

Salt Lake City
Department of Public Utilities
Technical Drainage Study Checklist



The following items must be included in each technical drainage study. All residential projects greater than 2 acres and all other projects greater than 1 acre require a technical drainage study. Revision to sites that are greater than 1 acre and changing more than 15,000 square feet also require an amended drainage study. Provide a copy of this checklist with the Technical Drainage Study. SLC Code Chapters 17.81 and 17.84. SLC Code Chapter 21A.34 Utah Administrative Code R317-8

- ☐ **Project Information**
 - Title Page
 - Project Name, Address, Date
 - Preparer's Name, PE Stamp and Signature
- ☐ **General Location and Description**
 - Vicinity Map
 - General Oject Description and Proposed Use
 - Site Conditions
 - Topography
 - Project Site Area (Acres)
 - Limits of Disturbance
 - Existing Waterways
 - Soils Information
 - Survey Control
- ☐ **Drainage Basin**
 - Drainage Basin(s)
 - Existing Offsite Drainage
 - Existing On Site Drainage
 - Master Plan
 - Floodplain information
 - Previous Drainage Studies
- ☐ **Proposed Drainage Plan**
 - General Description
 - Offsite Drainage
 - On Site Drainage
 - Summary of Hydrologic Analysis
 - Summary of Facility Design
 - Criteria and Control Elements
- ☐ **Stormwater Quality**
 - Post Construction Water Quality Plan
 - Structural Control Measures
 - Non Structural Control Measures
 - Green Infrastructure (Bioswale, infiltration basin wetlands, vegative buffer, etc.)

- ☐ **Analysis**
 - Hydrologic
 - Design Storm and Rainfall Discussion
 - 3 Hour / 10 and 100 year / Farmer Fletcher Distribution
 - Discussion of runoff calculations
 - Routing plan Discussion and Schematic
 - Discussion and Description of Hydrologic Model
 - Detention location and sizing
 - Storage Calculation based on 0.2 cfs discharge
 - Hydraulic
 - Street Capacity
 - Depth and Flow calculations
 - Pipe Capacity
 - Overflow path and discharge locations
 - Overflow path and discharge locations
- ☐ **Conclusions**
 - Summary
 - Compliance statement
- ☐ **Appendix**
 - Checklist
 - Grading and Drainage Plan (24x36 and 11x17)
 - Offsite grading or discharge agreements*
 - Flood Plain Development Permit*
 - Salt Lake County Flood Control Permit*
 - Percolation and Geotechnical Report*
 - Calculations and Model Input/output (HEC-HMS, SWMM5, Rational)
 - Pipe and inlet capacity
 - Rainfall data
 - Stormwater Basins
 - Detention sizing
 - Stormwater Quality
 - Maps
 - FEMA FIRM
 - Soils Map
 - Vicinity Map

* If applicable

Project: _____

Address: _____

Submitted by: _____

Date: _____

Phone: _____

Email: _____

Refer to the Salt Lake City Public Utilities Drainage Regulations Manual and the Salt Lake City Design Process Guide for additional information and guidance.