

SANITARY SEWER DESIGN SHEET

Approved:



C.C. Tatham & Associates Ltd.
Consulting Engineers

Collingwood Bracebridge Orillia Barrie Ottawa

Flow Criteria
Average Flow Rate Per Room (see Note 1): 450 l/cap/d
Average Flow Rate Per Seat (Banquet Hall): 125 l/cap/d
Infiltration Rate: 0.23 l/s/ha

Peaking Factor: Harmon
People Per Unit: 3

Project Name: Cranberry Harbour Castle and Bear Estate - Phases 4 & 5
Project Number: 105282-9
Municipality: Town of Collingwood
Designed By: MAB
Date: February 13, 2018
Checked By: KRS
Date: February 27, 2018
Revision Number: 0

| STREET NAME | AREA LABEL | UPSTREAM MAINTENANCE HOLE | DOWNSTREAM MAINTENANCE HOLE | ROOMS | BANQUET SEATS | POPULATION | ACCUMULATED POPULATION | PEAKING FACTOR | AREA | ACCUMULATED AREA | AVERAGE FLOW | | | PEAK FLOW | | | PROPOSED SEWER | | | | | | |
|-------------------|------------|---------------------------|-----------------------------|-------|---------------|------------|------------------------|----------------|------|------------------|--------------|--------------|-------|-------------|--------------|-------|----------------|---------------|-------|--------------------|--------------------|----------------------|--|
| | | | | | | | | | | | RESIDENTIAL | INFILTRATION | TOTAL | RESIDENTIAL | INFILTRATION | TOTAL | LENGTH OF PIPE | PIPE DIAMETER | GRADE | FULL FLOW CAPACITY | FULL FLOW VELOCITY | ACTUAL FLOW VELOCITY | |
| | | MH No. | MH No. | | | cap. | cap. | | ha | ha | l/s | l/s | l/s | l/s | l/s | l/s | m | mm | % | l/s | m/s | m/s | |
| North Access Road | | Bear Estate Building | San MH 2 | 4 | | 889.0 | 901.0 | 3.83 | 0.25 | 0.25 | | | | | | | | | | | | | |
| | | | | | | | | | | | 1.35 | 0.06 | 1.41 | 5.16 | 0.06 | 5.22 | 33.0 | 150 | 0.90% | 14.45 | 0.82 | 0.71 | |
| North Access Road | | San MH 2 | San MH 1 | 0 | 0 | 0.0 | 901.0 | 3.83 | 0.22 | 0.46 | 1.35 | 0.11 | 1.45 | 5.16 | 0.11 | 5.27 | 62.0 | 200 | 0.44% | 21.75 | 0.69 | 0.54 | |
| North Access Road | | San MH 1 | Ex San MH at Balsam Street | 120 | 0 | 360.0 | 1261.0 | 3.73 | 0.20 | 0.66 | 3.22 | 0.15 | 3.38 | 12.03 | 0.15 | 12.19 | 57.0 | 200 | 0.48% | 22.72 | 0.72 | 0.70 | |
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Notes:
1. Sewage generation per hotel bed space = 225 L/cap/d with the assumption of 2 beds per room