

ARTICLE IX

BASIC DESIGN CRITERIA FOR STORM WATER PUMP STATIONS LOCATED OUTSIDE OF SPECIAL FLOOD HAZARD AREAS

Section ST 901

Drawings

Any plans for construction or revision of a storm water pump station shall also include a contour map of the site to be used. The drawings shall show the location of the existing pump station, the proposed pumping station including provisions for auxiliary or stand by pumps, elevation of high water at the site, one hundred (100) year flood level and maximum elevation of the storm water in the collection system during a condition of power failure. Logs of test borings, with ground water elevations, shall also be provided.

Section ST 902

Design Criteria

(a) Type

Storm water pumping stations shall be the dry well type. "Package" Plants will be approved if they conform to the following requirements.

(b) Structures

Storm water pump stations shall not be subject to flooding for the one hundred (100) year flood. Superstructures shall be located off the right-of-way of streets or alleys. The station shall be readily accessible. Inside space shall be ample enough to permit removing pumps and motors. Suitable and safe means of access, preferably stairs, to wet wells containing either bar screens or mechanical equipment requiring maintenance shall be provided.

(c) Pumps

(1) Duplication: At least two (2) pumps shall be provided. Duplicate units shall each be capable of handling flows in excess of the expected maximum flow. When several pumps of different size are provided they shall be capable of handling the expected maximum flow with the largest capacity pump out of service.

(2) Pump Openings: Pumps should be capable of passing spheres of at least three (3) inches in diameter.

(3) Priming: The pump shall have a positive head on the suction side under all conditions of operation.

(4) Intake: Each pump shall have its own individual intake.

(5) Valves: Suitable shutoff valves shall be placed on the suction and discharge lines of each pump.

(6) Controls: Provisions shall be made to automatically alternate the pumps in use.

(d) Water Supply

There shall be no physical connection between any potable water supply lines in the storm water pumping station, which under any conditions could cause pollution of the potable water supply.

(e) Power

Duplicate power supply, or emergency power generation, shall be provided. Where not feasible, provide an overflow at such elevation to prevent basement flooding or stream backup affecting operation.

(f) Construction

In all other respects, the design and construction of the pump stations shall comply with the requirements of the pertinent sections of the Ohio Basic Building Code, current edition, and the pertinent sections of the State of Ohio Department of Transportation Construction and Material Specifications, current edition, if applicable.