



Water, Wastewater and Reclaimed Water Technical Manual

October 2023



HILLSBOROUGH COUNTY

**WATER, WASTEWATER, AND RECLAIMED WATER
TECHNICAL MANUAL**

APPROVED

APPROVED:  10/25/2023
Lisa R. Rhea, PE Date
Director, Water Resources Department

OCTOBER 31, 2023
Effective Date



Accommodation Statement

In accordance with the requirements of title II of the Americans with Disabilities Act of 1990 ("ADA"), Hillsborough County will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. Persons with disabilities who need an accommodation for this document should contact the Hillsborough County ADA Officer at (813) 276-8401; TTY: 7-1-1.

PREFACE

This manual contains current information for designing and submitting potable water, wastewater, and reclaimed water construction plans for proposed projects to be constructed in unincorporated Hillsborough County. This manual is a readily useable reference document written in specific, concise technical language and is a compilation of existing regulations, policy statements, and engineering requirements. The manual was created to ease coordination of projects, and when applicable, facilitate the planning, design and construction of projects in conformance to the County's standards and requirements.

As material specifications, technical criteria and County polices change to meet new needs and changing technology, it will become necessary to revise and update this manual. The County's procedure for making revisions which includes issuing technical bulletins, accepting public comments, and requesting design exceptions can be previewed on the County's website at www.hillsboroughcounty.org. In addition, you can submit comments and suggestions for changes to the manual using the online "Comment on PUD / PW Technical Publications" form located on the County's website.



TABLE OF CONTENTS

SECTION 1.0	PROJECT REVIEW AND ACCEPTANCE PROCESS	1-1
1.1	INTRODUCTION	1-1
1.2	PROJECT REVIEW PROCESS – DEVELOPER INSTALLED PROJECTS.....	1-1
1.3	RIGHT-OF-WAY USE PERMIT SUBMITTALS.....	1-3
1.4	DEDICATION OF EASEMENTS	1-4
1.5	AUTHORITY OF INSPECTORS	1-4
1.6	REQUIREMENTS OF ACCEPTANCE	1-4
1.7	UTILITIES PRODUCT REVIEW COMMITTEE.....	1-8
1.8	DESIGN EXCEPTIONS.....	1-8
SECTION 2.0	PREPARATION OF MASTER PLANS, CONSTRUCTION PLANS, AND RECORD DRAWINGS	2-1
2.1	MASTER PLAN.....	2-1
2.2	CONSTRUCTION PLAN FORMAT.....	2-2
2.3	STANDARD ITEMS FOR CONSTRUCTION PLAN REVIEW	2-4
2.4	RECORD DRAWING SUBMITTALS FOR WRD.....	2-7
SECTION 3.0	SPECIFICATIONS FOR DRINKING WATER DISTRIBUTION SYSTEMS DESIGN	3-1
3.1	GENERAL.....	3-1
3.2	PLANS PREPARATION	3-1
3.3	PLANS REVIEW	3-1
3.4	PROJECT ACCEPTANCE.....	3-2
3.5	SYSTEM DESIGN AND FLOW CRITERIA.....	3-2
3.6	WATER DETAILS.....	3-5
SECTION 4.0	SPECIFICATIONS FOR WASTEWATER SYSTEMS DESIGN.....	4-1
4.1	GENERAL.....	4-1
4.2	PLANS PREPARATION	4-1
4.3	PLANS REVIEW	4-1
4.4	PROJECT ACCEPTANCE.....	4-2
4.5	SYSTEM DESIGN AND FLOW CRITERIA.....	4-2
4.6	WASTEWATER DETAILS	4-5
SECTION 5.0	SPECIFICATIONS FOR RECLAIMED WATER SYSTEMS DESIGN	5-1
5.1	GENERAL.....	5-1
5.2	PLANS PREPARATION	5-1
5.3	PLANS REVIEW	5-2
5.4	PROJECT ACCEPTANCE.....	5-2
5.5	SYSTEM DESIGN.....	5-2
5.6	RECLAIMED WATER DETAILS	5-3

LIST OF TABLES

Table 2-1: Special Circumstances (Design Exceptions)	2-4
Table 3-1: Water Flow Peaking Factors	3-3
Table 4-1: Wastewater Flow Peaking Factors	4-2

LIST OF FIGURES

Figure 3-1: Water Detail No. TMW-1	3-5
Figure 4-1: Wastewater Detail No. TMS-1	4-5
Figure 5-1: Reclaimed Water Detail No. TMR-1	5-3

APPENDICES

APPENDIX 1: CONSTRUCTION PLAN CHECKLIST

APPENDIX 2: CONSTRUCTION FEATURE INFORMATION AND ASSET DATA SPREADSHEETS

- EXHIBIT PIPE ASSETS
- EXHIBIT PROJECT NODE MAP
- POTABLE WATER ASSET DATA
- GRAVITY WASTEWATER ASSET DATA
- FORCE MAIN WASTEWATER ASSET DATA
- PUMP STATION WASTEWATER ASSET DATA
- RECLAIMED WATER ASSET DATA

APPENDIX 3: OVERSIZING PROCESS AND OVERSIZING REIMBURSEMENT PROGRAM