

BOARD OF SUPERVISORS
ACTING AS
BOARD OF DIRECTORS
COUNTY OF DEL NORTE
STATE OF CALIFORNIA

RESOLUTION NO. 78-032

A RESOLUTION ESTABLISHING SERVICE AREA DESIGN STANDARDS

WHEREAS, the Environmental Protection Agency and the Water Resources Control Board have promulgated rules and regulations requiring the abatement of potential health and safety problems associated with unsatisfactory underground sewage treatment and disposal; and

WHEREAS, the Board of Supervisors, County of Del Norte, State of California, acting as the Board of Directors for Del Norte County Service Area No. I has adopted a sewer ordinance to regulate, administer and operate the sewage collection system; and

WHEREAS, the District is required under the terms of the ordinance to issue District design standards.

BE IT THEREFORE RESOLVED, that the Board of Supervisors, County of Del Norte, State of California, acting as Board of Directors for Del Norte County Service Area No. I hereby establishes District design standards as follows:

1. General

- a. All design of sewers, connections to sewers, pretreatment facilities and appurtenances which are directly or indirectly connected to the District collection system shall be designed in accordance with all State laws, District ordinances and regulations

and in accordance with generally accepted engineering practice. Any works to be constructed within public right-of-way shall be designed by an engineer licensed to practice in the State of California. Any work on private projects connected to the City system may require design by an engineer licensed to practice in the State of California, when in the opinion of the District engineer the complexity of the system requires such professional knowledge.

- b. No two adjacent buildings affronting on the same street shall be permitted to join in the use of the same lateral sewer. Every building must be separately connected with a public sewer if such public sewer exists in the street upon which the property abuts unless the parcel can be no further divided.
- c. Old lateral sewers may be used in connection with new buildings only when they are found, upon examination and tests by the District Engineer to meet all requirements of the Sanitary Code of Del Norte County Service Area No. I and District Standards.
- d. Sanitary sewage from all buildings in which any building sewer is too low to permit gravity flow to the public sewer shall be lifted by artificial means, approved by the District Engineer and discharged to the public sewer at the expense of the owner. Adequate anti-backflow devices shall be installed by the applicant.

- e. The connection of the building sewer into the public sewer shall be made at the lateral or "T" branch, if such lateral or "T" branch is available at a suitable location. Where no properly located "T" branch is available, a neat hold may be cut into the public sewer to receive the lateral sewer, with entry in the downstream direction at an angle of forty-five (45) degrees. A wye saddle shall be used for the connection and in no case shall the pipe protrude inside the main sewer. A smooth, neat joint shall be made, and the connection made secure and watertight by encasement in concrete or by other approved means. The connection to the public sewer shall be made in the presence of the District Engineer or authorized representative and installation shall be approved prior to burial. Any damage to the public sewer shall be repaired by the applicant at applicant's cost to the satisfaction of the District Engineer. All excavations for sewer installation shall be adequately guarded with barricades or lights so as to protect the public from hazard. All trenches shall be shored in conformance with Division of Industrial Safety Requirements. Streets, sidewalks, parkways and other property damage in the course of the work shall be restored in a manner satisfactory to the District Engineer at owners cost.
- f. All domestic or sanitary wastewater from restrooms, showers, drinking fountains, etc., shall be kept separate from all industrial wastewaters until the industrial wastewaters have passed through any required treatment system or device. A controlled manhole of a design approved by the District Engineer shall be furnished and installed by certain designated industrial wastewater dischargers to facilitate inspection, sampling and flow

measurements by personnel of the District and/or discharger. This controlled manhole shall be located off the industrial premises or if within the plant fence, a special locked gate adjacent to the manhole and at a location approved by the District shall be provided, with keys to the gate lock given to the District. Unrestricted access to this controlled manhole shall be available to authorized personnel of the District at all times. The controlled manhole may be used as a junction manhole for domestic sewage and industrial wastes provided the junction occurs downstream of the sampling or flow measuring point.

- g. Each discharger shall provide protection from accidental discharge of prohibited material or other wastes regulated by the Sanitary Code of Del Norte County Service Area No. I. Where necessary, or as directed by the District Engineer, retention basins, dikes, storage tanks or other devices designed to eliminate, neutralize, offset or otherwise negate the effects of prohibited materials or waste discharges in violation of the Sanitary Code of Del Norte County Service Area No. I shall be installed.
- h. Lateral sewers shall be maintained by the owner of the property served to the property line.
- i. All lateral sewers shall be tested in the presence of the District Engineer or authorized representative by filling the line with water and inspecting for excessive leakage. Fittings, plugs, water and labor for testing shall be furnished by the person constructing the sewer. All lines showing excessive leakage shall be repaired or replaced at the expense of the person doing the work and shall be done to the satisfaction of the District Engineer.

2. Technical Requirements

The following technical provisions shall be used in the design of the sewers connected to or a part of the District sewage system. Facilities for which specific requirements are not provided, District Engineer shall determine the design parameters.

1. Sizing of all sewers shall be based upon a complete drainage study of the present proposal as well as all existing and potential upstream contributing areas. Minimum main size is six (6)-inch diameter.
2. Sewer shall be designed for a per capita average flow of one hundred (100) gallons per day for residential areas. The occupancy per single family residence shall be 3.1 persons and a peaking factor of 3 shall be used.
3. Commercial and industrial areas will require the design of sewers to convey the quantities discharged as determined by the applicant's engineer or with the approval of the District Engineer.
4. Design of sewer lines will be based upon peak flows as previously described and may be modified to meet specific circumstances. Peak flows may be estimated in accordance with the standard practice adopted by the American Society of Civil Engineers in their Manual on Engineering Practice, No. 37 Latest Revision.
5. All sewers shall be designed to flow two-thirds full under peak design conditions.

6. The minimum size of a lateral sewer shall be four (4) - inch diameter. The minimum slope of a lateral sewer shall be 1.0 foot per one hundred (100) feet and the minimum cover shall be thirty (30) - inches unless a variance from these standards is given in writing by the District Engineer.
7. The minimum sewer line slopes of pipe are as follows:
 - 6"-Ø = .0050 feet per foot
 - 8"-Ø = .0033 feet per foot
 - 10"-Ø = .0025 feet per foot
 - 12"-Ø = .0020 feet per foot
 - 15"-Ø = .0015 feet per foot
8. All sewer mains and laterals may be vitrified clay pipe with gasketed, wedge-lock, band seal or equal or the appropriate class of asbestos cement sewer pipe with O-ring seal joints. Plastic sewer pipe will be allowed on lateral sewers only.
9. Manholes shall be used to make all turns.
10. Manholes on straight sewer lines shall be placed a maximum of four hundred (400) feet center to center.
11. Sewer mains in public streets shall be a minimum of twenty (20) feet from the nearest property line and shall be on a minimum two hundred (200) foot radius.
12. Manhole covers in undeveloped areas shall be set one (1) foot above existing grade.
13. All manholes shall be shown on the plans by size and properly capped to prevent inflow.
14. Cleanout or manholes shall be used on deadend lines.

15. All sewer mains in the street shall be in a location designated by the District Engineer.
16. All sewer laterals shall be extended to the property line and shall be a minimum four (4) - inch diameter but in no case shall the lateral sewer on public property be smaller than the lateral sewer on private property.
17. The lateral invert at the curb line shall be three (3) feet below the curb flow line grade.
18. Lift stations shall be avoided where possible. However, it is recognized that they may have to be constructed and the following design requirements shall be adhered to:
 - a. Pumps or ejector units shall be provided in duplicate arranged for positive priming.
 - b. Capacity shall be provided to accommodate ultimate peak flow from the tributary area. The ultimate peak flow will be comprised of the flow from the total number of houses multiplied by the appropriate peaking factor to which three thousand (3,000) gallons per diameter inch per mile per day of infiltration/inflow shall be added. Each pump shall be designed to pump the above peak ultimate flow. Staged installation of pumps is allowed if space is provided for future installation. Said future installation shall be the responsibility of the project sponsor.
 - c. Access shall be provided to the site for removal and repair of equipment.

- d. A means of dewatering force mains shall be provided and air relief valves shall be installed in force main manholes at high points in lines.
- e. Force mains shall be designed so as to pass the peak flows without excessive pressures, and the materials shall be corrosive-resistant to the type of sewage being conveyed. Force mains shall be designed to obtain a minimum of three (3) feet per second velocity during the pumping period. Minimum force main inside diameter shall be three (3) inches.

PASSED AND ADOPTED, by the Board of Superivosrs, County of Del Norte, State of California, acting as the Board of Directors for Del Norte County Service Area No. I, this 14th day of February, 1978.

AYES: Directors Justus, Fraser and Acting Chairman Smedley.

NOES: None.

ABSENT: Directors McClendon and Cochran.



ACTING CHAIRMAN, BOARD OF SUPERVISORS
AND BOARD OF DIRECTORS FOR DEL NORTE
COUNTY SERVICE AREA NO. I

ATTEST:

MABEL HURD, County Clerk-Recorder
and ex-officio Clerk to the Board

By 