CITY OF EUREKA	Category:	PUBLIC SERVICES
POLICIES & PROCEDURES	Subject:	MANIFOLD SEWER CONNECTIONS
Date Adopted: December 27, 1976	File Number	6.73

POLICY OBJECTIVE

To establish procedures and standards for sewer connections to manifold force mains.

ASSIGNED RESPONSIBILITY

Public Works and Engineering Departments

APPLICABILITY

Applicable to sewer connections in areas that are to be served by manifold force mains.

PROCEDURES

A. General Policy – It is the policy of the City of Eureka to allow manifold sewer systems in areas where gravity service is not available and a limited number of connections can be made.

B. Design Requirements – The applicant for a sewer connection proposing to construct a manifold force main, or to construct a force main designated by the Public Works Director or City Engineering as a manifold force main, or to connect to an existing main thereby converting into a manifold force main shall be responsible for the submission of a plan of the complete system designed to serve all properties designated by the Public Works or Engineering Director within the manifold sewer system area. Said design shall be prepared by a registered Civil Engineer according to criteria provided by the Public Works Director or City Engineer. All aspects of the design shall be subject to the approval of the Public Works Director.

C. Criteria

1. General – The system shall be designed in conformance with the provisions of the Uniform Plumbing code and accepted engineering principles. All calculations necessary to establish that design criteria has been met shall be submitted to the City Engineer.

2. Master Plan – The design shall include a map illustrating:
    a) All properties designated as within manifold sewer system area.
    b) Size, type and length of existing and proposed lines comprising the manifold system.

c) Elevations of existing and proposed pumps to be connected to the system and elevation of discharge into gravity system.

3. Pump design criteria – The design shall include the sizing of all pumps proposed to be connected to the system. All pump data shall be submitted including pump data for existing installations. Design operating head shall be indicated for each pump both when operating individually and when operating simultaneously with all pumps on the system. Pumps shall be sized according to the following criteria:
   a) Each pump shall be capable of discharging at minimum velocity of two feet per second in the 2-inch pressure sewer lateral.
   b) Each pump shall be capable of discharging at a rate not less than the peak flow from the structure when all pumps proposed for the system are operating simultaneously. The pump may be sized for discharge less than the peak flow if it can be shown reserve holding tank capacity will store the excess sewage during the period where simultaneous pump operation would decrease pump discharge to less than peak flow. In no case, however, shall any pump be sized to discharge at a rate less than 15 gpm when all pumps on the system are operating simultaneously.
   c) All pumps and holding tank assemblies shall be located ouside of the building lines of any structure and shall be accessible for inspection and maintenance.

4. Valve Requirements:
   a) All installations shall be protected by one check valve and one gate valve. The check valve shall be located between the pump and the gate valve. The check valve shall be of a type approved by the Public Works Director or City Engineer.
   b) All valves shall be enclosed in a valve box accessible for maintenance and located within the sidewalk area of the lot served per City standard detail.

5. Line Sizing Requirements – All sewer lines shall be sized to allow for passage of solids, scouring requirements, and system pressure limitations. Design velocity and discharge shall be indicated for each line within the system.

D. Agreement – The applicant proposing to construct a manifold force main or connect to an existing main thereby converting it into a manifold force main shall enter into Agreement with the City of Eureka incorporating the following provisions:

1. The owner has full knowledge his connection is to a force main with other pressure connections.
2. The owner is responsible for maintenance of his lateral; check valves, sewage pump and all appurtenances to his pressure sewage system.

3. In the event of failure of the owner's pressure sewage system the owner holds the City harmless from any and all damages that may occur to his person or property resulting from a backflow of sewage.

4. The provisions of the Agreement shall insure to his successors.

   The agreement shall be recorded at the Humboldt County Office of the Recorder at the applicant's expense.

E. Installation – Connections shall be installed in accordance with requirements of the designed manifold system.

F. Application Subsequent to System Design – Applicants proposing to connect to an existing manifold system, which has previously been designed, shall enter into the aforementioned Agreement with the City of Eureka, and shall install the connection in accordance with the requirements of the designed manifold system.