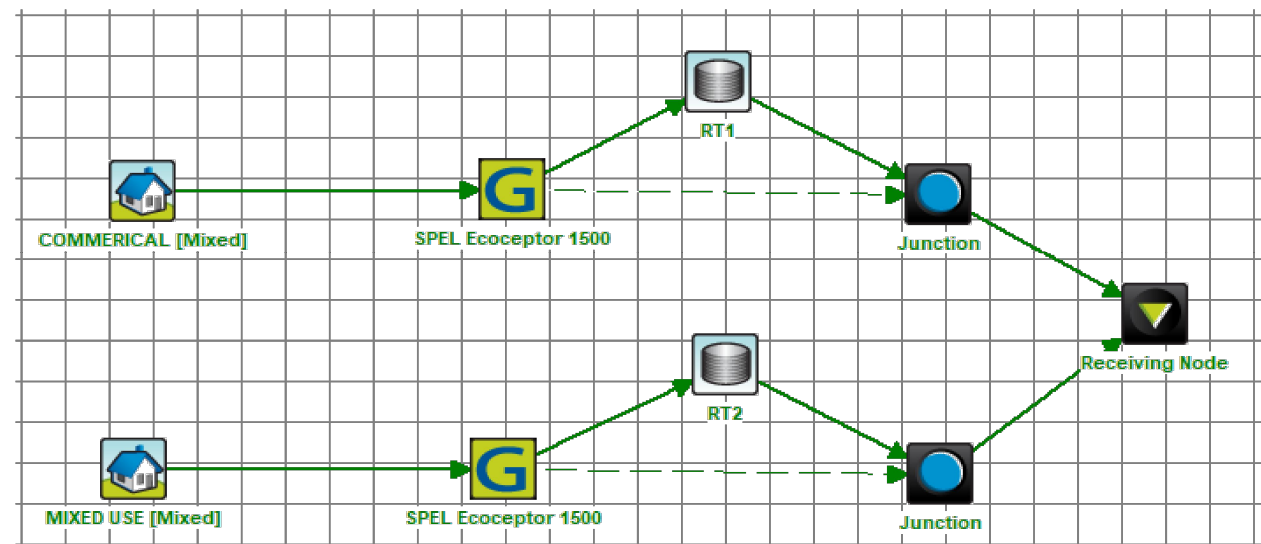


Catchment Areas	COMMERCIAL	MIXED USE
Total Site Area (Ha)	0.43 Ha	1.38 Ha
Impervious Area (Ha)	0.37 Ha	1.15 Ha
Imperviousity (%)	86%	84%

1. Gross Pollutant Trap	SPEL ECOCEPTOR	SPEL ECOCEPTOR
2. Stormwater Quality Improvement Device	NIL	NIL

Tank Volume	52 Kl	162 Kl
Depth above overflow	0.40 m	0.37 m
Surface Area	30 m ²	95 m ²
Initial volume	52 Kl	162 Kl
Reuse Rates		

Node Diagram



	Sources	Residual Load	% Reduction
Flow (ML/yr)	10.3	8.87	13.5
Total Suspended Solids (kg/yr)	1590	195	87.7
Total Phosphorus (kg/yr)	2.3	0.962	58.1
Total Nitrogen (kg/yr)	27.3	12.5	54.3
Gross Pollutants (kg/yr)	363	0	100

Block No	Office	Res

Block Area	4,295 m ²	13,770 m ²
Impervious Area - Roof Area		
Roof Connected to rainwater storage	2,489 m ²	8,204 m ²
Roof area not connected to storage	0 m ²	0 m ²
Total	2,489 m²	8,204 m²
Impervious Area - Paved Areas		
Hard Paved Areas (shedding to drainage)	1,224 m ²	3,325 m ²
Permeable / porous paving (shedding to drainage)	m ²	m ²
Paved areas shedding runoff to garden beds and/or lawns	m ²	0 m ²
Total	1,224 m²	3,325 m²
Total Impervious areas (with 50% reduction applied to permeable paving areas, and excluding paving with runoff to garden beds and/or lawn)	3,713 m²	11,529 m²
Minimum Site Storage Required		
Retention Storage: 1.4kl per 100m ² of impervious area	52.0 kl	162.0 kl
OSD Storage: 1.0kl per 100m ² of impervious area	38.0 kl	116.0 kl
Total Combined: with 50% of Retention applied to OSD	64.0 kl	197.0 kl
Net OSD above retention level	12.00 kl	35.00 kl
OSD release rate (over 6 hours)	0.56 l/s	1.62 l/s
SW Q ₁₀ Flow Rate	122 l/s	384 l/s

	COMMERCIAL SITE	MIXED USE COMMERCIAL	MIXED USE RESIDENTIAL	DEVELOPMENT TOTALS
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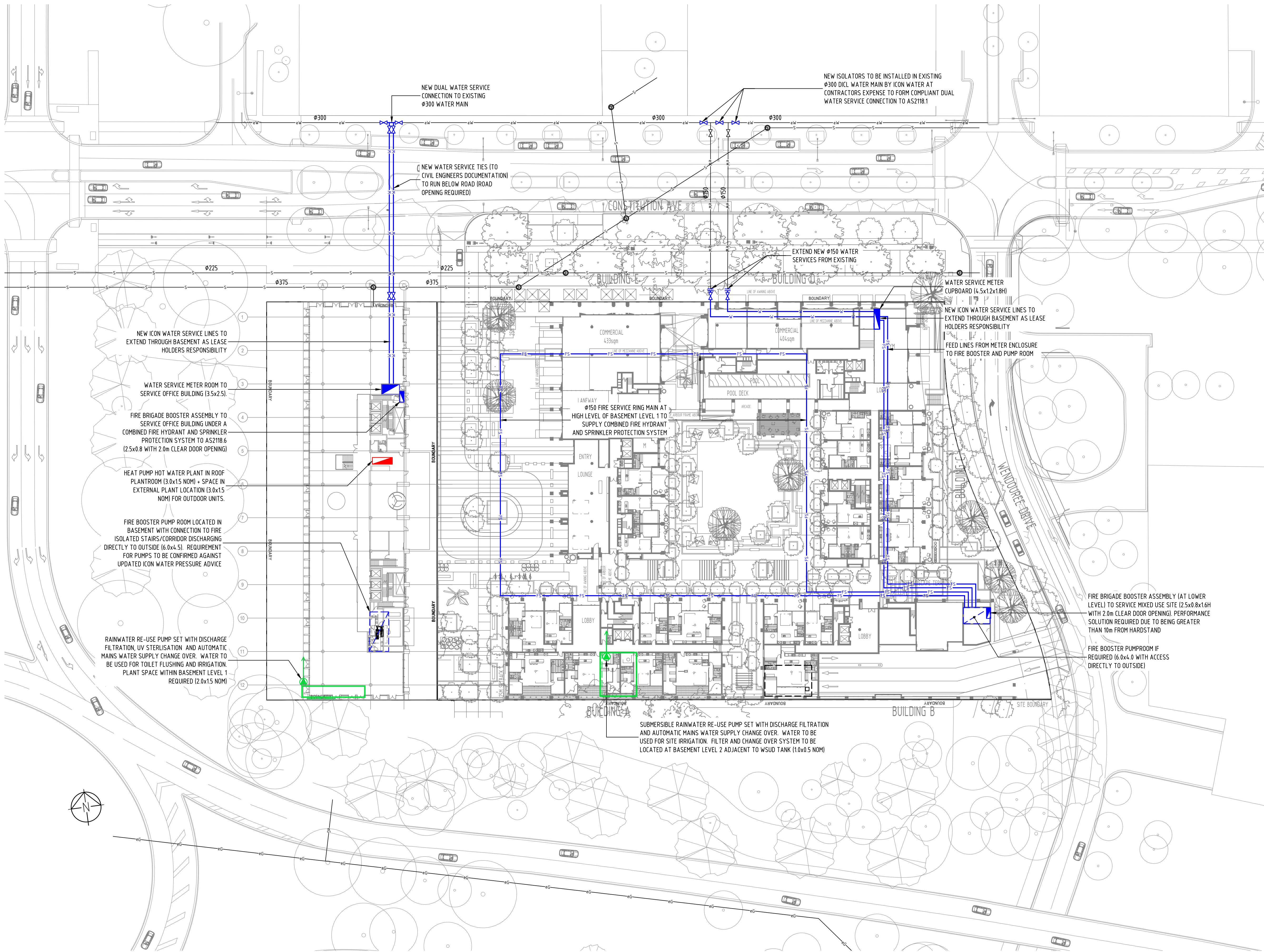
		SITE	COMMERCIAL	RESIDENTIAL	TOTALS
Indoor Information	Number of Bedrooms (No)	n/a	n/a	682	682
	NLA (m ²)	15396	733	n/a	16129
	Shower Head Rating (* Star)	4 Star	4 Star	4 Star	4 Star
	Clothes Washing Machine Rating (* Star)	n/a	n/a	4 Star	4 Star
	Dishwashers Rating (* Star)	4 Star	5 Star	4 Star	4 Star
	Toilet Rating (* Star)	4 Star	4 Star	4 Star	4 Star
	Urinal Rating (* Star)	6 star	6 star	n/a	n/a
	Basin Rating (* Star)	4 Star	5 Star	n/a	n/a
Site Information	Site Area (m ²)	4,295	13,770	13,770	31,835
	Total Roof Area (m ²)	2,489	8,204	8,204	18,897
	Lawn Area (m ²)	300	0	0	300
	Irrigated Garden Area (m ²)	819	0	2,241	3,060
	Impervious Pavement or Driveway (m ²)	1,224	0	3,325	4,549
Rainwater Tank Information	Are There going to be water tanks installed	YES	NO	YES	YES
	Total size of all the tanks (ltr)	52000	n/a	162000	214000
	Total impervious area flowing into the tanks (m ²)	3,476	n/a	11,529	15,005
	What will be the use for the water in the tanks	Irrigation-toilet flushing	n/a	Irrigation	Irrigation
Pool, Spa or Pond Information	Is there going to be a pool, spa, or pond ?	NO	NO	YES	YES
	Is there going to be a cover on the pool or spa ?	NO	NO	YES	YES
	Average depth of the pool, spa or pond (m)			1.2	1.2
	Average length of the pool, spa or pond (m)			25	25
	Average width of the pool, spa or pond (m)			4	4
	The volume of the pool, spa or pond is (ltr)			120,000	120,000
Other Water Use	Gross Cooling System Water Consumption (ltr/yr)	1,539,600	0	n/a	1,539,600
	Fire Testing System Consumption (ltr/yr)	30000	30000	n/a	60000
Water Reduction Information	Potable Water Usage with Reductions (L/day)	25,109	1,139	66,984	93,232
	Pre 2003 Potable Water Usage (L/day)	41,717	1,842	112,949	156,508
	Reduction (L/day)	16,608	703	45,965	63,276
	% Reduction	40%	38%	41%	40%

200
150
100
90
80
70
60
50
40
30
20
10
0

AT SHEET

4	AMENDED WORKS APPROVAL ISSUE	15.09.22	DNT	DNT
3	ISSUED FOR WORKS APPROVAL SUBMISSION	19.10.21	DNT	DNT
2	PRELIMINARY ISSUE FOR COORDINATION	10.08.21	DNT	DNT
1	PRELIMINARY ISSUE FOR COORDINATION	10.08.21	DNT	DNT

No.	REVISION/ISSUE	DATE	BY	CHECKED
No.	REVISION/ISSUE	DATE	BY	CHECKED



THCS
TENNANT HYDRAULIC CONSULTING SERVICES

6 HALLSTROM CCT
MONASH ACT, 2904
P.H.: (02) 6285 2599
ABN: 28 625 464 093

DRAWN	DESIGNED	CHECKED
DNT	DNT	

PROJECT		ANZAC PARK EAST		DRAWING		HYDRAULIC SERVICES SITE WATER & GAS SERVICES GENERAL ARRANGEMENT PLAN	
BLOCK: 2		SECTION: 4		SUBURB: PARKES		File Name: TH190073-H-WA-03 SITE WATER	
						DATE	
						AUG '21	
						SCALE	
						1:500 @ A1 1:1000 @ A3	
						PROJECT	
						TH190073	
						DWG No.	
						H-WA-03	
						REV	
						4	
						STATUS	
						PRELIMINARY	