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PROPOSED AGED CARE FACILITY

85-93 WILSON ST & 10-16A ALVERNA GR, BRIGHTON - 3186

STORMWATER MANAGEMENT PLAN

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

LEGEND	
ITEM	DESCRIPTION
	EXISTING SURFACE CONTOURS
	EXISTING SURFACE SPOT LEVELS
	PROPOSED STORMWATER PIPE
	PROPOSED OVERSIZED PIPES FOR 1% AEP FLOWS
	PROPOSED OVERSIZED PIPES FOR DETENTION
	EXISTING COUNCIL STORMWATER PIPE
	PROPOSED RISING MAIN
	PROPOSED GRATED STORMWATER PITS
	PROPOSED ATLAN VORTCEPTOR GPT (WSUD)
	PROPOSED 1% AEP OVERLAND FLOW DIRECTIONAL ARROWS

ADVERTISED PLAN

STORMWATER MANAGEMENT SUMMARY

FLOODING:
NOT APPLICABLE. DEVELOPMENT NOT IN A SBO OR LSO

OVERLAND FLOWS: SEE ON PLAN

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

STORMWATER ON-SITE DETENTION:
PSD = 62.70L/s
CATCHMENT = 6,461m²
DETENTION STORAGE REQUIREMENT = 25.86m³ (FOR 10% AEP POST-DEVELOPMENT EVENT AS PER BAYSIDE CITY COUNCIL DRAINAGE DESIGN GUIDELINES)
ON SITE DETENTION HAS BEEN CALCULATED USING SWINBURNE OSD - 1995 BELOW GROUND METHOD. REQUIRED MINIMUM ON-SITE STORAGE OF 25.86m³ TO BE MET VIA THE USE OF AN UNDERGROUND STORAGE TANK AND OVERSIZED PIPES.

MELBOURNE WATER:
NOT IN MELBOURNE WATER DRAINAGE SCHEME

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 (1,660m²)
- PLUMBED TO IRRIGATION FOR REUSE - ALLOWED FOR MINIMUM 525m² GARDEN @ 2L/m²/day = 1050L/day DEMAND

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).

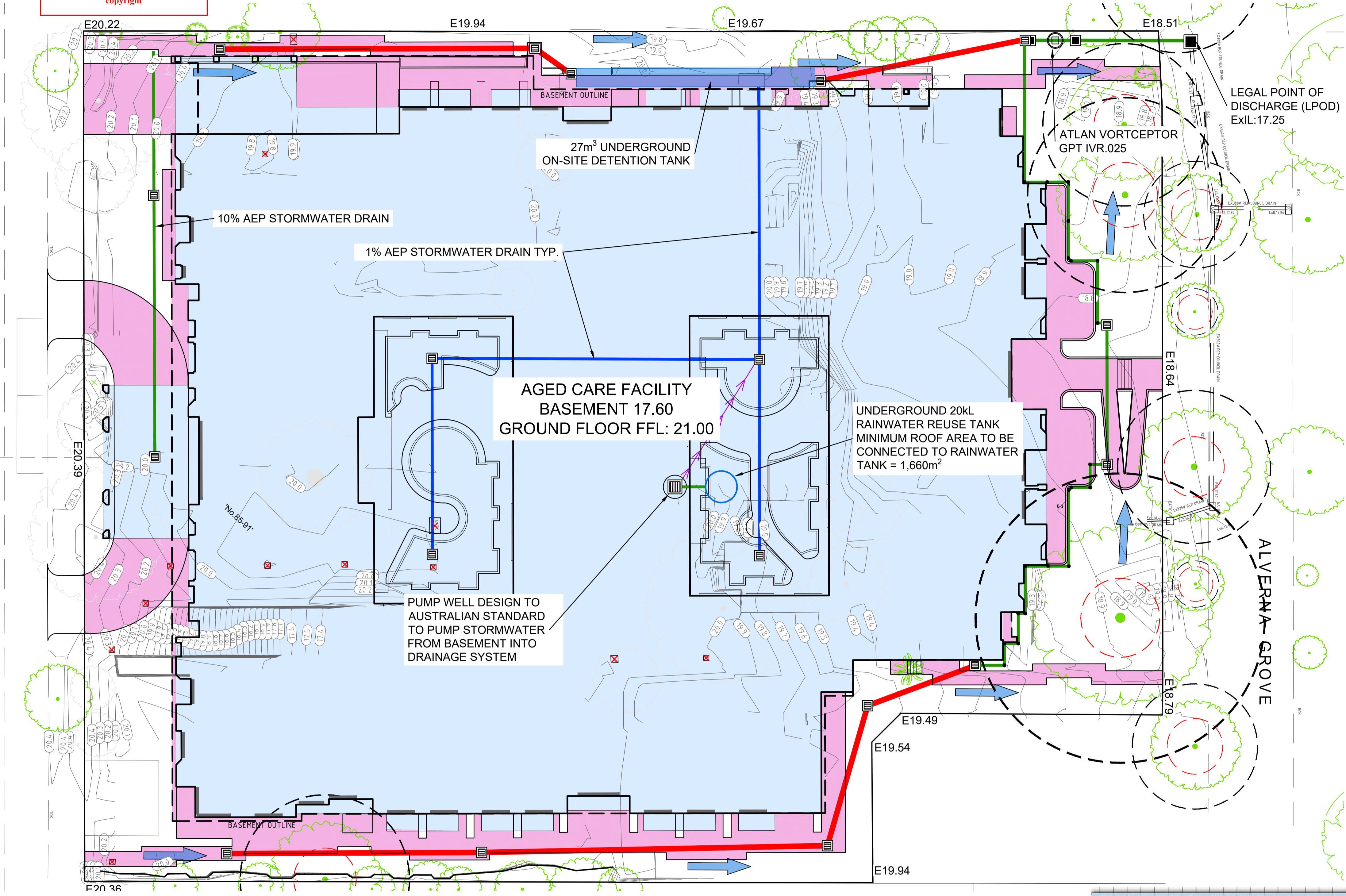
80% REDUCTION OF THE TYPICAL ANNUAL LOAD OF SUSPENDED SOLIDS (92.6% ACHIEVED).
45% REDUCTION OF THE TYPICAL ANNUAL LOAD OF TOTAL PHOSPHORUS (87.1% ACHIEVED).
45% REDUCTION OF THE TYPICAL ANNUAL LOAD OF TOTAL NITROGEN (54.4% ACHIEVED).
70% REDUCTION OF THE TYPICAL ANNUAL LOAD OF GROSS POLLUTANTS (99.7% ACHIEVED).

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 ROAD RESERVE.

CATCHMENT AREAS:

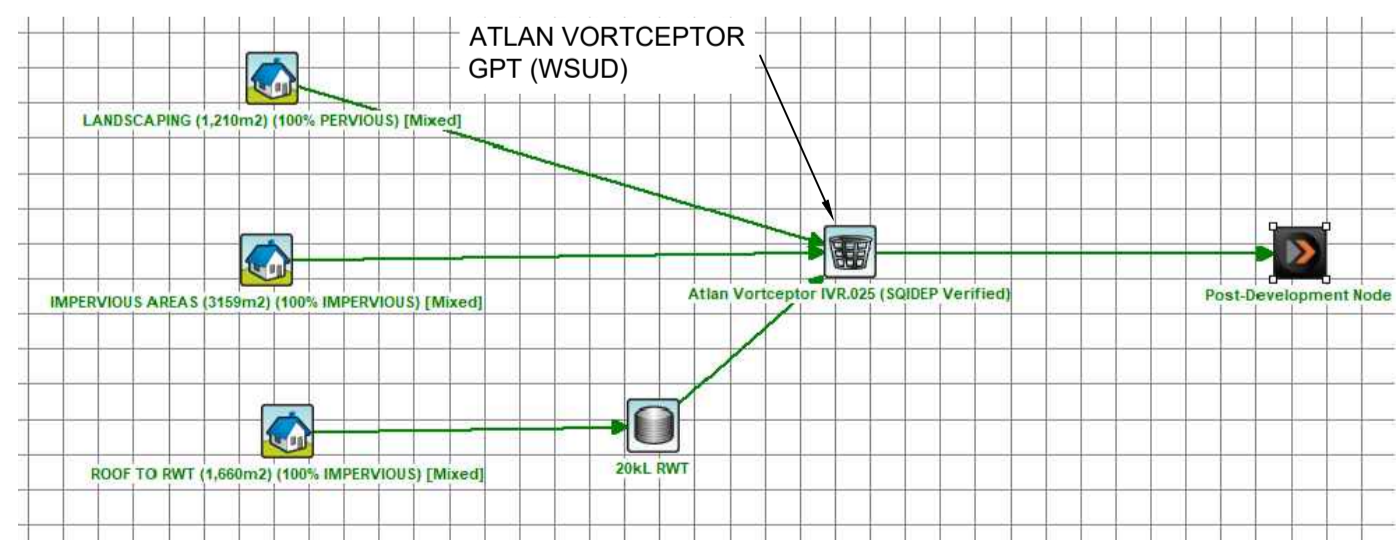
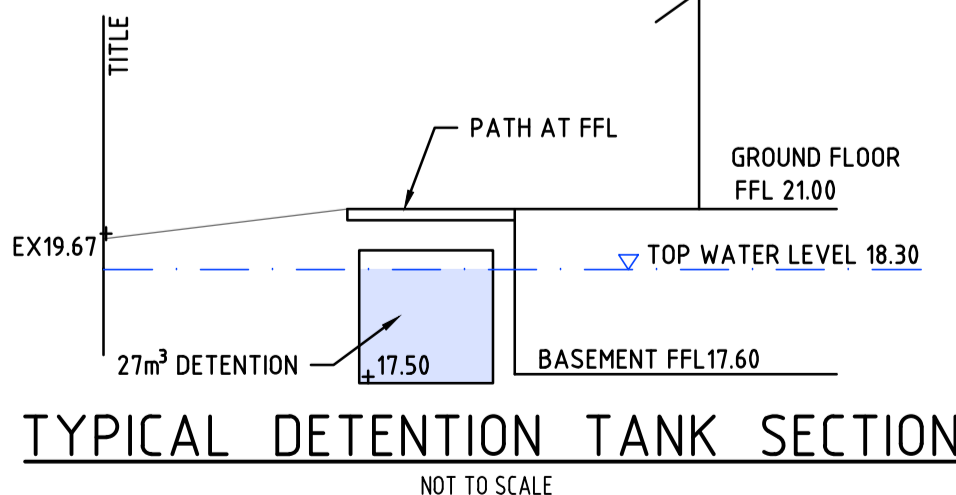
PLAN COLOUR	CATCHMENT TYPE	AREA m ²	TREATMENT
	ROOF TO TANKS & ATLAN	4,458	1 x 20,000L RAINWATER TANK, ATLAN VORTCEPTOR IVR.025
	PAVEMENT	793	ATLAN VORTCEPTOR IVR.025
	LANDSCAPING	1210	ATLAN VORTCEPTOR IVR.025
	TOTAL SITE AREA	6,461	



STORMWATER MANAGEMENT PLAN

LENGTHS ARE IN METRES
SCALE 1 : 200 @ A1

TOTAL SITE AREA = 6,461 m²



MUSIC RESULTS

Sources	Residual Load	% Reduction	
Flow (ML/yr)	2.9	2.6	10.3
Total Suspended Solids (kg/yr)	602	44.2	92.6
Total Phosphorus (kg/yr)	1.21	0.156	87.1
Total Nitrogen (kg/yr)	8.61	3.93	54.4
Gross Pollutants (kg/yr)	121	0.305	99.7



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.

PRELIMINARY ISSUE

NO	REVISION	DATE	NO	REVISION	DATE
A	TOWN PLANNING ISSUE	12-11-25			
P2	PRELIMINARY ISSUE	15-09-25			
P1	PRELIMINARY ISSUE	08-04-25			

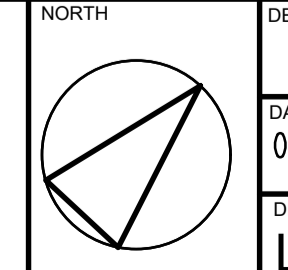
DATUMS USED FOR THIS DESIGN/DRAWING
VERTICAL: AHD - REFER BENCH MARKS ON PLAN
HORIZONTAL: MGA REFER TO FEATURE AND LEVEL SURVEY BY CRA SURVEY PTY LTD ON 28/02/2023
VERSION 1.
REF: 7533FL1



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AGED CARE FACILITY
85-93 WILSON STREET &
10-14 ALVERNA GROVE
BRIGHTON

STORMWATER
MANAGEMENT PLAN



DESIGNED	DRAWN	CHECKED
NJC	CGW	NJC
DATE	SCALE/S	AS NOTED
08-04-25		
DWG NO	ISSUE	
LC3066-SMP1	A	