

Sec. 9-4.523. Sanitary sewer.

- (a) Design specifications. The design and construction of sanitary sewers shall be in accordance with the Standard Specifications, as last revised, of the City.
- (b) Capacity design standards. The design of residential sanitary sewers shall be based upon an average daily flow of 110 gallons per day per capita and an occupancy factor of three (3) persons per dwelling unit. The peak flow shall be the design flow and shall be determined by the formula plotted on Figure 4-4. All sanitary sewers having an internal diameter of less than twelve (12) inches shall be designed to have a flow depth of one-half of the internal diameter, or less, under design flow conditions. All sanitary sewers having an internal diameter of twelve (12) inches or greater may be designed to have a depth of flow of three-fourths of the internal diameter, or less, under design flow conditions. The only exceptions to such requirements shall be inverted siphons and force mains.

The average daily flow rates for uses other than residential shall be determined by the City Engineer from Table 4-2. If the precise type of land use is not known, the average sewerage flow shall be determined from Table 4-3. Peak flows shall be determined by the formula shown on Figure 4-4.

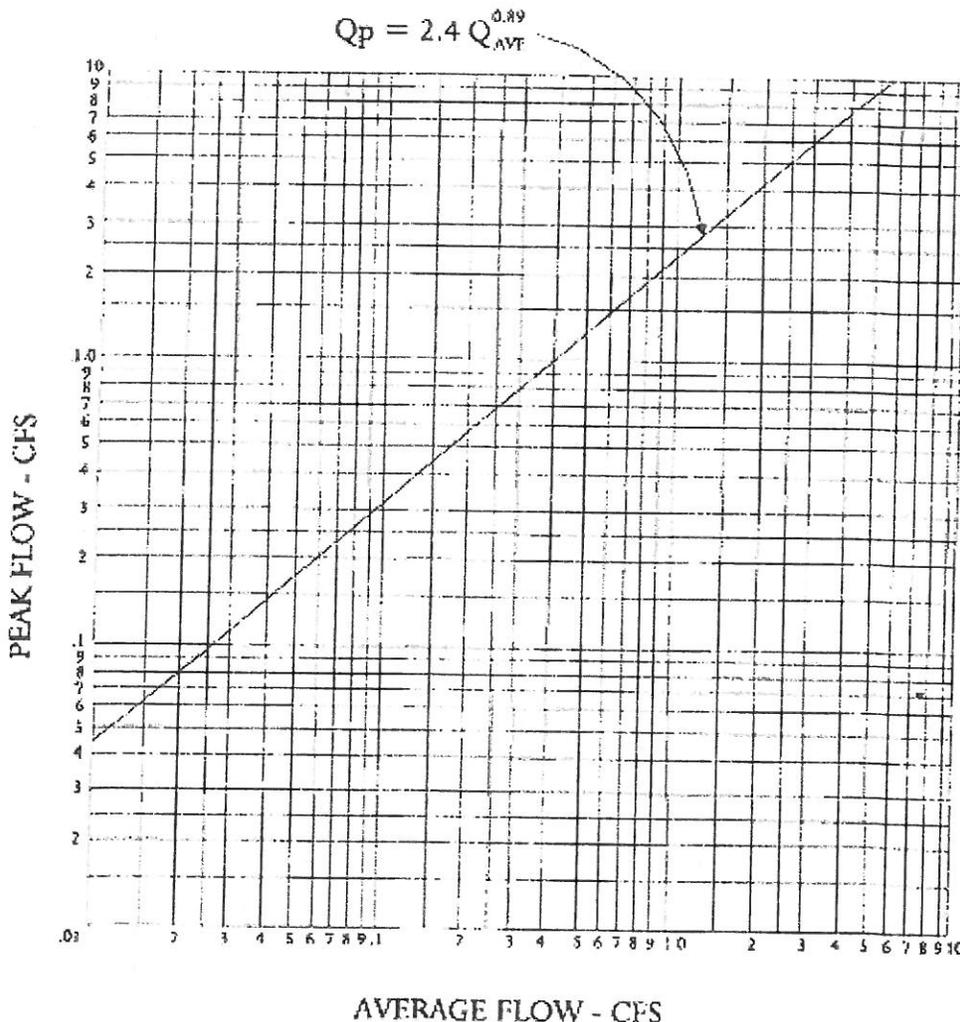


Figure 4-4

Peak to Average Relationship

for Sewage Design Flows

Table 4-2

Average Sewerage Flows—Specific Land Use Types

Type of Land Use	Flow (Gallons per Day/ Unit)
Hotels and Motels (without kitchens), per unit	105
Restaurants	
Conventional, per seat	25
Conventional (24-hour), per seat	35
Quick Service and Taverns, per seat	14
Bars and Cocktail Lounges, per seat	21
Institutional	
Conventional, per person	90
Hospitals, per bed	210
Schools	
Day with Cafeteria, per student	10
Day with Cafeteria and Showers, per student	15
Boarding, per student	60
Theaters	
Indoor, per seat	3
Outdoor, per seat	3
Service Stations	
Per vehicle served	7
Per set of pumps (island)	350
Commercial Stores, per employee; or	42
Per first 25 square feet	315
Per each additional 25 square feet	280
Golf Course and Clubs	
Per member	110
Per non-member	15
Tennis Clubs	
Resident-type, per member	110
Non-Resident-type, per member	15
Stables, per horse	3
Offices, per employee	10
Factories, sanitary wastes only per employee per shift	25
Self-service Laundries, per machine	500
Public Swimming Pools with Showers and Toilets, per toilet	10
Bowling Alleys, per alley	140
Picnic Parks and Toilets, per toilet	10
Assembly Halls, per seat	1
Note: If the precise type of land use is not known, the average sewerage flow shall be determined from Table 4-3.	

Table 4-3

Average Sewage Flows—General Land Use Types

Type of Land Use	Flow (Gallons per Day/Acre)
Institutional	1,960
Recreational	790
Parks	790
Commercial	2,490
Low-Density Residential	660
Medium-Density Residential	1,320
High-Density Residential	5,500

- (c) System design standards. The minimum internal diameter for a mainline sanitary sewer shall be eight (8) inches. Sewer laterals shall be either four (4) inches or six (6) inches in internal diameter and designed in accordance with the Uniform Plumbing Code, as last revised. The minimum slopes at which mainline sanitary sewers shall lie installed are set forth in Table 4-4 as follows:

Table 4-4

Minimum Slopes for Sanitary Sewers

Internal Diameter (inches)	Slope
8	0.0040
10	0.0032
12	0.0024
15	0.0016
18	0.0014
21	0.0012
24	0.0010
27 and larger	0.0008

- (d) Dedications. All mainline sanitary sewers, cleanouts, manholes, and appurtenant equipment within public rights-of-way shall be dedicated to the City. All sanitary sewer facilities outside public rights-of-way to be dedicated to the City shall be located within exclusive easements granted to the City for access and maintenance purposes. Such easements shall be recorded with the County Recorder prior to the approval of the improvement plans. All of the boundaries of such easements shall be a minimum distance of ten (10) feet from the center line of the facilities to be dedicated to the City.
- (e) Joining the sanitary sewer system. All properties within 200 feet of a public sanitary sewer shall be required to join the City facilities. Where a soil report indicates a private sanitation system is not acceptable or where damage to the ground water quality would occur, a property shall be required to join the City sanitary sewer system.
- (f) Private sanitary sewers. Private sanitary sewers shall be prohibited in the Hillside Residential

(HR), Single-Family-10,000 (RS-10,000), Single-Family-7,000 (RS-7,000), Single-Family-4,000 (RS-4,000), Residential Garden-7,000 (RG-7,000), Residential Garden-4,000 (RG-4,000), Multiple-Family (RM), Affordable Family/Senior Housing (AF/SH), Mobilehome Park (MHP), Planned Community (PC), and Specific Plan/Precise Plan (SP/PP) Districts. Where otherwise permitted, private sanitary sewers shall be constructed of materials approved by the City Engineer and shall be no smaller than six (6) inches in internal diameter. Permission for private sanitary sewers shall be granted by the City only where there are no City sanitary sewers within 200 feet of the closest property in question and no more than twelve (12) units will use the private sewer at any time. The capability and intent to maintain private sewers shall be provided the City Engineer in the form of legal documents fixing such responsibility.

- (g) Sewer laterals. Sewer laterals shall be less than eight (8) inches in internal diameter and serve no more than one structure, if approved by the City Engineer. Sewer laterals shall not serve more than one property owner. Under no circumstance shall a sewer lateral join another sewer lateral. Sewer laterals shall directly join the structure served to the mainline sanitary sewer.
- (h) Private sanitation system. Private sanitation systems may be permitted by the City Engineer and Orange County Health Service Standards in the Agri-Business (A), Residential/Agriculture (RA), Single-Family-40,000 (RSE-40,000), Single-Family-20,000 (RSE-20,000), Open Space Recreation (OSR), and Specific Plan/Precise Plan (SP/PP) Districts only if all of the following criteria are met:
- (1) No public sanitary sewer with sufficient capacity shall be within 200 feet of the property.
 - (2) A soil report and percolation tests prepared by a civil engineer and engineering geologist registered in the State shall recommend, without exception, the installation of a private sanitation system.
 - (3) The system shall meet the provisions of the County Health Care Agency and the City shall approve the installation of said system.
 - (4) There shall be confirmation that no detrimental change shall occur in the ground water quality.
 - (5) The installation shall be acceptable to the City Engineer:
- (i) Reimbursement agreements. The City may require the construction and dedication of sanitary sewer facilities across the full public frontage of a development site of sufficient size to provide service for future development. The City may enter into a reimbursement agreement with the developer if development may occur on the opposite side of the project frontage.

If the City enters into such an agreement, a public meeting shall be held to determine the funds required and the area of benefit from the subject facilities. A copy of the standard City reimbursement agreement is on file and available at the City offices.

(§ 2.1.1. B (part) Ord 938, eff July 3 2008)

