# Roadway Design & Construction Manual (Table of Contents)

### 1. Chapter 1: General Provisions

- 1.1 Short Title
- 1.2 Jurisdiction
- 1.3 Purpose and Effect
- 1.4 Enactment Authority
- 1.5 Amendment and Revisions
- 1.6 Enforcement Responsibility
- 1.7 Review and Approval
- 1.8 Interpretation
- 1.9 Other Regulatory Agencies

### 2. Chapter 2: Construction Drawing Requirements

- 2.1 Cover Sheet
- 2.2 Plan
- 2.3 Profile
- 2.4 Cross Sections
- 2.5 Striping and Signing Plan
- 2.6 Details
- 2.7 Standard Notes
- 2.8 GIS Requirements (Digital Records)
- 2.9 AS-Built Standards and Requirements

(can we just AS-BUILT or RECORD DRAWINGS??)

#### 3. Chapter 3: Design and Technical Criteria

- 3.1 General Requirements
- 3.2 Street/Road Types
- 3.3 Functional Classification
- 3.4 Standard Templates
- 3.5 Horizontal Alignment
- 3.6 Vertical Alignment
- 3.7 Intersections and Driveways
- 3.8 Sight Distances
- 3.9 Drainage
- 3.10 Traffic Control
- 3.11 Miscellaneous

- 4. Chapter 4: Pavement Design and Technical Criteria
  - 4.1 General Requirements
  - 4.2 Pavement Design and Report Submittal
  - 4.3 Subgrade Investigation
  - 4.4 Pavement Design Criteria
  - 4.5 Pavement Design Procedure
  - 4.6 Material Specifications
- 5. Chapter 5: Construction Specifications and Standards
  - 5.1 Construction Specifications
  - 5.2 Construction Standards
- 6. Definitions
- 7. Examples: Standard Templates
- 8. Examples: Construction Standards
- 9. Design Nomographs for Pavements
- 10. Resolution

# **Storm Drainage Design & Technical Criteria** (Table of Contents)

#### **Section 1: General Provisions**

- 1.1 Short Title
- 1.2 Jurisdiction
- 1.3 Purpose and Effect
- 1.4 Enactment Authority
- 1.5 Amendment and Revisions
- 1.6 Enforcement Responsibility
- 1.7 Review and Approval
- 1.8 Waivers
- 1.9 Interpretation
- 1.10 Relationship to Other Standards
- 1.11 Abbreviations

### Section 2: Drainage Planning Submittal Requirements.

- 2.1 Introduction
- 2.2 Phase I Drainage Report
- 2.3 Phase II Drainage Report
- 2.4 Phase III Drainage Report
- 2.5 Abridged Drainage Report
- 2.6 Exception to The Requirement for a Drainage Report
- 2.7 Construction Plans
- 2.8 As-Built Drawings and Final Acceptance Certificate
- 2.9 Residential Lot Grading Certificate

### **Section 3: Drainage Policy**

- 3.1 Introduction
- 3.2 Basic Principles
- 3.3 Multi-Purpose Resource
- 3.4 Water Rights
- 3.5 Major Drainageway
- 3.6 Regional and Local Planning
- 3.7 Post Development Flow Conditions
- 3.8 Master Planning
- 3.9 Drainage Problem Areas
- 3.10 Public Improvements
- 3.11 Basin Transfer
- 3.12 Storm Runoff Detention
- 3.13 Stormwater Quality

- 3.14 Floodplain Management 3.15 **Operations and Maintenance** 3.16 **Drainage Easement Requirements** 3.17 Storage Facilities 3.18 **Inadvertent Detention Storage** 3.19 Planning and Design 3.20 Minor and Major Drainage System 3.21 Storm Runoff 3.22 Streets 3.23 Flood proofing Existing Structures **Section 4: Floodplain Regulations** 4.1 Introduction Section 5: Rainfall
- - 5.1 Introduction
  - 5.2 Napa County Rainfall Zones
  - 5.3 Description of the Zones
  - 5.4 Selecting the Rainfall Zone
  - 5.5 California Urban Hydrograph Procedure Deign Storms
  - 5.6 Time-Intensity-Frequency Curves

#### Section 6: Runoff

- 6.1 Introduction
- 6.2 Rational Method
- 6.3 California Urban Hydrograph Procedure
- 6.4 **Storm Flow Analysis**

#### **Section 7: Open Channels**

- 7.1 Introduction
- 7.2 **Channel Types**
- 7.3 Flow Computation
- 7.4 Design Standards for Major Drainage ways
- 7.5 Design Standards for Small Drainage ways
- 7.6 Street/Roadside Ditches
- 7.7 **Channel Rundowns**
- 7.8 **Cross-Sections**

#### **Section 8: Storm Sewers**

- 8.1 Introduction
- 8.2 **Construction Materials**

- 8.3 Hydraulic Design
- 8.4 Vertical Alignment
- 8.5 Horizontal Alignment
- 8.6 Pipe Size
- 8.7 Manholes

#### **Section 9: Storm Sewer Inlets**

- 9.1 Introduction
- 9.2 Standard Inlets
- 9.3 Inlet Hydraulics
- 9.4 Inlet Spacing
- 9.5 Inlet Capacity

#### Section 10: Streets

- 10.1 Introduction
- 10.2 Function of Streets in the Drainage System
- 10.3 The Allowable use of Streets/Roads as a Drainage System
- 10.4 Hydraulic Evaluation

#### **Section 11: Culverts**

- 11.1 Introduction
- 11.2 Culvert Hydraulics
- 11.3 Culvert Design Standards
- 11.4 Design Example
- 11.5 Culvert Sizing Criteria

# **Section 12: Hydraulic Structures**

- 12.1 Introduction
- 12.2 Conduit Outlet Structures
- 12.3 Channel Grade Control Structures
- 12.4 Bridges
- 12.5 Irrigation Ditch Crossings

### **Section 13: Erosion Control**

- 13.1 Introduction
- 13.2 Temporary Erosion Control for Construction Activities
- 13.3 Permanent Controls for Storm Water Quality Management

#### **Section 14: Detention**

- 14.1 Introduction
- 14.2 Detention Methods

14.3 Design Criteria
14.4 Design Standards for Open Space Detention
14.5 Design Standards for Planned Unit Development
14.6 Design Standards for Parking Lot Detention
14.7 Design Standards for Underground Detention
14.8 Design Standards for Combined Detention Ponds
14.9 Design Examples

# **Appendix**

Checklist Standard Forms Standard Details

**List of Tables** 

**List of Figures**