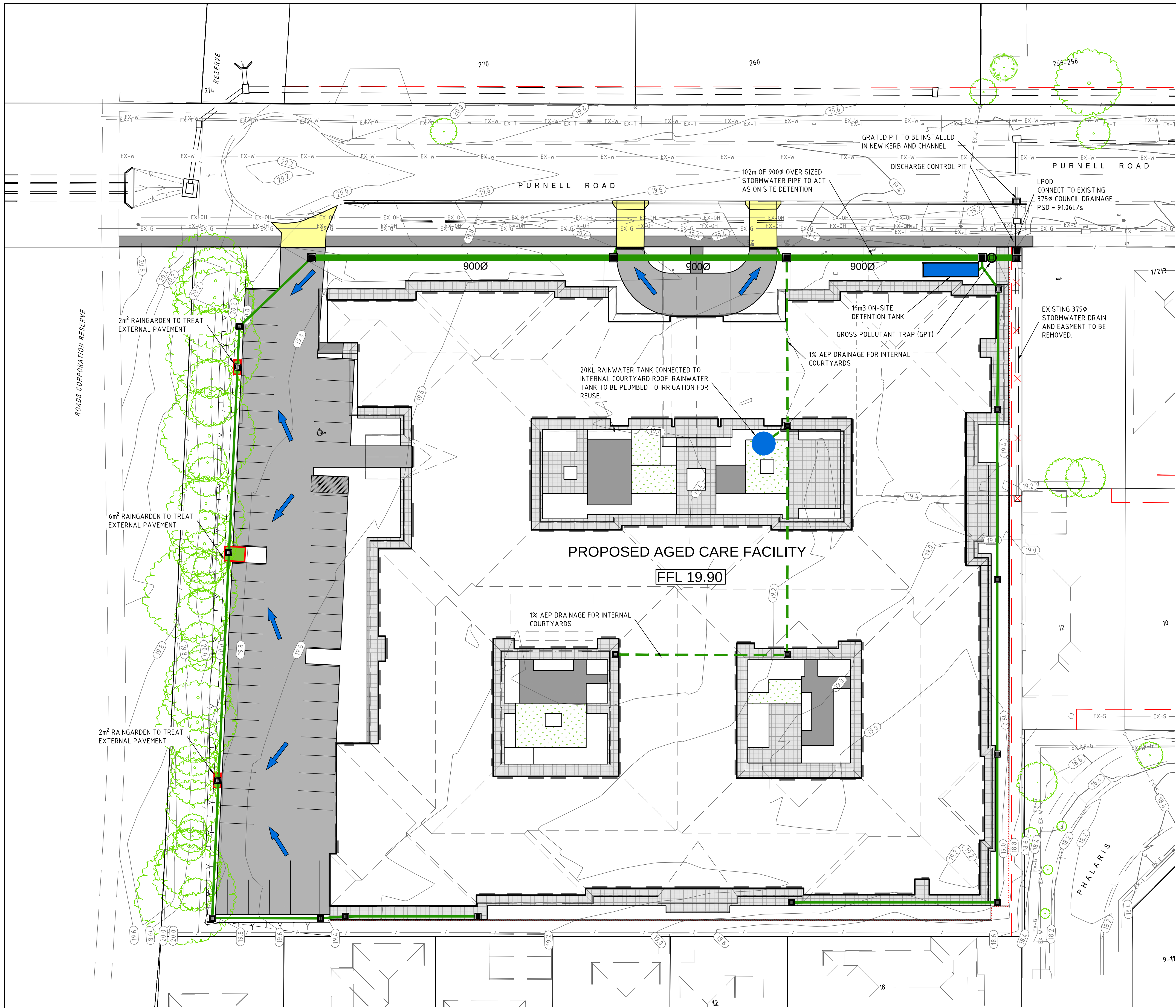




LEGEND		
DRAINAGE PIPES	STORMWATER DRAINAGE (10%AEP)	
	STORMWATER DRAINAGE (1%AEP)	
OVERLAND FLOW	EXISTING DRAINAGE	
	INDICATED BY FLOW ARROWS ON PLAN	
LEVELS	EXISTING CONTOURS	
	EXISTING SPOT LEVELS	

STORMWATER MANAGEMENT SUMMARY

FLOODING:
COUNCIL LIABLE TO FLOODING ADVICE (REG 51(2)) - NO. NO APPLICABLE LSIO / SBO.

OVERLAND FLOWS: SEE ON PLAN

STORMWATER SURFACE OVERLAND FLOWS FOR 1% AEP STORMS ARE INDICATED BY ARROWS ON PLAN, AND ALL DIRECTED TO PURNELL ROAD AND RESERVE.

STORMWATER ON-SITE DETENTION:
PSD = 91.06L/s
CATCHMENT = 12,243m²
DETENTION STORAGE REQUIREMENT = 83.43m³ (FOR 10% AEP POST-DEVELOPMENT EVENT AS PER GREATER GEELONG COUNCIL DRAINAGE DESIGN GUIDELINES)
ON SITE DETENTION HAS BEEN CALCULATED USING RATIONAL METHOD.
REQUIRED MINIMUM ON-SITE STORAGE OF 83.43m³ TO BE MET VIA THE USE OF AN UNDERGROUND STORAGE TANK AND OVERSIZED PIPES.

WATER QUALITY (WSUD):
STORMWATER RUNOFF EXITING THE LAND MEETS THE CURRENT BEST PRACTICE WITH THE USE OF THE FOLLOWING TREATMENT DEVICES:

- 1 X ATLAN VORTCEPTOR GROSS POLLUTANT TRAP (IVR.025) - SQIDEP APPROVED DEVICE
- 1 X 20,000L RAINWATER TANK PLUMBED FOR REUSE
 - CONNECTED TO MINIMUM ROOF AREA (3,474m²)
 - PLUMBED TO IRRIGATION FOR REUSE - ALLOWED FOR MINIMUM 500m² GARDEN @ 2L/m²/day = 1000L/day DEMAND
- CARPARK HARSTAND PAVEMENT DIRECTED TO 10m² OF RAINGARDEN

NOTE:
LEGAL POINT OF DISCHARGE CONNECTION TO BE CONSTRUCTED OVER EXISTING COUNCIL PIPE.

DRAINAGE DESIGN PARAMETERS:
MINOR FLOWS:
10% AEP UNDERGROUND PIPED DRAINAGE NETWORK DIRECTED TO THE LPOD SHOWN ON PLAN.

MAJOR FLOWS:
1% AEP OVERLAND FLOW PATHS DIRECTED TO PURNELL ROAD AND RESERVE.

DRAWING INDEX	
NO.	DRAWING TITLE
SMP1	STORMWATER MANAGEMENT PLAN
SMP2	STORMWATER QUALITY PLAN

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PRELIMINARY ISSUE

NO	BY	REVISION	DATE	NO	BY	REVISION	DATE
P3		ADDED GRATED PIT IN PURNELL ROAD	17/07/26				
P2		AMENDED BACKGROUND	21/04/26				
P1		PRELIMINARY ISSUE	01/04/26				

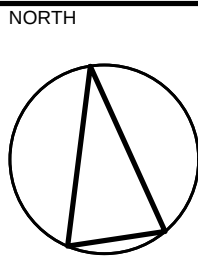


KNOWLES GROUP

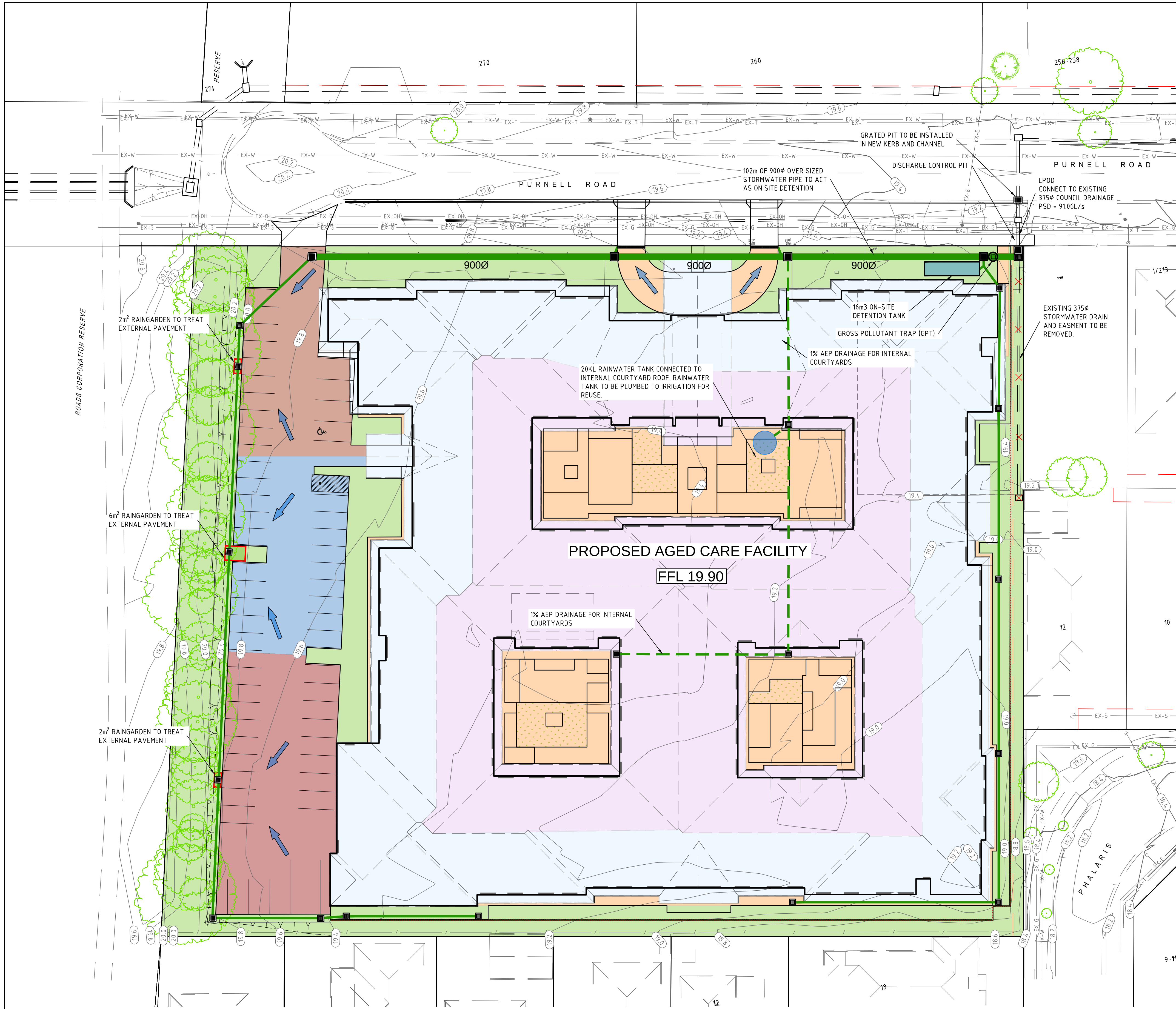
Lanigan Civil

PROPOSED AGED CARE
217-227 PURNELL ROAD
LOVELY BANKS 3213

STORMWATER
MANAGEMENT PLAN



CONTRACTOR MUST DIAL 1100 TO CONFIRM LOCATION OF EXISTING SERVICES AND COMPLY WITH ANY AUTHORITY REQUIREMENTS REGARDING EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY WORKS.	
DESIGNED	CHECKED
DATE 30/03/26	SCALE/S AS NOTED
DRG NO LC3230-SMP1	ISSUE P3



CATCHMENT AREAS:

PLAN COLOUR	CATCHMENT TYPE	AREA m ²	TREATMENT
Pink	ROOF TO RWT TANKS	3,474	1 x 20,000L RAINWATER TANK, ATLAN VORTCEPTOR IWR.025
Light Blue	ROOF OTHER	3,720	ATLAN VORTCEPTOR GPT
Orange	OTHER PAVEMENT AND COURTYARDS	1,236	ATLAN VORTCEPTOR GPT
Light Green	HARDSTAND PAVEMENT 1	613	2m ² RAINGARDEN & ATLAN VORTCEPTOR GPT
Light Green	HARDSTAND PAVEMENT 2	447	6m ² RAINGARDEN & ATLAN VORTCEPTOR GPT
Light Green	HARDSTAND PAVEMENT 3	381	2m ² RAINGARDEN & ATLAN VORTCEPTOR GPT
Dark Green	LANDSCAPING	2,372	
	TOTAL SITE AREA	12,243	

STORMWATER TREATMENT:

THE CONCEPTUAL STORMWATER DRAINAGE SYSTEM ON THIS SITE HAS BEEN DESIGNED, WITH THE USE OF "MUSIC" (MODEL FOR URBAN STORMWATER IMPROVEMENT CONCEPTUALISATION), SUCH THAT STORMWATER RUNOFF EXITING THE LAND MEETS THE CURRENT BEST PRACTICE PERFORMANCE OBJECTIVES FOR STORMWATER QUALITY, AS CONTAINED IN THE URBAN STORMWATER BEST PRACTICE ENVIRONMENTAL MANAGEMENT GUIDELINES (VICTORIAN STORMWATER COMMITTEE, 1999).

80% REDUCTION OF THE TYPICAL ANNUAL LOAD OF SUSPENDED SOLIDS (90.23% ACHIEVED).

45% REDUCTION OF THE TYPICAL ANNUAL LOAD OF TOTAL PHOSPHORUS (84.15% ACHIEVED).

45% REDUCTION OF THE TYPICAL ANNUAL LOAD OF TOTAL NITROGEN (53.97% ACHIEVED).

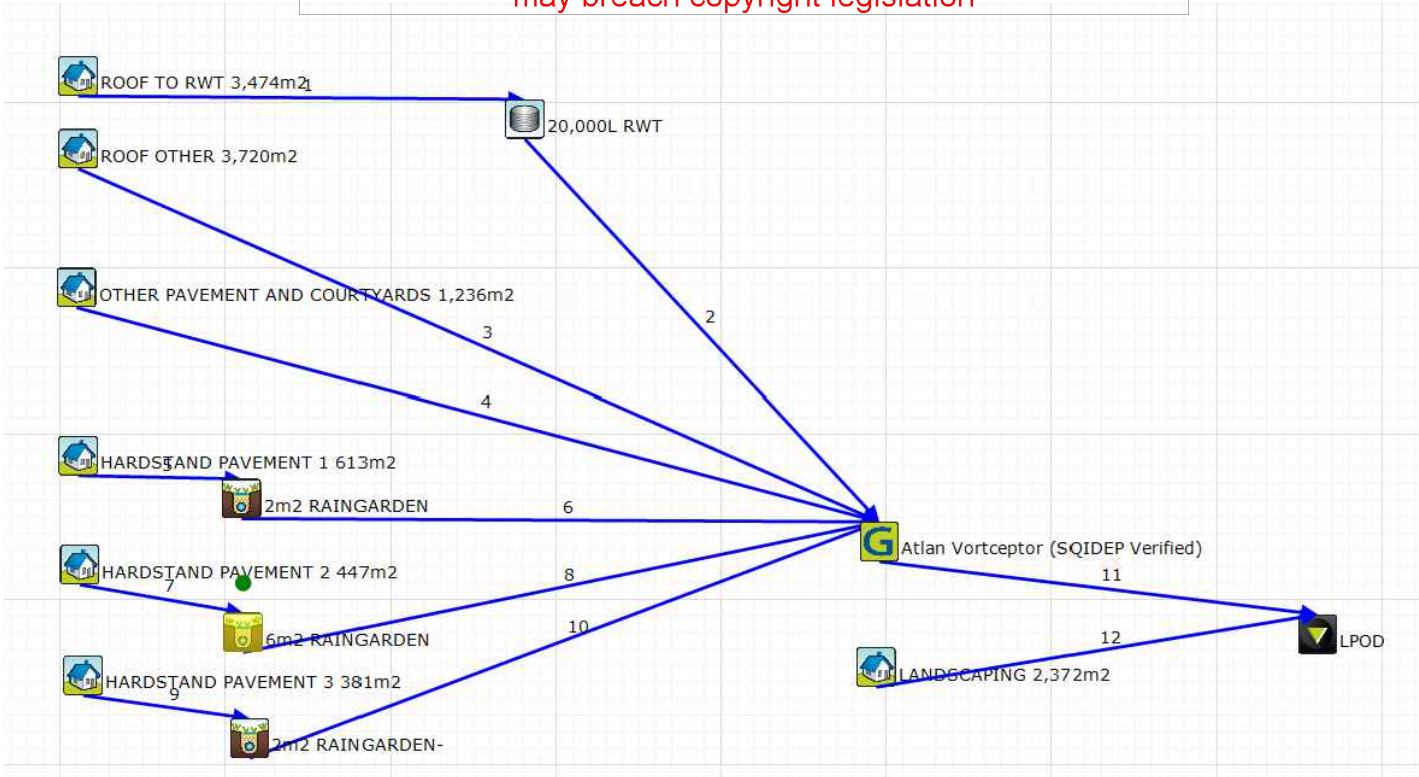
70% REDUCTION OF THE TYPICAL ANNUAL LOAD OF GROSS POLLUTANTS (97.77% ACHIEVED).

Latest Run : Treatment Train Effectiveness : LPOD

	Sources	Residual Load	% Reduction
Flow (ML/yr)	4.32	3.962	8.301
Total Suspended Solids (kg/yr)	890.2	86.99	90.23
Total Phosphorus (kg/yr)	1.793	0.2843	84.15
Total Nitrogen (kg/yr)	12.43	5.723	53.97
Gross Pollutants (kg/yr)	174.6	3.869	97.78

MUSIC RESULTS

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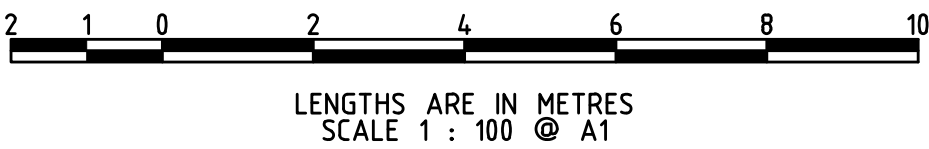


MUSIC TREATMENT TRAIN

PRELIMINARY ISSUE

NO	BY	REVISION	DATE	NO	BY	REVISION	DATE
P4		AMENDED CATCHMENTS AREAS TABLE	17/07/26				
P3		ADDED GRATED PIT IN PURNELL ROAD	17/07/26				
P2		AMENDED BACKGROUND	21/04/26				
P1		PRELIMINARY ISSUE	01/04/26				

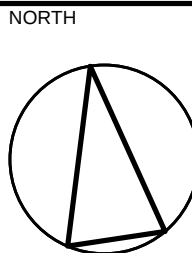
TOTAL SITE AREA
= 12,243 m²



Lanigan Civil

PROPOSED AGED CARE
217-227 PURNELL ROAD
LOVELY BANKS 3213

STORMWATER
QUALITY PLAN



DESIGNED	DRAWN	CHECKED
DATE 30/03/26	SCALE/S AS NOTED	ISSUE P4
DRG NO LC3230-SMP2		