

# SANITARY FLOW REPORT

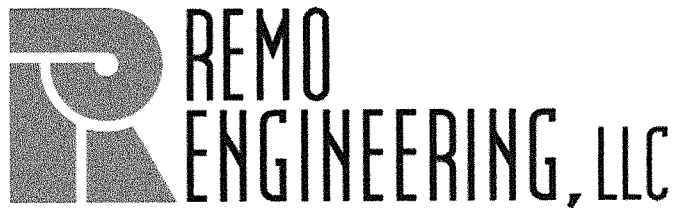
FOR

**LOTS 9, 10, 11, 12, 13 AND 14 IN BLOCK 95**

186 CHURCHILL AVENUE

TOWNSHIP OF FRANKLIN, SOMERSET COUNTY

NEW JERSEY



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A large, fluid handwritten signature in black ink, which appears to read 'Marc A. Remo', is written over a horizontal line.

**MARC A. REMO, P.E., P.P., C.M.E.**

NJ PROFESSIONAL ENGINEER LIC. NO. 37145

NJ PROFESSIONAL PLANNER LIC. NO. 5195

DATE PREPARED: 10/5/20

FranklinTwp186ChurchillAveSanFlowRpt10-5-20

## PROJECTED SEWAGE FLOW COMPUTATIONS

THE PROJECTED FLOWS GENERATED FROM THE PROPOSED DEVELOPMENT TO BE SERVED BY THE EXISTING SANITARY SEWER ARE AS FOLLOWS:

### ESTIMATED DAILY AVERAGE FLOW (Q)

ESTIMATED FLOW FOR RESIDENTIAL DWELLINGS = 300 GPD/DWELLING  
(3 BEDROOM UNIT OR LARGER) (N.J.A.C. 7:14A-23.3)

NUMBER OF DWELLING UNITS = 3

$Q = 300 \text{ GPD/DWELLING} \times 3 \text{ DWELLING UNITS} = \mathbf{900 \text{ GPD}}$

### ESTIMATED PEAK FLOW (Qp)

$Q_p = 3 \times \text{ESTIMATED DAILY AVERAGE FLOW}$

$Q_p = 3 \times 900 \text{ GPD} = \mathbf{2,700 \text{ GPD}}$

$Q_p = 2,700 \text{ GPD} \times 1 \text{ DAY/24 HRS} \times 1 \text{ HR/60 MIN} = 1.88 \text{ GPM}$

$Q_p = 1.88 \text{ GAL/MIN} \times 1 \text{ CFS/448.8 GAL/MIN} = 0.004189 \text{ CFS}$

### MAXIMUM DESIGN FLOW (Qd)

$Q_d = \text{ESTIMATED PEAK FLOW IN MGD}$

$Q_d = 2,700 \text{ GPD} \times 1 \text{ MGD/1,000,000 GPD} = \mathbf{0.002700 \text{ MGD}}$

**APPENDIX 1**

PROJECTED FLOW CRITERIA CHART

**N.J.A.C. 7:14A - 23.3 Projected Flow Criteria**

The values specified below are to be used in computing the projected flow to wastewater conveyance and treatment facilities. The specific measurement unit listed for each category must be used as the basis for the projected flow. No additional provisions for inflow and infiltration are required. Flow for facilities that have combined uses must be determined by the summation of all appropriate projected flow values for each use. In the event that a facility is not covered by the table below, the applicant must propose the projected flow based upon operation of similar facilities or best professional judgment.

Type of Establishment	Measurement Unit	Gallons Per Day	Type of Establishment	Measurement Unit	Gallons Per Day
Residential Dwellings (single family home, duplex units, townhouses, condominiums, apartments)			Institutions (includes staff)		
1 bedroom unit	Per Dwelling	150	Hospitals	Bed	175
2 bedroom unit	Per Dwelling	225	Other institutions	Bed	125
3 bedroom unit or larger	Per Dwelling	300	Schools (includes staff)		
Transit dwelling units			No shower or cafeteria	Student	10
Hotels	Bedroom	75	With cafeteria	Student	15
Lodging houses and tourist homes	Bedroom	60	With cafeteria and showers	Student	20
Motels and tourist cabins	Bedroom	60	With cafeteria, showers and laboratories	Student	25
Boarding houses (max. permitted occupancy)	Boarder	50	Boarding	Student	75
Camps			Automobile service stations		
Campground/mobile rec. vehicle/tent	Site	100	Service bays	per bay	50
Parked mobile trailer site	Site	200	Filling position	per filling position	125
Children's camps	Bed	50	Mini-market	Sq. Ft.	0.100
Labor camps	Bed	40	Miscellaneous		
Day camps--no meals	Person	15	Office buildings (gross area)	Sq. Ft.	0.100
Restaurants (including washrooms and turnover)			Stores and shopping centers (gross area)	Sq. Ft.	0.100
Average restaurant	Seat	35	Factories/warehouses (add process water)	Employee	25
Bar/cocktail lounges	Seat	20	with showers, (add process water)	Employee	40
Fast food restaurant	Seat	15	Laundromats	Machine	580
24 hour service restaurant	Seat	50	Bowling alleys	Alley	200
Curb service/drive-in restaurant	Car space	50	Picnic Parks (restrooms only)	Person	10
Clubs			Picnic Parks with showers	Person	15
Residential	Member	75	Fairgrounds (based upon average attendance)	Person	5
Nonresidential	Member	35	Assembly halls	Seat	3
Racquet club	court per hour	80	Airports (based on passenger use)	Passenger	3
Bathroom with shower	Person	25	Churches (worship area only)	Seat	3
Bathroom without shower	Person	10	Theater (indoor)	Seat	3
			Dinner theater	Seat	20
			Catering/Banquet Hall	Person	20
			Sports stadium	Seat	3
			Visitor Center	Visitor	5