

3.2 Green Roofs		Sheet #	Yes/No	Comments
<b>Feasibility Criteria</b>				
1	Is the roof pitch less than or equal to 30%? If the roof pitch is greater than 1-2%, are baffles, grids, or strips used to prevent slippage of the media? [3.2.1 Green Roof Feasibility Criteria- Roof Pitch, page 34]			
2	Does the plan identify how the roof will be accessed to deliver construction materials and perform routine maintenance and inspections? [3.2.1 Green Roof Feasibility Criteria- Roof Access, page 34]			
3	Is access to the green roof clearly depicted on the plan? Allowable access includes: <ul style="list-style-type: none"> <li><input type="checkbox"/> For heights up to 10 feet, a temporary ladder at least 3 feet longer than the height of the wall is sufficient for access from the floor below; or</li> <li><input type="checkbox"/> For heights greater than 10 feet, permanent roof access by either an interior stairway through a penthouse or by a window or hatch (not less than 16 square feet in area with a minimum dimension of 24 inches); or</li> </ul> [3.2.1 Green Roof Feasibility Criteria- Roof Access, page 34]			
4	Does the green roof provide a 1-foot wide vegetation-free zone along the perimeter of the roof around the roof penetration (firebreak)? If the design proves the green roof is classified as Class A under ASTM 108E, then a firebreak is not required. [3.2.1 Green Roof Feasibility Criteria- Setbacks, page 34]			
5	Is the contributing drainage area (CDA) to the green roof limited to the area of the green roof itself? If not, is the CDA to the green roof that is receiving retention value no larger than the area of the green roof itself? The green roof may have rooftop area draining to it greater than the area of the green roof itself, but it will not receive additional retention value. (E.g. a 100 sf green roof may have no more than 100 sf of additional CDA entered into the Database, even if in real life 400 sf is draining to it.) [3.2.1 Green Roof Feasibility Criteria- Contributing Drainage Area, page 34]			
6	If the green roof receives runoff from an adjacent rooftop area: <ul style="list-style-type: none"> <li><input type="checkbox"/> Does the plan clearly show the flowpath of runoff from the CDA to a green roof?</li> <li><input type="checkbox"/> Does the plan clearly show how runoff will be distributed or dissipated to prevent erosion or overloading?</li> </ul> [3.2.1 Green Roof Feasibility Criteria- Contributing Drainage Area, page 34]			
<b>Design</b>				
7	Are cross-sectional details provided which shows the green roof at the roof drain and roof deck?			

	[3.2.2 Green Roof Conveyance Criteria, page 35]			
8	<p>Does the design include a waterproofing layer to prevent damage to the roof deck layer? The layer must be 100% waterproof and have a lifespan as long as all other green roof components. The plans should include a profile detail showing waterproofing layer.</p> <p>[3.2.4 Green Roof Design Criteria- Waterproofing Layer, page 36]</p>			
9	<p>Does the design include a chemical or physical root barrier free of pesticides, metals, or other chemicals that could leech into stormwater runoff? Provide supporting documentation or include a specification.</p> <p>[3.2.4 Green Roof Design Criteria- Root Barrier, page 37]</p>			
10	<p>Does the design include a drainage layer to quickly remove excess water from the vegetation root zone? Provide supporting documentation or include a specification.</p> <p>[3.2.4 Green Roof Design Criteria - Drainage Layer and Drainage System, page 37]</p>			
11	<p>If the green roof contains a root-permeable filter fabric, does it allow for the downward migration of water into the drainage layer? Provide supporting documentation or include a specification.</p> <p>[3.2.4 Green Roof Design Criteria- Root-Permeable Filter Fabric, page 37]</p>			
12	<p>Does the growing media meet the following characteristics?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 70-80% lightweight inorganic materials</li> <li><input type="checkbox"/> No more than 30% organic matter</li> </ul> <p>[3.2.4 Green Roof Design Criteria- Growing Media, page 37]</p>			
13	<p>Are low water use plants proposed on the planting plan? With appropriate species, green roofs will not require supplemental irrigation, except for temporary irrigation during a drought or initial establishment.</p> <p>[3.2.4 Green Roof Landscaping Criteria- Plant Cover, page 38]</p>			
14	<p>Is a temporary, manual, or permanent watering system provided for irrigation during initial establishment and drought periods?</p> <p>[3.2.4 Green Roof Design Criteria- Plant Cover, page 38]</p>			
15	<p>If rock wool is used as the drainage layer for the green roof, the additional CDA may be located at the same elevation as the base of the green roof. The following caveats and requirements apply to this approach:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> No roof drains can be present in the additional contributing roof area.</li> </ul>			

	<ul style="list-style-type: none"> <li><input type="checkbox"/> The drainage layer cannot include an air layer. The rock wool drainage layer must be in direct contact with the roof layers. Designs that include an air layer and rely on “wicking tongues” to capture the additional CDA are not acceptable.</li> <li><input type="checkbox"/> Channels to facilitate overflow and eliminate rooftop flooding may be incorporated into the rock wool:             <ul style="list-style-type: none"> <li>o The maximum channel width is 0.5 inch.</li> <li>o Perforated pipe and other designs that limit water contact with the rock wool on the sides of the channels are not acceptable.</li> <li>o Channels must be evenly distributed throughout the green roof and be spaced no closer than one channel every 2.5 feet.</li> <li>o The runoff flow path from the contributing roof area must be less than or equal to the length of the channels.</li> </ul> </li> </ul> <p>[3.2.4 Green Roof Design Criteria-Rock Wool and Contributing Drainage Area, page 40]</p>			
16	<p>If solar panels or other structures are installed above a green roof, does it meet the following?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Structure above the green roof must be no more than 6.5 feet wide.</li> <li><input type="checkbox"/> Panels must have a minimum 3-foot separation between each array.</li> <li><input type="checkbox"/> The lower edge of the structure must be at least 1 foot above the top of the green roof, and the upper edge must be at least 2.5 feet above the top of the green roof. For flatter installations, the lower edge would need to be raised to ensure that the 2.5-foot minimum for the upper edge is met.</li> </ul> <p>3.2.4 Green Roof Design Criteria- Solar Panels and Other Structures, page 41]</p>			
17	<p>Was the green roof storage volume calculated using Equation 3.1?</p> <p>[3.2.4 Green Roof Design Criteria- Green Roof Sizing, page 42]</p>			
18	<p>Does the design provide the maximum water retention values from the manufacturer for the media and the drainage layer? If not, are the default values used? (0.10 for media, 0.0 for drainage layer)</p> <p>If the testing results are more than two years old, ask for more recent test results or confirmation that the supplier’s soil mix has not changed since the test was conducted.</p> <p>[3.2.4 Green Roof Design Criteria- Green Roof Sizing, page 42]</p>			
19	<p>Is the intensive green roof to be regularly irrigated? If so, is the storage volume reduced by half? The storage volume reduction must be done manually – the Database does not automatically reduce the storage volume. Permanent irrigation of extensive roof designs is prohibited.</p> <p>[3.2.4 Green Roof Landscaping Criteria- Irrigation and Storage Volume, page 42]</p>			
20	<p>Does the planting plan use plants generally appropriate for a green roof of the depth provided?</p>			

	[3.2.5 Green Roof Landscaping Criteria, page 43]			
<b>Construction</b>				
21	<p>Does the plan include green roof construction notes similar to the following?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A flood test or electronic leak detection is required to ensure the system is watertight. If electronic leak detection is not possible, provide waterproofing documentation from roofing contractor or green roof installer.</li> <li><input type="checkbox"/> The growing media must be covered and anchored in place until planting.</li> <li><input type="checkbox"/> Fertilizer is not recommended. If applied, the fertilizer must be a slow release type, rather than liquid or gaseous form.</li> </ul> <p>[3.2.6 Green Roof Construction Sequence- Green Roof Installation, page 45]</p>			
22	<p>Does the plan contain the Green Roof Construction and Maintenance Inspection Checklists (Appendix L Construction Inspection Checklists and Appendix M Maintenance Inspection Checklists) or incorporate the checklists by reference?</p> <p>[3.2.6 Green Roof Construction Sequence- Construction Supervision, page 46; 3.2.7 Green Roof Maintenance Criteria- Maintenance Criteria, page 47]</p>			
<b>Maintenance</b>				
23	<p>Does the plan include a maintenance schedule similar to Table 3-3 Typical Maintenance Activities Associated with Green Roofs in the Stormwater Management Guidebook?</p> <p>[3.2.6 Green Roof Maintenance Criteria- Maintenance Inspections, page 47]</p>			
24	<p>Is the green roof included in the Declaration of Covenant?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Is the location and extent of the green roof a part of Exhibit B Site Plan?</li> <li><input type="checkbox"/> Is the maintenance of the green roof a part of Exhibit C Maintenance Plan?</li> </ul> <p>[3.2.7 Green Roof Maintenance Criteria- Declaration of Covenants, page 48]</p>			