## Estimated Sanitary Flow - Residential

**Project:** 681-685 Admirals Road
**Date:** June 27, 2019
**Client:** Westurban Developments Ltd.
**McElhanney File No.:** 18-118 (4)

**Estimated Residential flow (50 residential units, no commercial units)**

| | | |
|---|---|---|
| Total units* | 50 | |
| TOTAL RESIDENTIAL UNITS | 50 | units |
| Persons per unit** | 2 | Estimated |
| Equivalent Population | 100 | capita |
| Per Capita Flow Rate*** | 240 | L/capita/day |
| Average flow = | 24,000 | L/day |
| Average Daily Flow | 24,000 | L/day |
| | 0.278 | L/s |
| Peaking Factor | | |
| -Harmon | 4.24 | |
| Estimated Peak Flow = | 1.18 | L/s |
| Site Area**** = | 1,520 | sq.m. |
| Approx. Hard Surface building area (set to 0 to allow for infiltration over entire site) = | 0 | sq.m. |
| Approx. area for infiltration = | 1,520 | |
| Inflow and Infiltration (0.12 L/s/ha)**** | 0.018 | L/s |
| **Total Estimated Peak Flow = Estimated Peak Flow + Inflow and Infiltration =** | 1.20 | L/s |

*based on drawings from Thuja Architecture + Design on June 27, 2019
**assumed people per unit (6 studio, 23 one bedroom, 18 two bedroom, 3 three bedrooms)
***based on MMCD Design Guideline Manual 2014 (Section 3.2 Per Capita Flow, dry weather)
****based on MMCD Design Guideline Manual 2014 (Section 3.5 Infiltration - used old system requirement to provide factor of safety)

Harmon Peaking Factor = $\frac{(\frac{14}{4+\sqrt{\frac{P}{1000}}}+1)}{}$

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