



STORMWATER MANAGEMENT SITE PLAN CHECKLIST

Date: _____ Project Name: _____

Project Address: _____

Owner Name: _____

Owner Address: _____

Phone Number: _____ Owner Email: _____

Project Description: _____

STORMWATER MANAGEMENT SITE PLAN

This checklist presents the required elements of a stormwater management plan. This checklist must be submitted to Maryville Engineering and Public Works along with the stormwater management plan. Each element presented in this list must be checked "Yes", as applicable to the site. Checks placed under the "No" column must be justified in a written statement attached to this checklist. Elements of the stormwater management plan that are not applicable for the site must be marked as "N/A".

STORMWATER

Yes No N/A

1. Cover Sheet

- a. Title of report
- b. Date of report completion/submittal and dates of any revisions
- c. Project name, address, and Building Permit File number, if applicable
- d. Name, address, email address, and phone number of applicant
- e. Name, address, email address, and phone number of engineering firm responsible for report preparation
- f. Seal/signature of the Tennessee Registered Professional Civil Engineer responsible for preparing the report
- g. A blank box, 1.5 inches (width) x 0.5 inches (height). "For City of Maryville Use Only" shall be just written above or below the box

Yes No N/A

2. Table of Contents

- a. All report pages, including any appendices, shall be numbered sequentially
- b. List of all tables and illustrations

Yes No N/A

3. Introduction

- a. Location map showing the project in relation to adjacent properties, streets, and nearby watercourses
- b. Description of the existing and proposed land use/project, drainage patterns, natural watercourses, drainage problems, and floodplain status within the development
- c. Summary of any previous hydrologic/hydraulic studies or other information which pertain to the development or property
- d. Effect of proposed grading and/or construction on major drainage conveyances

STORMWATER MANAGEMENT SITE PLAN CHECKLIST

(Page 2 of 5)

Yes No N/A **4. Objectives and Procedures Section**

- a. Brief summary of the purpose of the report in relation to the project (e.g., subdivision, single-lot residential, single-lot non-residential, etc.)
- b. Description of the methodologies, assumptions, and procedures used in preparing the report
- c. Description of all applicable development standards, policies, stormwater requirements, and floodplain regulations to which the proposed development must adhere

Yes No N/A **5. Hydrology Section**

- a. Drainage maps (drawn to scale) for pre- and post-development conditions which clearly depict contributing watersheds, sub-basins, runoff concentration points, site outfalls, flow patterns, measured flow lengths, and topographic elevations and contours
- b. Hydrologic data sheets, for both pre- and post-development conditions for each runoff concentration point including time of concentration calculations, rainfall intensities, runoff coefficients or curve numbers, and peak discharges
- c. Summary table listing all runoff concentration points, corresponding drainage areas, calculated peak discharges for pre- and post-development conditions, and differences in discharges

Yes No N/A **6. Hydraulics Section**

- a. Open channel design and capacity computations
- b. Design computations for all culverts, storm drains, inlets, and street sections. Storm drain design shall include a labeled schematic of the storm drain network, design discharges, pipe capacities, profiles, outlet velocity, and hydraulic grade line
- c. All supporting data, printouts, tables, nomographs, etc., which are referenced in the report

Yes No N/A **7. Stormwater Management System Section**

- a. Site plan (to scale) which clearly shows the locations and dimensions of all proposed stormwater management system components that will be constructed in order to comply with the stormwater system criteria defined in the Water Quality and Vegetated Buffers Ordinance and Land Development/Public Works Standards. This includes stormwater management facilities utilized for stormwater quality treatment, channel protection, overbank flood protection, and extreme flood protection. At a minimum, the site plan shall include the following:
 - Location, dimensions, elevations, contours, characteristics, cross sections, profiles, and details for all existing and proposed drainage facilities, retaining walls, and other protective devices
 - Location, size, and type(s) of inflow and outflow structures
 - Cross-sections of all open channels and stormwater management facilities basins, including design water surface elevation(s)
 - Stormwater Management Facility design details and cross-sections. Capacity, discharge(s), spillways, and the 100-year flood elevation for all stormwater management facilities. Shading of the area inundated by the 100-year flood elevation is recommended
 - Approximate location and size of all drainage, water quality, and other easements
 - Maximum water surface elevations, limits of ponding, and typical facility cross-section(s)
 - Flow arrows, drainage divides, contours, and finished grades
- b. Description of how the overall stormwater facility design will comply with City water quality, channel protection, overbank flooding, and extreme flooding design criteria
- c. Water quality volume (WQv) calculations. This will include calculations of total impervious area, the WQv for the entire site before and after consideration of any applicable WQv reductions, and the design WQv and percent removal of total suspended solids (% TSS) for each stormwater management facility that is designed for the purposes of water quality treatment

STORMWATER MANAGEMENT SITE PLAN CHECKLIST

(Page 3 of 5)

- d. Location, size (if applicable), and description of any WQv reductions that have been included in the WQv calculation. Sufficient information must be presented for each reductioned area to show that the area or BMP conforms with the Design/Implementation Criteria presented for the reduction in Volume II Chapter 5 of the Knox County Stormwater Management Manual. Examples of such information include, but are not limited to, a description of existing and proposed vegetation, proposed vegetation management, contributing flow path length, contributing slope percentage, level spreader design calculations, soils permeability and flow velocity.
- e. Channel protection volume (CPv) calculations performed in accordance with the design criteria stated in the Policy Manual for Stormwater Quality Management
- f. Calculations to show compliance with overbank flood protection (Qp2 thru 50) and extreme flood protection (Qp100) design criteria, including detention volume computations, if applicable
- g. Detailed reservoir routing calculation sheets for all required design storms.
- h. Plotted inflow and outflow hydrographs (preferably superimposed)

Yes No N/A **8. Sinkhole Drainage Calculations (Refer to Maryville Sinkhole Development Policy)**

Yes No N/A **9. Summary and Conclusions**

Yes No N/A **10. Appendices**

STORMWATER SITE PLAN

Yes No N/A **1. Date(s) of preparation and any revision(s)**

Yes No N/A **2. Seal/signature of responsible engineer**

Yes No N/A **3. Vicinity map including:**

- a. North arrow
- b. Scale
- c. Adjacent roadways
- d. Boundary lines of site
- e. On-site and nearby watercourses
- f. Other necessary information to locate the development site

Yes No N/A **4. Maps (to scale) which clearly show:**

- a. The following lines with accurate bearings and distances:
 - Property boundaries
 - Right-of-way lines of streets and/or Joint Public Easements
 - Utility access or other easements
- b. The location of the
 - 100-year floodplain
 - 500-year floodplain
 - 100-year regulatory floodway
 - Required minimum floor elevations (MFEs)
- c. An Environmental Features Inventory, which shows the boundaries of streams (stream names must be shown if known), wetlands, sinkholes, springs, forested areas and grassed areas
- d. Water Quality Buffers
 - Location, width, outer boundary, and zone boundaries (on streams)
 - The statement "Water Quality Buffer. Do Not Disturb" clearly shown
 - A description of the existing and proposed (if different from existing) vegetation in the

STORMWATER MANAGEMENT SITE PLAN CHECKLIST

(Page 4 of 5)

water quality buffer areas must be included on the site plan, or as a separate description. For example, a statement on the site plan such as “undisturbed forest vegetation”, or “early successional forest” is sufficient for the inner zone of a stream buffer provided that the existing vegetation, in fact, meets one of these descriptions.

- Yes No N/A **5. Plan and profile view of proposed closed system drainage and post construction BMP/SCM installations. Profile views should include any existing or proposed utilities that may be in conflict with the proposed stormwater infrastructure**
- Yes No N/A **6. Plan sheets showing any existing or proposed drainage swales and stormwater detention areas**
- Yes No N/A **7. Pipe and structure tables showing pipe material, length, diameter, slope, invert, and structure material with top elevations**
- Yes No N/A **8. Construction notes, specifications, and design details for any existing or proposed stormwater system components**
- Yes No N/A **9. Include City of Maryville Detail Sheet**

EROSION PREVENTION SEDIMENT CONTROL PLAN

FOR SITE DEVELOPMENTS DISTURBING 1 ACRE OR MORE THE SWPPP PREPARED FOR THE TDEC NOTICE OF COVERAGE (NOC) SHALL BE USED FOR THE EPSC PLAN SUBMITTAL FOR THE PROPOSED SITE PLAN.

- Yes No N/A **1. Date of EPSC plan and date of any revision(s) on plan sheets**
- Yes No N/A **2. Seal/signature of responsible plan preparer**
- Yes No N/A **3. Operator contact information, if different from owner**
- Yes No N/A **4. Land use and drainage**
- a. Description of the existing and proposed land use/project or the reason for grading
 - b. Drainage patterns
 - c. Drainage problems
- Yes No N/A **5. Maps (to scale) which clearly show the following items:**
- a. A priority construction activity notation, if applicable. If the site is considered a priority construction activity, the following statement must be included on all map pages: “This site is a Priority Construction Activity.”
 - b. Existing and proposed topographic contours
 - c. Wetlands
 - d. Watercourses
 - e. Water bodies
 - f. Sinkholes
 - g. Springs
 - h. Intermittent conveyances
 - i. EPSC measures for each phase of grading
 - j. Location(s) of any existing and proposed stormwater management structures or facilities.
 - k. Limits of proposed clearing, grading, filling and/or other land disturbing activities.
 - l. Location(s) of vegetative areas and areas that will be preserved/conserved as buffers or natural space after construction
 - m. Outfall points for stormwater discharges from the site

STORMWATER MANAGEMENT SITE PLAN CHECKLIST

(Page 5 of 5)

- Yes No N/A **6. Seeding and stabilization specifications, including temporary and permanent ground covers, mulch and mulching rates, soil amendments, and methods for anchoring mulch.**
- Yes No N/A **7. A general description of the method(s) used to ensure that natural areas and buffers that will be preserved after construction will remain undisturbed during grading and construction.**
- Yes No N/A **8. A copy of the Tennessee Construction General Permit Notice of Coverage and Stormwater Pollution Prevention Plan (if not the same as the EPSC Plan) submitted to TDEC for the land disturbing activities detailed in the EPSC plan.**
- Yes No N/A **9. Any other information deemed necessary and appropriate by the permit applicant, owner or operator or as requested by the Director of Engineering and Public Works or his/her designee.**
- Yes No N/A **10. The following statement is required on all EPSC plans:**
"Adequate drainage, erosion and sediment control measures, best management practices, and/or other stormwater management facilities shall be provided and maintained at all times during construction. Damages to adjacent property and/or the construction site caused by the contractor's or property owner's failure to provide and maintain adequate drainage and erosion/sediment control for the construction area shall be the responsibility of the grading permittee."

SUBMITTED BY:

Print Name: _____

Company Name: _____

Address: _____

Phone Number: _____ **Email:** _____

Signature: _____