

DEVELOPMENT ENGINEERING DIVISION CHECKLIST ENVIRONMENTAL CONCEPT PLAN

To be completed by the applicant using resources from Section 5.1 of the Stormwater Design Manual and MDE Volume s I and II. It is to be signed by the appropriate design professional with the initial document submittal. Subsequent checklist submittals will be at the discretion of the Development Engineering Division, Land Development DPZ.

I. SUBMISSION DOCUMENTS

- A. Environmental Concept Plan
- B. Preliminary Stormwater Management Report
- C. Alternative Compliance Petitions and Design Manual Waiver requests submitted under separate cover with appropriate fees and justification
- D. Non-tidal Wetlands Report
- E. Preliminary Floodplain Report
- F. Forest Stand Delineation map and report
- G. Please contact Howard Soil Conservation District concerning separate submittal requirements

II. GENERAL INFORMATION

- A. Standard title and signature blocks (ALL SHEETS)
 - 1. Owner/Developer name, address, and phone number
 - 2. Design Professional name, address, phone number, seal, signature, date
 - 3. Project name, zoning, tax map, election district, street address, parcel number
 - 4. Provide a standard Howard County approval signature block for the DLD Division Chief and the DED Division Chief with a date

APPROVED:	DEPARTMENT OF PLANNING AND ZONING
_____	_____
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
_____	_____
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

- 5. All originals submitted for signature approval must be made of durable reproducible mylar material. No sepia or tracing paper and no stick-ons
- B. Vicinity map requirements (COVER SHEET)
 - 1. Scale 1"=2000', north arrow shown
 - 2. ADC Map Coordinates
 - 3. Two (2) Howard County Geodetic Coordinates shown and labeled
 - 4. Site Delineated
- C. Notes and information (COVER SHEET)
 - 1. Design narrative describing how natural areas will be preserved and how Environmental Site Design (ESD) may be achieved for meeting stormwater requirements
 - 2. Site Analysis Data Sheet (identifying area in acres of the site and environmental areas including: Wetlands (buffer), floodplains (buffer), forests, and steep slopes 15% and greater, delineation of erodible soils), **include acreages for total** project area, LOD area, proposed site uses, green open area and impervious area
 - 3. Legend
 - 4. Sheet Index (if applicable)
 - 5. Include any applicable DPZ file references
 - 6. Document any waivers obtained for disturbance to environmental areas

D. General Sheet Information (ALL SHEETS)

1. Plan Scale 1"=10' to 1"=50'
1. Minimum three (3) grid ticks on plan sheets
2. North Arrow
3. Match lines labeled and referenced
4. Design Professional's seal, signature and date
5. Sheets numbered
6. Plan sheet size to be 24" x 36" and folded to a size of 7 1/2" x 12"

E. Topographic Information

1. Onsite existing contours labeled (at no greater an interval than 2') (**Howard County GIS may be used**)
2. Offsite topography shown within 200' of all property lines (**Howard County GIS may be used**)
3. Existing features, trees, buildings, pavement, utilities, etc., within 200' shown and labeled where appropriate

F. Base Information on Concept Plan

7. Existing Conditions
 - a) Streets-existing rights of way, property lines, all easements, pavement width, and street names shown and dimensioned
 - b) Existing Utilities – water and sewer, contract numbers, existing storm drains with size

III. CONCEPT PLAN

At a minimum the concept plan should include the following:

- A. Onsite existing contours labeled (at no greater an interval than 2') (Howard County GIS may be used)
- B. Offsite topography shown within 200' of all property lines (Howard County GIS may be used within 200')
- C. Location of all Natural Resources shown in Table 5.1 of Stormwater Management Design Manual, Volumes I & II
- D. Field verification from the appropriate professional for the natural resources map
- E. Proposed limits of clearing and grading (**L.O.D.**)
- F. Conceptual erosion and sediment control features with approximate outfalls
- G. Location of proposed impervious areas (buildings, roadways, parking and sidewalks, etc.)
- H. Location of existing and proposed utilities
- I. Preliminary estimates of stormwater requirements. Provide a table on the plan identifying what practices area proposed to meet the stormwater requirements on a lot by lot or parcel breakdown
- J. Stable conveyance of stormwater at potential outfall locations
- K. A narrative that supports the concept and describes how the design will achieve the following:
 1. Natural resource protection
 2. Maintenance of natural flow patterns
 3. Reduction of impervious areas through better site design, alternative surfaces and nonstructural practices
 4. Integration of erosion and sediment controls into the stormwater strategy
 5. Implementation of ESD planning techniques and practices to the Maximum Extent Practicable (MEP)
 6. Request for Design Manual and Waiver Petition for environmental and stormwater design. Also, include any justification for a determination of essential or necessary disturbances per Section 16.116(c) of the Subdivision and Land Development Regulations
- L. Show existing property lines with bearings and distances
- M. Delineation of limit of wetlands, streams, 100-year floodplain, steep slopes of 25% or greater and required 25', 50', 75' or 100' buffers
- N. Show and label the existing and proposed tree lines
- O. Show proposed subdivision lot or parcel layout with lot numbers, including open space lots and proposed roads.

IV. STORMWATER MANAGEMENT (ESD to the MEP) REPORT

NOTE: Other agencies reserve the right to enforce more stringent criteria and should therefore be consulted as to their additional requirements. The more restrictive criteria shall govern.

- A. Hydrology Submission
 - 1. Proposed Drainage Area Map
 - a) Location of ESD practices and corresponding outfalls
 - b) Conceptual grading to justify volume, surface area and outfall location
 - c) Location of structural practices and corresponding outfalls
 - d) Conceptual grading to justify volume, surface area and outfall location
 - e) Summary table with Preliminary estimates of stormwater requirements
 - 2. Hydrology Computations (ESD, Rev, TR-55 & TR 20 Methods Only)
 - a) Preliminary calculations determining rainfall target (Pe)
 - b) Reduced curve numbers if alternative surfaces are applied and runoff volume (ESDv) for each design point
- B. Report Submission
 - 1. Title Page
 - a) Job Name
 - b) Owner
 - c) Design Professional
 - d) Date Prepared
 - e) Seal and Signature
 - 2. Table of Contents
 - a) Sections Listed
 - b) Appendix Listed
 - c) Figures and Tables Listed
 - 3. Narrative
 - a) Introduction – gives overview of what is contained in report
 - b) General site information: (i.e. acreage, zoning, location, slopes, soils, vegetation, average conditions, variances, restrictions, etc.)
 - c) Impervious cover information
 - d) Site Specific Information:
 - 1. Justification for type of system used based ESD to the MEP
 - 2. Methodology/analysis used for design (reference assumptions)
 - e) Conclusions and recommendations
 - f) Appendix (contains all computations, design charts and relevant data references. Number all sheets and provide list of included computations in the table of contents)
 - 4. Submission of environmental waiver or alternative compliances requests

Check the Help and Resources instructions accessible from the ProjectDox login screen for the appropriate locations to upload all documentation including this checklist. Once you have completed your uploads, remember to complete your ProjectDox task.