TATHAM ENGINEERING	Project:	Victoria Annex	Date:	2022 06 15
	File No.:	120174	Designed:	EL
	Subject:	Watermain Design Condo Dwellings	Checked	KRS

Design Criteria

Person per Unit =	2.4		
Units =	5		
Per Capita Flow =	260.0	L/day	
Peaking Factors =	1.77	Maximum Day	(MECP Design Guidelines)
	2.7	Peak Hour	(Collingwood Development Standards)

Design Flows

Average Daily Flow = 3,120.00 L/day
= 0.036 L/s

Maximum Day Demand = Average Flow x Peaking Factor
= 0.06 L/s

Peak Hour Demand = Average Flow x Peaking Factor
= 0.10 L/s

Fire Underwriters Survey (FUS) = $220C\sqrt{A}$ (Fire Underwriters Survey)

Coach House

C =	1.0		(Fire Underwriters Survey)
A =	411	m^2 per unit	
Units =	3		
FUS =	7725.10	L/min	
=	**128.75**	**L/s**	

Annex

C =	1.0		(Fire Underwriters Survey)
A =	235	m^2 per unit	
Units =	2		
FUS =	4769.49	L/min	
=	**79.49**	**L/s**	

TATHAM ENGINEERING	Project:	Victoria Annex	Date:	2022 06 15
	File No.:	120174	Designed:	MJF
	Subject:	Watermain Design Semi-Detached Units	Checked	KRS

Design Criteria

Person per Unit =	2.7		
Units =	10		
Per Capita Flow =	260.0	L/day	
Peaking Factors =	1.77	Maximum Day	(MECP Design Guidelines)
	2.7	Peak Hour	(Collingwood Development Standards)

Design Flows

Average Daily Flow = 7,020.00 L/day
= 0.081 L/s

Maximum Day Demand = Average Flow x Peaking Factor
= 0.14 L/s

Peak Hour Demand = Average Flow x Peaking Factor
= 0.22 L/s

Fire Underwriters Survey (FUS) = $220C\sqrt{A}$ (Fire Underwriters Survey)

C =	1.0		(Fire Underwriters Survey)
A =	205	m^2 per unit	
Units =	2		
FUS =	4454.66	L/min	
=	74.24	L/s	

Fire Flows = Maximum Day Demand + FUS (Collingwood Development Standards)
= 74.39 L/s

Therefore, Design Flow = 74.39 L/s

TATHAM ENGINEERING	Project:	Victoria Annex	Date:	2022 06 15
	File No.:	120174	Designed:	MJF
	Subject:	Watermain Design Detached Units	Checked	KRS

Design Criteria

Person per Unit =	2.9		
Units =	4		
Per Capita Flow =	260.0	L/day	
Peaking Factors =	1.77	Maximum Day	(MECP Design Guidelines)
	2.7	Peak Hour	(Collingwood Development Standards)

Design Flows

Average Daily Flow = 3,016.00 L/day
= 0.035 L/s

Maximum Day Demand = Average Flow x Peaking Factor
= 0.06 L/s

Peak Hour Demand = Average Flow x Peaking Factor
= 0.09 L/s

Fire Underwriters Survey (FUS) = $220C\sqrt{A}$ (Fire Underwriters Survey)

C = 1.0 (Fire Underwriters Survey)
A = 273 m^2 per unit
FUS = 3635.00 L/min
= 60.58 L/s

Fire Flows = Maximum Day Demand + FUS (Collingwood Development Standards)
= 60.65 L/s

Therefore, Design Flow = 60.65 L/s