



In accordance with Arizona Administrative Code Title 18 Chapter 9-E301, a new sewage collection system or an expansion to an existing sewage collection system requires a sewer design report. The report should describe the proposed construction and basis of design, provide design data and other pertinent information that defines the work to be done, and establish the adequacy of the design to meet the system demand.

In accordance with this state requirement, the city of Phoenix now requires a sewer design report be submitted for all proposed sewer systems within the city. The following is a general guideline for information to include in the report:

- **Project Description.** Describe the type of development including number of units. Provide a site map of the project showing major streets and physical features such as canals, floodplains, railroads, washes, etc. Describe the proposed collection system including lift stations and force mains. Describe the existing system adjacent to proposed development and specific locations where the proposed collection system will connect to the existing system. Show the service area that will be served by the proposed sewage collection system, including offsite areas. Show alignment of proposed off-site mains and on-site mains with diameter of 12 inches and greater.
- **Design Flows.** Provide the design average and design peak flows for the sewage collection system. The basis of the projection of initial and future flows shall be included and must be based upon the initial service area and the ultimate upstream service area that can be served by gravity even if it is outside a development's project area. Flow projections shall be based on the land use plan data calculated using the per capita flows, persons/home densities, and peaking factors in this chapter.
- **Basis of Design.** Provide the basis of design for the sewage collection system, including pipe sizes and slopes. Include the sizing calculations and calculations showing that there is sufficient hydraulic capacity to transport the design flow at the proposed sizes and slopes.
- **Conformance with Master Plans.** The engineering report shall show that the proposed collection system conforms to the city's master plan for the area and the development's specific master plan.
- **Environmental Issues.** The report shall address potential compliance issues with Clean Water Act Section 404, cultural resources, or any other environmental requirements.