCHED.

SITE DRAINAGE PLAN LEGEND

S100	SEWER LINE
SW100/SW150/SW225	STORMWATER LINE
DN40	WATER LINE
WM	WATER METER
G.P.	GRATED DRAIN
GP/SUMPS TO DRIVEWAY - 900x900mm WITH HEAVY DUTY GRATES & LITTER BASKETS (ROAD G.P.'s ONLY)	
GP/SUMPS TO OUTDOOR AREAS - 450x450mm	
	EXISTING LEVELS
	NEW LEVELS

GENERAL NOTES
- ALL ABOVE GROUND EXTERNAL PIPES TO BE TYPE 'B' COPPER. ALL BELOW GROUND LEVEL EXTERNAL PIPES TO BE PN16 HDPE OR APPROVED SIMILAR. ALL UNDER SLAB PIPES TO BE TYPE 'B' COPPER LAGGED TO PREVENT CONTACT WITH SOILS OR CONCRETE. ALL INTERNAL COLD/HOT/TEMPERED WATER PIPES TO BE TYPE 'B' COPPER OR APPROVED SIMILAR. ALL INTERNAL FIRE SERVICE PIPES ABOVE GROUND/FLOOR LEVEL TO BE GALVANISED STEEL FS PIPE.
- SEWER PIPE - 100 DIA. UPVC. MIN. GRADE 1:60. U.N.O.
- STORMWATER PIPE - 100 DIA. UPVC MIN. GRADE 1:100 U.N.O. (CONFIRM ALL OTHER GRADES WITH AS 2500)
- GENERALY ALL SURFACE DRAINAGE FALLS ARE TO BE 1-2% CROSSFALL.

GENERAL WATER NOTES
- W1 - ALL WATER WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1 MRWA EDITION V2., TASWATERS SUPPLEMENTS, TASWATERS STANDARD DRAWINGS TW-SD-W-20 SERIES, WATER METERING POLICY/METERING GUIDELINES, BOUNDARY BACKFLOW CONTAINMENT REQUIREMENTS & A.S. 3500.1:2003.
- W2 - NEW METER WITH INTEGRAL DUAL CHECK VALVE, GATE VALVE & PVC BOX. WATER METERING POLICY, BOUNDARY BACKFLOW CONTAINMENT BUSINESS RULE & AS3500.1 (2003). INSTALLED AT THE PROPERTY BOUNDARY.
- W3 - ALL WATER MAINS TO BE TESTED AND WITNESSED BY TASWATER SUBDIVISIONAL INSPECTOR TO STATIC PRESSURE PLUS 50%
- W4 - MINIMUM COVER TO BE 1000mm UNDER MAJOR ROADS, 750mm UNDER LOCAL STREETS AND 750mm ELSEWHERE U.N.O.
- W5 - ALL TRENCHES UNDER TRAFFICKED AREAS TO BE BACK FILLED WITH APPROVED FCR INCLUDING FUTURE DRIVEWAY EXTENSIONS
- W6 - FLUSHING OF MAINS TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS
- W7 - ELECTROMAGNETIC TRACKER TAPE TO BE PLACED IN ALL WATER MAIN TRENCHES ABOVE THE PIPE.
- W8 - WATER MAINS TO BE BEDDED ON 80mm APPROVED 7mm CLEAN METAL.
- W9 - CONCRETE THRUST BLOCKS TO BE PROVIDED AT ALL SUDDEN CHANGES OF DIRECTION, BOTH VERTICALLY AND HORIZONTALLY AT TEES AND END OF LINES AND ANYWHERE ELSE REQUIRED AND IN ACCORDANCE WITH DRAWINGS MRWA-W-204, 205A, B or C.
- W10 - FIRE HYDRANT & VALVE MARKERS TO BE IN ACCORDANCE WITH DRAWINGS MRWA-W-300 & 301. ALL VALVES ETC. TO BE RESILIENT SEATED POWDER COATED CLASS 16.
- W12 - ALL WATER WORKS MUST BE TESTED AND INSPECTED BY TASWATER PRIOR TO BACKFILL.
- W13 - PROPERTY CONNECTIONS LOCATED WITHIN AN AREA SUBJECT TO TRAFFICABLE LOADS MUST BE INSTALLED IN A CLASS 'B' METER BOX AND SURROUND.
- W14 - ALL CONNECTIONS TO EXISTING WATER OR SEWER TO BE DONE BY TASWATER AT DEVELOPERS COST.
- W15 - CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING SERVICES PRIOR TO UNDERTAKING ANY EXCAVATION AND TO NOTIFY THE ENGINEER OF ANYTHING THAT DOES NOT APPEAR TO HAVE BEEN CONSIDERED IN THE DESIGN.
- W16 - MINIMUM AND MAXIMUM PIPE COVERS MUST BE PER SECTION 7.4.2 OF THE WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011.3.1 MRWA EDITION VERSION 2 AND TASWATER'S SUPPLEMENT 7.4.2
- W17 - CONSTRUCTION OF NEW WATER MAIN AND FIRE HYDRANT TO BE IN ACCORDANCE WITH WSA03-2011-3 MRWA EDITION 1 & WSAA MRWA-W-303 (2012) , WSAA MRWA-W-304 (2012) , WSAA MRWA-W-305 (2012)

PART SITE DRAINAGE PLAN

SCALE 1:250 @ A1

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Project and Address:
Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

Drawing Title:
Part Site Drainage Plan

Please note: - Verify all dimensions on site. Figured dimensions take precedence over scale readings.

Plot Date: 03/03/2025 | Drawn: KJR
Approval: preliminary | Scale: 1:250 @ A1

NORTH

Project No.: 22.20
Drawing No.: sk02 | Rev. D

0m 25m 50m

SCALE 1:250 FOR A1 SIZE DRAWING

PART SITE PLAN

SCALE 1:250 @ A1

BRIGGS ROAD

LAWN AREA

GRAVEL PATHWAY

GRAVEL ROAD BASE DRIVEWAY

EXISTING DAM

CONCRETE HEADER WALL WITH ROCK OUTFALL.

ASHPHALT SURFACE SHOWN HATCHED.

PROVIDE 3000 LITRE UNDERGROUND DETENTION TANK FOR STORMWATER DISCHARGE.

AWTS ECONOCYCLE ENC80-7 WASTE WATER SYSTEM WITH 3-WAY SEQUENCING VALVE.

GRAVEL ROAD BASE PICK UP/ DROP OFF AREA

LAND-SCAPING

GRAVEL ROAD BASE PARKING

DELIVERIES

SCREEN

BINS

TENTS SHOWN DOTTED. (EXAMPLE LAYOUT)

BUILDING F - AMENITIES (CAMPING) FL. 50.60

BUILDING C - MEALS FL. 50.50

COVERED AREA

BUILDING E - COVERED SHELTER X2 FL. 50.50

BUILDING D - LAUNDRY FL. 50.70

CLOTHESLINES/ DRYING AREA

CONCRETE PATHWAY

BUS PARKING / PICK UP/DROP OFF

ONE WAY ONLY

1:20 MIN GRADE

GAS

AMENITIES 1 (TYPE B) FL. 50.60

AMENITIES 2 (TYPE B) FL. 50.60

ATTENTUATION ZONE/BUFFER AS LOCATED BY PDA SURVEYORS.

A1 FL. 51.40
A2 FL. 51.40
A3 FL. 51.40
A4 FL. 51.40
A5 FL. 52.40
A6 FL. 52.40
A7 FL. 52.40
A9 FL. 52.40
A8 FL. 52.30
A10 FL. 52.30
A11 FL. 53.20
A13 FL. 53.20
A12 FL. 53.20
A14 FL. 54.10

ROOF COVER

TRELLIS ANCHORS TO BE RELOCATED.

LANDSCAPING/EXISTING TREES

ENTRY ONLY

ENTRY/EXIT (EXIT BUS ONLY)

GIVE WAY SIGN.

20m WIDE TAPER ENTRY

WHEEL STOPS TO ALL PARKING SPACES

OVERFLOW PARKING

TURNING BAY

BOUNDARY

GROUND COVER PLANTS ONLY TO PROVIDE SIGHT DISTANCE TO PARKING SPACES.

25% VERTICAL GRADE MAX.

2m WIDE MPSP EXIT

1:10 GRADE

1:8 GRADE

SCREENING

SITE PLAN LEGEND

⊕	EXISTING LEVELS
⊕	NEW LEVELS
G.P.	GRATED DRAIN

LOCATION PLAN

NOT TO SCALE

BASKERVILLE ROAD

CT. 178273/1
68.1 ha.

ATTENTUATION ZONE/BUFFER AS LOCATED BY PDA SURVEYORS.

AREA OF DEVELOPMENT

REVISION A: - 20/07/23
- TURNING BAY TO OVERFLOW PARKING.
- CAMPING AREA UPDATED SHOWING EXAMPLE TENT LAYOUT.

REVISION B: - 04/08/23
- REVISED PLAN REMOVING BUILDING F AMENITIES & 5x BUILDNG E SHELTERS.

REVISION C: - 21/08/23
- REVISED PLAN ADDING BUILDING F
- CAMPING AREA RELOCATED
- LAUNDRY SLIGHTLY MOVED.

REVISION D: - 28/09/23
- ADDITIONAL PARKING AREAS LOCATED TO OVERFLOW AREA & LOWER AREA.

REVISION E: - 09/12/23
- REVISED ACCOMMODATION BUILDNIGS

REVISION F: - 17/01/24
- REVISED PARKING AREAS/UPDATED SITE PLAN

REVISION G: - 03/03/25
- MINOR NOTES ADDED. PARKING REVISED. GRADES ADDED

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Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

Drawing Title:
Location Plan
Part Site Plan

Please note: - Verify all dimensions on site. Figured dimensions take precedence over scale readings.

Plot Date: 03/03/2025	Drawn: KJR
Approval: preliminary	Scale: 1:250, NTS@ A1

NORTH

Project No.: 22.20

Drawing No.: sk01 Rev.: G

REVISION A: - 04/08/23
- REVISED PLAN REMOVING BUILDING F AMENITIES & 5x BUILDING E SHELTERS.

REVISION B: - 30/08/23
UPDATED FROM SITE PLAN
- REVISED PLAN ADDING BUILDING F
- CAMPING AREA RELOCATED
- LAUNDRY SLIGHTLY MOVED.

REVISION C: - 28/09/23
- UPDATED FROM SITE PLAN REVISIONS ADDITIONAL PARKING AREAS LOCATED TO OVERFLOW AREA & LOWER AREA.

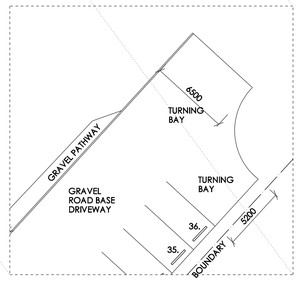
REVISION D: - 03/03/25
- DRAWING UPDATED TO REFLECT SITE PLAN
- REVISED ACCOMMODATION BUILDINGS
- CARPARKING RELOCATED
- MINOR NOTES

0m 25m 50m

SCALE 1:250 FOR A1 SIZE DRAWING

BRIGGS ROAD

LAWN AREA
GRAVEL PATHWAY
GRAVEL ROAD BASE DRIVEWAY
G.P.
EXISTING DAM
CONCRETE HEADER WALL WITH ROCK OUTFALL.
ASHPHALT SURFACE SHOWN HATCHED.
PROVIDE 3000 LITRE UNDERGROUND DETENTION TANK FOR STORMWATER DISCHARGE.
AWTS ECONOCYCLE ENC80-7 WASTE WATER SYSTEM WITH 3-WAY SEQUENCING VALVE.
GRAVEL ROAD BASE PICK UP/ DROP OFF AREA
LANDSCAPING
TENTS SHOWN DOTTED. (EXAMPLE LAYOUT)
DELIVERIES
GRAVEL ROAD BASE PARKING
BINS
SCREEN
BUILDING F - AMENITIES (CAMPING)
CLOTHESLINES/ DRYING AREA
CONCRETE PATHWAY
KERB
ONE WAY ONLY
BUS PARKING - PICK UP/DROP OFF
BUILDING C - MEALS
FL. 50.50
COVERED AREA
BUILDING D - LAUNDRY
FL. 50.70
GAS
BUILDING E - COVERED SHELTER x2
FL. 50.50
AMENITIES 1 (TYPE B)
FL. 50.60
AMENITIES 2 (TYPE B)
FL. 50.60
A1 FL. 51.40
A2 FL. 51.40
A3 FL. 51.40
A4 FL. 51.40
A5 FL. 52.40
A6 FL. 52.40
A7 FL. 52.40
A8 FL. 52.30
A9 FL. 52.40
A10 FL. 52.30
A11 FL. 53.20
A12 FL. 53.20
A13 FL. 53.20
A14 FL. 54.10
ROOF COVER
UP
ENTRY ONLY
GROUND COVER PLANTS ONLY TO PROVIDE SIGHT DISTANCE TO PARKING SPACES.
LANDSCAPING (EXISTING TREES)
TRELLIS ANCHORS TO BE RELOCATED.
RL 57.35
OVERFLOW PARKING
WHEEL STOPS TO ALL PARKING SPACES
ENTRY/EXIT (EXIT BUS ONLY)
20m WIDE PAPER EXIT
GIVE WAY SIGN.
TURNING BAY
BOUNDARY
5m
49m
50m
51m
52m
53m
54m
55m
56m
57m
58m



PART SITE LANDSCAPE PLAN
SCALE 1:250 @ A1

CODE	TREES (COMMON)	QUANTITY
T1 T2	SILVER BIRCH SILVER BANKSIA	QUANTITIES NOTED ON PLAN
	SHRUBS	
RS LS CJ AZ	RHODODENRON LAVENDER PIPPA WHITE CAMELLIA AZALEA	QUANTITIES TO BE ADVISED ON SITE WITH OWNER/ LANDSCAPER.
	GRASSES AND GROUNDCOVERS	
CC CG DT JP PI	TALL SEDGE FEN SEDGE BLUE FLAX LILY PALE RUSH COMMON TUSSOCK GRASS	QUANTITIES TO BE ADVISED ON SITE WITH OWNER/ LANDSCAPER.

DRIVEWAY/PARKING NOTES

1. THE FINISHED GRADIENT SHALL NOT EXCEED 1 IN 5 (20%)

2. VERTICAL ALIGNMENT SHALL INCLUDE TRANSITION CURVES TO AS 2890.1 CI 2.5.3 (c) AT ALL GRADE CHANGES GREATER THAN 12.5 %.

3. MANOEUVRING AREAS TO HAVE A MAXIMUM GRADIENT OF 10%.

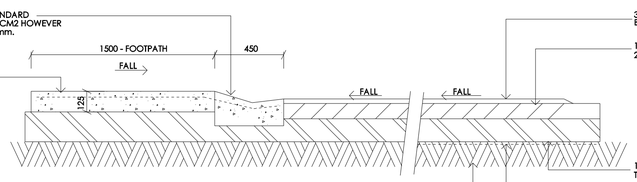
LANDSCAPE PLAN LEGEND

- EXISTING LEVELS
- NEW LEVELS
- G.P. GRATED DRAIN
- RTW RETAINING WALLS - BLOCKWORK, LARGE CONCRETE BLOCKS OR STACKER WALL
- TREES/SHRUBS, REFER CODE BELOW.
- MULCHED GARDEN BED WITH LOW SHRUBS, HEDGING & GROUNDCOVERS, REFER CODE BELOW.
- LAWN AREA
- ASHPALT DRIVEWAY AREA

NOTE: FINAL QUANTITIES OF SHRUBS TO BE CO-ORDINATED ON SITE WITH BUILDER/ LANDSCAPER.

M. KERB
MOUNTABLE KERB GENERALLY IN ACCORDANCE WITH LGAT STANDARD DRAWING TSDR14-V1 - KCM OR KCM2 HOWEVER WIDTH IS 450mm INSTEAD OF 600mm. REVIEW OPTIONS ON SITE.

CONCRETE FOOTPATH WITH SL82 (T). 25 Mpa CONCRETE. REFER CONCRETE PARKING AREA NOTES FOR EXPANSION JOINTS.



30mm COMPACTED THICKNESS BITUMINOUS HOTMIX.
100mm COMPACTED THICKNESS 20mm FCR.
150mm COMPACTED THICKNESS 40mm FCR.
APPROVED GEOTEXTILE FILTER FABRIC.
APPROVED TRIMMED & COMPACTED SUBGRADE. DEPTH 250mm. - WHERE PARTICULARLY SOFT SPOTS ARE ENCOUNTERED,SOME GEOFABRIC AND ADDITIONAL SUBGRADE IMPROVEMENT MAY BE REQUIRED. PLACE & COMPACTED IN 150mm THICK LAYERS TO 98% OF THE MODIFIED COMPACTION.

DRIVEWAY DETAIL
SCALE 1:20

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Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

Drawing Title:
Part Site Landscape Plan

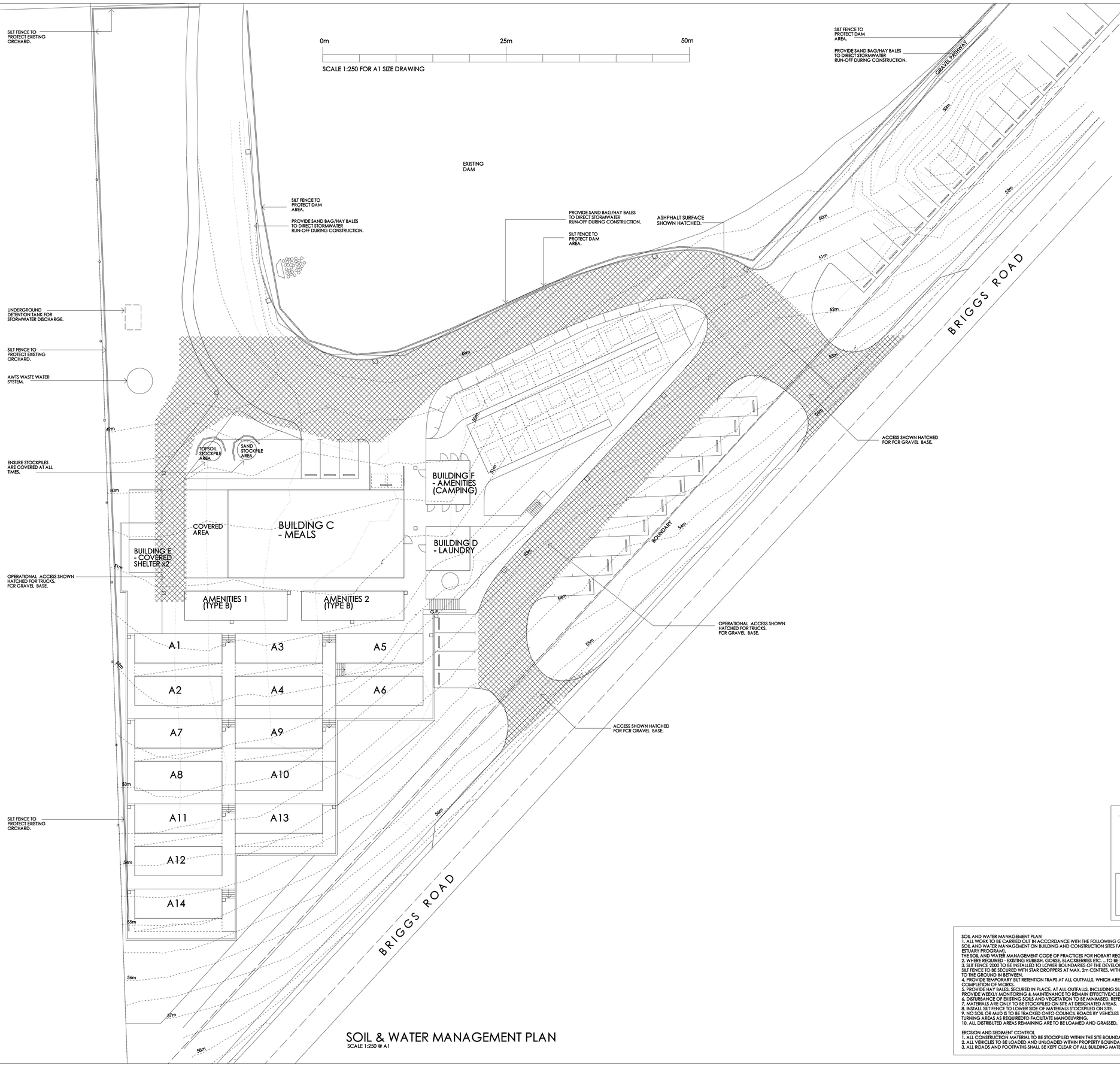
Please note:- Verify all dimensions on site. Figured dimensions take precedence over scale readings.

Plot Date: 03/03/2025	Drawn: KJR
Approval: preliminary	Scale: 1:250 @ A1

NORTH

Project No.: 22.20

Drawing No.: sk03 Rev. D



SOIL & WATER MANAGEMENT PLAN
SCALE 1:250 @ A1

REVISION A:- 04/08/23
- REVISED PLAN REMOVING BUILDING F AMENITIES & 5x BUILIDNG E SHELTERS.

REVISION B:- 30/08/23
UPDATED FROM SITE PLAN.
- REVISED PLAN ADDING BUILDING F
- CAMPING AREA RELOCATED
- LAUNDRY SLIGHTLY MOVED.

REVISION C:- 28/09/23
- UPDATED FROM SITE PLAN REVISIONS. ADDITIONAL PARKING AREAS LOCATED TO OVERFLOW AREA & LOWER AREA.

REVISION D:- 03/03/25
- DRAWING UPDATED TO REFLECT SITE PLAN
- REVISED ACCOMMODATION BUILDINGS
- CARPARKING RELOCATED
- MINOR NOTES

LEGEND
- STOCKPILE AREA
- HARDCORE ACCESS
- SILT FENCE/ BARRIER

GENERAL NOTE:
- AREAS DISTURBED TO BE MINIMAL AS POSSIBLE.
- REFER TO GES REPORT SEWER DESIGN.
- ALL SITE WORKS TO COMPLY WITH COUNCIL REQUIREMENTS.

SOIL AND WATER MANAGEMENT PLAN
1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING GUIDELINE PUBLICATIONS: SOIL AND WATER MANAGEMENT ON BUILDING AND CONSTRUCTION SITES FACT SHEETS (DERWENT ESTUARY PROGRAM).
THE SOIL AND WATER MANAGEMENT CODE OF PRACTICES FOR HOBART REGIONAL COUNCILS.
2. WHERE REQUIRED - EXISTING RUBBISH, GORSE, BLACKBERRIES ETC., TO BE REMOVED FROM SITE.
3. SLIT FENCE 2000 TO BE INSTALLED TO LOWER BOUNDARIES OF THE DEVELOPMENT WHERE SHOWN. SILT FENCE TO BE SECURED WITH STAR DROPPERS AT MAX. 2m CENTRES, WITH FENCING TO BE PINNED TO THE GROUND IN BETWEEN.
4. PROVIDE TEMPORARY SILT RETENTION TRAPS AT ALL OUTFALLS. WHICH ARE TO BE REINSTATED AT COMPLETION OF WORKS.
5. PROVIDE HAY BALES, SECURED IN PLACE, AT ALL OUTFALLS, INCLUDING SILT RETENTION TRAPS. PROVIDE WEEKLY MONITORING & MAINTENANCE TO REMAIN EFFECTIVE/CLEAR.
6. DISTURBANCE OF EXISTING SOILS AND VEGETATION TO BE MINIMISED. REFER ITEM 2.
7. MATERIALS ARE ONLY TO BE STOCKPILED ON SITE AT DESIGNATED AREAS.
8. INSTALL SILT FENCE TO LOWER SIDE OF MATERIALS STOCKPILED ON SITE.
9. NO SOIL OR MUD IS TO BE TRACKED ONTO COUNCIL ROADS BY VEHICLES LEAVING THE SITE. MAINTAIN GRAVEL TURNING AREAS AS REQUIREDTO FACILITATE MANOEUVRING.
10. ALL DISTRIBUTED AREAS REMAINING ARE TO BE LOAMED AND GRASSED.

EROSION AND SEDIMENT CONTROL
1. ALL CONSTRUCTION MATERIAL TO BE STOCKPILED WITHIN THE SITE BOUNDARIES.
2. ALL VEHICLES TO BE LOADED AND UNLOADED WITHIN PROPERTY BOUNDARY.
3. ALL ROADS AND FOOTPATHS SHALL BE KEPT CLEAR OF ALL BUILDING MATERIALS, RUBBISH AND DEBRIS.

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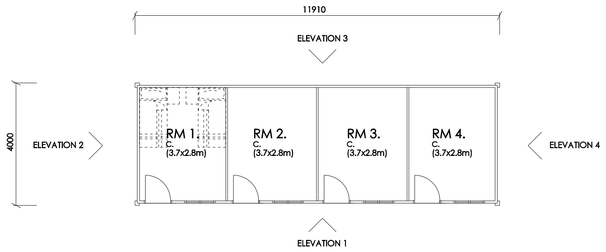
Project and Address:
Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

Drawing Title:
Soil & Water Management Plan

Please note:- Verify all dimensions on site. Figured dimensions take precedence over scale readings.

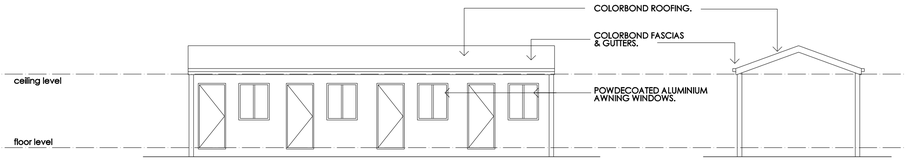
Plot Date: 03/03/2025	Drawn: KJR
Approval: preliminary	Scale: 1:250 @ A1
NORTH	Project No.: 22.20
	Drawing No.: sk04 Rev. D



TYPICAL FLOOR PLAN - ACCOMMODATION PODS (14 No.) - TYPE A BUILDINGS

SCALE 1:100

AREA:	
BUILDING A/TYPE A	47 sq.m.



TYPICAL ELEVATION 1 - ACCOMMODATION PODS

SCALE 1:100

TYPICAL ELEVATION 2 - ACCOMMODATION PODS

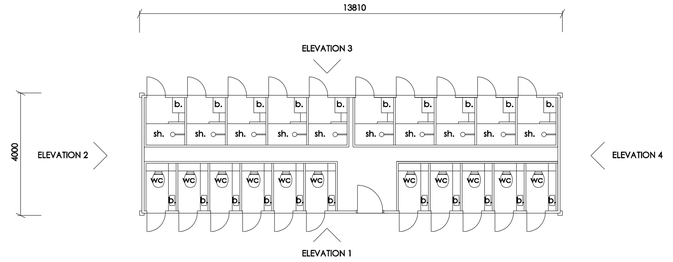
SCALE 1:100

TYPICAL ELEVATION 3 - ACCOMMODATION PODS

SCALE 1:100

TYPICAL ELEVATION 4 - ACCOMMODATION PODS

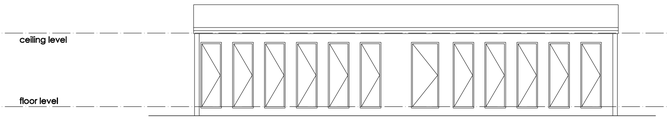
SCALE 1:100



TYPICAL FLOOR PLAN - AMENITIES BUILDING (2 No.) - TYPE B BUILDINGS

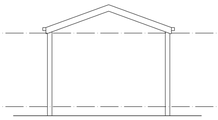
SCALE 1:100

AREA:	
BUILDING B/TYPE B	55 sq.m.



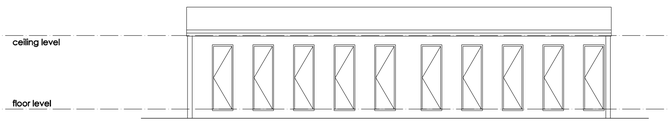
TYPICAL ELEVATION 1 - AMENITIES BUILDING

SCALE 1:100



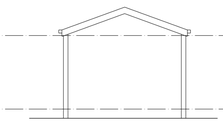
TYPICAL ELEVATION 2 - AMENITIES BUILDING

SCALE 1:100



TYPICAL ELEVATION 3 - AMENITIES BUILDING

SCALE 1:100



TYPICAL ELEVATION 4 - AMENITIES BUILDING

SCALE 1:100

REVISION A: - 20/07/23
- MAXIMUM BUILDING HEIGHTS SHOWN.

REVISION B: - 09/12/23
- PREVIOUS DRAWING DELETED WITH NEW INFORMATION.

REVISION C: - 03/03/25
- REVISED ACCOMMODATION/AMENITIES BUILDINGS

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cc 652

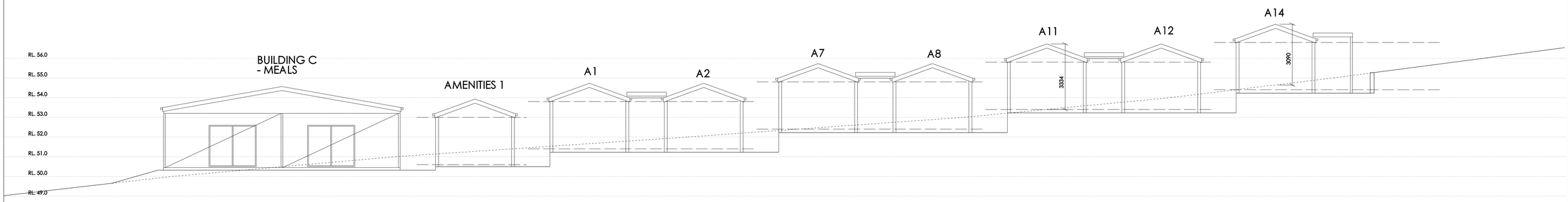
Project and Address:
Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

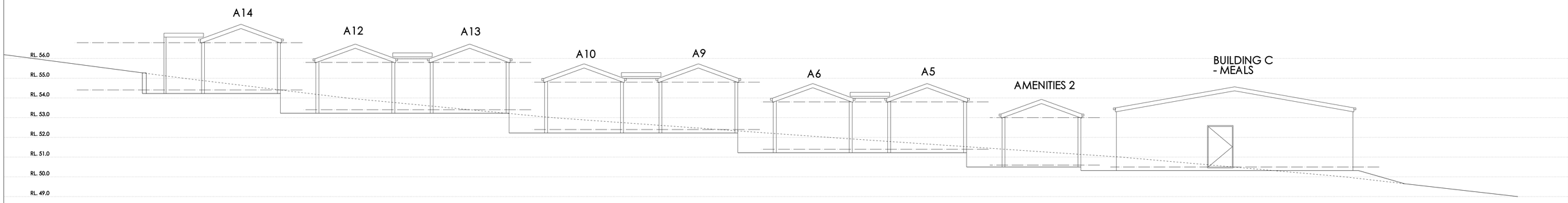
Drawing Title:
Site Section Accommodation & Amenities Buildings

Please note: - Verify all dimensions on site. Figured dimensions take precedence over scale readings.

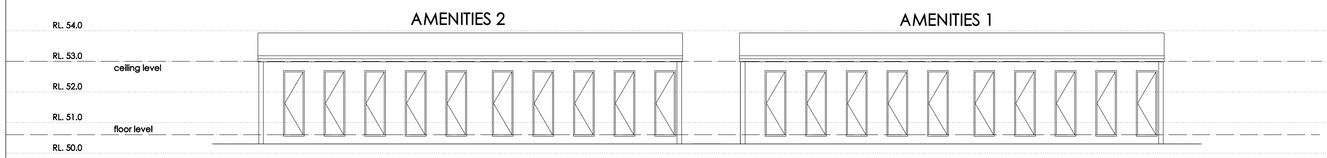
Plot Date: 03/03/2025	Drawn: KJR
Approval: preliminary	Scale: 1:100 @ A1
	Project No.: 22.20
	Drawing No.: sk05 Rev. C



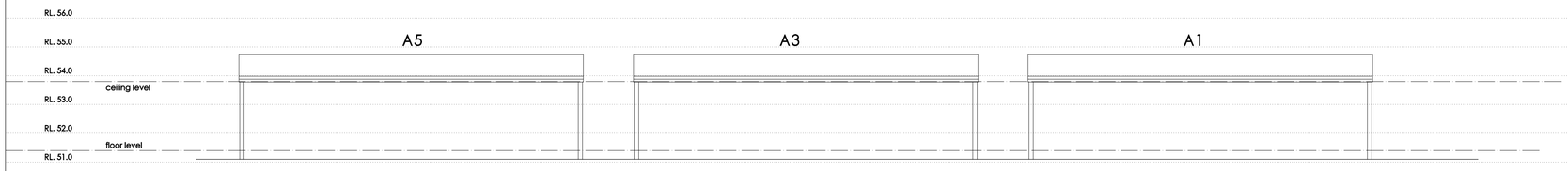
NORTH-EAST ELEVATION - SITE SECTION
SCALE 1:100



SOUTH-WEST ELEVATION - SITE SECTION
SCALE 1:100



SOUTH-EAST ELEVATION - SITE SECTION
SCALE 1:100



SOUTH-EAST ELEVATION - SITE SECTION
SCALE 1:100

REVISION A: - 03/03/25
- REVISED ACCOMMODATION/AMENITIES BUILDINGS

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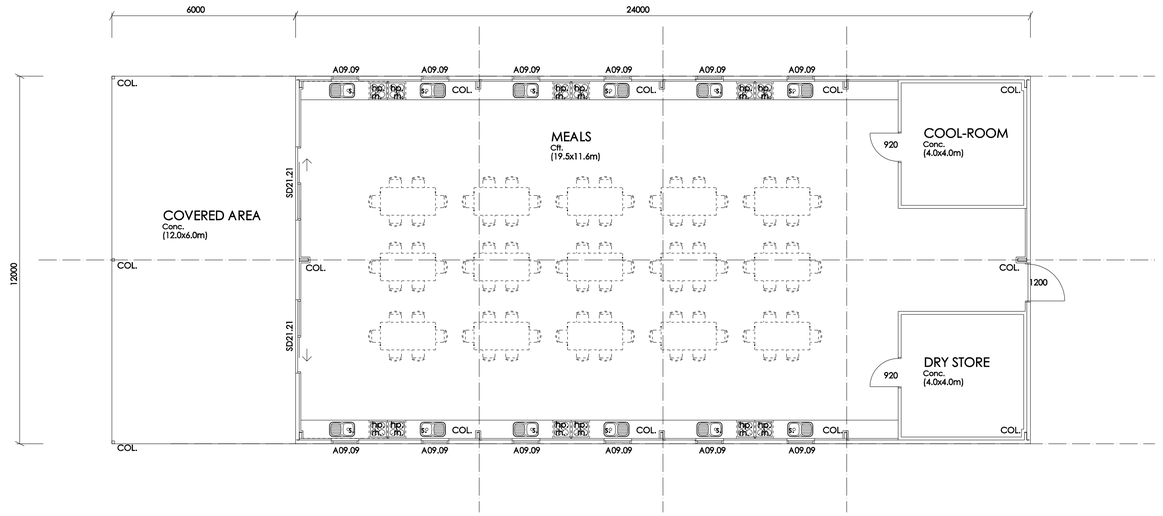
Project and Address:
Proposed Development
at 647 Baskerville Rd.,
Old Beach

Client:
Cherries Tasmania

Drawing Title:
Site Section
Accommodation &
Amenities Buildings

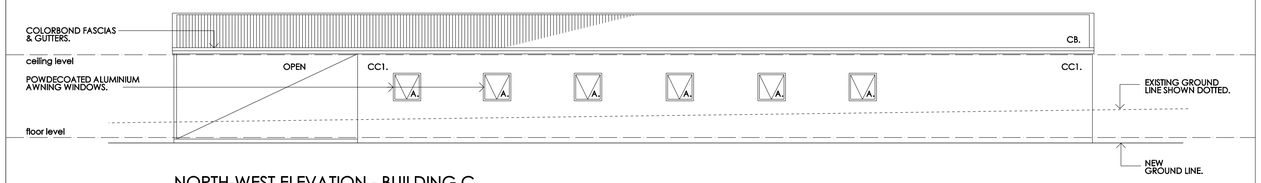
Please note: - Verify all dimensions on site. Figured dimensions take precedence over scale readings.

Plot Date: 03/03/2025	Drawn: KJR
Approval: preliminary	Scale: 1:100 @ A1
	Project No.: 22.20
	Drawing No.: sk06 Rev. A

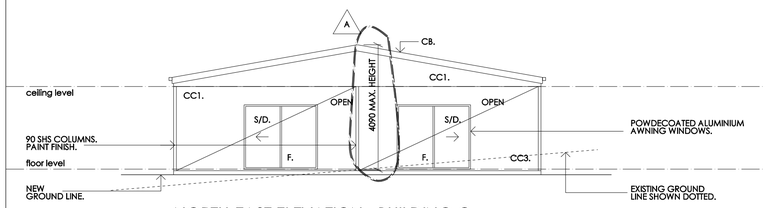


FLOOR PLAN - BUILDING C - MEALS
SCALE 1:100

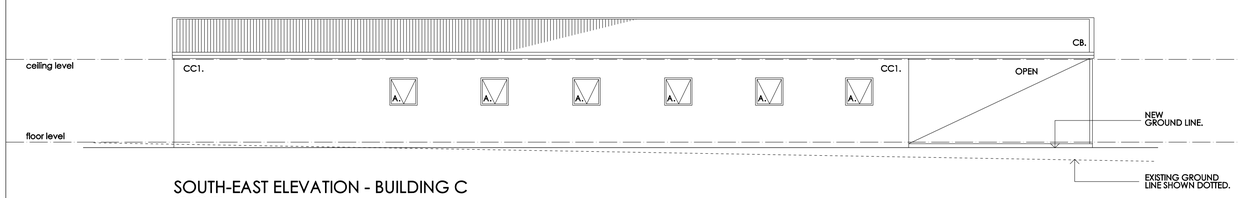
AREA:	
BUILDING C	288 sq.m.
COVERED AREA	72 sq.m.



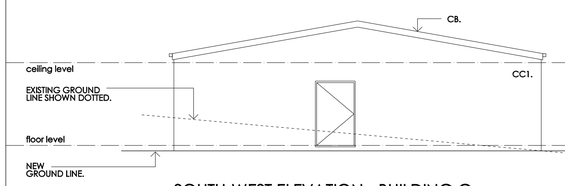
NORTH-WEST ELEVATION - BUILDING C
SCALE 1:100



NORTH-EAST ELEVATION - BUILDING C
SCALE 1:100



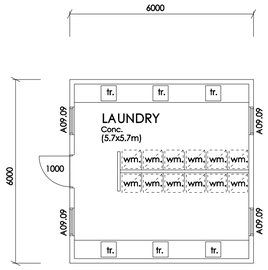
SOUTH-EAST ELEVATION - BUILDING C
SCALE 1:100



SOUTH-WEST ELEVATION - BUILDING C
SCALE 1:100

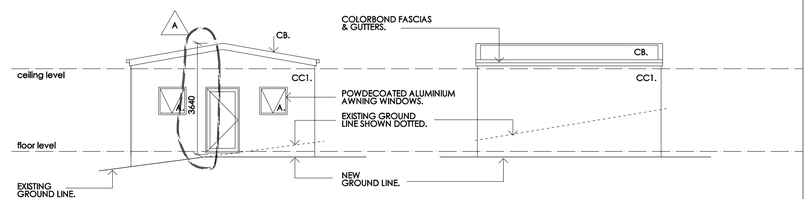
ELEVATION KEY

CC1.	- COLORBOND WALL CLADDING (COLOUR - WINDSPRAY)
CB.	- COLORBOND ROOF SHEETING (COLOUR - WINDSPRAY)



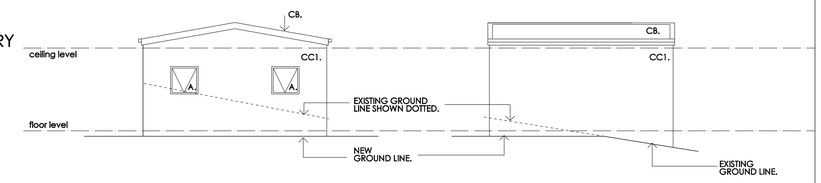
FLOOR PLAN - BUILDING D - LAUNDRY
SCALE 1:100

AREA:	
BUILDING D	36 sq.m.



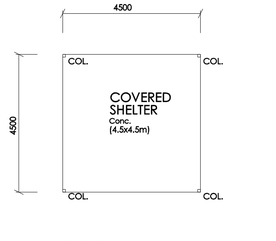
NORTH-EAST ELEVATION - BUILDING D
SCALE 1:100

NORTH-WEST ELEVATION - BUILDING D
SCALE 1:100



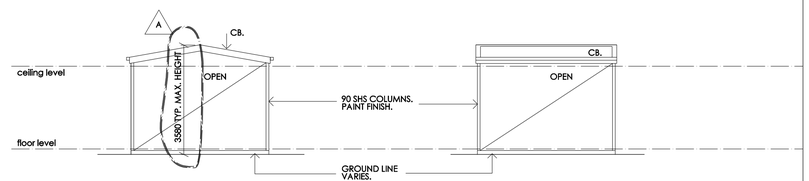
SOUTH-WEST ELEVATION - BUILDING D
SCALE 1:100

SOUTH-EAST ELEVATION - BUILDING D
SCALE 1:100



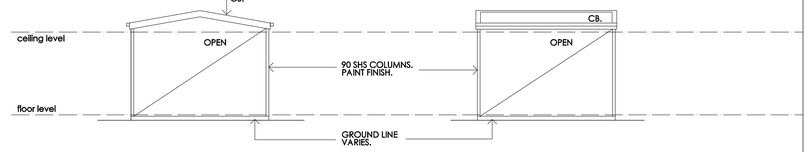
FLOOR PLAN - BUILDING E (2 No.) - COVERED SHELTERS
SCALE 1:100

AREA:	
BUILDING E	20 sq.m.(EACH)
OPEN AREA	



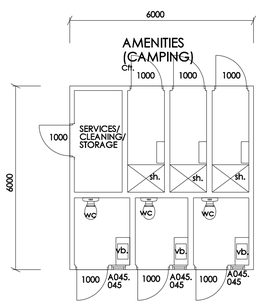
NORTH-EAST ELEVATION - BUILDING E
SCALE 1:100

NORTH-WEST ELEVATION - BUILDING E
SCALE 1:100



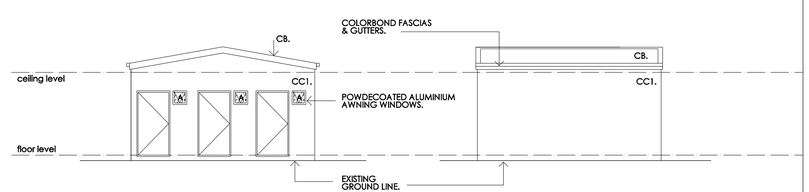
SOUTH-WEST ELEVATION - BUILDING E
SCALE 1:100

SOUTH-EAST ELEVATION - BUILDING E
SCALE 1:100



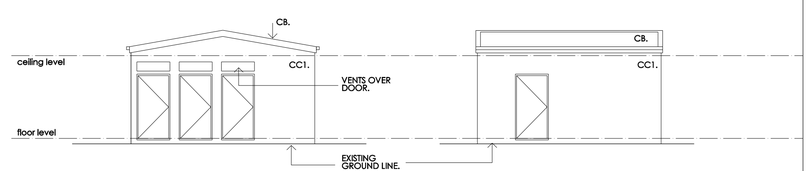
FLOOR PLAN - BUILDING F - AMENITIES (CAMPING)
SCALE 1:100

AREA:	
BUILDING D	36 sq.m.



NORTH-EAST ELEVATION - BUILDING F
SCALE 1:100

NORTH-WEST ELEVATION - BUILDING F
SCALE 1:100



SOUTH-WEST ELEVATION - BUILDING F
SCALE 1:100

SOUTH-EAST ELEVATION - BUILDING F
SCALE 1:100

REVISION A: - 20/07/23
- MAXIMUM BUILDING HEIGHTS SHOWN.

REVISION B: - 04/08/23
- BUILDING E REVISED NUMBER
- BUILDING F DELETED.

REVISION C: - 04/10/23
- BUILDING F ADDED BACK

REVISION D: - 03/03/25
- RE-SSUED

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Project and Address:
Proposed Development at 647 Baskerville Rd., Old Beach

Client:
Cherries Tasmania

Drawing Title:
Plans, Elevations - Buildings C, D,E & F

Please note: - Verify all dimensions on site. Figured dimensions take precedence over scale readings.

Plot Date: 03/03/2025 | Drawn: KJR
Approval: preliminary | Scale: 1:100 @ A1

NORTH

Project No.: 22.20
Drawing No.: sk07 | Rev.: C

Planning Submission

Proposed Accommodation Development (Revised)

at

647 Baskerville Road
Old Beach, Tasmania

for

Cherries Tasmania

Tas Building Design Pty. Ltd.
P.O.Box 2018
Howrah 7018
tas.buildingdesign@bigpond.com
0408882283

March 2025 (Revised proposal)

contents

appendix

attachments

consultant reports

1. - site location/background

The existing Cherry Tasmania orchard is located at 647 Baskerville Road, Old Beach. The proposed development location fronts onto Briggs Road, approximately 200 metres south of the Baskerville Road intersection. The site falls gradually to the south-east and has proposed entrances to the west fronting Briggs Road.

Nic Hansen of Cherries Tasmania has operated the business since 2003. The orchard site covers over 68 hectares of Cherry varieties.

2.- environmental impact/design statement

The existing orchard site is currently zoned Rural and is operated by the current owner Nic Hansen as a Cherry farm. Seasonal workers are required at various times of the picking season and the proposed development allows vital accommodation on site.

The location of the Proposed Accommodation development is positioned fronting Briggs Road and is partly hidden the existing pine trees along the front boundary limiting visual impact. The accommodation project will require bus access for pick-up and drop-off. Apart from the bus access, there will be minimal traffic movements, mainly food deliveries and Cherry Tasmania staff.

The surrounding properties vary from existing Rural Residential dwellings, Rural zoned open properties and Baskerville Raceway. The site is an ideal location to provide accommodation on site for seasonal workers for the existing Cherry farm operations.

The design consists of various grouped shed and donga type buildings with 'Windspray' colour. The buildings will be partly excavated lowering the overall height of the accommodation buildings. All buildings are single storey.

An open space area will be utilized for camping (no caravans) which have their own bathroom facilities.

The accommodation buildings are both located outside of the attenuation zone of Baskerville raceway.

In reference to Tas Planning Scheme (Brighton) 20.3.1 Discretionary Use:

a) The accommodation is required for the operation of the Cherry farm business providing for seasonal workers on site.
b) There is no adverse impact, confirm or restraint of uses regarding any neighbouring property.
c) Being purposely built for the cherry farms operations, the development is compatible with the agricultural use.
d) The accommodation development does not compromise on the function of the surrounding settlements and is appropriate and functional for the cherry farm.

3. – development information

a. – car-parking/bus/truck movements

The proposed development provides for 36 onsite parking spaces, dedicated delivery loading bay and waste collections area. The overflow car parking area will be allowed for additional parking. A new entry and exit provides a safe and open driveway area for bus, truck and vehicle access. The entry/exit solution allows for bus turning in a loop design rather than one access point and turning on site.

Refer to attached Hubble Traffic report covering all vehicle movements, hours etc.

b. – number of staff

A maximum of 2 employees (cleaning) staff per day. The accommodation building will house 96 seasonal workers for the 14 buildings (8 per building) who will do all their own cooking.
The camp site has 23 tent sites x 2 persons = 46 seasonal workers.

c. – operating hours

The seasonal workers generally operate between 7.30am and 3.30pm. The cleaning staff would operate between the day period.

d. – equipment

External heat pump heating units are to be installed however will be virtually silent. Freezers room units will be located on the opposite side of the Meals building – away from the accommodation buildings. Generally cooking will be domestic ovens, cooktops etc.

e. – waste production and disposal

Waste production will be limited to waste bins for general waste from the Kitchen and accommodation units. The waste removal will be provided from a private waste firm accessing the site once a week.

f. – signage

Minor signage will be installed for entry and exit points along with 'Give Way' signage for exit point. Refer TIA report for other directional signage.

g. –colours-

Refer to the elevations for colours. Predominately colours will be 'Windspray' but will have secondary colours for screening, planting, etc.

h. landscaping/fencing/lighting

The proposed site is surrounded by a green orchard barrier. The existing extensive landscaping provides an enjoyable space to reside. Refer to the Part Site Landscape Plan.

The site will provide low level flood lighting for the car parking and pathway areas between buildings. The extension of lighting and security will continue around the proposed accommodation units.

i – drainage

Refer to GES report for the sewer design. Refer to the Part Site Drainage Plan for stormwater and water design. Engineering design and final stormwater design/calculations will be prepared for the construction drawings.

Stormwater exiting development area (owner description)

Storm water from the development site is to be directed into the adjacent 110MGL dam.
The dam is a completely bunded water holding area.
No outside run-off water enters this dam from the water catchment area. 5 years ago Cherries Tasmania spent $130K constructing a by-pass channel for the water course to travel around the dam. Reason being the quality of water from the catchment area including the Braeview Road subdivision area is of very poor quality. During rain fall the water flowing has extremely high levels of silt and makes for very poor irrigation water for the orchard.

Photo above showing example of this.

Water by-passing the dam during a very heavy rain-fall event

Therefore based on this water levels within the dam are 100% controllable by what water we allow into the dam from the irrigation scheme we access water from.
Cherries Tasmania irrigation season finishes in late April (+/- weather conditions). From this point on we then fill the dam. It is our intention to short fill the dam by some 10MGL to enable room for stormwater run-off from the development site to enter and be stored in the dam for irrigation use during the summer months.

j – staging

The project will be built as one stage.

4. owner statement

Cherries Tasmania Orchards is wishing to construct a seasonal employee accommodation site in line with the submitted documents and plans.
We see this development as an extremely critical part of our long term sustainability as a cherry orchard. As we move forward with our orchard development we will reach in January 2027 a forecasted 900-1000 tonnes of cherries harvested that will require hand picking and packing. Labour is a major part of this.
Of the 280-300 people required, history shows that we can source 35-50% of this required amount of people locally. The remaining people will have to come to us via seasonal worker programs and travelling back packers. Between December and early February there is chronic shortage of any type of accommodation in Southern Tasmania. For Cherries Tasmania to ensure its sustainable long-term future we must construct and operate our own seasonal accommodation thereby ensuring a critical factor is met.

5. conclusion

The proposed accommodation development for Cherries Tasmania will provide vital accommodation on site for seasonal workers. The development will provide jobs, growth and valuable investment for the Brighton Council area.

SEASONAL EMPLOYEE ACCOMMODATION, OLD BEACH

TRAFFIC IMPACT ASSESSMENT

Hubble Traffic

Updated March 2025

Disclaimer: This report has been prepared based on and in reliance upon the information provided to Hubble Traffic Consulting by the client and gathered by Hubble Traffic Consulting during the preparation of the report. Whilst all reasonable skill, care and diligence has been used in preparation of the report, Hubble Traffic Consulting take no responsibility for errors or omissions arising from misstatements by third parties.

This report has been prepared specifically for the exclusive use of the client named in the report and to the extent necessary, Hubble Traffic Consulting disclaim responsibility for any loss or damage occasioned by use of or reliance upon this report, or the date produced herein, by any third party.

Version	Date	Reason for Issue
Draft	March 2023	Draft issued for client feedback
Final	17 March 2023	Final issued.
Updated	29 September 2023	Camping location changed -updated parking layout
Updated	3 March 2025	Change in layout of sleeping areas

Table of Contents

1. Introduction

Kevin Roberts of Tas Building Design has engaged Hubble Traffic to prepare an independent Traffic Impact Assessment, to consider the traffic impacts from the development of seasonal employee accommodation, for Cherries Tasmania Orchards at Old Beach.

This assessment has considered the functional requirements of the proposed development, including the surrounding road network, safe and efficient access arrangements to accommodate light and medium vehicles, and adequate on-site car parking.

This report has been prepared to satisfy the requirements of Austroads, Guide to Traffic Management Part 12: Traffic Impacts of Developments, 2019, and referred to the following information and resources:

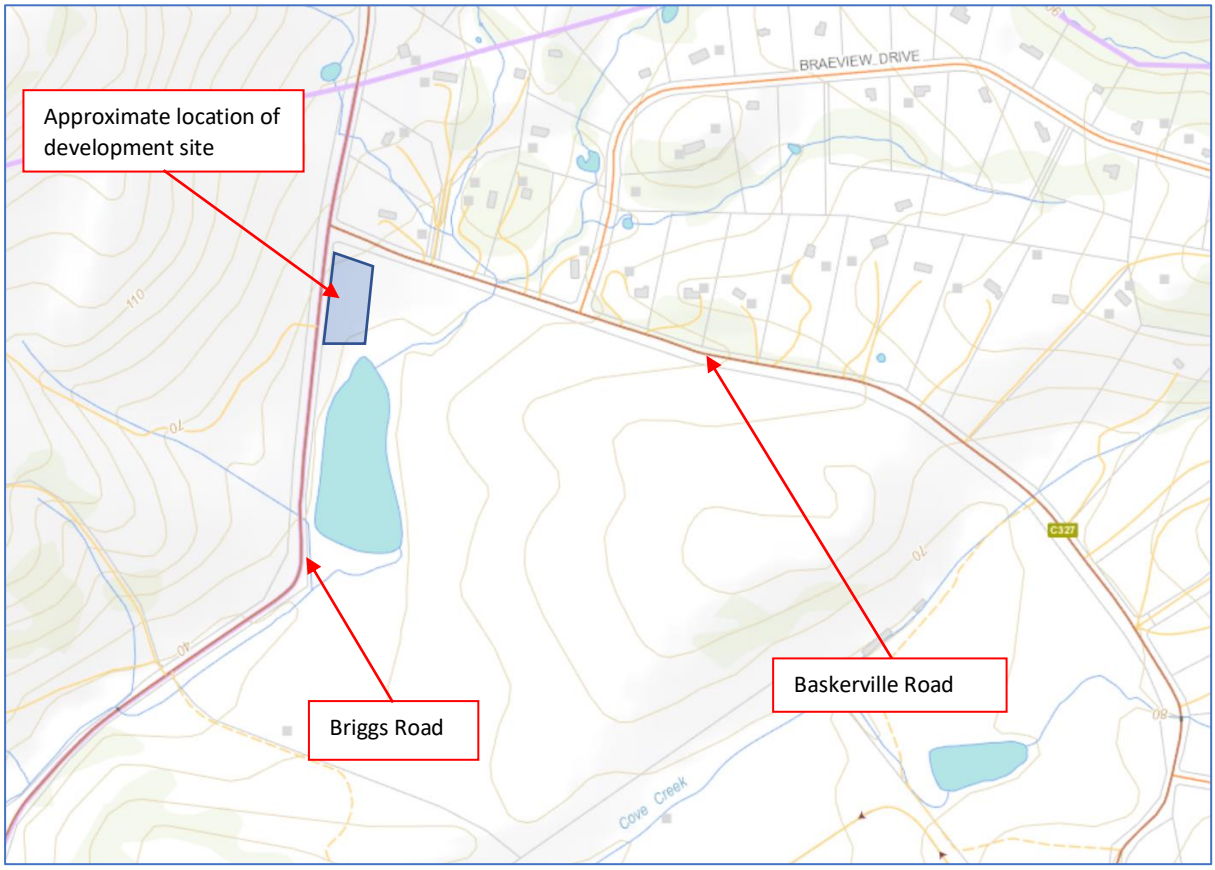
- Tasmanian Planning Scheme (Brighton Council)
- Road Traffic Authority NSW (RTA) Guide to Traffic Generating Developments
- Australian Standards AS2890 parts 1, 2 and 6
- Austroads series of Traffic Management and Road Design
  - Part 4: Intersection and crossings, General
  - Part 4a: Unsignalised and Signalised Intersections
  - Part 12: Traffic Impacts of Development
- Autoturn Online vehicle turning software
- LIST Land Information Database
- Department of State Growth crash database

2. Site Description

The development site is a small area of a larger parcel of land, owned and operated by Cherries Tasmania Orchards. It is located of the junction between Briggs Road and Baskerville Road, and in close proximity to an existing dam.

The site is zoned as Rural Use, which encompasses the orchards land-use along the south of Baskerville Road, while the north side is an established Rural Living land-use.

Diagram 2.0 – Extract from LIST land information database



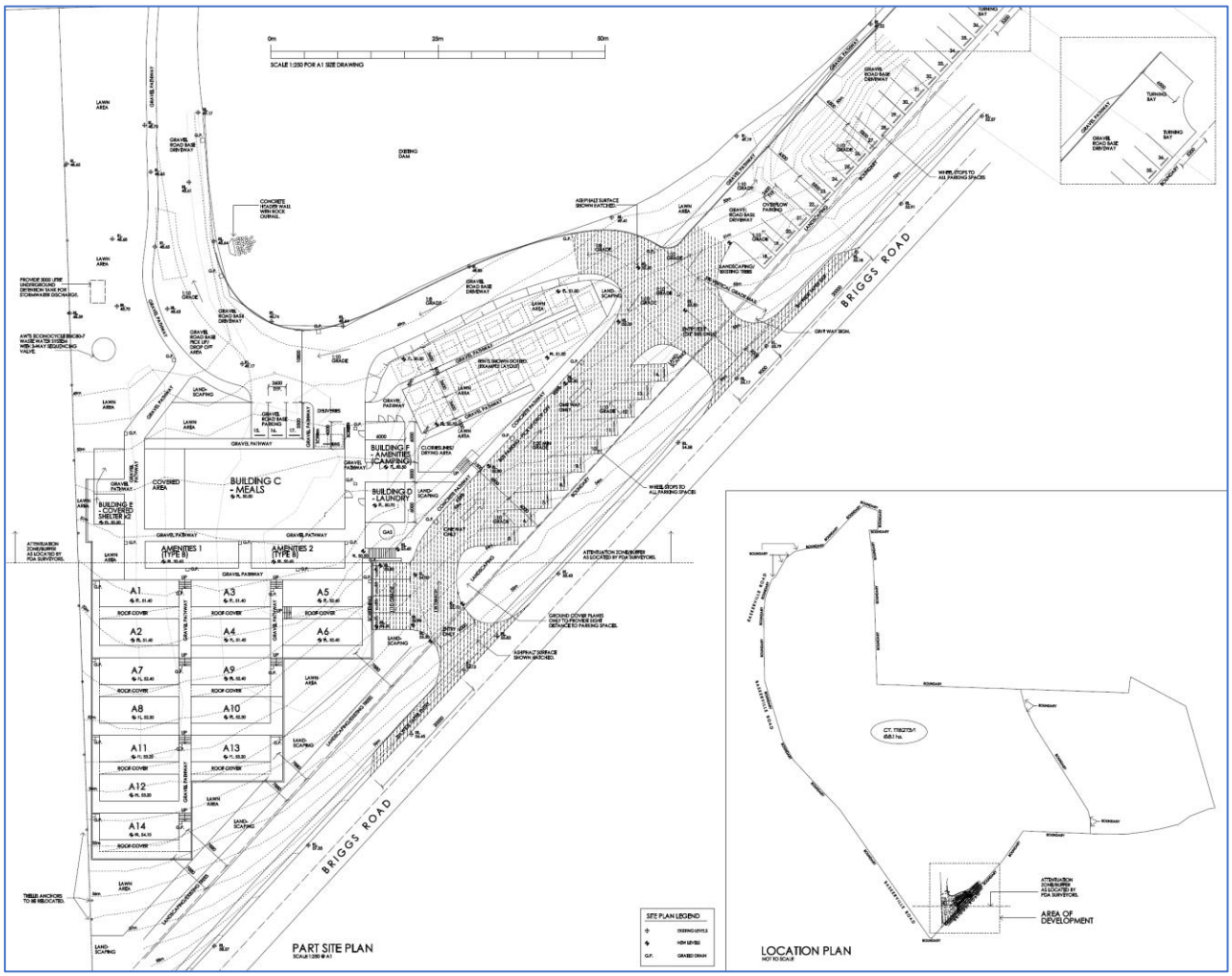
3. Development proposal

As advised by the developer the proposed development will include:

- 14 accommodation huts,
- 23 tent sites,
- variety of amenity buildings to support the huts and tents,
- 36 on-site car parking spaces,
- dedicated delivery loading bay, and
- waste collection area.

The site will provide a maximum of 144 beds at any one time, which incorporates a mixture of camping sites and seasonal employees.

Diagram 3.0 – Proposed development layout



4. Trip generation by this development

A trip in this report is defined as a one way vehicular movement from one point to another, excluding the return journey. Therefore, a return trip to and from a land use is counted as two trips.

The developer has advised that an on-site bus service will be provided, to pick up and drop off harvest employees around different areas of the orchard. The developer also provided information on the number of employees on-site, and site capacity of the camping ground in order to calculate the number of trips.

4.1. Seasonal employees

It is expected that all the seasonal employees will be non-local residents, with the majority expected to be international tourists or backpackers. These employees are unlikely to have their own private transport and are expected to be relying on a bus transport service run by the development. Employees housed in the seasonal accommodation building will be mainly utilised within the Cherries Tasmania Baskerville cherry orchard operation especially between early December and early February, the peak cherry harvest period.

This assessment will be based on all employees using the on-site bus transport. The developer has indicated that they have two buses, a 56 seater and a 30 seater, which will be used to transport the employees. With the accommodation providing for 144 employees, each bus could be required to make two trips, to drop off and pick up the employees during the morning and afternoon periods.

The developer has indicated that the employees will generally be working between the hours of 7:30am to 3:30pm. As a worst case scenario, this assessment will assume that the bus service will run during the peak periods and each bus will make two trips during each period.

4.2. Commercial vehicles

The seasonal employees will be required to arrange their own food and supplies and are likely to use the local supermarkets online delivery system, which will generate delivery trips to the site. As a worst case scenario, this assessment will assume that these deliveries will occur twice a day, outside of the peak periods.

A private waste collection service will be engaged by the developer to collect waste from the site. As a worst case scenario, this assessment will assume that a waste collection vehicle will collect rubbish twice per day, outside of the peak periods.

4.3. Other employees

The developer has advised that two cleaners will be employed to clean the accommodation once a day. As a worst case scenario, this assessment will assume that both cleaning employees commute separately in a private vehicle, and arrive during the morning peak to undertake cleaning while the accommodation is vacant.

4.4. Camping ground trips

The camping ground sites are suitable for a tent only, with the trips generated likely to be infrequent and irregular. For the purpose of this assessment, vehicle trips are likely to be generated as the vehicles arrive and leave, with these occurring outside of the peak periods. The number of intermediate trips is expected to be low and also occur outside of the peak periods. As a worst case scenario, it is assumed that the camping grounds could generate ten vehicles entering and leaving the site per day.

4.5. Total trips generated

From the information provided by the developer, when the development is operating at 100 percent capacity, this assessment predicts the development could generate 48 daily trips, with ten trips occurring during the morning peak hour and eight trips during the evening peak hour.

Table 4.5 – Trips generated by the development

Trip generator	Number and type of vehicles	Daily trips	Morning peak hour	Evening peak hour	Outside peak periods
Seasonal employees	2x buses	16	8	8	0
Deliveries	2x Trucks	4	0	0	4
Waste collection	2x Waste collection	4	0	0	4
Employees	2x cars	4	2	0	2
Camping ground	10x cars	20	0	0	20
Total		**48**	**10**	**8**	**30**

5. Existing road network

Briggs and Baskerville Roads are rural roads maintained by the Brighton Council. Both roads would act as collector roads within the surrounding road network, with Briggs Road having a slightly higher road function priority than Baskerville Road.

5.1. Briggs Road characteristics

Briggs Road runs in a south to north orientation, is built to a rural standard, capable of carrying a significant amount of traffic movements. The road has a sealed bitumen surface, grass verges, with the horizontal alignment being relatively straight, while the vertical alignment is undulating. At the development site, the road consists of a three-metre-wide traffic lane in each direction, marked centreline supported with guideposts, and steep road verge along the development that falls away from the road surface. The road is posted with 80 km/h speed limit signs.

Photograph 5.1 – Typical standard of Briggs Road adjacent to the development site

5.2. Baskerville Road characteristics

Baskerville Road primarily runs in a east to west orientation, and connects between Briggs Road and the East Derwent Highway. The road is built to a typical rural standard, with a sealed bitumen surface (suitable width to accommodate two-way traffic movements), grass verges, and guide posts. Opposite the development site, there is a table drain running parallel to the road.

The surrounding land-use along Baskerville Road is rural residential, with residential properties on the northern side of the road, and the cherry orchards on the southern side. Baskerville Road has a posted speed limit of 70 km/h.

Photograph 5.2 – Typical standard of Baskerville Road

5.3. Traffic flow on the surrounding roads

To evaluate the traffic impact from the development, it is important to understand the current traffic flow on the surrounding roads. A recent manual traffic survey was undertaken at the junction of Briggs and Baskerville Roads, during the morning and evening peak periods.

From the 90-minute survey, the peak hour period can be extracted, which will be used within this assessment. Overall, the traffic flow generated by Briggs Road was reasonably low.

Table 5.3A – Manual traffic flow for the morning period

Time AM	Briggs Road				Baskerville Road	
	Straight towards Honeywood	Right into Baskerville Road	Straight towards Gagebrook	Left into Baskerville Road	Left onto Briggs Road	Right onto Briggs Road
7:30 – 7:45	11	1	51	5	6	5
7:45 – 8:00	18	6	46	6	3	4
8:00 – 8:15	15	1	40	4	4	8
8:15 – 8:30	16	5	23	6	1	6
8:30 – 8:45	17	3	20	3	1	6
8:45 – 9:00	12	4	17	2	1	1
Total	**89**	**20**	**197**	**26**	**16**	**30**

Table 5.3B – Manual traffic flow for the evening period

Time PM	Briggs Road				Baskerville Road	
	Straight towards Honeywood	Right into Baskerville Road	Straight towards Gagebrook	Left into Baskerville Road	Left onto Briggs Road	Right onto Briggs Road
4:00 – 4:15	36	3	13	7	1	6
4:15 – 4:30	26	3	10	5	2	12
4:30 – 4:45	31	3	11	9	3	7
4:45 – 5:00	37	2	14	1	1	5
5:00 – 5:15	27	7	9	3	0	7
5:15 – 5:30	24	2	15	3	1	10
Total	**181**	**20**	**72**	**28**	**8**	**47**

From the manual survey data, the following observations have been made:

- During the morning peak hour (7:30am – 8:30am) Briggs Road generated a total of 291 two-way vehicle movements. Of the 291 vehicle movements 76 percent continued straight along Briggs Road.
- During the evening peak hour (4:00pm – 5:00pm) Briggs Road generated a total of 248 two-way vehicle movements. Of the 248 vehicle movements 72 percent continued straight along Briggs Road.

Diagram 5.4A – Morning peak hour traffic movements

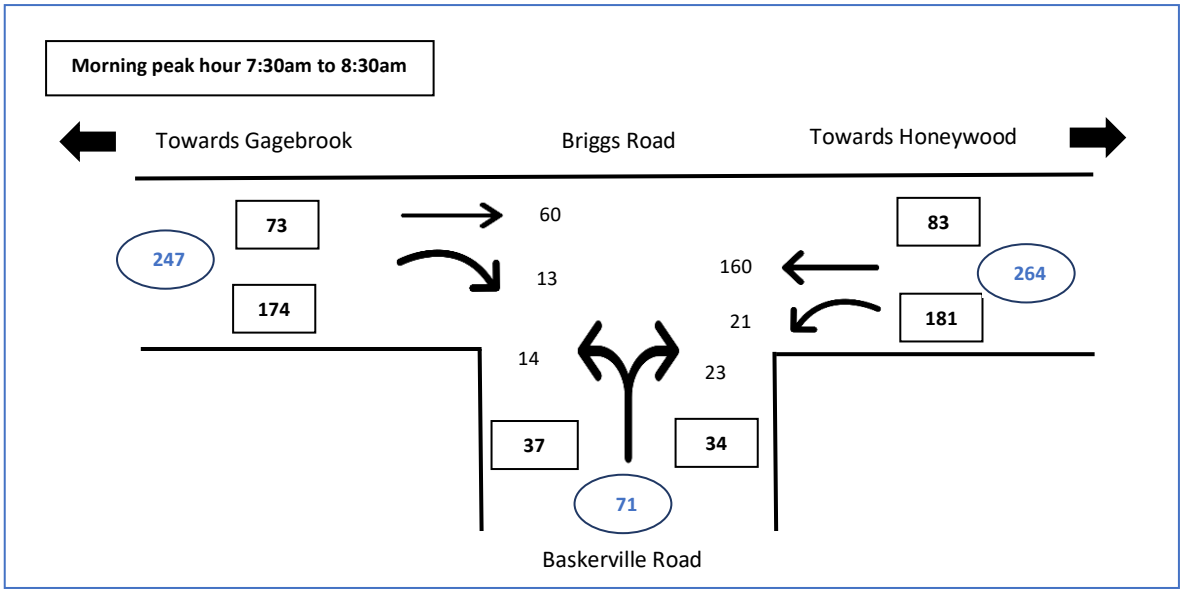
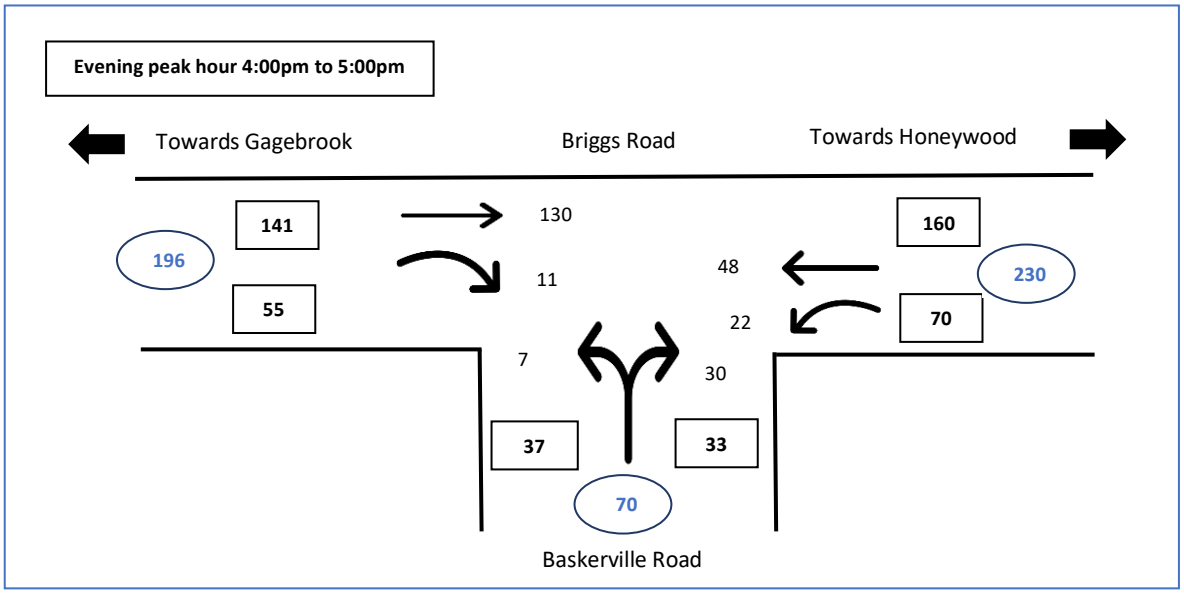


Diagram 5.4B – Evening peak hour traffic movements



5.4. Road safety of surrounding road network

The Department of State Growth maintains a database of reported road crashes, a check of this database for the last five years, found no crashes reported on Briggs Road adjacent to the development site.

6. Impact from traffic generated by this development

As indicated in section 4 of this report, the development is predicted to generate 48 daily trips, and of these trips ten are expected to occur during the morning peak hour and eight during the evening peak hour. The majority of the vehicles generated by the development are likely to be medium or heavy vehicles.

6.1. Level of service for Briggs Road users

In evaluating the impact of additional vehicle movements on Briggs Road, it is important to understand the Level of Service (LOS) motorists are currently receiving. The RTA Guide provides guidance for rural roads, based on peak hour directional traffic flows and percent of heavy vehicles. For the purpose of this assessment, Briggs Road has a rolling terrain and has an approximate five percent of heavy vehicles.

With the recent traffic survey revealing the maximum one-way directional peak hour flow of 160 vehicles per hour during the morning peak hour, the RTA Guide indicates motorists are currently receiving the highest level of service possible. This means that the traffic flow is stable, motorists have freedom to select their own operating speed, and there should be sufficient gaps in the traffic stream to enable vehicles to enter and leave, without causing any adverse impacts.

This development is expected to generate an additional ten traffic movements in the morning peak hour and eight in the evening peak, which will not cause any deterioration in the current level of service motorists are receiving.

Diagram 6.1 – Extract from the RTA Guide

Table 4.5
peak hour flow on two-lane rural roads (veh/hr)
(Design speed of 100km/hr)

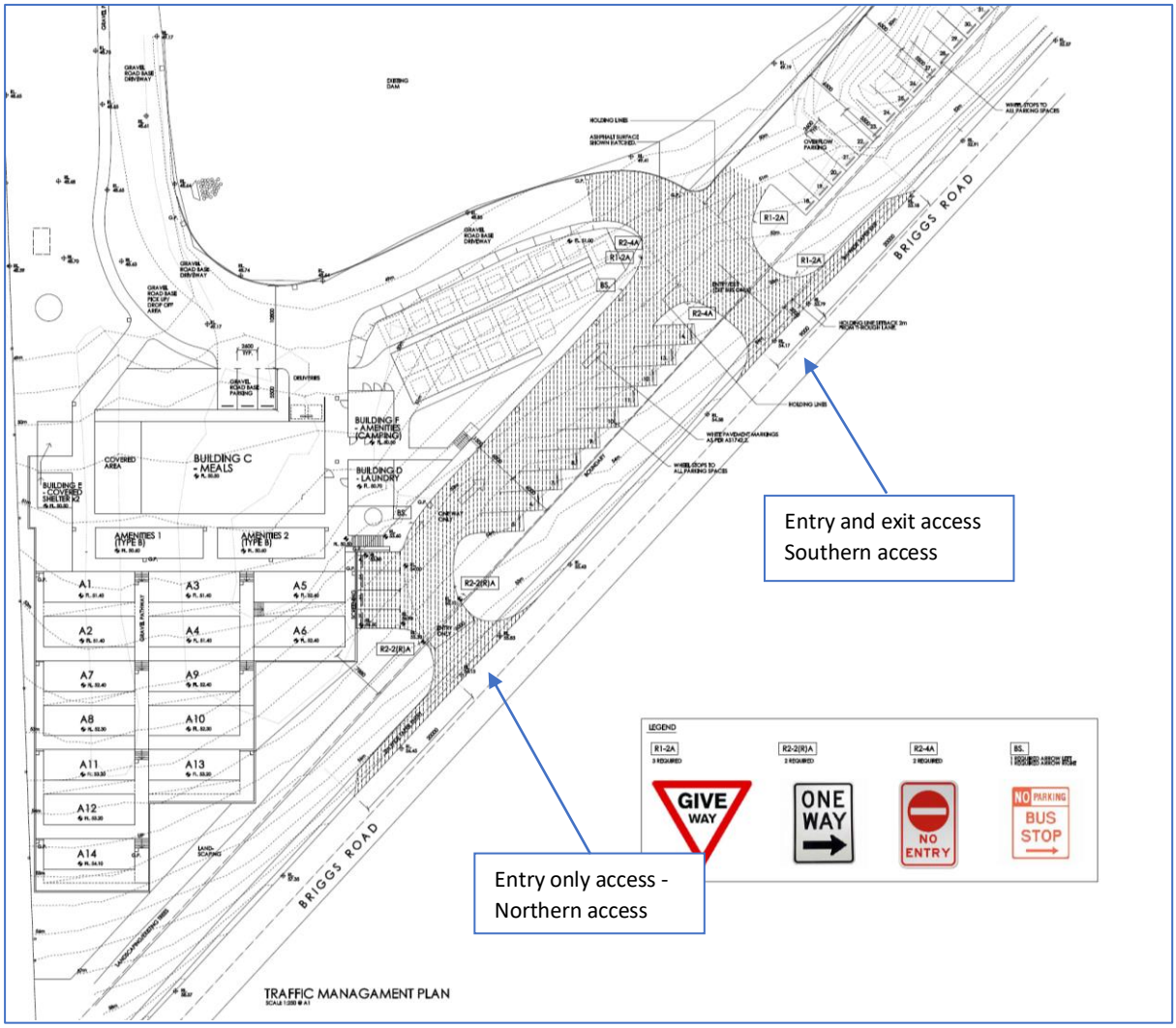
Terrain	Level of Service	Percent of Heavy Vehicles			
		0	5	10	15
Level	B	630	590	560	530
	C	1030	970	920	870
	D	1630	1550	1480	1410
	E	2630	2500	2390	2290
Rolling	B	500	420	360	310
	C	920	760	650	570
	D	1370	1140	970	700
	E	2420	2000	1720	1510
Mountainous	B	340	230	180	150
	C	600	410	320	260
	D	1050	680	500	400
	E	2160	1400	1040	820

7. Access arrangement to and from the development site

The internal driveway layout has been designed to locate the bus collection point on the left hand side, so employees can access the bus without crossing the internal driveway. This will require buses to arrive at a northern access and leave from a southern access, requiring the creation of two new accesses onto Briggs Road. The northern access will be entry only, with the southern access to be the main access to cater for two-way vehicle movements. The internal driveway connecting the northern and southern accesses will have a one-way flow (north to south) and will be six metres wide to accommodate the bus collection point and one traffic lane.

Both accesses will be designed to accommodate the swept path of a 12.5 metre tourist coach, and medium rigid vehicles.

Diagram 7.0 – Access into and out of development site



7.1. Sight distance for drivers leaving the development site

Safe Intersection Sight Distance (SISD) is based on the operating speed of approaching vehicles and the gradient of the approaching road, with the proposed main access located within an 80 km/h speed limit, with a road gradient of 12 percent. The Austroads Guide to Road Design part 4a: Unsignalised and signalised intersections table 3.2 specifies that the required SISD for these traffic conditions to be 181 metres, based on a driver reaction time of two seconds.

An on-site inspection found that there was at least 180 metres of sight distance in each direction, based on the driver being 1.05 metres above the access surface and the approaching vehicle being 1.2 metres high. This assessment found there is suitable sight distance in both directions at the access with Briggs Road, allowing motorists to leave the development site in a safe and efficient manner, without impacting other road users.

Photograph 7.1A – View for driver leaving the development site to the right

Photograph 7.1B – View for driver leaving the development site to the left

7.2. Any alternate road access

The main access to the cherry orchard is located off Baskerville Road, while an unused gate off Baskerville Road (shown in figure 7.2), is within 50 metres of Briggs Road, and in close proximity to the development site. However, both are considered unsuitable as there is substantial volume of established infrastructure within the cherry orchard, preventing the construction of a suitable internal connection to the development site.

It is acknowledged that a new access should be created on a road lower in the road hierarchy than Briggs Road, which in this case would be Baskerville Road. Notwithstanding, this assessment considers a new access onto Briggs Road can be achieved, providing all users with safe and efficient traffic outcomes, without compromising existing road users. As the difference in the road function is very minor, and the volume of traffic predicted to be generated from the development is low.

To quantify the traffic impact of creating a new access on to Briggs Road, traffic modelling software has been used, which quantifies the Degree of Saturation, Level of Service, worst traffic delays and queues, based on traffic flow and volume of vehicles using the proposed access. A traffic modelling of the proposed access onto Briggs Road was developed within the modelling software for both the morning and evening peak hour, based on traffic flows collected by the recent manual surveys.

To ensure the modelling represents the worst case scenario, the volumes of vehicles using the access has been double (20 in the morning and 16 in the evening). Fifty percent of vehicle movements are undertaken by heavy vehicles, with the traffic modelling considering the worst 30 minute period.

The traffic modelling predicts the access will operate at the highest level of performance (LOS A) for a give way situation. The access is predicted to operate at less than ten percent of the traffic capacity, with vehicles turning in and out not expected to generate any traffic queues, as there are ample gaps within the traffic stream for vehicles to enter and leave efficiently.

Overall, the access is not predicted to cause any adverse impact to the existing Briggs Road users, and there is ample traffic capacity along Briggs Road to accommodate future traffic growth, without causing any deterioration in traffic performance.

Table 7.2 – Traffic modelling for new access onto Briggs Road

Period	Total vehicles	DOS	Worst Delay	LOS	Max Queue
Morning	292	0.098	7.6 Seconds	A	0.8 metre
Evening	223	0.081	7.2 Seconds	A	0.2 metre

Traffic modelling results is available appendix A.

Photograph 7.2 – Existing access with Baskerville Road

8. On-site parking and internal road layout

8.1. Number of car parking spaces

The planning scheme table C2.1 prescribes the number of on-site parking spaces required, based on the type of land use. For Visitor Accommodation, the requirement is one space per self-contained accommodation unit, or one space per allocated tent or caravan space, or one space per four beds, whichever is greater.

The development site will provide 36 on-site car parking spaces, based on the maximum number of beds available for both the seasonal employees and camping grounds.

Table 8.1 – Planning scheme car parking requirements

Activity	Use	Planning scheme requirements	Number of beds	Number of parking spaces
Accommodation	Visitor Accommodation	One space per self-contained accommodation unit, one space per allocated tent or caravan space, or one space per four beds, whichever is greater	144	36
Total				**36**

The on-site car parking spaces will be shared by both uses, with dedicated parking spaces not provided at the camping grounds. As the site will operate with a maximum of 144 beds, the 36 parking spaces is not expected to cause any overflow parking.

8.2. Layout of on-site parking spaces

The design includes 36 on-site car parking spaces located throughout the site, incorporating ten 45-degree spaces, adjacent to the bus parking area, and 26 ninety-degree parking spaces.

The car parking spaces have been designed to comply with the planning scheme parking dimensions in table C2.3, where ninety-degree parking spaces will be 2.6 metres wide, 5.4 metres long, and supported with a minimum 6.4 metre manoeuvring area or access aisle.

The 45-degree parking spaces will be 2.6 metres wide, 5.4 metres long, and supported with a minimum 3.5 metre manoeuvring area or access aisle. Complying with the planning scheme parking dimensions will ensure vehicles enter and leave the parking spaces in a single turn efficiently.

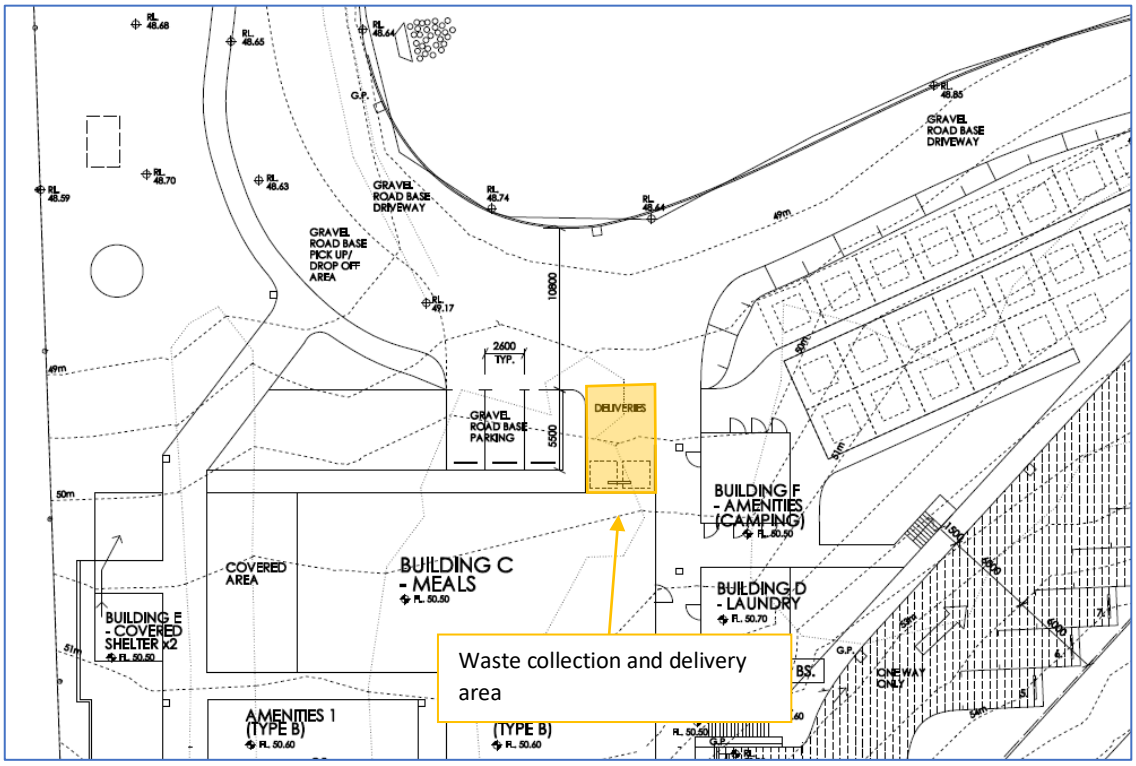
All car parking spaces have been designed to be situated on a gradient less than five percent, in both longitudinal and transverse directions. The parking spaces will be supplemented with wheel stops and delineated with line markings when situated on sealed pavement surface.

8.3. Delivery areas for commercial vehicles

Within the development site, designated loading areas will provide for delivery and waste collection vehicles, with both areas designed to accommodate a medium rigid vehicle (8.8 metres in length). It is expected that online supermarket orders will be delivered by small rigid vehicles (6.4 metres in length), which is the most common vehicle used for supermarket deliveries.

A private waste collection service will need to be engaged to collect waste on a regular basis. As a standard waste collection vehicle is slightly smaller than a medium rigid vehicle, the waste collection area is expected to be sufficient for vehicles to enter and leave in a forward-driving direction.

Diagram 8.3 – Waste collection and loading area



8.4. Bus collection area

The development will operate buses to transport the seasonal employees, picking them up from the accommodation and transporting them around the cherry orchards. Once the employees have finished for the day, the bus service will pick them up and drop them back at the accommodation, this minimises the number of vehicle movements generated by the development.

As discussed previously, the internal bus collection point has been designed so that buses collect and drop-off users from the left hand side, so users do not need to cross the internal driveway. Furthermore, the bus collection point is connected to the accommodation and amenity buildings, with dedicated pathways to provide safe and convenient pedestrian access.

To achieve this outcome, buses must enter the site from a point north of the collection point, and leave south of the collection point, requiring the creation of two accesses. This also enables buses to enter when turning left or right from Briggs Road.

Autoturn vehicle swept-path software has been used to verify that a standard coach bus (12.5 metres in length) can enter from Briggs Road at the northern access point, turning right at minimum speed of 10 kilometres per hour, to arrive at the collection point in a single efficient turn. To ensure this turn operates efficiently, a short left hand taper will be included in the access design to accommodate a left turning vehicle off Briggs Road.

Similarly, a standard coach bus can leave the collection point, wait at the holding point at the southern access, before entering Briggs Road in an efficient manner as the design incorporates a left hand taper. There will be sufficient width at this southern access to accommodate two-way vehicle movements.

Swept path for a standard coach bus entering and leaving the development site is available in appendix A.

8.5. Gradients within the internal driveway and accesses

With the development operating buses on a daily basis, the grades of the internal driveways will be designed to comply with the Australian Standards AS 2890 part 2: Off street commercial facilities. This will include the accesses onto Briggs Road, to ensure buses can enter and leave the development in a safe and efficient manner. Overall, the maximum gradient will be less than 15.4 percent, with changes in grade not to exceed 6.25 percent, and gradient at the southern access across the road verge to be as flat as possible.

8.6. Access widths

The design of the two accesses onto Briggs Road will be based on the swept path of a standard 12.5 metre long coach bus (design vehicle), to ensure the design vehicle can enter and leave in a safe and efficient manner, without adversely impacting other users. The southern access will have sufficient width to accommodate two-way traffic movements, the left hand taper along Briggs Road ensures the design vehicle can turn out, without encroaching across the road centreline.

8.7. Internal road layout

The design incorporates a one-way internal driveway running parallel with Briggs Road, to enable buses to enter, and be aligned so users are collected on the left-hand side. This driveway and the two accesses onto Briggs Road will have an asphalt surface, with appropriate thickness that is designed to cater for vehicle loadings, and accommodate for the turning forces generated by the design vehicle.

Beyond this bus driveway, the internal road surface leading to the other facilities will be an all-weather gravel surface. The width of the one-way driveway will be six metres wide to allow for buses to be parked next to the footpath, while allowing for other vehicles to pass. The width of the access to the delivery areas and parking areas will be a minimum 5.5 metres wide to facilitate two-way vehicle movements.

8.8. Internal pedestrian pathways

The development will include dedicated pathways so that pedestrians can move within the site in a safe and convenient manner, with the pathway separated from the driveways by a barrier kerb where possible.

Where the pathway crosses the internal driveway, it will be delineated with road markings, defining the pathway and pedestrian crossing areas. The proposed safety measures are expected to ensure pedestrians can move around the development site in a safe and convenient manner, meeting the objective of the planning scheme.

8.9. Other parking requirements

The planning scheme table C2.1 prescribes the number of on-site bicycle parking spaces required, based on the type of land use. For Visitor Accommodation, there is no requirement to provide dedicated bicycle parking spaces.

The planning scheme table C2.4 prescribes the number of on-site motorcycle parking spaces required, based on the number of car parking spaces provided, with one motorcycle space required for every 20 car parking spaces, after the first 20 spaces provided. The development will provide one motorcycle space, in addition to the 36 car parking spaces being provided.

9. Planning scheme

9.1. C2.0 Parking and Sustainable Transport Code

C2.5.1 Car parking numbers

The development will provide 36 on-site car parking spaces, which complies with the acceptable solution under the planning scheme table C2.1 for a visitor accommodation facility with a maximum of 144 beds available at any one time.

C2.5.2 Bicycle parking numbers

Under the planning scheme table C2.1, visitor accommodation land-use does not require bicycle parking, meeting the acceptable solution.

C2.5.3 Motorcycle parking numbers

Planning scheme table C2.4 requires one motorcycle parking space for 20-40 car parking spaces. One dedicated motorcycle parking space will be provided to comply with the planning scheme acceptable solution A1.

C2.5.4 Loading bays

The development is providing a dedicated loading bay, complying with the acceptable solution A1.

C2.6. Development standards

C2.6.1 Construction of parking areas.	The one-way driveway, accesses and parking spaces located along this driveway will be constructed with asphalt, while the remaining driveways and car parking areas will be all-weather hard wearing gravel surface. All trafficable surfaces will be supported with kerbing to collect and direct surface water to an approved drainage system. This design complies with the acceptable solution A1.
C2.6.2 Design and layout of parking areas.	The car parking spaces have been designed to comply with the dimensions specified in the planning scheme table C2.3, and vehicles will be able to enter and leave the spaces in an efficient manner. The width of the southern access will comply with the planning scheme and be a minimum 5.5 metres wide to accommodate two-way traffic movements. The width of the

	northern access will be designed to accommodate a 12.5 metre bus turning into the site. The car parking spaces will be situated on a gradient of less than five percent and all parking spaces will be supported with wheel stops. Both the car parking layout and the loading area will have sufficient manoeuvring area, to ensure all vehicles will enter and leave the development site in a forward-driving direction. The proposed parking and loading areas comply with the acceptable solution.
C2.6.3 Number of accesses for vehicles.	The development site will create two new accesses and will need to be assessed against the performance criteria, which is provided on the next page of this report.
C2.6.4 Lighting of parking areas within the general business zone and central business zone	The development site will be provided with suitable lighting covering the car parking, loading areas, and circulating carriageway, to ensure vehicles and pedestrians can enter, manoeuvre, and leave in a safe manner, complying with the acceptable solution.
C2.6.5 Pedestrian access.	A minimum one metre wide footpath will be provided connecting all visitor accommodation buildings with the bus collection area and parking spaces. This pathway will have a concrete surface adjacent to the one-way internal driveway, with the remainder of the pathways to consist of a gravel surface. Barrier kerbing will be provided to separate the pathways from the internal driveways and where the pathway crosses the internal driveway, it will be delineated with road markings, defining the pathway and pedestrian crossing areas. Overall, pedestrians will be able to move throughout the site, safely and efficiently, complying with the intent of the planning scheme.
C2.6.6 Loading bays.	The loading area will be designed and constructed in accordance with the Australian Standard AS 2890.2-2002, parking facilities, part 2: Offstreet commercial vehicle facilities, which will comply with the acceptable solution.
C2.6.7 Bicycle parking and storage facilities	Not required for visitor accommodation land-use.
C2.6.8 Siting of parking and turning areas.	Not applicable for this development.

C2.6.3 Number of accesses for vehicles

The development site will create two new vehicle accesses onto Briggs Road, to allow for safe and efficient bus accesses, and will need to be assessed under the performance criteria P1.

Performance criteria	**Assessment**
The number of accesses for each frontage must be minimised, having regard to:	
a) Any loss of on-street parking; and	The development site is located on Briggs Road, which is a rural road, built to a rural standard where on-street parking is not expected. There will be no loss of on-street parking by the creation of the two new accesses onto Briggs Road.
b) Pedestrian safety and amenity;	With the rural location, pedestrians are not expected to arrive or leave the development site, and there are no formal pedestrian facilities on the surrounding road network. The proposed access arrangement provides bus users with a safe and convenient access to the amenities within the development site. Two accesses onto Briggs Road are not expected to cause any adverse impact to pedestrian safety or amenity.
c) Traffic safety;	Briggs Road is lightly trafficked, the volume of traffic generated by the development is considered low; there will be sufficient Safe Intersection Sight Distance, and the accesses will be designed so that vehicles can enter and leave in a safe and efficient manner, without causing adverse impact to existing users.
d) Residential amenity on adjoining land; and	The surrounding land is zoned as rural residential, with rural residential properties not within close proximity to the development site, and no adverse impact to residential amenity is expected.
e) The impact on the streetscape.	The proposed access arrangement is not expected to cause any adverse impact to the streetscape.

9.2. C3.5.1 Traffic generation at a vehicle crossing, level crossing or new junction

The development requires the creation of new accesses, and need to be assessed against the performance criteria P1, to ensure the accesses are safe and efficient.

Performance criteria	Assessment
Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:	
a) Any increase in traffic caused by the use;	This assessment predicts that the development is likely to generate 48 daily movements, with ten of these movements likely to occur during the morning peak hour and eight during the evening peak hour.
b) The nature of the traffic generated by the use;	The development will generate both light and heavy vehicles. Light vehicles (less than 5.5 metres) will be generated by employees traveling to and from the site, as well as campers using the camping grounds. Heavy vehicles including buses, waste collection vehicles, and small rigid vehicles, will be generated to transport employees, collect waste, and deliver food and supplies. These vehicle types are compatible with the existing traffic on the surrounding road network.
c) The nature of the road	Briggs Road is a collector road within the surrounding road network, built to a rural standard capable of carrying significant traffic movements. The road is suitable to cater for the number and type of vehicles generated by the development without causing adverse traffic impact to the current users.
d) The speed limit and traffic flow of the road	Briggs Road has a posted speed limit of 80 km/h. A recent manual survey found that Briggs Road generated 291 two-way traffic movements during the morning peak hour and 248 two-way traffic movements during the evening peak. This assessment determined motorists are receiving the highest level of traffic efficiency for this type of rural road, and there is sufficient spare traffic capacity to absorb the increase in traffic movements predicted to be generated by the development, without causing any deterioration in traffic flow. Traffic modelling of the new access arrangement predicts they can operate safely and efficiently, as there are ample gaps in the traffic stream for vehicles to enter and leave without causing any disruption in the traffic flow.
e) Any alternative access to a road	Although the development site has direct access to Baskerville Road, there is substantial established infrastructure within the cherry orchard to prevent a suitable connection to the development site from Baskerville Road.
f) The need for the use	The accommodation facility supports the local farming community, to provide fresh produce.
g) Any traffic impact assessment	A traffic impact assessment has found no reason for this development not to proceed.

h)	Any advice received from the rail or road authority	Aware of none.

10. Conclusion

The provision of a visitor accommodation is an ancillary use to the properties primary land-use, and is considered essential for the sustainability and long term viability of the Cherries Tasmania Baskerville cherry orchard property.

The provision of a visitor accommodation is an ancillary use to the properties primary land-use, and is considered essential for the growth of the industry.

From a traffic engineering and road safety perspective, additional traffic generated from this development is not expected to create any adverse safety, amenity, or traffic efficiency problems, as:

- traffic generated is considered to be low and there if sufficient capacity within the current road network to absorb the extra traffic movements,
- new accesses can be created without causing any safety or traffic efficiency issues to the public road network, or create unnecessary traffic conflicts with Briggs Road users,
- sufficient parking spaces will be provided to meet the requirements, and
- commercial vehicles will be able to unload within the development site, causing no adverse impact to the public road network.

This Traffic Impact Assessment found no reason for this development not to proceed.

11. Appendix A – Traffic modelling printout

MOVEMENT SUMMARY

Site: 101 [Cherry Orchards with Briggs Road - am peak]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: Cherry Orchards								
1	L2	11	50.0	0.024	7.0	LOS A	0.1	0.8
3	R2	11	50.0	0.024	7.6	LOS A	0.1	0.8
Approach		21	50.0	0.024	7.3	LOS A	0.1	0.8
East: Briggs Road (From Brighton)								
4	L2	5	50.0	0.098	6.1	LOS A	0.0	0.0
5	T1	183	0.0	0.098	0.0	LOS A	0.0	0.0
Approach		188	1.4	0.098	0.2	NA	0.0	0.0
West: Briggs Road (old Beach)								
11	T1	77	0.0	0.045	0.1	LOS A	0.1	0.4
12	R2	5	50.0	0.045	7.0	LOS A	0.1	0.4
Approach		82	3.2	0.045	0.5	NA	0.1	0.4
All Vehicles		292	5.4	0.098	0.8	NA	0.1	0.8

MOVEMENT SUMMARY

Site: 101 [Cherry Orchards with Briggs Road - PM peak]

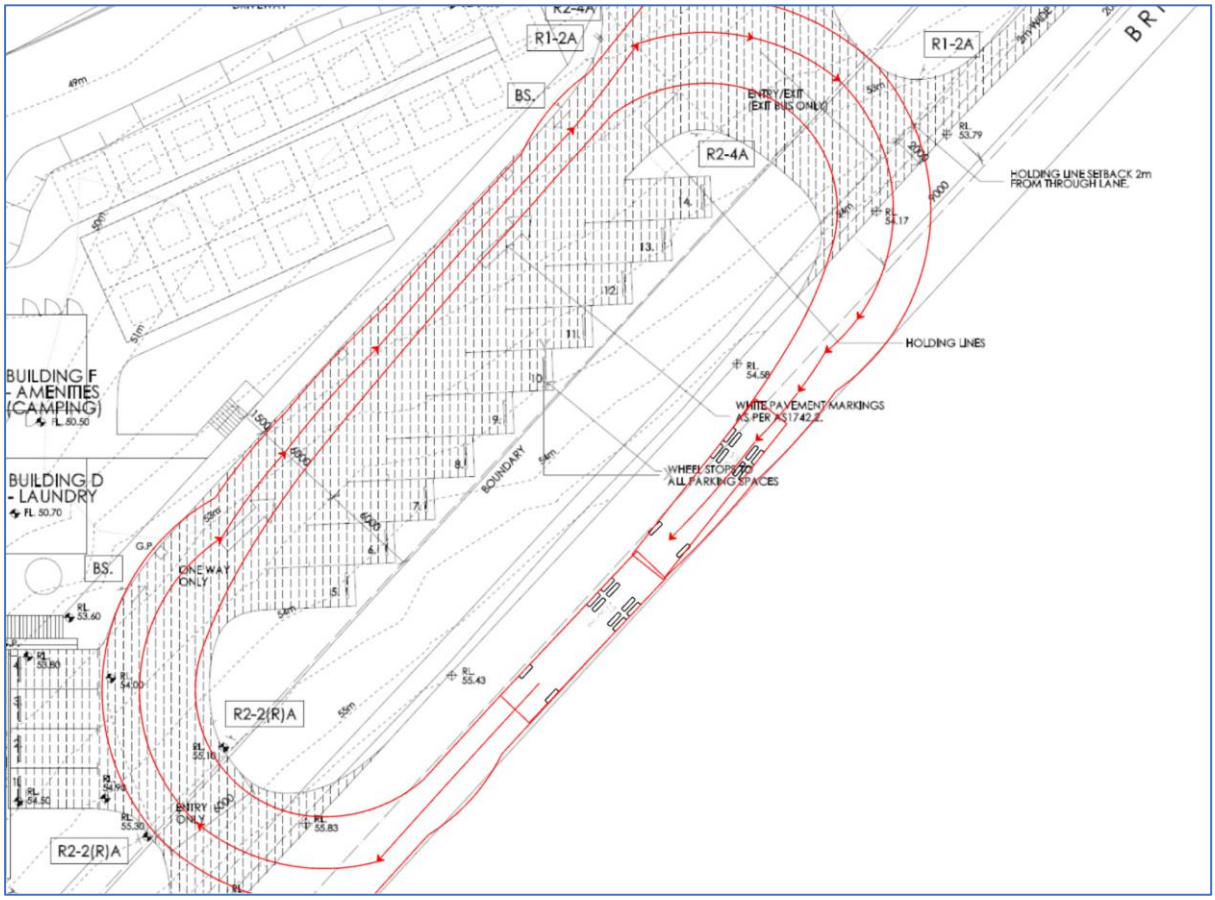
New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

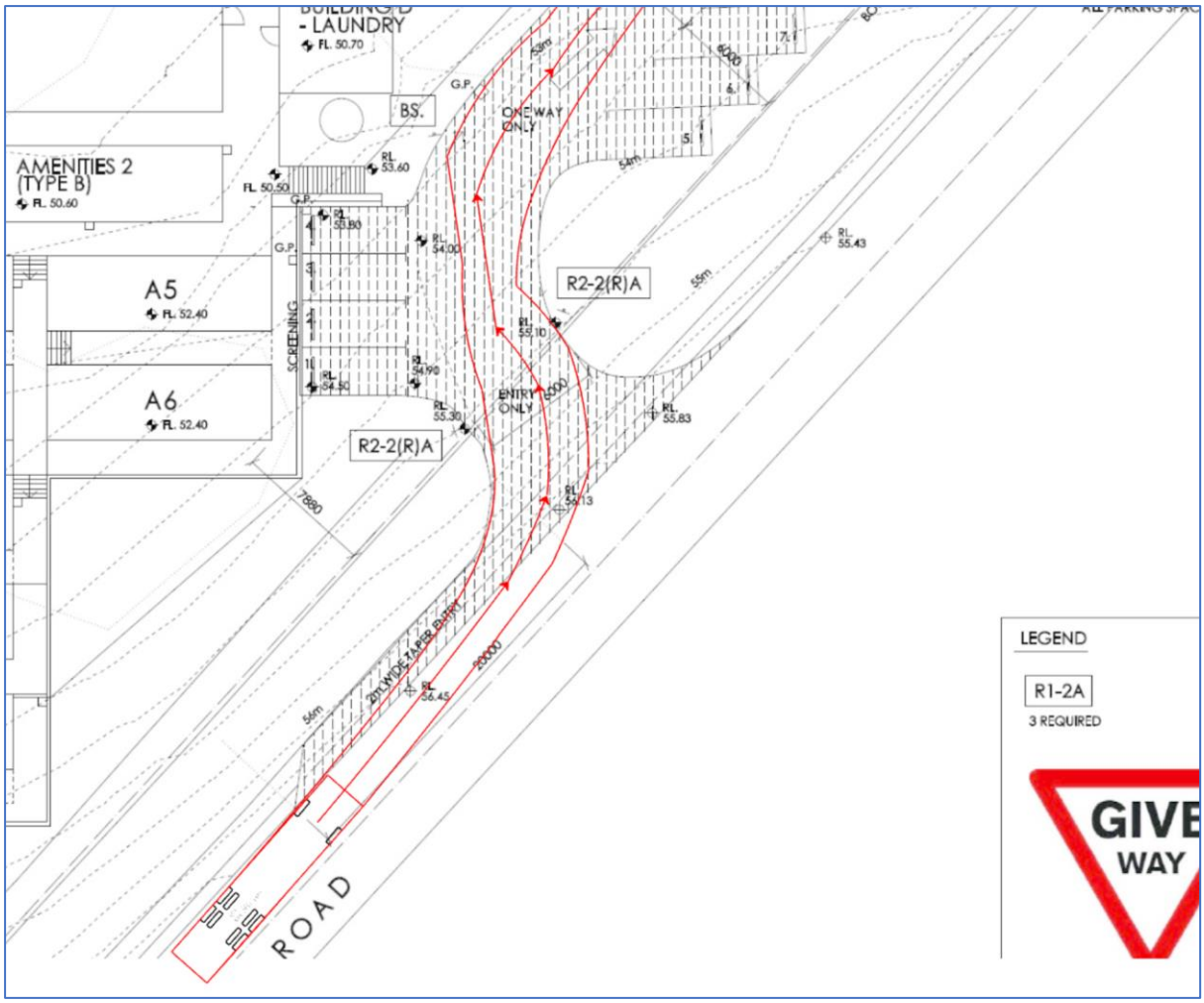
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: Cherry Orchards								
1	L2	3	50.0	0.006	6.4	LOS A	0.0	0.2
3	R2	3	50.0	0.006	7.2	LOS A	0.0	0.2
Approach		6	50.0	0.006	6.8	LOS A	0.0	0.2
East: Briggs Road (From Brighton)								
4	L2	5	50.0	0.034	6.1	LOS A	0.0	0.0
5	T1	58	0.0	0.034	0.0	LOS A	0.0	0.0
Approach		63	4.2	0.034	0.5	NA	0.0	0.0
West: Briggs Road (old Beach)								
11	T1	148	0.0	0.081	0.0	LOS A	0.0	0.3
12	R2	5	50.0	0.081	6.4	LOS A	0.0	0.3
Approach		154	1.7	0.081	0.2	NA	0.0	0.3
All Vehicles		223	3.8	0.081	0.5	NA	0.0	0.3

12. Appendix B – swept paths of standard coach bus

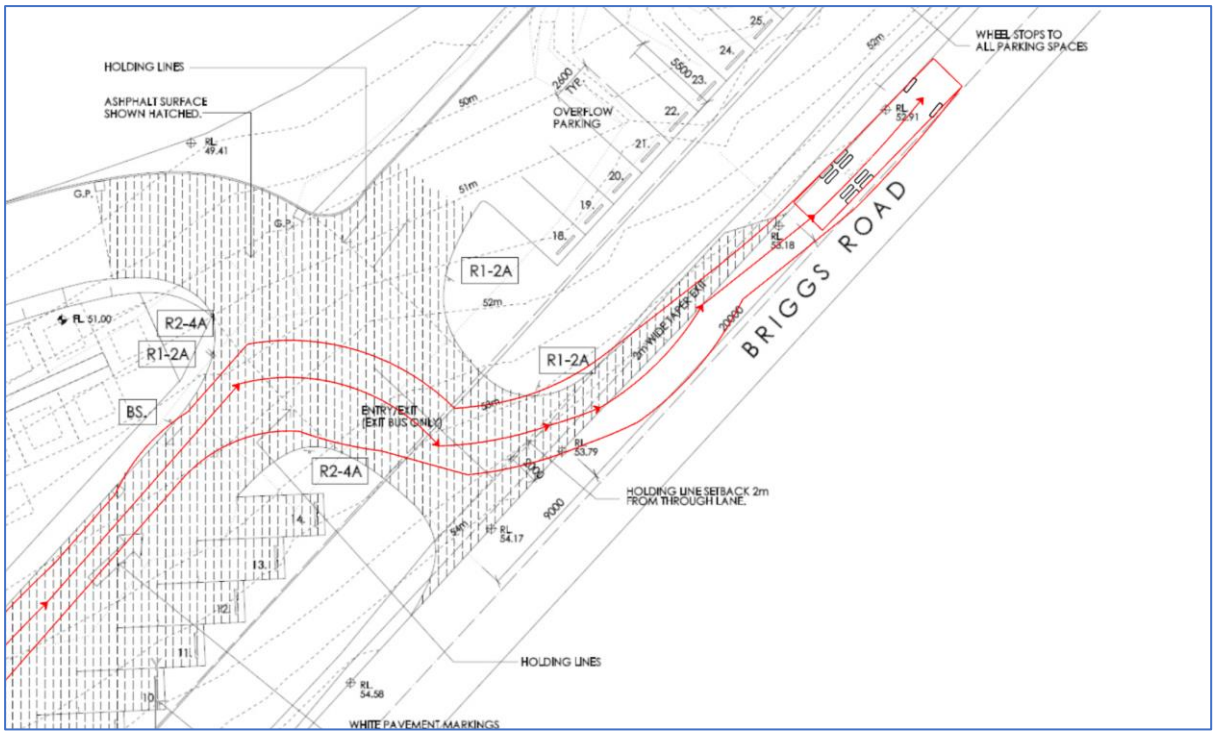
Standard coach turning right into and right out of the development site



Standard coach bus turning left in to the development site



Standard coach turning left out of the development site



PDA
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Our Ref: 51411MD
51411MD - SW Report R3_2024.01.25.docx

25 January 2024

The Senior Planner
Brighton Council
1 Tivoli Road
Old Beach TAS 7017

Attention: Jo Blackwell

DA 2023/00053: Worker Accommodation, 647 Baskerville Road, Old Beach Stormwater Report – Revision 3

Cherries Tasmania has submitted a development application to develop worker accommodation at their orchards at 647 Baskerville Road. Reference is made to Revision 1 of this report, submitted on 03 August 2023 to support the application. Council responded with an RFI on 07 August 2023. Revision 2 of the report was submitted on 31 August 2023 in response to the RFI. Council issued a conditioned permit on 02 November 2023. This report is revised to address Condition 4, reproduced below:

4. This permit must not be acted on until:

(a) An amended proposal plan locating all parking outside the areas affected by the 1% AEP Flood Level; or

(b) An amended Flood Hazard Report demonstrating that all parking is located within the H1 Flood Risk Zone, has been submitted to and approved by the Council's Senior Planner.

Once approved, the amended documents shall become part of the endorsed documents of this permit.

The site layout has therefore been revised so that all parking spaces are above the 1% AEP flood level.

1.0 Introduction

Figure 1 shows the site location as per The List and an aerial view of the site is given in Figure 2. In Figure 3 is reproduced the proposed building development layout. Of concern to Council is the Waterway and Coastal Protection Area overlay. See Figure 4.

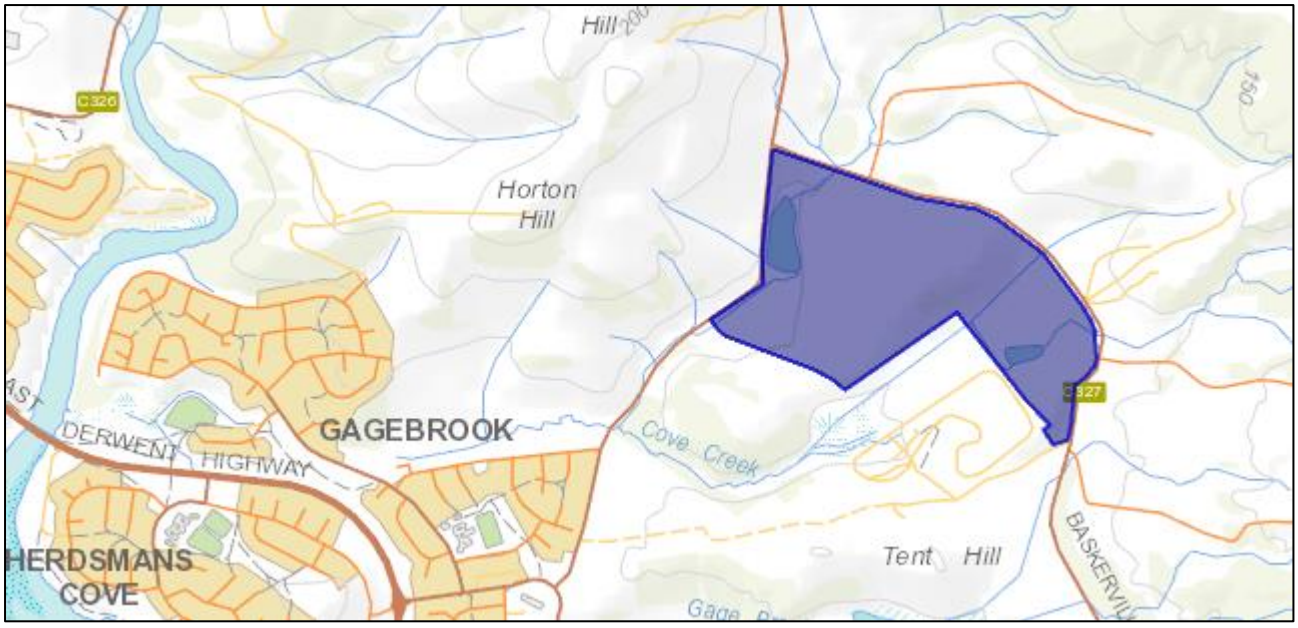

Figure 1 – **Site location**

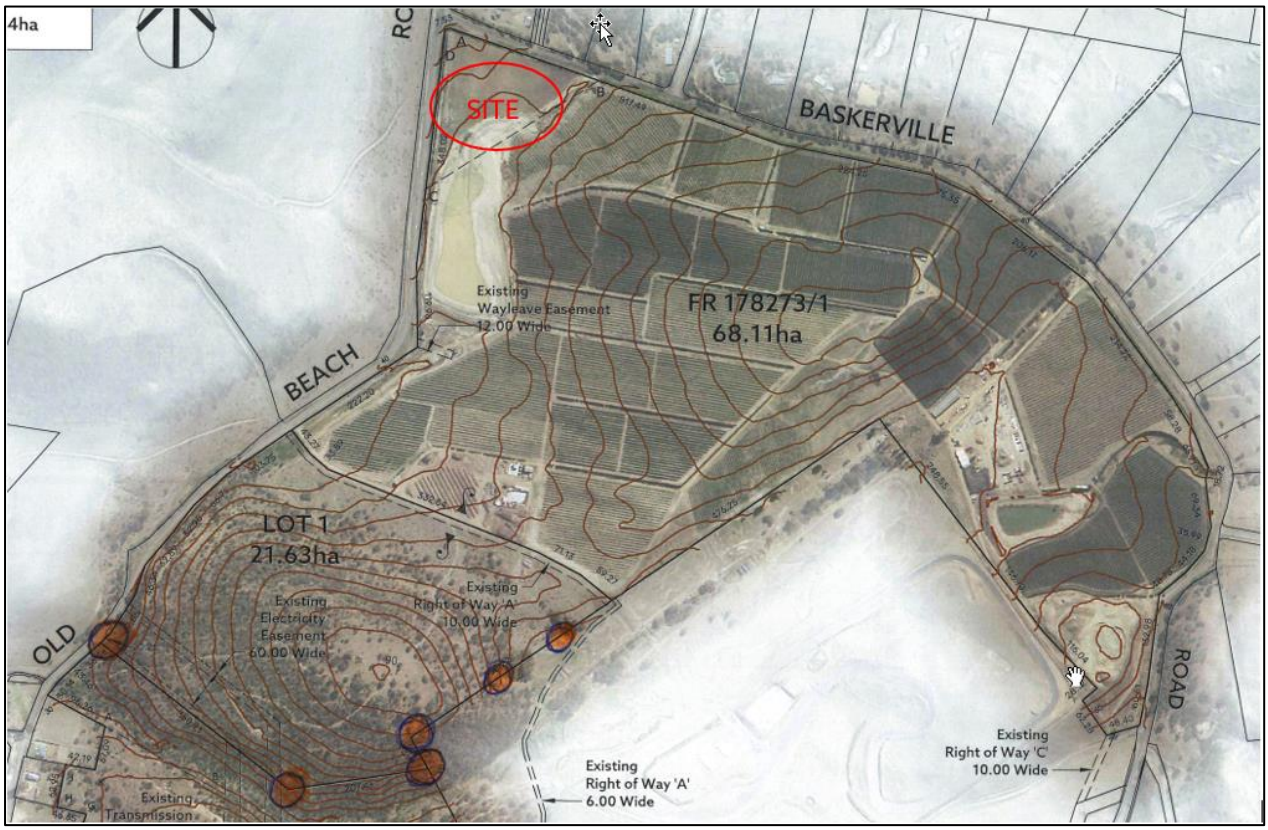

Figure 2 – **Aerial view of site**

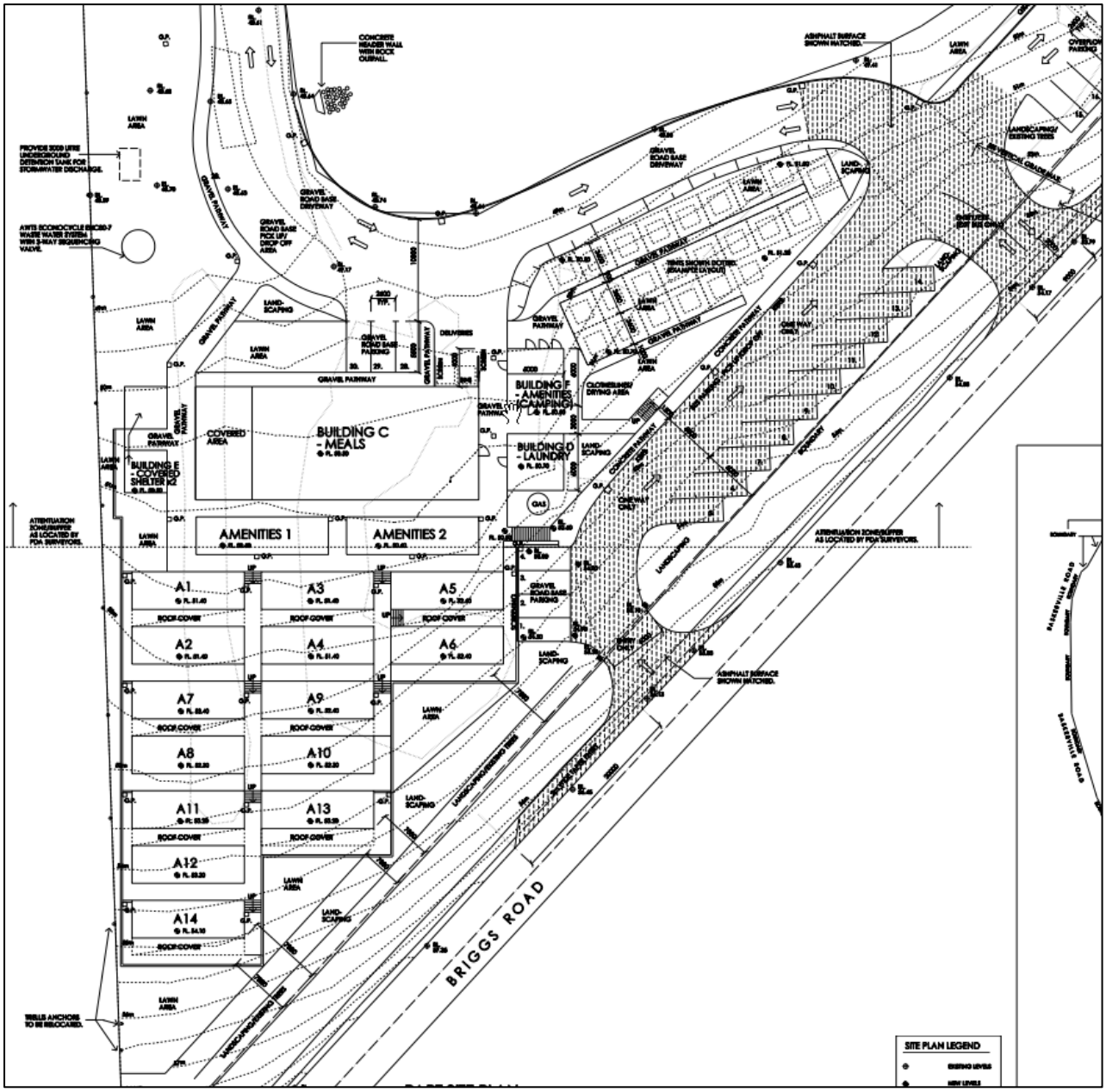

Figure 3 – Proposed development

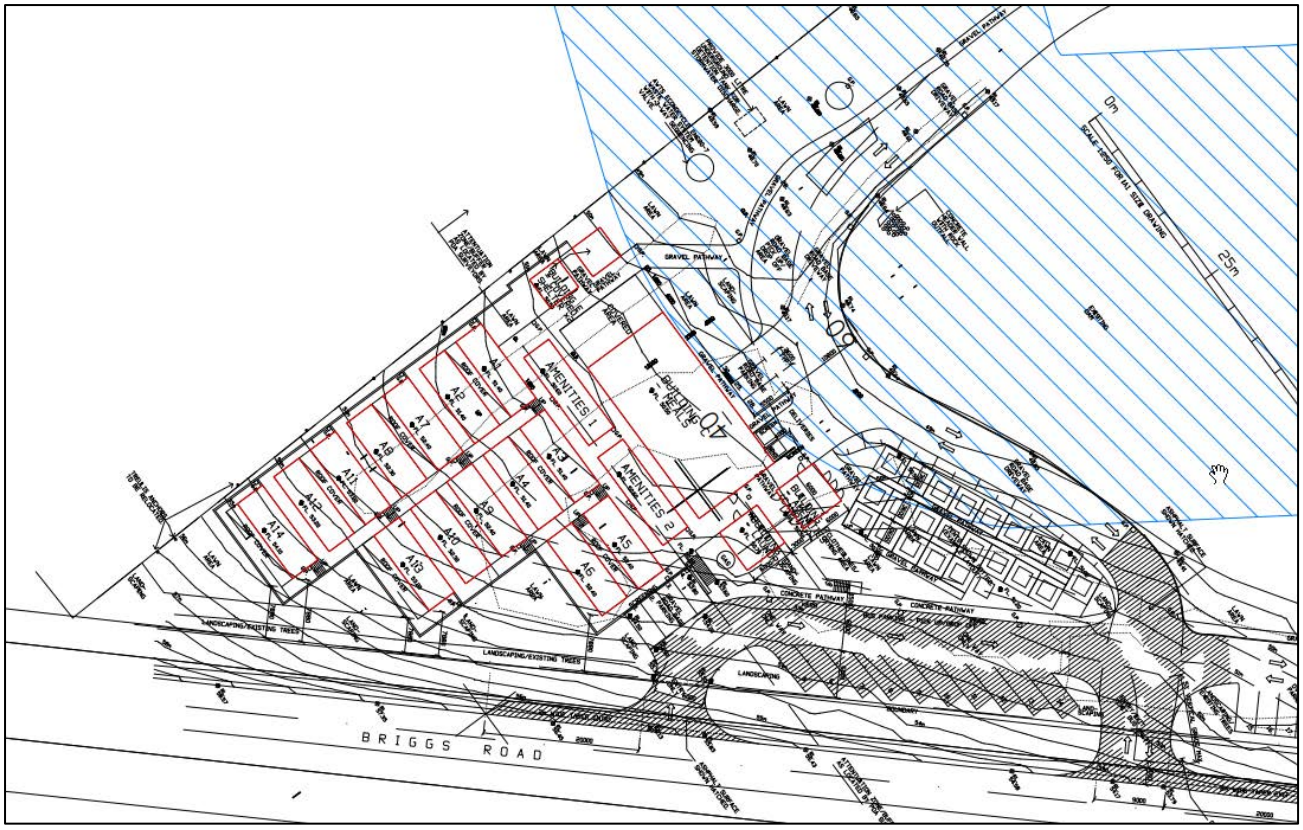

Figure 4 – Waterway and Coastal Protection Area overlay superimposed on development footprint

All the buildings are outside the overlay and will have well elevated floor levels. They are discussed in terms of Clause C12.0 Flood-Prone Areas Hazard Code of the Tasmanian Planning Scheme. The camping area has been moved to the position indicated in the figure. It slightly encroaches on the flood overlay, but the finished levels will be above 50.50 AHD and therefore above the 1% AEP flood level, which discussed later. Likewise, all parking will be located above the 1% AEP flood level.

2.0 Upstream catchment

The upstream catchments are shown in Figure 5 and the characteristics are summarized in Table 1

Table 1– Characteristics of upstream catchments

Catchment	Area	Description
A	200.2 ha	Undeveloped and low-density residential. Taken as 5% impervious. Outlet of catchment is the DN1050 Baskerville Road Culvert.
B	13.6 ha	Mostly cherry orchard. From DN1050 culvert to irrigation dam.
C	11.0 ha	Mostly cherry orchard and irrigation dam.

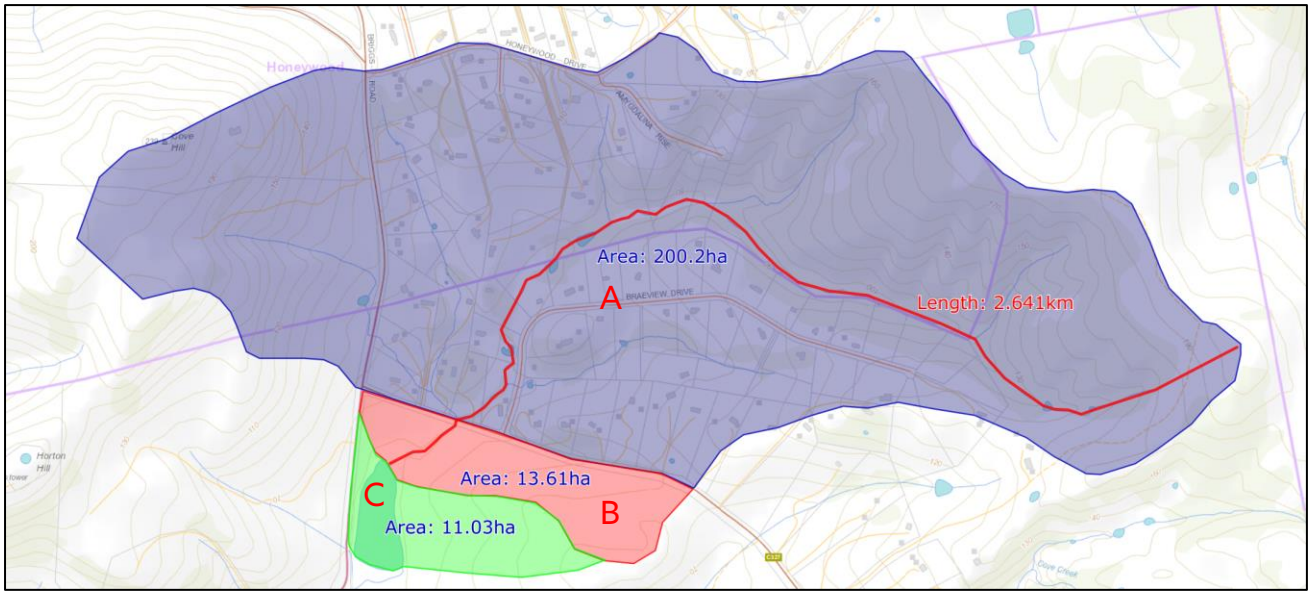

Figure 5 – Upstream catchments

2.0 Flow estimation by hydrological methods

The peak 1% AEP flows were estimated using several methods, with results tabulated below (Table 2). The time of concentration was estimated by means of the Bransby-Williams' method using the average slope.

Table 2 – 1% AEP flow estimations

Method	Q_A	Q_{A+B}	Comment
RFFE[1]	2.39 m^3/s	2.55 m^3/s	Using ARR online software
Rational	5.15 m^3/s	5.21 m^3/s	C = 0.3; tc = 60 min & 65 min. I = 30.9 mm/h & 29.2 mm/h.
IL-CL[2]	9.83 m^3/s	9.98 m^3/s	tc = 60 min and 65 min; IL = 26 mm; CL = 4.3 mm/h; Using Drains software

1. Regional Flood Frequency Estimation Model
2. Initial loss- continuing loss

3.0 Flow estimation from observed flows

The Client took video footage of stormwater flows that occurred on 06 May 2022. On that day, 85 mm of rainfall was recorded at the Ellerslie Road weather station in Hobart. The video footage seems to indicate that the DN1050 Baskerville Road culvert almost flowing full. So, an upper estimate of the flow through the culvert at the time of the video would be the unpressurized capacity of the culvert (with slope of 1:48), which is 4.24 m^3/s.

It is not easy to relate this flow to a return period (or exceedance probability) based only on the knowledge that 85 mm fell in a 24-hour period. However, we can make some simplifying assumptions:

- Since some rain fell on both the 5th and 7th of May, we will assume that rain fell throughout the day on the 6th and therefore we can relate the return period to the IFD tables (from BOM) for a 24-hour storm. This would then place the rain event between a 10% (77.5 mm) and a 5% (90.2 mm) annual exceedance probability.
- We will also assume that the Client took the footage at the peak of the flood through the culvert.

Now the Drains package used for the IL-CL model can analyse many storm patterns, return periods and storm durations. So, the model was run for several AEPs, durations up to 24 hours and ten storm patterns per duration, to obtain the following median results.

Table 3 – IL-CL flow estimates for different AEPs

AEP	Q_A (Baskerville Road culvert)	Q_{A+B} (Upstream of dam)
10% (1:10 year)	3.85 m^3/s	4.01 m^3/s
5% (1:20 year)	4.80 m^3/s	5.04 m^3/s
2% (1:50 year)	8.26 m^3/s	8.44 m^3/s
1% (1:100 year)	9.83 m^3/s	9.98 m^3/s

The flow of 4.24 m^3/s through the culvert estimated from the observed flow on 06 May 2022 falls between the 10% and 5% AEP flows in Table 3. This gives us some degree of confidence in the IL-CL flows. We will therefore consider the 1% AEP flow at the upstream end of the dam, i.e., near the proposed development, to be 10 m^3/s (rounded up from 9.98 m^3/s in Table 3).

4.0 Flood levels

4.1 Downstream channel

The channel slope is about 0.2% and has a varying cross-section. The capacity was roughly estimated by considering a cross-section along the middle of its length. The cross-section was simplified as a trapezoidal section 2 m wide, 1.1 m deep with 1:1 side slopes and a Manning's n-value of 0.03. The approximated capacity is 3.9 m^3/s. The footage however suggests that the capacity is a bit more than this, as seen in the images below.

Figure 6 – Downstream channel in flood (6 May 2022)

4.2 Observed flooding at accommodation site

Below we can see the flooding in the observed storm next to the accommodation site. If the level rises above the wall level of the irrigation dam, then the water will flow into the dam. In the case of such overtopping, the water level will be affected by the weir capacity of the dam wall. The dam wall is long, but considering only 50 m of dam wall and 200 mm of overtopping, the weir capacity would be 7 m^3/s. Therefore, the downstream channel and dam wall will easily accommodate the 1% AEP flow (10 m^3/s) such that the flood level will conservatively raise no more than 200 mm above the top of dam.

Figure 7 – Flooding at accommodation site during observed storm

The surveyed level of the dam wall is 49.5 m AHD. A conservative flood level would therefore be 49.7 m. The finished floor level of Building C is 50.50. Figure 7 shows a cross-section through the site with the buildings and conservatively estimated flood level indicated.

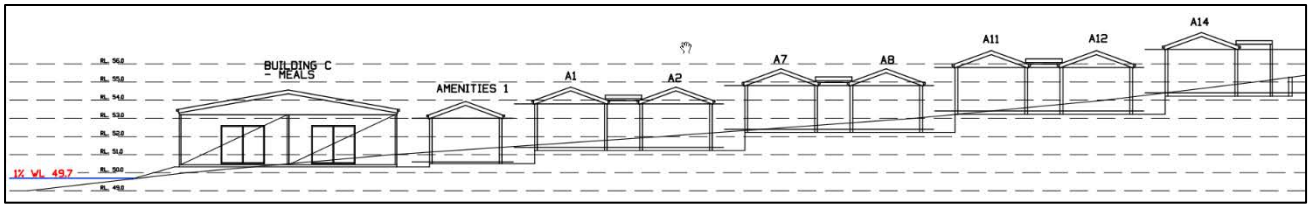

Figure 8 – Cross-section through development showing buildings and 1% AEP flood level

As mentioned, the parking areas will be located above the flood level.

5.0 Detention storage capacity of irrigation dam

The irrigation dam level is controlled by a riser pipe located outside the dam, to keep the dry weather water level below 48.8 m AHD. There will therefore be a freeboard of 700 mm between the water level and the dam wall. The 48.8 m contour includes an area of 23 116 m^2, so that the available storage capacity up to the dam wall is at least 16 000 m^3. Water which overflows into the dam during a low probability storm event will be attenuated by the dam and increased impervious surface of the proposed building development will be easily compensated for.

6.0 Flood Hazards

See annexure A for the meaning of the flood hazard categories.

6.1 Parking areas

The parking areas are all located above the 1% AEP flood level (49.7 m), and will fall within an H1 flood risk zone.

6.2 Gravel driveway and pathway

The gravel driveway and pathway are likely to be exposed to flood hazard categories H2 and H3 but can be safely avoided in flood events, by using the main accesses from Briggs Road.

6.3 Camping site

The camping site will be above the 1% AEP flood level and will entirely within an H1 flood risk zone.

6.4 Buildings

All the buildings will be above the 1% AEP flood level and therefore fall within an H1 flood risk zone.

6.5 Main accesses, drop-off zone and parking area

The main accesses, drop-off zone and parking areas will be located well above the flood level and fall within an H1 flood risk zone.

7.0 Discussion in terms of Clause C12.0 of Tasmanian Planning Scheme

(a) Provide details of, and be signed by, the person who prepared or verified the report

This report has been prepared by Roderick Parsons and signed and verified by Dean Panton as per the accompanying Form 55.

(b) Confirmation that the person has the appropriate qualifications and expertise

The accompanying form 55 confirms that Dean Panton has the appropriate qualifications and expertise.

(c) Confirmation that the report has been prepared in accordance with any methodology specified by a State Authority

We confirm that the report has been prepared in accordance with the ARR 2019.

(d) *Conclusions based in consideration of the proposed development*

i. *As to whether the use or development is likely to cause or contribute to the occurrence of flood in the site or on adjacent land*
   Due to the detention storage provided by the dam, the occurrence of flood on the subject land or on adjacent land is likely to be reduced.

ii. *As to whether the use or development can achieve and maintain a tolerable risk for the intended life of the use or development, having regard to:*

   a. *The nature, intensity and duration of use*
      The development is intended for use only during the months of December through March for the harvesting season. However, the development will be exposed to a tolerable risk throughout the year, on the condition that the gravel driveway and waterway area be avoided during storm events. This will be easily achievable since the main accesses and all buildings will have a tolerable flood risk in a 1% AEP event.

   b. *The type, form and duration of the development*

All buildings are situated outside the Council overlay and have floor levels adequately raised above the 1% AEP flood levels. The camping area will be raised above the flood level.

c. *The likely change in the level of risk across the intended life of the use or development*
Climate is likely to increase the severity of rainfall events over the life of the development. However, the location and floor levels of Buildings and parking area, as well as the camping area are sufficiently above the flood levels to accommodate an RCP 8.5 climate change scenario.

d. *The ability to adapt to a change in the level of risk*
The developer is innovative and able to adapt adequately to changes in risk.

e. *The ability to maintain access to utilities and services*
A new access will be constructed from Briggs Road.

f. *The need for flood reduction or protection measures beyond the boundary of the site*
We believe that the downstream flood volumes will not be increased, given the storage capacity provided by the dam.

g. *Any flood management plan in place for the site and/or and adjacent land*
The developer is to put a plan in place to prevent the gravel driveway and footpath below building C being used in a storm event.

h. *Any advice relating to the ongoing management of the development*
This report does not deal with the engineering of the irrigation dam. However, the Developer must ensure that long term integrity of the dam is ensured.

iii. *Any matter specifically required by the Performance Criteria of this code*
Performance Criterion P1.2(a) requires the achievement of a tolerable risk from a 1% AEP exceedance probability event. This is satisfied by this report.

Yours faithfully,

PDA Surveyors, Engineers & Planners

Per:

Roderick Parsons
CIVIL ENGINEER

ANNEXURE A – FLOOD HAZARD CURVES

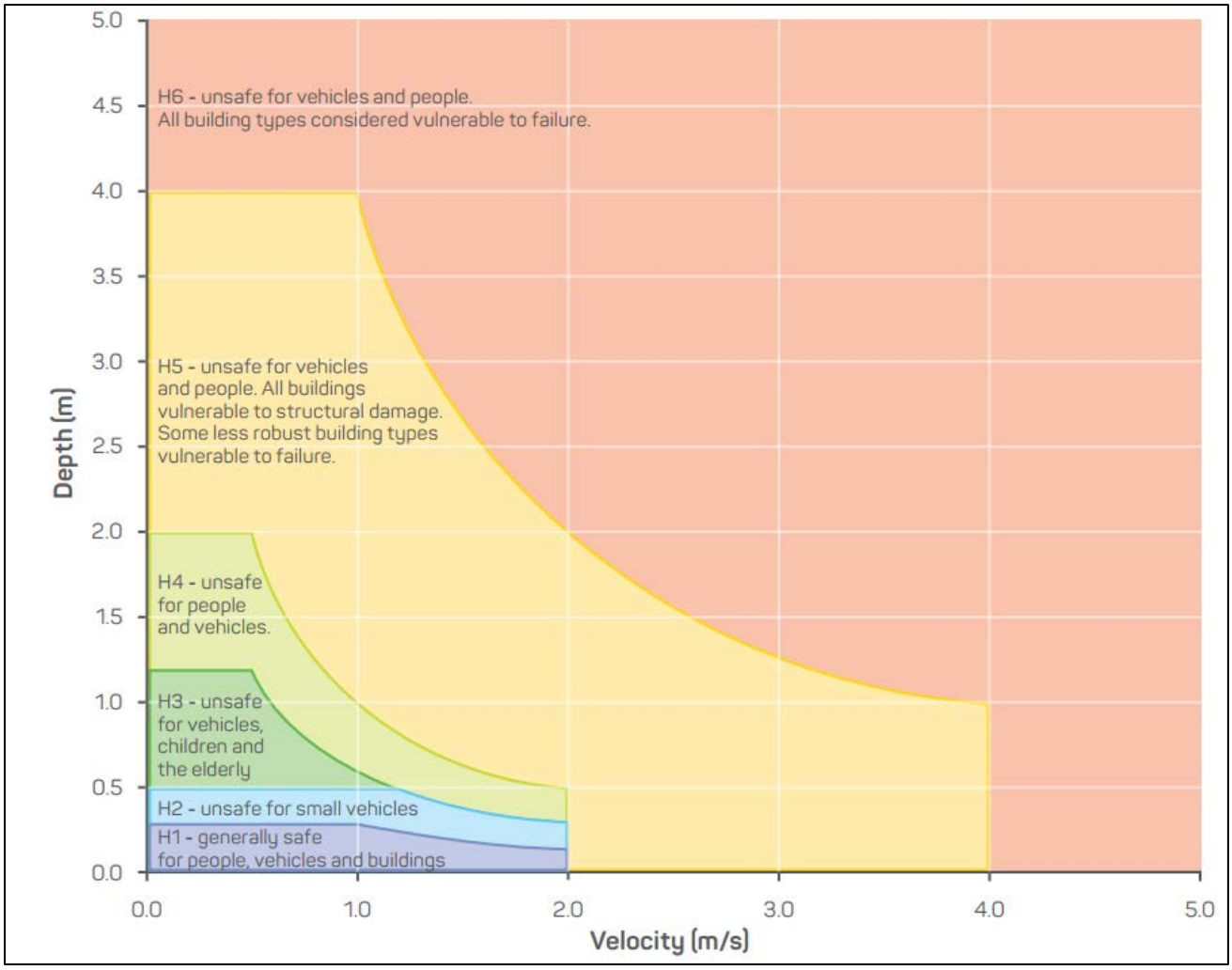

Figure A – Flood Hazard Curves (from Australian Institute of Disaster Resilience)

ONSITE-WASTEWATER ASSESSMENT

647 Baskerville Road

Old Beach

December 2022

Updated January 2025

GES

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Nicholas Hansen
Site Address:	647 Baskerville Road, Old Beach
Date of Inspection:	06/12/2022
Proposed Works:	Commercial
Investigation Method:	Geoprobe 540UD - Direct Push
Inspected by:	M. Campbell

Site Details

Certificate of Title (CT):	178273/1
Title Area:	Approx. 67.57 ha
Applicable Planning Overlays:	Attenuation area, Waterway and coastal protection area, Bushfire-prone areas
Slope & Aspect:	7° SW facing slope
Vegetation:	Grass & Weeds Disturbed

Background Information

Geology Map:	MRT 1:250000
Geological Unit:	Triassic Sandstone
Climate:	Annual rainfall 500mm
Water Connection:	Mains
Sewer Connection:	Serviced-Mains
Testing and Classification:	*AS1726:2017 & AS1547:2012*

Investigation

A number of bore holes were completed to identify the distribution and variation of the soil materials at the site, bore hole locations are indicated on the site plan. See soil profile conditions presented below. Tests were conducted across the site to obtain bearing capacities of the material at the time of this investigation.

Soil Profile Summary

BH 1 Depth (m)	BH 2 Depth (m)	BH 3 Depth (m)	HRZ	Description
0.00-0.10	0.00-1.00	0.00-0.90	B21	**CLAY (CI-CH)**: Medium to high plasticity, yellowish brown grey, slightly moist, loose.
1.00-1.80	1.00-1.50	0.90-1.60	B22	**CLAY (CH)**: Medium plasticity, yellow brown, slightly moist, soft to firm, (BH2 very stiff), refusal on rock.

Site Notes

Soils on site are developing from Triassic Sandstone. The soils consist of clay soils overlying rock. The clay fraction is moderately plastic and is likely to exhibit moderate ground surface movement with moisture fluctuations.

Wastewater Classification & Recommendations

According to AS1547-2012 (on-site waste-water management) the natural soil is classified as **Light Clay (category 5)**. Secondary treatment of effluent will be required, and it is proposed to install a package treatment with treated effluent disposed by dripper irrigation with non-return lines in mulch. A Design Irrigation Rate (DIR) of 3L/m^2/day has been assigned for this site.

The proposed worker accommodation has a calculated maximum wastewater output of 37500L/day. This is based on a mains water supply and a maximum occupancy of 250 people (150L/day/person and 50gBOD/person).

With secondary treatment this will require an absorption area of at least 12500m^2. Due to the large area required the total can be divided into four zones of approximately 3125m. For all calculations please refer to the Trench summary reports. Based upon the loadings the design has been completed for the installation of a commercial AWTS with a treatment capacity of up to 37500L/day. Due to the undulating slope of the area pumps with a minimum head of 45m are recommended. Considering the use of irrigation and secondary treatment the designation of a reserve area can be eliminated. This is justified by the ease at which irrigation systems can be replaced, with old lines and topsoil removed and replaced with new topsoil and irrigation systems within a 48-hour period.

The following setback distances are required to comply with the Building Act 2016:

Upslope or level buildings:	3m
Downslope buildings:	3.75m
Upslope or level boundaries:	1.5m
Downslope boundaries:	8.5m
Downslope surface water:	29m

Compliance with Building Act 2016 Guidelines for On-site Wastewater Management Systems is outlined in the attached table.

During construction GES will need to be notified of any variation to the soil conditions or wastewater loading as outlined in this report.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD

Director

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Site assessment for on-site waste water disposal

Assessment for	Nicholas Hanson	Assess. Date	16-Jan-25
		Ref. No.	
Assessed site(s)	647 Baskerville Road	Site(s) inspected	6-Dec-22
Local authority	Brighton	Assessed by	John Paul Cumming

This report summarises wastewater volumes, climatic inputs for the site, soil characteristics and sustem sizing and design issues. Site Capability and Environmental sensitivity issues are reported separately, where 'Alert' columns flag factors with high (A) or very high (AA) limitations which probably require special consideration for system design(s). Blank spaces on this page indicate data have not been entered into TRENCH.

Wastewater Characteristics

Wastewater volume (L/day) used for this assessment = 37,500 (using a method independent of the no. of bedrooms)

Septic tank wastewater volume (L/day) = 12,500

Sullage volume (L/day) = 25,000

Total nitrogen (kg/year) generated by wastewater = 114.1

Total phosphorus (kg/year) generated by wastewater = 68.4

Climatic assumptions for site (Evapotranspiration calculated using the crop factor method)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	41	36	36	45	36	29	46	47	40	48	44	56
Adopted rainfall (R, mm)	41	36	36	45	36	29	46	47	40	48	44	56
Retained rain (Rr, mm)	35	31	31	38	31	25	39	40	34	41	37	48
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	**95**	**79**	**60**	**25**	**11**	**5**	**-8**	**2**	**29**	**43**	**68**	**78**

Annual evapotranspiration less retained rain (mm) = 489

Soil characterisitics

Texture = Sandy Loam Category = 5 Thick. (m) = 1.8

Adopted permeability (m/day) = 0.12 Adopted LTAR (L/sq m/day) = 3 Min depth (m) to water = 5

Proposed disposal and treatment methods

Proportion of wastewater to be retained on site:	All wastewater will be disposed of on the site
The preferred method of on-site primary treatment:	In a package treatment plant
The preferred method of on-site secondary treatment:	In-ground
The preferred type of in-ground secondary treatment:	None
The preferred type of above-ground secondary treatment:	None
Site modifications or specific designs:	Not needed

Suggested dimensions for on-site secondary treatment system

Total length (m) =	2,273
Width (m) =	5.5
Depth (m) =	0.2
Total disposal area (sq m) required =	12500
comprising a Primary Area (sq m) of:	12,500
and a Secondary (backup) Area (sq m) of:	

Sufficient area is available on site

To enter comments, click on the line below 'Comments'. (This yellow-shaded box and the buttons on this page will not be printed.)

Comments

The assigned DIR for the application area is 3L/m^2/day requiring a minimum absorption area of 12500 sqm. Therefore the system will have the capacity to cope with predicted climatic and loading events.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Site Capability Report

Site assessment for on-site waste water disposal

Assessment for	Nicholas Hanson	Assess. Date	16-Jan-25
		Ref. No.	
Assessed site(s)	647 Baskerville Road	Site(s) inspected	6-Dec-22
Local authority	Brighton	Assessed by	John Paul Cumming

This report summarises data relating to the physical capability of the assessed site(s) to accept wastewater. Environmental sensitivity and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) site limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
	Expected design area	sq m	10,000	V. high	Very low		
	Density of disposal systems	/sq km	10	Mod.	Very low		
	Slope angle	degrees	7	High	Low		
	Slope form	Straight simple		High	Low		
	Surface drainage	Imperfect		High	Moderate		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
	Aspect (Southern hemi.)	Faces SE or SW		V. high	High	Moderate	Other factors lessen impact
	Frequency of strong winds	Common		High	Low		
	Wastewater volume	L/day	37,500	High	Very high	Moderate	Other factors lessen impact
	SAR of septic tank effluent		1.2	High	Low		
	SAR of sullage		2.1	High	Moderate		
	Soil thickness	m	1.8	V. high	Very low		
	Depth to bedrock	m	1.8	Mod.	Low		
	Surface rock outcrop	%	0	V. high	Very low		
	Cobbles in soil	%	0	V. high	Very low		
	Soil pH		7.0	High	Very low		
	Soil bulk density	gm/cub. cm	1.5	High	Low		
	Soil dispersion	Emerson No.	8	V. high	Very low		
	Adopted permeability	m/day	0.12	Mod.	Very low		
A	Long Term Accept. Rate	L/day/sq m	3	High	High		

To enter comments, click on the line below 'Comments' . (This yellow-shaded box and the buttons on this page will not be printed.)

Comments: This site has the capability to accept onsite disposal of wastewater.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Environmental Sensitivity Report

Site assessment for on-site waste water disposal

Assessment for	Nicholas Hanson	Assess. Date	16-Jan-25
		Ref. No.	
Assessed site(s)	647 Baskerville Road	Site(s) inspected	6-Dec-22
Local authority	Brighton	Assessed by	John Paul Cumming

This report summarises data relating to the environmental sensitivity of the assessed site(s) in relation to applied wastewater. Physical capability and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
	Cation exchange capacity	mmol/100g	100	High	Low		
	Phos. adsorp. capacity	kg/cub m	0.6	High	Moderate		
	Annual rainfall excess	mm	-489	High	Very low		
	Min. depth to water table	m	5	High	Very low		
AA	Annual nutrient load	kg	182.5	High	Very high		
	G'water environ. value	Agric non-sensit		V. high	Low		
	Min. separation dist. required	m	3	High	Very low		
	Risk to adjacent bores	Very low		V. high	Very low		
	Surf. water env. value	Agric non-sensit		V. high	Low		
AA	Dist. to nearest surface water	m	29	V. high	Very high		
	Dist. to nearest other feature	m	30	V. high	Moderate	No change	
	Risk of slope instability	Very low		V. high	Very low		
	Distance to landslip	m	2000	V. high	Very low		

To enter comments, click on the line below 'Comments'. (This yellow-shaded box and the buttons on this page will not be printed.)

Comments: There is low risk of environmental harm associated with onsite wastewater disposal at this site.

Dynamic Cone Penetration (DCP) Conversion to Californian Bearing Ratio
(ref: Australian Standard AS 1289.6.3.2 - 1997)

DCP Location BH1

Depth (mm)	DCP (Blows/100mm)	DCP (mm/Blow)	DCP Resistance (mPa)	Allowable Bearing Capacity (kPa)	CBR (Rounded Up)
0-100	3	33.3	0.9	104	6
100-200	3	33.3	0.9	104	6
200-300	4	25.0	1.3	139	8
300-400	2	50.0	0.6	69	4
400-500	3	33.3	0.9	104	6
500-600	3	33.3	0.9	104	6
600-700	3	33.3	0.9	104	6
700-800	4	25.0	1.3	139	8
800-900	5	20.0	1.6	174	10
900-1000	6	16.7	1.9	208	13
1000-1100	5	20.0	1.6	174	10
1100-1200	8	12.5	2.5	278	17
1200-1300	10	10.0	3.1	347	22
1300-1400	12	8.3	3.8	417	27
1400-1500	15	6.7	4.7	521	35
1500-1600	19	5.3	5.9	660	45

Demonstration of wastewater system compliance to *Building Act 2016 Guidelines for On-site Wastewater*

Acceptable Solutions	**Performance Criteria**	**Compliance**
A1 Horizontal separation distance from a building to a land application area must comply with one of the following: a) be no less than 6m; or b) be no less than: (i) 3m from an upslope building or level building; (ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building; (iii) If secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building.	P1 a) The land application area is located so that (i) the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.; and (ii) is setback a sufficient distance from a downslope excavation around or under a building to prevent inadequately treated wastewater seeping out of that excavation	Complies with A1 (b) (i) Land application area will be located with a minimum separation distance of 3m from upslope buildings Complies with A1 (b) (iii) Land application area will be located with a minimum separation distance of 3.75m from buildings
A2 Horizontal separation distance from downslope surface water to a land application area must comply with (a) or (b) (a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water.	P2 Horizontal separation distance from downslope surface water to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R; b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A2 (a) Land application area located 29m from downslope surface water

A3 Horizontal separation distance from a property boundary to a land application area must comply with either of the following: (a) be no less than 40m from a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; and (ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	P3 Horizontal separation distance from a property boundary to a land application area must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A3 (b) (i) Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary Complies with A3 (b) (iii) Land application area will be located with a minimum separation distance of 8.5m of downslope property boundary.
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.	P4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable	Complies with A4 No bore or well identified within 50m

A5 Vertical separation distance between groundwater and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	P5 Vertical separation distance between groundwater and a land application area must comply with the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable	Complies with A5 (b) No groundwater encountered
A6 Vertical separation distance between a limiting layer and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.5m if secondary treated effluent	P6 Vertical setback must be consistent with AS/NZS1547 Appendix R.	Complies with A5 (b)
A7 nil	P7 A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties	Complies

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AS1547:2012 – Loading Certificate – AWTS Design

This loading certificate sets out the design criteria and the limitations associated with use of the system.

Site Address: 647 Baskerville Road

System Capacity: 250 persons @ 150L/person/day

Summary of Design Criteria

DIR: 3mm/day.

Irrigation area: 12500m^2

Reserve area location /use: Assigned

Water saving features fitted: Standard fixtures

Signage: Suitable warning signs to be displayed around the disposal area indicating that reclaimed water is being used i.e. "Recycled Water, Avoid Contact, Do Not Drink"

Allowable variation from design flows: 1 event @ 200% daily loading per quarter

Typical loading change consequences: Expected to be minimal due to use of AWTS and large land area

Overloading consequences: Continued overloading may cause hydraulic failure of the irrigation area and require upgrading/extension of the area. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Underloading consequences: Lower than expected flows will have minimal consequences on system operation unless the house has long periods of non occupation. Under such circumstances additional maintenance of the system may be required. Long term under loading of the system may also result in vegetation die off in the irrigation area and additional watering may be required. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the irrigation area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Monitoring and regulation by the permit authority required to ensure compliance.

Other considerations: Owners/occupiers must be made aware of the operational requirements and limitations of the system by the installer/maintenance contractor.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Nicholas Hansen *Owner name*
32 Harvest Lane *Address*
Old Beach 7017 *Suburb/postcode*

Designer details:

Name: Vinamra Gupta
Category: Civil Engineer
Business name: Geo-Environmental Solutions
Phone No: 03 6223 1839
Business address: 29 Kirksway Place
Battery Point 7004
Fax No: N/A
Licence No: 685982720
Email address: office@geosolutions.net.au

Details of the proposed work:

Owner/Applicant Nicholas Hansen
Designer's project reference No. J5291
Address: 647 Baskerville Rd
Lot No: 178273/1
Old Beach 7017

Type of work: Building work ☐ Plumbing work ☒ *(X all applicable)*

Description of work:
On-site wastewater management system - design

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☐ Civil design	Civil Engineer or Civil Designer
	☒ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☐ Performance Solution: ☒ (*X the appropriate box*)

Other details:

AWTS with irrigation

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Jan-25
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Jan-25
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by: Geo-Environmental Solutions	Date: Jan-25
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Jan-25

Standards, codes or guidelines relied on in design process:

AS1547:2012 On-site domestic wastewater management.

AS3500 (Parts 0-5)-2013 Plumbing and drainage set.

Any other relevant documentation:

Onsite Wastewater Assessment – 647 Baskerville Rd, Old Beach – Jan-25

Attribution as designer:

I Vinamra Gupta, am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	Vinamra Gupta		16/01/2025
Licence No:	685982720		

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [x] The works will not increase the demand for water supplied by TasWater
- [x] The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- [x] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [x] The works will not damage or interfere with TasWater's works
- [x] The works will not adversely affect TasWater's operations
- [x] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [x] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [x] If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I ..... Vinamra Gupta..... being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	Vinamra Gupta		16/01/2025

Design Theory: ***EnviroTas CT400*** ***(Site Specific for: Cherries Tasmania, 647 Baskerville Rd)***
Aerated Wastewater Treatment System

Based on report & flow rates compiled by: ***Geo Environmental Solutions.***

(1) Design Condition.

Hydraulic and Organic Loading

(a) Hydraulic Loading Average: 150ltr/day x 250 E.P = 37,500ltr/day
Maximum 150ltr/day x 266 E.P = 40,000ltr/day
Inflow: 16 hr/day

	ltr/day	ltr/hr	ltr/min
Daily Average Flow	37,500	2345	39.08
Maximum Hourly Peak Flow		2500	41.66

Organic Loading (Daily Average)

BOD: 70g/day x 266 EP = 18.6kg/day
SS: 70g/day x 250 EP = 18.6g/day

Effluent (Daily Average)

BOD: < 10mg/ltr
SS: < 10mg/ltr

(2) <u>Design Specifiction.</u>

Treatment Method: Anaerobic filter-contact aeration and flow regulation process.
Chamber capacities (Minimum)
Each Chamber has a capacity equal or greater to the values calculated by formula.

(2) 1. Primary Sedimentation Chamber Volume (VPS)

Min. VPS > Q x 2/3 (m^3) where Q = Daily Average Flow
Min. VPS > 40(m^3/day) x 2/3 = 26.4m^3

(2) 2. Anaerobic Filtration Chamber Volume (VAP)

Min. VAF > Q x 1/3 (m^3)
Min. VAF 40(m^3/day) x 1/3 = 13.2m^3
Anaerobic Filter volume ratio > 25%
Minimum volume 13.2m^3 x 25% = 3.3m^3
Anaerobic Filter surface area – 330m^2/m^3
Min. Filter Surface area needed = 3.3m^3 x 100m^2/m^3 = 3.3m^2

(2) 3. Contact Aeration Chamber Volume (VCA)

By Hydraulic loading Min. VCA = Q x ¾ (m^3)
Contact Filter volume ratio >50%
Minimum volume of Contact Filter = 19.881m^3 x 50% = 9.940m^3
Contact Filter surface area = 141m^2/m^3
Min. Surface area of Contact Filter = 9.940m^3 x 141m^2/m^3 = 140.15m^2
Air Supply (AV) by Air Blower
Min. AV needed = Aeration Chamber Volume x 2.4/60min

(2) 4. Secondary Sedimentation Chamber Volume (VSS)

Min. VSS = Q x 6/24hr (m^3)
= $10m^3$ x 6/24 hr = $2.5m^3$
Minimum depth >1.69m
Minimum surface area > $1.629m^2$
Minimum surface area > $43.86m^3/m^2/day$
Maximum rise velocity > 1.87m/hr
Maximum weirs flow > $22.56m^3/m^2/day$

(2) 5. Pump Chamber Volume (VPu)

Min. VPu = Q x 3/24hr (m^3)
= 10 x 3/24hr = $1.25m^3$

(2) 6. Flow Regulation Volume (VFR)

Min. VFR = Q x 12/24 hr (m^3)
= $10m^3$ x12/24hr = $5m^3$

(2) 7. Disinfection System

Chlorine or UV Disinfection – Maximum flow = 635ltr/hour
Outflow Thermotolorent Coli forms < 10cfu/100ml

(3) Operation:

(3) 1. Aeration:

Constant Aeration 24/7day

(3) 2. Aerobic to Anaerobic process circulation

Circulation rate Q x 1.5 ~ 4.0 (where Q = Daily Hydraulic Loading)

(3) 3. Irrigation:

By Submersible pump

(3) **4. Flow Regulation**

By baffling direction of water flows & intermediate square junctions at same levels

(4) Actual Production Specification.

(4) 1. Primary Sedimentation Chambers Total

Pretreatment process by anaerobic bacteria and readily settling solids separated from treatment liquid

Water Level (mm)	1500	2000
Actual capacity (m^3)	62.77	83.7
Flow regulation capacity (m^3)	20.9	
Effective surface area (m^2)	41.85	

(4) 2. Anaerobic Filtration Chamber Total

Anaerobic bacteria grow on filter media for reduction of organic matter. Physical filtration of treatment liquid is also carried out. This process is very efficient in anaerobic digestion.
Anaerobic bacteria growth on the filter media is stabilized within 1 – 3 months.
Approximately 60% of organic matter is removed from the treatment liquid.
Nitrification liquids from aerobic chamber will remove over 80% of T-N.

Water Level (mm)	1500	2000	
Actual capacity (m^3)	34.35	45.8	
Installed Anaerobic filter rate (%)	31.6	28.6	
Flow regulation capacity (m^3)	11.45		
Effective surface area (m^2)	22.9		

Anaerobic Filter Specifications

	Bio-tube Module-100 (BTM100)
Material	PP
Description	70mm tubes voidage: 60% Hollow space 82%
Dimensions (mm)	560L x 560W x 350H each block
Quantity (pieces)	12
Surface Area (m^2/m^3)	120
Installed Volume (m^3)	3.3

(4) 3. Contact Aeration Chamber

Aerobic bacteria grow on the filter media for reduction of organic matter. Physical filtration of treatment liquid is also carried out. Problems associated with bulking and growth of Cladocera bacteria is reduced with the large voidage area's of this type medium. A Backwash diffuser is used to wash the excess sludge from the filter media during maintenance.

Water Level (mm)	1590	1690	1790
Actual capacity (m^3)	9.031 x 4	9.600 x 4	10.168 x 4
Installed filter rate (%)	125.06	132.93	140.79
Installed filter volume (m^3)	2.8 x 4		
Flow regulation capacity (m^3)	1.137 x 4		
Effective surface area (m^2)	2.37 x 4		

Air Blower Specification

Normal Pressure (kgf/cm²)	2.6
Exhaust Volume (lit/min)	220
Power Consumption (watts)	160
Noise Level dBA (1m)	40

Diffuser Specification

Dimensions (mm)	300Ø
Quantity (Pieces)	16 x 4
Material	P.P
Bubble Size (μ)	270~300
Void Ratio (%)	60~80

(4) 4. Secondary Sedimentation Chamber

Treatment liquid flows from the aeration chamber to the Secondary Sedimentation Chamber Solids separated from treatment liquid and sink to the bottom of the Secondary Sedimentation Chamber**.**

Water Level (mm)	1590	1690	1790
Actual Capacity (m³)	3.010 x 4	3.200 x 4	3.39 x 4
Effective Surface Area (m²)	1.97 x 4		
Flow Regulation Capacity (m³)	0.379 x 4		
Maximum Surface Loading (m³/m².day)	39.76 x 4		
Maximum Weirs Flow (m³/m².day)	5.79 x 4		
Maximum Rise Velocity (m/hr)	1.66 x 4		

Weir Specification

Material	P.V.C
Dimensions (mm)	100Ø x 700L
Flow Slit (mm)	10

Airlift pump Specification

From practical experience, Air supply needed = circulation rate x 1.8
= 2.5 ~ 10 ltr/min x 1.8
= 4.5 ~ 18 ltr/min

(4) 5. Pump Chamber

Pump located in the pump chamber controls the flow of treatment liquid from the tank. Electrical Controls operate the pump. The pump to be used in this chamber is rated at 0.75KW or better.

Water Level (mm)	1590	1690	1790
Actual capacity (m³)	3.010 x 4	3.200 x 4	3.39 x 4
Effective surface area (m²)	2.35 x 4		
Flow regulation capacity (m³)	0.379 x 4		

(4) 6. Flow Regulation (FR)

Chambers Name	PS	AF	CA	SS	Pu
Effective surface area (m²)	91.51				
Difference HWL & LWL (mm)	200				
FR Actual Capacity (m³)	20.9	11.45	4.55	1.52	1.52
FR Total Volume (m³)	39.94				

(4) 7. Disinfection System

Using Chlorine
Maximum flow rate 2500ltr/hour for treated water

Summary

According to Standard Theory Calculations for the design of a Commercial STS, the resulted capacities show the Model ***EnviroTas CT400*** system to comfortably handle the required maximum of 37.5Kl/day & BOD of 17.5Kg/day and based on calculations here will treat 40Kl/day & BOD of 18.6Kg grams/day to a 10/10 standard.

Notes:

1. This design is site specific relative to the daily flow rates as defined by AS/NZS 1547:2017 and GES's assessment.
2. As per "matrix" below this system exceeds all design guidelines for Commercial STS design.

266 PERSON SYSTEM COMPARISON MATRIX		
CHAMBER	**DESIGN CALC m³**	**ACTUAL BUILD m³**
PS	26.4	66.77
AF	13.2	34.3
CA	20	28.8
SS	6	6.63
Pu	1	1.02
FR	12	12.94

Paul Bottomley

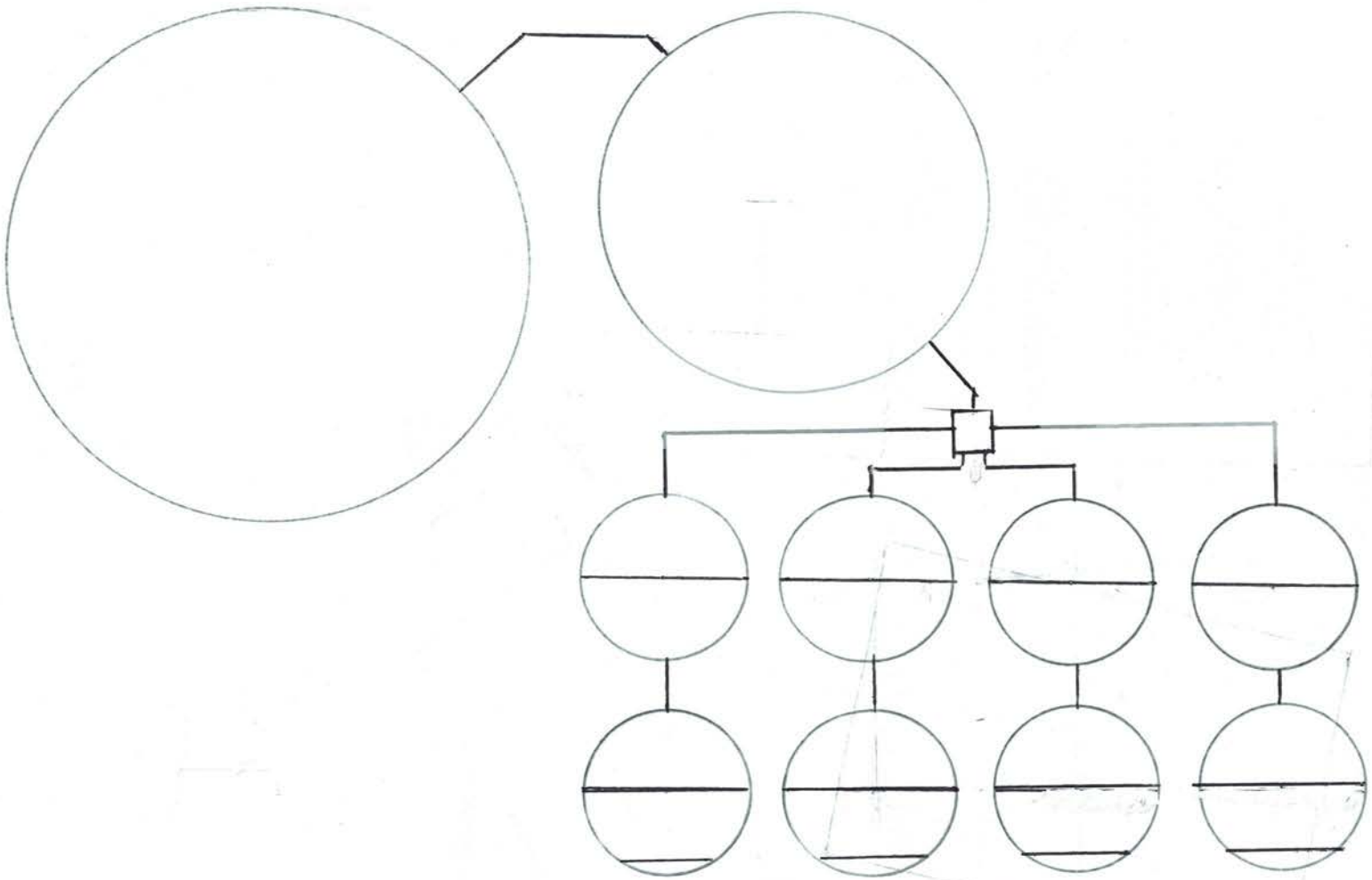
0418122066

STS Plumbing and Consulting
EXPERTS IN WASTEWATER

Po Box 525
Sandy Bay 7006
paul@stspc.com.au

EnviroTas CT400

Tank Layout



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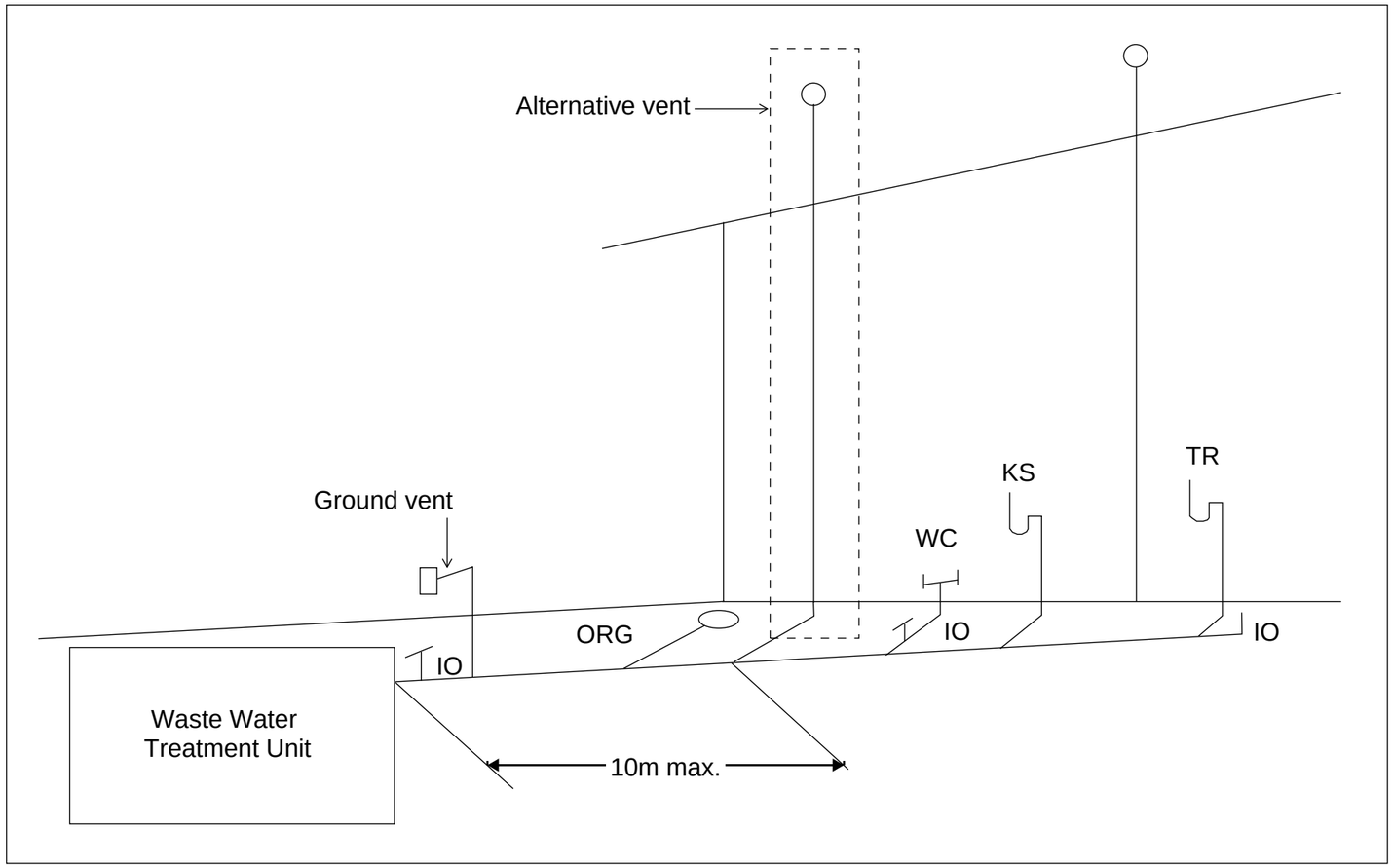

Tas Figure H101.2 Alternative Venting Arrangements

Vents must terminate in accordance with AS/NZS 3500.2

Alternative venting to be used by extending a vent to terminate as if an upstream vent, with the vent connection between the last sanitary fixture or sanitary appliance and the on-site wastewater management system. Use of a ground vent in not recommended

Inspection openings must be located at the inlet to an on-site wastewater management system treatment unit and the point of connection to the land application system and must terminate as close as practicable to the underside of an approved inspection opening cover installed at the finished surface level

Access openings providing access for desludging or maintenance of on-site wastewater management system treatment unites must terminate at or above finished surface level

Alternative vent is the preferred arrangement where possible.

Do not scale from these drawings. Dimensions to take precedence over scale.				Tas Figure H101.2 Alternative Venting Arrangements		Sheet 1 of 1

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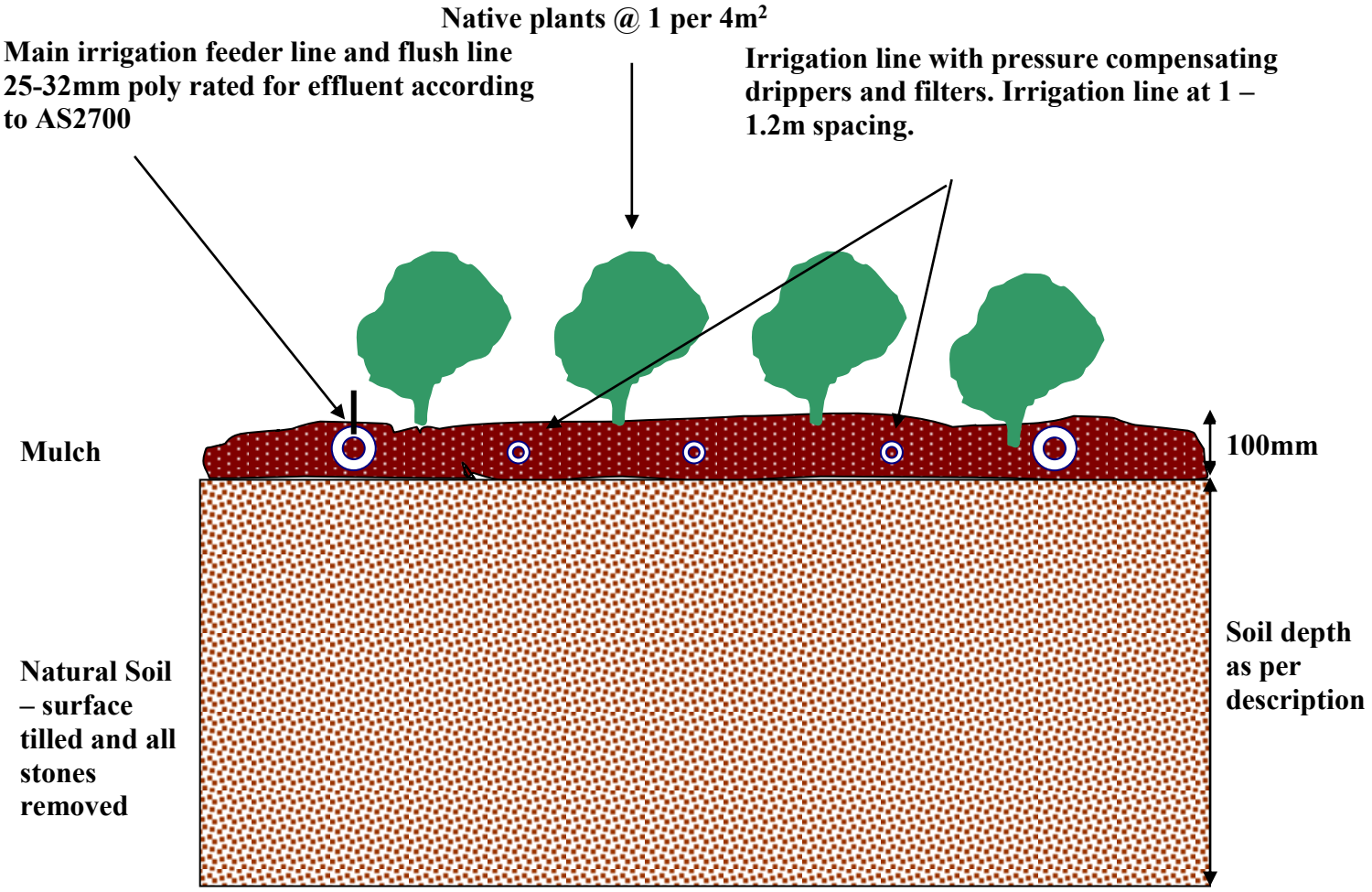
Figure 1 - AWTS

AWTS – covered surface drippers

To be used in conjunction with site evaluation report for construction of irrigation areas for use with aerated wastewater treatment systems (AWTS) on shallow, duplex, or clay soils**.** On dispersive soils gypsum should be added to tilled natural soil at 1Kg/5m^2. For irrigation areas larger than 500m^2 the irrigation area should be split into multiples of at least 100m^2 with flow automatically switched between each area by a K-rain valve.

Irrigation Area Cross Section



- The existing surface of the site should be tilled to a depth of 100mm with a conventional plough, discs or spring tines to break down the turf matt and any large soil clods
- Irrigation lines to be placed on tilled soil surface and covered with a minimum of 50mm of mulch

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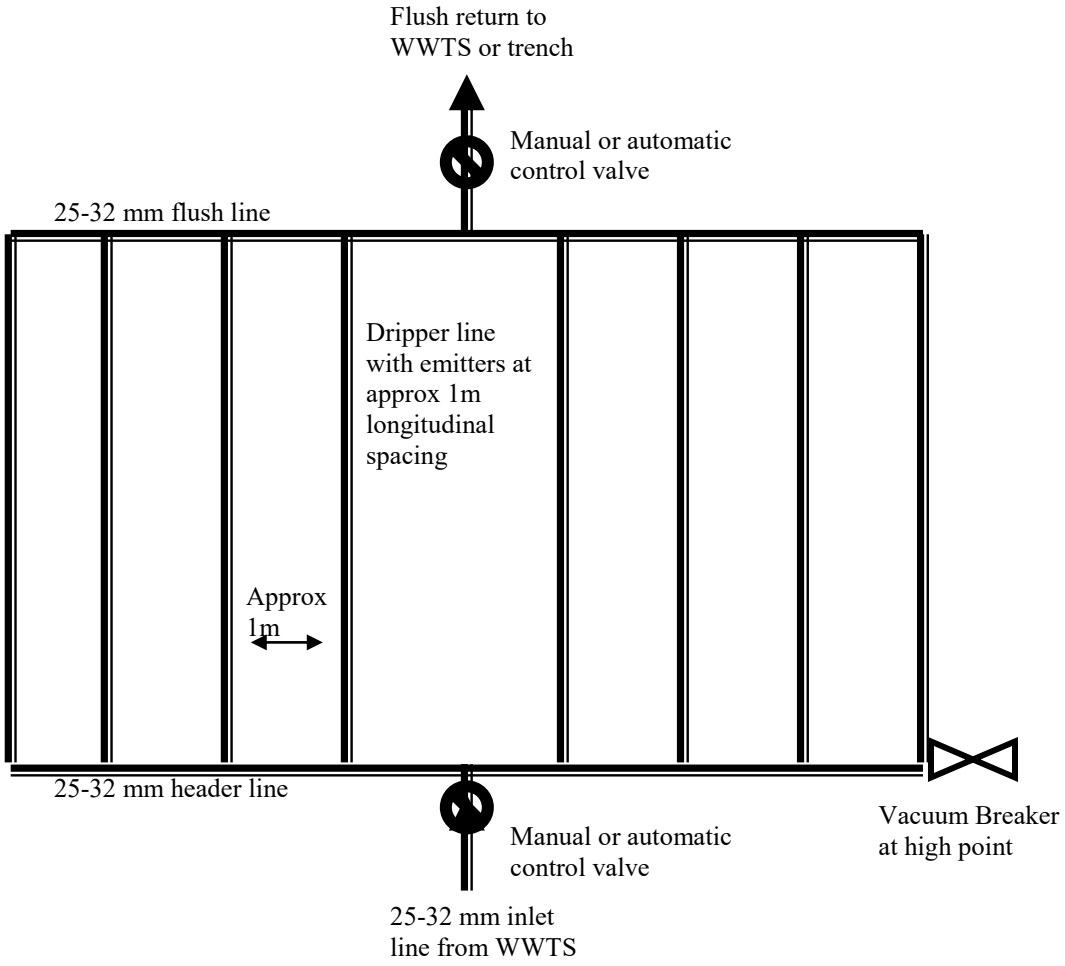
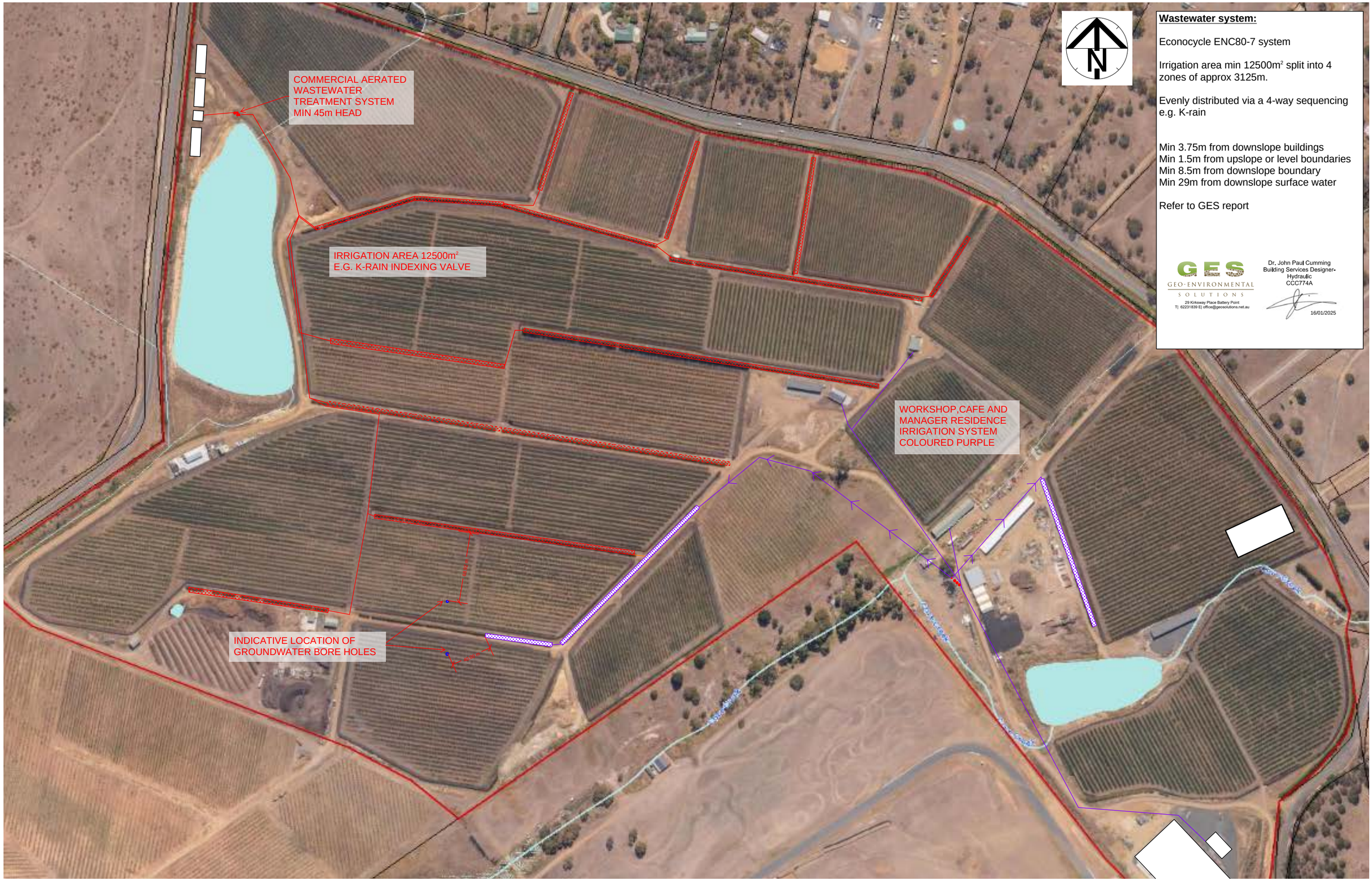
Irrigation Area Plan View



Design specifications:

1. Manufacturer's recommendations for spacing of lateral irrigation lines should be followed with commonly used with spacing of 0.5m in highly permeable soils and 1m in less permeably loams and clays.
2. Dependent upon treatment system a 200µm filter may be installed at the pumping chamber outlet, but a 100-120 µm inline disc filter **should** be installed prior to discharge into the irrigation area.
3. A vacuum breaker valve must be installed at the highest point of each irrigation zone in a marked and protected valve control box.
4. A flush line must be installed at the lowest point/bottom of the irrigation area with a return valve for flushing back into the treatment chamber of the system (not into the primary chamber as it may affect the performance of the microbial community) or to a dedicated absorption trench.
5. The minimum irrigation pumping capacity should be equivalent to 120kpa (i.e. 12m of head) at the furthest point of the irrigation area (a gauge should be placed at the vacuum breaker) – therefore pump size can be matched on site to the irrigation pipe size and design.



Wastewater system:

Econocycle ENC80-7 system

Irrigation area min 12500m² split into 4 zones of approx 3125m.

Evenly distributed via a 4-way sequencing e.g. K-rain

Min 3.75m from downslope buildings
Min 1.5m from upslope or level boundaries
Min 8.5m from downslope boundary
Min 29m from downslope surface water

Refer to GES report

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Dr. John Paul Cumming
Building Services Designer-Hydraulic
CCC774A

16/01/2025

Do not scale from these drawings. Dimensions to take precedence over scale.	Nicholas John Hanson 647 Baskerville Road Old Beach 7017	C.T.: 178273/1 PID: 9651403	Date: 16/01/2025	On-Site Wastewater Management Plan	Drawing Number:	Sheet 1 of 1 Drawn by: LR

Submission to Planning Authority Notice

Application details

Council Planning Permit No.	DA2025/00037
Council notice date	20/03/2025
TasWater Reference No.	TWDA 2025/00265-BTN
Date of response	01/04/2025
TasWater Contact	Phil Papps
Phone No.	0474 931 272

Response issued to

Council name	BRIGHTON COUNCIL
Contact details	development@brighton.tas.gov.au

Development details

Address	647 BASKERVILLE RD, OLD BEACH
Property ID (PID)	9651403
Description of development	Seasonal workers accommodation

Schedule of drawings/documents

Prepared by	Drawing/document No.	Revision No.	Issue date
Tas Building Design	Location/Site Plan / sk01	G	03/03/2025
Tas Building Design	Drainage Plan / sk02	D	03/03/2025
Tas Building Design	Buildings A & B Floor Plans / sk05	C	03/03/2025
Tas Building Design	Buildings C,D,E & F Floor Plans / sk07	C	03/03/2025

Conditions

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

CONNECTIONS, METERING & BACKFLOW

1. A suitably sized water supply with metered connection(s) to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.

2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.

3. Prior to use of the development, any water connection utilised for the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

DEVELOPER CHARGES

4. Prior to TasWater issuing a Certificate(s) for Certifiable Work (Building) and/or (Plumbing), the applicant or landowner as the case may be, must pay a developer charge totalling $49,723.10 to TasWater for water infrastructure for 28.3 additional Equivalent Tenements, indexed by the Consumer Price Index All groups (Hobart) from the date of this Submission to Planning Authority Notice until the date it is paid to TasWater.

DEVELOPMENT ASSESSMENT FEES

5. The applicant or landowner as the case may be, must pay a development assessment fee of $1,307.93 to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date paid to TasWater.

   The payment is required within 30 days of the issue of an invoice by TasWater.

Advice

General

For information on TasWater development standards, please visit
https://www.taswater.com.au/building-and-development/technical-standards
For application forms please visit
https://www.taswater.com.au/building-and-development/development-application-form

Developer Charges

Developer charges for this development are based on Equivalent Tenement water rates for backpackers hostels (number of beds) for the accommodation pods, and camping ground rates for the tent sites, as per Appendix B in TasWater's Supplement to the WSAA Sewerage Code of Australia (MRWA Edition) available at www.taswater.com.au/building-and-development/getting-ready/technical-standards.

Backpackers hostels and camping grounds are both subject to seasonal use and allow for communal cooking and laundry usage and are therefore appropriate for the proposed development.

For further information on Developer Charges please visit the following webpage - https://www.taswater.com.au/building-and-development/developer-charges

Service Locations

Please note that where applicable, the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.