# Green Roof Design Review Checklist

Applicant: _____ Date: _____

Submitted By: _____ Project Location: _____

1) Applicable codes _____

   _____

   _____

2) Plans prepared by licensed professional
   Landscape Architect [ ] Botanist [ ] Structural Engineer [ ] Civil Engineer [ ] Architect [ ] Other _____
   a. Is the professional a certified Green Roof Professional (GRP)? Yes [ ] No [ ]
   b. List any other applicable green roof professional accreditations held by the designers

      _____

3) Submit copy of plans, specifications, and design calculations.
4) Priorities for green roof design (e.g. stormwater management, water quality, recreation, energy conservation, roof longevity, habitat, etc)

   _____

   _____

   _____

5) Total roof area _____SF
6) Green roof area _____SF
7) Growth media depth _____ inches
8) Growing media composition _____
9) Storage volume based on media depth _____ inches
10) Total storage volume of green roof area _____CF
11) Water Quality Volume Summary
    a. WQv required for project site _____CF (attach a copy of calculations – see the Uniform Sizing Criteria from part 2b – Uniform Sizing Criteria – in the Iowa Stormwater Management Manual)
    b. Anticipated amount of WQv managed by green roof
       _____CF _____% of Total Required WQv
    c. Discuss additional BMP's used to manage remaining balance of WQv.

       _____

       _____

12) Discuss water quantity control facilities (stormwater detention) provided on site

    _____

    _____

13) Building Details

a. Type of Building: Industrial [ ] Commercial [ ] Residential [ ]
b. New construction [ ] Retrofit [ ]
c. Height of building _____feet _____stories

d. Roof substructure
   Wood [ ] Metal Sheeting [ ] Reinforced Concrete[ ]
   Other _____
e. Slope of roof _____ %
f. Describe roof access _____
g. Secondary emergency overflow drains or roof scuppers _____
   _____
h. Height of parapet _____feet
i. Wind control measures _____
   _____
j. Provide calculations or letter certified by licensed structural engineer stating that structural loading analysis was completed and that structure can support the proposed green roof system.

14) Site considerations:

a. Has a climate evaluation (e.g. Sun, Wind, Shade, Snow, Precipitation Rate) been completed? Yes [ ] No [ ]
b. Determined Impact on Local Infrastructure (e.g. Stormwater, Energy Consumption)? Yes [ ] No [ ]
c. Evaluation of Waterproofing age and condition (if Retrofit)? Yes [ ] No [ ]
d. Analyzed Building Infrastructure (e.g. Location of HVAC Systems, Water Storage/ Supply)? Yes [ ] No [ ]
e. Determined means of access and occupancy limits (e.g. maintenance and occupants)? Yes [ ] No [ ]
f. Identified Safety Requirements (i.e. temporary or permanent fall protection measures)? Yes [ ] No [ ]
g. Sufficient access for HVAC and plumbing equipment? Yes [ ] No [ ]
h. Does the design include vegetation free zones per local codes? Yes [ ] No [ ]

**Green Roof System Design**

1) Green Roof System
    a. Extensive System (less than 6" growing media) [ ]
    b. Semi-Intensive System (less than 25% of green roof over 6" of growing media) [ ]
    c. Intensive System (more than 6" of growing media [ ]
2) Green Roof Construction:
    a. Modular tray green roof system [ ]
    b. Built-in-place green roof system [ ]
3) Type of Roof Assembly:
    a. Protected Membrane Roof [ ]
    b. Conventional Built-Up Roof [ ]
    c. Cold (Vented) Roof [ ]
4) Type of roofing membrane proposed:
    a. EPDM [ ]
    b. Cold fluid applied (water)proofing [ ]
    c. Hot applied rubberized asphalt [ ]
    d. Modified bitumen [ ]
    e. PVC [ ]
    f. TPO [ ]
    g. Hybrid [ ]
5) Components incorporated in green roof design.
    Plant Cover [ ] Growing Media [ ] Filter Fabric [ ] Drainage Layer [ ]
    Root Barrier [ ] Insulation Layer [ ] Waterproofing Layer [ ] Deck Layer [ ]
    Wind Protection [ ] Moisture Retention Layer [ ] Membrane Protection [ ]
    Other _____
6) Type of irrigation:
    a. Overhead [ ]
    b. Drip [ ]
    c. Harvested alternative building water [ ]
    d. Other_____
7) Available water connections and pressure for irrigation _____
    _____
8) Plant selection (submit detailed planting plan) _____
    _____
    _____
9) Total saturated system weight _____pounds per square foot
    a. Designed Dead Load _____ pounds per square foot
    b. Designed Live Load _____ pounds per square foot

**Staging, Scheduling, and Construction Logistics**

1) How will material be conveyed to the roof (roof access points, load bearing points, material storage requirements)
2) What is the schedule for installation of plant material (normal planting season, establishment period)?
3) How will material be stored and maintained based on the structural capacity of the roof?
4) How will the roofing membrane be protected during installation (leak detection)?
5) Has the green roof grow-in, establishment, and maintenance periods been established?

***FOR REVIEWERS USE ONLY***

☐ Design appears to comply with the standards in the Iowa Stormwater Management Manual.

☐ Design does not appear to comply with the standards in the Iowa Stormwater Management Manual.

Comments:

_____

_____

_____

Name of Reviewer: _____Date: _____

Signature: _____