MINIMUM DESIGN REQUIREMENTS: BASIN		
BASIN PARAMETER	MINIMUM DESIGN REQUIREMENTS (MDRS)	
	INFILTRATION	DETENTION
Length:width ratio	N/A	> 2:1
Side slope	Side slope < 1 in 3	Side slope < 1 in 3
Longitudinal slope	Bed slope < 1 in 40	Bed slope < 1 in 40
Maximum water depth for 1 in 100-year	1 m	1 m
Permeability of topsoil	> permeability of underlying soils	N/A
For the 1 year 30-minute event: ▪ average residence time in basin ▪ flow height ▪ velocity	N/A	 > 9 minutes <100 mm < 0.3 m/s

DESIGN ASSESSMENT CHECKLIST: BASIN			
GENERAL INFORMATION			
Site ID			
Asset ID(s)			
Basin location(s) and co-ordinates		Drawing reference(s)	
Date of assessment		Specification reference(s)	
Primary function(s) of basin:	Attenuation/infiltration/treatment/other dual use (specify)		

CHECK	MDR	SUMMARY DETAILS[1]	ACCEPTABLE (Y/N)	COMMENTS/ REMEDIAL ACTIONS
DIMENSIONS (SECTIONS 13.2 AND 22.2)				
Length (m)				
Width – at top and at base (m)				
Top surface area (m^2)				
Side slope (1 in ?)				
Depth – maximum and minimum (m)				
Freeboard (m)				
Longitudinal slope (1 in ?)				
INFLOWS (SECTIONS 13.8.1 AND 22.8.1)				
Provide a description of the contributing catchment land use and its size (m^2)				
Does the design include suitable silt Interception upstream of system, where				
Where required, does the design include: ▪ suitable flow spreading ▪ appropriate energy dissipation?				
OUTFALL ARRANGEMENTS (SECTIONS 13.8.2 AND 22.8.2)				
Provide details of any flow control systems, overflow arrangements and limiting discharge rate(s) from the basin				
Is the basin designed to allow infiltration? If yes, attach infiltration assessment				
Does the design include infiltration trenches or blankets beneath the base to promote improved infiltration?				
Is a geomembrane required to prevent infiltration? If yes, give reason				
Depth to maximum likely groundwater level (m)				
Is topsoil of sufficient permeability to allow infiltration or underdrainage (where required)?				
STORAGE (SECTIONS 13.4 AND 22.4)				
Design return period(s) (years)				
Maximum design water depth(s) and level(s)				

CHECK	MDR	SUMMARY DETAILS[1]	ACCEPTABLE (Y/N)	COMMENTS/ REMEDIAL ACTIONS
Maximum design storage volume(s) (m^3) Note: It would be unusual for this volume to exceed 10,000 m^3. If it does, the design may have to comply with the Reservoirs Act 1975 (as amended by the Flood and Water Management Act (FWMA) 2010). Checks should be made of the design to confirm suitability of such a large volume				
Levels around the edge of the pond/ wetland appropriate to contain design depths of water?				
WATER QUALITY TREATMENT (SECTIONS 13.5 AND 22.5)				
For the 1 year, 30 min event confirm:				
Average residence time in detention basin is acceptable for effective treatment or Maximum velocity is acceptable for effective treatment.				
LANDSCAPE/BIODIVERSITY (SECTIONS 13.6, 13.7, 13.10, 22.6, 22.7 AND 22.10)				
Does the proposed planting have potential to create biodiverse habitats?				
Have native plant species been used? (Note: if ornamental species are proposed, give reasons, and describe measures that prevent their migration to natural water bodies.)				
Is the proposed planting appropriate to the location, visually, relative to gradient, water depths etc. and with respect to access and maintenance?				
Where relevant, confirm planting design does not adversely impact highway visibility and safety requirements (check with highway authority)				
Is the proposed topsoil profile suitable to sustain the proposed plant species and as permeable as the filter bed?				
CRITICAL MATERIALS AND PRODUCT SPECIFI ATIONS (SECTIONS 13.9 AND 22.9)				
Geomembrane				
Geotextile (non-woven)				
Topsoil				
Other (including proprietary systems)				

CHECK	MDR	SUMMARY DETAILS[1]	ACCEPTABLE (Y/N)	COMMENTS/ REMEDIAL ACTIONS
CONSTRUCTABILITY (SECTIONS 13.11 AND 22.11)				
Are there any identifiable construction risks? If yes, state and confirm acceptable risk management measures are proposed				
MAINTAINABILITY (SECTIONS 13.12 AND 22.12)				
Confirm that access for maintenance is acceptable and summarise details				
Are there specific features that are likely to pose maintenance difficulties? If yes, identify mitigation measures required				

BASIN DESIGN ACCEPTABILITY	SUMMARY DETAILS INCLUDING ANY	ACCEPTABLE (Y/N)	DATE CHANGES MADE
Acceptable: Minor changes required: Major changes required/redesign:			

Note

1 If there is an MDR (as indicated) confirm whether or not this is met and provide details of any variations.