

SECTION IV-1 - INTRODUCTION

1.1 Purpose

The purpose of this document is to provide guidance and design criteria by which design engineers may develop site specific plans and specifications for new wastewater lift stations which are to be turned over to the Fort Worth Water Department for ownership, operation, and maintenance.

1.2 Responsibility of Engineer

The Fort Worth Water Department requires that proposed developments provide gravity wastewater service where possible. In the case where gravity wastewater service is not possible, it is recommended that the design engineer and developer meet with Water Department staff at the earliest point possible in the development process in order to discuss design guidelines and site specific design and construction requirements.

After meeting with Water Department staff, the design engineer shall develop a preliminary report utilizing design guidelines and criteria contained within this document for submittal to the Fort Worth Water Department. The preliminary report shall be prepared by a licensed engineer in the state of Texas and shall consist of, as a minimum, the following components:

- A. Introduction and Justification for Proposed Lift Station
- B. Site Location and Conditions
- C. Wastewater Flow Analysis
- D. System Curves
- E. Electrical Power and Reliability
- F. Site Specific Issues

Upon submittal and approval of the preliminary report, the design engineer shall prepare plans and specifications for review by the Water Department. All plans, including civil, mechanical, and electrical shall be signed and sealed by an engineer licensed to practice in the State of Texas.

1.3 Design and Material Variances

The standard lift station design for the Fort Worth Water Department is a wet well with submersible pumps. These design criteria and material requirements are based on the standard lift station design. Variances to design criteria outlined within this manual shall be approved on a case by case basis. Design and material variance requests shall be submitted in writing, by a licensed engineer, to the Water Department, for approval. It should be noted that several of the design criteria listed here are also required by the TNRCC and cannot be waived by the City.

1.4 State Requirements

In addition to Fort Worth Water Department design requirements and guidelines, all lift station design and construction shall comply with federal and state requirements, including TNRCC TAC 317 – DESIGN CRITERIA FOR SEWERAGE SYSTEMS, and all subsequent revisions.