

Project Name-Number		
Design Professional	Design Professional Certification (Seal, Signature and expiration information)	Seal
<b>Instructions:</b> 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 ( <b>Des.</b> ) 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 ( <b>Rev.</b> ) 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. <b><u>The checklist must be returned with the second submittal utilizing the same check format indicated in item 3 above.</u></b>		

- 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 that are incomplete as per the checklist items will result in an incomplete review. Plans will be returned to the consultant and the resubmittal will be considered a first submittal in the review process**
- **Efforts should be made to limit the number of plan sheets to four (4).**

	First Submittal		Second Submittal		Sketch Plan-Preliminary Plan Checklist (Also used as SWM Concept Plan for other development projects)	Remarks
	Des.	Rev.	Des.	Rev.		
<b>Applicable to all plan sheets</b>						
1					Size: 24" x 36"	
2					<b>Title block</b> 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					<b>A)</b> Legend <b>B)</b> North Arrow (NAD 83) <b>C)</b> Scale: Centered below applicable plan or profile	
5					<b>Drafting:</b> <b>A)</b> labeling is legible (not overlapping, etc.) lines/line weight and symbols used are defined in legend. <b>B)</b> Match lines shown were applicable and correctly labeled.	

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6					<b>Cover Sheet</b>	
7					Legal name, address, telephone number and email address of the owner, developer, applicant, and design consultant.	
8					<b>Vicinity Map</b> (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	
9					<b>Location Plan</b> Scale 1"=200' A) Shows actual location of project and surrounding streets	
10					<b>Index of Drawings Table:</b> All drawing titles are shown in table and labeled accordingly.	
11					<b>Benchmark</b> - B. M. number., description and elevation. (Vertical control NAVD 1929 or NAVD1988) consultant must indicate which is used. No assumptions	
12					<b>Tabulate:</b> Provide a table that shows the following information: A) Runoff amount to the POI B) Runoff amount generated by site drainage area to POI C) Ratio of site runoff to Total runoff to POI D) Runoff amounts must be calculated and shown for each drainage area. E) Curve number and time of concentration computation is based on developed conditions as per current zoning.	
13					<b>Outfall Statement(s):</b> A) Provide a description of each outfall point from the site. B) If outfall is to an open channel, describe channel indicating whether or not erosion is evident between the site outfall and the POI.	
14					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.	
15	<b>Sheet two - Establish and show the Point(s) of Investigation POI</b>					
16					<b>Drainage area map:</b> Provide a drainage area map that shows the entire drainage area to site and POI.	
17					Scale shall allow for legible presentation of required information	
18					<b>All Drainage area maps:</b> 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.	
19					Clearly label the discharge point(s) from the site.	
20					<b>Runoff Curve Numbers and Times of Concentration</b> 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.	
21					Maps used to depict items utilized in developing curve numbers (Zoning and HSG) shown at same scale as applicable drainage area map.	
22					Information shown on drainage area map must correlate with information used in computation booklet.	
23					Indicate location of photographs for walking tour.	
24					All maps used for comparison such as existing and proposed development shown at same scale.	
25	<b>Preliminary determination of adequate conditions downstream of site outfalls</b>					
26					Information provided at concept should be sufficient to determine if Peak Management Qp10 will be required	
27					<b>Discharge to closed system:</b> Provide as built maps of system to point of investigation or preliminary surveyed mapping if as built information is unavailable.	
28					<b>Discharge to open channel system:</b> Provide photographic walking tour from site outfall to POI	
29					<b>Discharge is via sheet flow:</b> Demonstrate that sheet flow will be maintained after development as per the SWM design manual.	

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30	<b>Sheet Three - Existing Site Conditions and Resource Mapping</b>					
31					Provide a composite map at scale no smaller than 1"=100" <b>which allows clear depiction of the site resources and conditions</b> listed below:	
32					Site outline showing bearings and distances (Information obtained from plats and deeds are sufficient at this stage). <b>Do not show lease lines as property lines.</b>	
33					Tidal and nontidal wetlands based on preliminary report	
34					Streams labeled as (Perennial, Intermittent etc.)	
35					100 year floodplains: A) Labeled as (FEMA, Non Tidal etc.) B) Non tidal provide preliminary delineation using simplified method as outlined in the County SWM Design Manual.	
36					Forests: Preliminary forest stand delineation including identification of specimen trees.	
37					Shade all slopes 25% or greater.	
38					<b>Show resources to be retained: Highlight and shade the areas that are to be protected from development</b>	
39					Topography (2 foot contours) <b>Extending a minimum of 100 feet beyond the boundaries or drainage area delineations.</b> (County topo is allowable at this stage)	
40					If natural drainage patterns within site are not clearly depicted by topographic information, provide flow arrows etc. that show patterns.	
41					Pre development discharge points from the site.	
42					Soils: A) Labeled and shaded <b>based on Hydrologic Soil Group (A, B, C, D).</b> B) Indicate highly erodible soils by separate shading.	
43					Buffers a) Streams b) Wetlands c) Others as required.	
44					Bog Drainage/impact areas	
45					Location of historical, archaeological resources, cemeteries etc.	
46					A) Provide the names of public or private roads that abut or traverse the site. B) Show right of way limits (bearing and distance info not required at this stage) C) Indicate if road is on the scenic and historic road inventory.	
47					<b>Utilities:</b> A) Show location of water and sewer that abuts the site. B) Indicate current water and sewer service areas (Existing, planned, no planned service etc.) C) If water and sewer does not abut the site, and 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. (Limit of mapping should be equal to the minimum required extension distance (RED) as indicated in the current sewer master plan <a href="http://www.aacounty.org/PlanZone/MasterPlans/WaterSewer2007/Index.cfm">http://www.aacounty.org/PlanZone/MasterPlans/WaterSewer2007/Index.cfm</a> )	
48					Show critical area designations	
49					Zoning designations	
50					<b>Certification Note:</b> Provide a note certifying that the location of features shown on the <b>Resource map</b> has been field verified.	
51					Provide two cut and paste copies if plan is presented on more than two sheets.	

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52					<b>Sheet four - Development Concept Plan</b>	
53					Provide a 100 foot peripheral strip that shows the existing topography off site	
54					<b>Show buildable areas:</b> Provide a clear delineation of the areas/features that are to be protected from development <b>as highlighted on the existing conditions/resource map</b>	
55					Show setbacks as required by the zoning of the parcel and adjacent parcels	
56					Development layout showing buildings, roads, parking etc.	
57					Indicate proposed landscape areas	
58					Proposed Forest Conservation Areas: Show acreage for each delineated area	
59					Proposed limits of clearing and grading	
60					Location of proposed impervious areas	
61					Proposed roads	
62					Location of proposed public and private utilities: Plan view only	
63					Preliminary location of ESD practices	
64					Show all percolation test results	
65					Open Space: Show A) Location B) Type	
66					Tabulation of A) Density B) Net Density C) Bulk Parcels	
67					<b>Provide Table that shows:</b> A) Total Site Area B) Total on site acreage of each Hydrologic Soil Group (HSG) C) Acreage of total existing and proposed impervious D) Ratio of existing and proposed impervious coverage to total site area.	
68					Abutting properties show: A) Lot numbers, and street address numbers B) Owners name and Tax Account Number	
69					Provide two cut and paste copies if plan is presented on more than two sheets.	
70					<b>Site layout meets the criteria listed below:</b>	
71					Proposed imperviousness and disturbance is minimized by implementing clustering and other techniques.	
72					Protects conservation areas, <b>and areas delineated in line 52 above</b> , to the Maximum Extent Practicable	
73					SWM is addressed by utilizing natural areas and landscape features to manage runoff from impervious surfaces.	
74					Site graded so that runoff flows from impervious areas directly to pervious areas or natural conveyance systems	
75					Natural flow paths between the site and upstream and downstream systems are maintained	
76					Sheet flow and natural overland flow processes maintained wherever it is feasible	
77					Stable conveyance of runoff provided to offsite areas.	
78					Structural BMPs are used only where absolutely necessary	

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79	<b>Reports, Computations and Attachments</b>					
80	<b>Report</b>					
81					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	
82					<b>SWM Narrative must be included that provides the following information:</b>	
83					1. Supports the concept plan, indicates other alternatives that were explored and explains why they were not utilized.	
84					2. Describes how natural resources are protected and possibly enhanced.	
85					3. Describes how natural flow patterns are maintained	
86					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.	
87					5. Outlines the integration of erosion and sediment control into the stormwater strategy	
88					6. Explains how the 10% pollutant reduction will be achieved if required.	
89					Forest Stand delineation including narrative and data sheets	
90					Bog protection plan for bog protected area	
91					<b>Critical area:</b> Provided a buffer management plan for any disturbance in the 100 ft buffer and expanded buffer	
92	<b>Computations</b>					
93					<b>Study points):</b> A) Same for pre and post development B) Clearly labeled and numbered.	
94					Drainage area information used in computations clearly depicted on drainage area maps.	
95					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)	
96					<b>Computations:</b> 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.	
97					Preliminary flood plain determination if required ( <b>Including supporting computations</b> )	
98	<b>Attachments</b>					
99					Walking tour photographs (at 50 foot intervals, or closer if necessary)	
100					Preliminary reports for A) Critical Area B) Bog C) Wetlands	
101					Preliminary Forest Conservation computations	
102	<b>Community meeting</b>					
103					Provide evidence that a community meeting was held if required	
104					Provide a copy of a summary of comments	
105					Provide evidence that a copy of summary was mailed to each participant in the meeting, all lot owners within 175 feet of the property, the county council member of the councilmanic district where the property is located and or abuts.	
106	<b>Adequacy of facilities</b>					
107	<b>If the applicant wishes to address adequacy of facilities at this stage then the additional items listed below must be submitted as part of the sketch plan submittal</b>					
108					Traffic Impact study A) Include mitigation plan if required	
109					Detailed downstream analysis is required from site outfall to POI <b>AACO SWM Manual 7.2.2.D</b>	
110					<b>Mitigation for inadequate outfall:</b> If it is determined that the site has an inadequate outfall, <b>and on site management is infeasible</b> , then a mitigation plan must be submitted.	