

Project Name-Number						
Design Professional		Design Professional Certification (Seal, Signature and expiration information)		Seal		
Instructions: 1. The checklist must be submitted with the first submittal. 2. Packages submitted without the completed checklist will not be reviewed and will be returned to the applicant. 3. Design Professional (Des.) should insert into each box either of the following: a. ✓ This item has been addressed b. N This item does not apply to this project 4. All boxes must be checked. 5. The review engineer (Rev.) will upon review of the plans verify by inserting either of the following: a. ✓ This item has been adequately addressed or agree that it does not apply. b. X This item has not been adequately addressed. (Use the remarks column to indicate via letter designation, which item needs to be addressed or if a more detailed response is required then indicate in the remarks column that the item is addressed in the comment letter). 6. A copy of the checklist will be returned to the applicant as an attachment to the comment letter. 7. The Checklist must be returned with the second submittal utilizing the same check format indicated in item 3 above.						
.		This checklist is being provided as a general guide for identifying the minimum features that should be addressed prior to submitting the plans for review.				
.		Plans are to be designed based on the standards set forth in the appropriate design manuals as stipulated in the Anne Arundel County Code.				
.		The design consultant, by assigning his/her seal and signature, certifies that the plans were completed in accordance with the current design standards.				
.		Plans lacking all information required by this checklist will be deemed incomplete and returned to the consultant without the benefit of review. The submittal date will not be established until complete plans and all required attachments have been submitted for review.				
.		Efforts should be made to limit the number of plan sheets to five (5).				
		Submittal		Submittal		
		Des. Rev.		Des. Rev.		
		Sketch Plan-Preliminary Plan Checklist (Also used as SWM Concept Plan)				Remarks
Applicable to all plan sheets						
1					Size: 24" x 36"	
2					Title block shall include: A) Project Name and number B) Sheet Title C) Date, D) Tax Map, Block and Parcel E) Assessment District	
3					Block with design consultant information including signature and seal of a Design Professional registered in the State of Maryland (Comar, Section 14-101).	
4					A) Legend B) North Arrow (NAD 83) C) Scale: Centered below applicable plan or profile	
5					Drafting: A) labeling is legible (not overlapping, etc.) lines/line weight and symbols used are defined in legend B) Match lines shown were applicable and correctly labeled.	
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Cover Sheet						
6					Legal name, address, telephone number and email address of the owner, developer, applicant, and design consultant;	
7					Vicinity Map (minimum 4" x 4" Scale 2000' = 1") (Title Sheet) A) Located in upper right hand corner, B) North arrow shown to top C) Scale shown D) Roads labeled	
8					Location Plan Scale 1"=200' A) Shows actual location of project and surrounding streets	
9					Index of Drawings Table: All drawing titles are shown in table and labeled accordingly	

10					Benchmark - B. M. number., description and elevation. (Vertical control NAVD 1929 or NAVD1988) consultant must indicate which is used. No assumptions	
11					Tabulate: Provide a table that shows the following information: A) 10-year post-development discharges to the DPs and POIs B) Existing and proposed 10-year discharges at all SOs C) Ratio of post-development discharge at DPs to POIs.	
12					Outfall Statement(s): A) Provide a description for each discharge point from the site. B) If the discharge outfalls to an open drainage system, describe the condition of the drainage system indicating whether or not erosion is evident between the discharge points and the POI. Include separate statements regarding the site outfalls, where the drainage leaves the property	
13					Provide a tax-map layout that shows the location of the site and abutting parcels, at a scale that allows clear depiction of information presented	
	Sheet 2 - Existing Conditions and Resource Mapping					
14					A site outline showing bearings and distance (Information obtained from plats and deeds is sufficient at this stage) <i>Do not show lease lines as property lines</i>	
15					The zoning of the lot (show division lines and identify acreage of each zoning classification)	
16					Adjacent property information, including names, addresses, tax account numbers, deed reference and zoning	
17					The location, dimension and label of existing structures, driveways, sewers, water lines, storm drains, etc. on and within 100 feet of the site boundary	
18					The location of existing private onsite water and sewerage facilities; Offsite well and septic within 100' of the site boundary	
19					Topography (2 foot contours) extending a minimum of 100 feet beyond the site boundaries (County topo is allowed at this stage)	
20					If natural drainage patterns within site are not clearly depicted by topographic information, provide flow arrows etc. that show patterns	
21					Pre development discharge points from the site	
22					Bog Contributing Drainage Area and Bog Protected Streams	
23					Delineate and label all environmentally sensitive areas, Critical area and stream buffers, wetlands, steep slopes, floodplains, existing and proposed forest conservation areas, and all existing and proposed areas considered off-limits to development.	
24					Label the remaining area (outside of the boundary of area delineated "item 23") as Buildable envelope.	
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25					The Critical Area boundary and classifications and a tabulation of acreage by Critical Area classification (LDA, RCA or IDA)	
26					Soils labeled and shaded based on Hydrologic Soil Group (A, B, C, D).	
27					Tabulations including the gross area of the lot, floodplain, wetland, wetland buffer, stream buffer and existing impervious coverage in acreage and square feet, ratio of existing impervious coverage to total site area, and linear feet of stream per classification	
28					The location and size of all existing easements with label explaining the purpose and recording references	
29					The location of slopes by categories of 15 to <25% and 25% and greater; steep slope buffer	
30					The location and label of 100-year floodplain, including FEMA floodplain; the location of costal floodplain and coastal high hazard areas	
31					Tidal and nontidal wetland limits based on wetland study, Wetlands of Special State Concern and wetland buffer	
32					Streams with classification labeled (Ephemeral, Intermittent, Perennial,) and stream buffer	

33					Bog limits, bog 100-foot upland buffer, and bog limited activity area, based on bog study and bog buffers	
34					Critical Area 100-foot buffer, expanded buffer and Habitat Protection Areas	
35					Identification and location of rare, threatened, or endangered species habitat	
36					Highly erodible soils indicated by separate shading	
37					The location of all historic resources, archaeological sites and cemeteries	
38					Identification and limits of Greenway	
39					Existing forest line	
40					Specimen trees and associated critical root zone (label type, size in dbh and health)	
41					Show clear delineation of the areas that are to be protected from development including, but not limited to, Items 26 through 40	
42					Certification note: provide a note, signed and sealed by the design professsional, certifying that the location of all natural and man made features shown on the plan have been field verified	
	Sheet three - Establish and show the Point(s) of Investigation POI					
43					Drainage area map: Provide existing and proposed drainage area maps. Clearly mark with arrows the existing drainage pattern on the existing DA. Show all the discharge points, site outfalls, POIs, downstream investigation reaches, and photo points on the proposed drainage area map.	
44					Scale shall allow for legible presentation of required information	
45					All Drainage area maps: A) Contours numbered with legible lettering B) contour lines extend at least 100' beyond drainage area boundaries C) Travel path for Tc shown with segments labeled (distance, slope and "n" factor) D) Curve number or C Factor areas shown by contrasting shading or colors E) acreage shown) F) North arrow shown G) Scale shown	
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46					Runoff Curve Numbers and Times of Concentration must be: A) Based on ultimate development conditions as per current zoning, assuming no storage within existing BMPs located within the drainage area B) Computations based on the 10 year design storm	
47					Maps used to depict items utilized in developing curve numbers (Zoning and HSG) shown at same scale as applicable drainage area map.	
48					Information shown on drainage area map must correlate with information used in computation booklet	
49					All maps used for comparison such as existing and proposed development shown at same scale	
	Preliminary determination of adequate conditions downstream of site outfalls					
50					Information provided at concept should be sufficient to determine if Peak Management Qp10 will be required	
51					Discharge to closed system: Provide as built maps of system to point of investigation or preliminary surveyed mapping if as built information is unavailable	
52					Discharge to open channel system: Provide photographic walking tour from site outfall to POI	
53					Discharge is via sheet flow: Demonstrate that sheet flow will be maintained after development as per the SWM design manual	
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	Sheet four - Development Concept Plan					
54					Plan scale shall be no smaller than 1" = 100'	
55					Show a 100 foot peripheral strip that shows the existing topography off site	

56					Show and label all existing conditions as delineated on the Existing Conditions and Resource Mapping Sheet 3	
57					Show buildable areas: Provide a clear delineation of the areas/features that are to be protected from development as delineated on the Existing Conditions and Resource Mapping Sheet 3, item number 24.	
58					Show and label setbacks as required by the zoning of the parcel and adjacent parcels	
59					Development layout showing buildings, roads, parking, easements, etc.	
60					Show and label proposed and required landscape areas	
61					Proposed limits of clearing and grading	
62					Location of proposed impervious areas	
63					Proposed roads	
64					Utilities: A) Show water and sewer service areas (Existing, planned, no planned service etc.) B) Existing water and sewer lines that abut the site C) If water and sewer do not abut the site, and the site is in the planned or existing service area, provide mapping that shows the location of and distance to the existing water and sewer closest to the site. (The limit of mapping should be equal to the minimum required extension distance (RED) as indicated in the current sewer master plan http://www.aacounty.org/PlanZone/MasterPlans/WaterSewer2007/Index.cfm)	
65					Forest Conservation computations	
66					Proposed Bicycle Pedestrian Transit per 17-6-113	
67					Location of proposed dry utilities: Plan view only	
68					Preliminary location of ESD practices	
69					Private septic location and all percolation test results	
70					Private well water - Show location	
71					Open Space: Show A) Location B) Type	
72					Tabulation: A) Use B) Density C) Gross Site Area, Proposed Lot area and Limit of Disturbance in acres and square feet D) Bulk Parcels E) Parking required and provided F) Floor Area G) Existing and Proposed Coverage in acres and square feet H) Existing and Proposed Coverage site ratio I) Show Growth Tier (I,II,III, or IV) and list developmental restriction	
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73					Provide Table that shows: Total on site acreage of each Hydrologic Soil Group (HSG)	
74					Abutting properties show: A) Lot numbers, and street address numbers B) Owners name and Tax Account Number	
	Site layout meets the criteria listed below:					
75					Proposed imperviousness and disturbance is minimized by implementing clustering and other techniques	
76					Protects conservation areas to the Maximum Extent Practicable	
77					SWM is addressed by utilizing natural areas and landscape features to manage runoff from impervious surfaces	
78					Site graded so that runoff flows from impervious areas directly to pervious areas or natural conveyance systems	
79					Natural flow paths between the site and upstream and downstream systems are maintained	
80					Sheet flow and natural overland flow processes maintained wherever it is feasible	
81					Stable conveyance of runoff provided to offsite areas.	
82					Structural BMPs are used only where absolutely necessary	
	Submittal		Submittal			

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Reports, Computations and Attachments						
83					SWM Concept report and computations are provided in a booklet that is A) Bound B) Sheets numbered C) Signed and Sealed by design professional D) Contains a table of contents	
84					SWM Narrative must be included that provides the following information:	
84					1. Supports the concept plan, indicates other alternatives that were explored and explains why they were not	
85					2. Describes how natural resources are protected and possibly enhanced.	
86					3. Describes how natural flow patterns are maintained	
87					4. Explains how impervious surfaces have been reduced based on the use of: a) Better site design b) Use of alternative surfaces and c) nonstructural practices	
88					5. Outlines the integration of erosion and sediment control, TSWM into the stormwater strategy	
89					6. Explains how the 10% pollutant reduction will be achieved if required.	
90					Bog: Bog protection plan for bog protected area	
91					Critical area: Provided a buffer management plan for any disturbance in the 100 ft buffer and expanded buffer	
Computations						
92					Downstream Investigation Study points "DPs, SOs, and POIs": A) Same for pre and post development B)	
93					Drainage area information used in computations clearly depicted on drainage area maps.	
94					The same method of computation used when comparing runoff (i.e. if TR-55 used for post development runoff, it must be used for pre development as well)	
95					Computations: Limited to feasibility of achieving Pe and Peak management goals. A) Estimate rainfall amount treated in each facility B) Provide a table that shows the summation of Pe for each nonstructural method and device (weighted by drainage area) and compare to Estimated Pe and peak management volume required.	
96					Flood plain determination, if required (Including supporting computations)	
Adequacy of facilities						
If the applicant wishes to address adequacy of facilities at this stage, the additional items listed below must be submitted.						
Sheet Five - Water and Sewer Utility Plan						
97					Plan scale shall be such that the proposed utilities are readable. If multiple sheets are required, match lines should contain overlapping information on both sheets.. If large or multi-phase project or long off-site extension, provide separate overall plan, preferably on a single sheet.	
98					Show topography of existing, proposed utility extensions.	
99					Show streams, wetlands, steep slopes and floodplain and associated buffers (if utilities are proposed or existing in these areas)	
100					Development layout showing buildings, roads, parking, open space, parcel boundary.	
101					Show proposed building square footages and first floor elevations (Should match Information from SWAMP analysis request)	
102					Proposed Roads should be outlined but not shaded so as not to interfere with clarity of water and sewer features.	
103					Clearly show and label all existing and proposed water in blue and sewer in green (including flow arrows). Include pipe diameters, label whether they are public or private, and include existing Public Utility Easements (include Liber Folio).	
104					Show proposed and existing water meter locations and sizes.	
105					Label existing public and private fire hydrants and manholes with AA County assigned numbers as applicable.	
106					Clearly show existing and proposed grinder pump locations and grinder pump easements within the project limits.	
107					Location of existing utilities and crossings. Label each utility with the type, size, and ownership.	
Adequacy of facilities (Attachments)						
111					Traffic Impact study -Include mitigation plan if required	
112					ROW dedications, improvements per the DPW design manual requirements	
113					Existing (if re-development, if applicable) and Proposed EDU worksheets and a SWAMP request when proposed EDUs are 5	

114				Downstream Investigation Study - to be included as a separate chapter in the SWM report	
115				Mitigation for inadequate outfall: If it is determined that the site has an inadequate outfall, then a mitigation plan must be	
116				A Sewer Study is required when a development project proposes the extension of sewer by any method other than gravity.	