



Proposed Water and Sewer Load Calculations

The proposed building is with four bathrooms, 1 service sink and 1 water fountain. Based upon the New York State Plumbing Code, Appendix E, the existing buildings to be removed and the storage building is utilizing an estimated 32 (public) water supply fixture units (wsfu) (see calculation below). The peak flow rate for the facility is estimated at 24.9 gpm.

Based upon the New York State Department of Environmental Conservation's Design Standards for Wastewater Treatment Works (1988), the Expected Hydraulic daily Loading is 15 gallons per person per day per shift ("factory"). It is anticipated that there will be 2-shifts of 5-employee each at the facility; therefore, The Total Daily Hydraulic Loading is 150 gallons per day.

**WATER FIXTURE LOADING
BASED UPON PLUMBING CODE OF NEW YORK STATE
TABLE E101B**

FIXTURE	OCCUPANCY	TYPE OF SUPPLY CONTROL	LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)			QUANTITY	TOTAL LOAD VALUE
			Cold	Hot	Total		
Bathroom group	Private	Flush tank	2.7	1.5	3.6		0
Bathroom group	Private	Flush valve	6	3	8		0
Bathtub	Private	Faucet	1	1	1.4		0
Bathtub	Public	Faucet	3	3	4		0
Bidet	Private	Faucet	1.5	1.5	2		0
Combination fixture	Private	Faucet	2.25	2.25	3		0
Dishwashing machine	Private	Automatic	—	1.4	1.4		0
Drinking fountain	Offices, etc.	$\frac{3}{8}$ " valve	0.25	—	0.25	1	0.25
Kitchen sink	Private	Faucet	1	1	1.4		0
Kitchen sink	Hotel, restaurant	Faucet	3	3	4		0
Laundry trays (1 to 3)	Private	Faucet	1	1	1.4		0
Lavatory	Private	Faucet	0.5	0.5	0.7		0
Lavatory	Public	Faucet	1.5	1.5	2	4	8
Service sink	Offices, etc.	Faucet	2.25	2.25	3	1	3
Shower head	Public	Mixing valve	3	3	4		0
Shower head	Private	Mixing valve	1	1	1.4		0
Urinal	Public	1" flush valve	10	—	10		0
Urinal	Public	$\frac{3}{4}$ " flush valve	5	—	5		0
Urinal	Public	Flush tank	3	—	3		0
Washing machine (8 lb)	Private	Automatic	1	1	1.4		0
Washing machine (8 lb)	Public	Automatic	2.25	2.25	3		0
Washing machine (15 lb)	Public	Automatic	3	3	4		0
Water closet	Private	Flush valve	6	—	6		0
Water closet	Private	Flush tank	2.2	—	2.2		0
Water closet	Public	Flush valve	10	—	10		0
Water closet	Public	Flush tank	5	—	5	4	20
Water closet	Public or private	Flushometer tank	2	—	2		0
TOTAL LOAD FOR DEVELOPMENT (wsfu)							31.25



Existing Water and Sewer Load Calculations

The existing buildings to be removed and the existing storage facility have a total of 6 bathrooms, 2 service sinks, and 1 kitchen sink. Based upon the New York State Plumbing Code, Appendix E, the building is utilizing an estimated 42 (public) water supply fixture units (wsfu) (see attached calculation). The peak flow rate for the facility is estimated at 27.7 gpm.

Based upon the New York State Department of Environmental Conservation's Design Standards for Wastewater Treatment Works (1988), the Expected Hydraulic daily Loading is 15 gallons per person per day per shift ("office"). The existing employee load for the 7 rentable contractor units and the existing self-storage is approximated at 2-shifts of 9-employee (1 per each rentable contractor unit and 2 employees for the storage area) at the facility; therefore, The Total Daily Hydraulic Loading is 270 gallons per day.

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TABLE E101B**

FIXTURE	OCCUPANCY	TYPE OF SUPPLY CONTROL	LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)			QUANTITY	TOTAL LOAD VALUE
			Cold	Hot	Total		
Bathroom group	Private	Flush tank	2.7	1.5	3.6		0
Bathroom group	Private	Flush valve	6	3	8		0
Bathtub	Private	Faucet	1	1	1.4		0
Bathtub	Public	Faucet	3	3	4		0
Bidet	Private	Faucet	1.5	1.5	2		0
Combination fixture	Private	Faucet	2.25	2.25	3		0
Dishwashing machine	Private	Automatic	—	1.4	1.4		0
Drinking fountain	Offices, etc.	³ / ₈ " valve	0.25	—	0.25		0
Kitchen sink	Private	Faucet	1	1	1.4		0
Kitchen sink	Hotel, restaurant	Faucet	3	3	4		1
Laundry trays (1 to 3)	Private	Faucet	1	1	1.4		0
Lavatory	Private	Faucet	0.5	0.5	0.7		0
Lavatory	Public	Faucet	1.5	1.5	2	5	10
Service sink	Offices, etc.	Faucet	2.25	2.25	3	2	6
Shower head	Public	Mixing valve	3	3	4		0
Shower head	Private	Mixing valve	1	1	1.4		0
Urinal	Public	1" flush valve	10	—	10		0
Urinal	Public	³ / ₄ " flush valve	5	—	5		0
Urinal	Public	Flush tank	3	—	3		0
Washing machine (8 lb)	Private	Automatic	1	1	1.4		0
Washing machine (8 lb)	Public	Automatic	2.25	2.25	3		0
Washing machine (15 lb)	Public	Automatic	3	3	4		0
Water closet	Private	Flush valve	6	—	6		0
Water closet	Private	Flush tank	2.2	—	2.2		0
Water closet	Public	Flush valve	10	—	10		0
Water closet	Public	Flush tank	5	—	5	5	25
Water closet	Public or private	Flushometer tank	2	—	2		0
TOTAL LOAD FOR DEVELOPMENT (wsfu)							42