Town of Innisfil
2101 Innisfil Beach Rd.
BUILDING 705-436-3710 Ext 3500
www.innisfil.ca

SIZING OF WATER SERVICE PIPE FOR HOUSES

The minimum size of water service pipe shall be ¾" / 19mm. The size and capacity of potable water system pipe shall be designed in accordance with OBC, Division B, 7.6.3. Where both hot and cold water is supplied to fixtures in residential buildings containing one or two dwelling units, the water system may be sized with tables in Part 1 and Part 2 of this form, provided, the minimum water pressure at the entry to the building is not 200 kPa. *The total maximum length of the water system is 90 m, and the hydraulic loads for maximum separate demands on water distribution system piping are not less than 100% of the total hydraulic load of the fixture units given in OBC, Division B, Tables 7.6.3.2.A., 7.6.3.2.B., 7.6.3.2.C., and 7.6.3.2.D. for private use.*

PERMIT APPLICATION NUMBER:	NAME OF APPLICANT:	DATE:

PART 1 – HYDRAULIC LOAD/ FIXTURE UNIT CALCULATION FOR PRIVATE USE (OBC, Table 7.6.3.2.A. modification)

FIXTURE OR DEVICE	PRIVATE USE HYDRAULIC LOAD IN FIXTURE UNITS	QUANTITY		TOTAL HYDRAULIC LOAD IN FIXTURE UNITS.	
Bathroom group* with 6 LPF flush tank	3.6	X		=	
Bathroom group* with greater than 6 LPF flush	6	X		=	
Bathtub with or without shower head	1.4	X		=	
Bathtub with ¾ in. spout	10	X		=	
Bidet	2	X		=	
Clothes washer, 3.5 kg	1.4	X		=	
Dishwasher, domestic	1.4	X		=	
Hose bibb ½" supply pipe	2.5	X		=	
Hose bibb ¾" supply pipe	3	X		=	
Hose bibb, combination hot and cold ½" supply pipe	2.5	X		=	
Lavatory, 8.3 L/min or less	.7	X		=	
Lavatory, greater than 8.3 L/min	1	X		=	
Shower head, 9.5 L/min or less per head	1.4	X		=	
Shower head, greater than 9.5 L/min per head	2	X		=	
Shower, spray, multi-head, fixture unit per head	1.4	X		=	
Sink, bar	1	X		=	
Sink, kitchen, domestic, 8.3 L/min or less	1.4	X		=	
Sink, kitchen, domestic, greater than 8.3 L/min	2	X		=	
Sink, laundry (1 or 2 compartments)	1.4	X		=	
Water closet, 6 LPF or less with flush tank	2.2	X		=	
Water closet, greater than 6 LPF with flush tank	3	X		=	
Other		X		=	
TOTAL FIXTURE UNITS				=	

* ***Bathroom group*** means a group of plumbing *fixtures* installed in the same room, consisting of one domestic-type lavatory, one water closet and either one bathtub, with or without a shower, or one one-headed shower.

26 fixture units may be served by a 3/4" service provided conformance with 7.3.6.4.(6) is attained.

PART 2 – SIZING OF WATER SERVICE PIPE OBC, TABLE 7.6.3.4 modification

SIZE OF WATER SERVICE PIPE, INCHES	WATER VELOCITY, M/S	
	2.4 M/S MINIMUM (APPROVED MATERIAL AS PER 7.2.11.2)	OTHER APPROVED MATERIAL AS PER 7.2.11.2)
	PERMITTED HYDRAULIC LOAD, FIXTUR UNITS	DESIGN HYDRAULIC LOAD, FIXTUR UNITS
¾"	7.1-16	
1"	16.1 - 31	
1-1/4"	31-57	

PART 3 -DETAILED DESIGN USING TABLE A-7.6.3.1

PIPE MATERIAL WITH CSA RATING APPROVED MATERIAL AS PER 7.2.11.1	
VELOCITY (METERS PER SECOND)	
HYDRAULIC LOAD	
LENGTH OF WATER SERVICE IN METERS	
PRESSURE AT SOURCE	
WATER SERVICE PIPE IN DIAMETER INCHES	
DESIGNER NAME:	
SIGNATURE:	BCIN: