

Green Roofs and Amenity Spaces



- Waterproofing and structural design, bid, and construction administration services
- Structural engineering for gravity loads and wind up-lift resistance
- Evaluation of existing roof decks for vegetative roofing and changes of occupancy
- Design of repairs and structural enhancements for existing roof decks
- Electronic integrity testing of waterproofing membranes
- Drainage calculations and design
- Evaluation and design of perimeter guardrails and other fall prevention systems
- Fire protection consulting related to fire spread, access, and egress

Vegetative (green roofs) and landscaped plaza decks offer aesthetic, environmental, and social benefits. However, the added loads from the overburden and from occupancy can necessitate structural enhancements. Additionally, the overburden can be costly to remove and replace, making the durability and long-term performance of the waterproofing systems beneath critical to a successful vegetative roof.

WJE has been at the forefront of this industry since its inception, with experience spanning intensive, semi-intensive, and extensive vegetative roofs for both existing buildings and new construction. Our structural engineers can evaluate load capacities in existing roof decks and design efficient strengthening modifications, if required. Our architects, roof consultants, and LEED-certified professionals are experienced with waterproofing, drainage, and roof barrier component design. From landscaping plaza decks to greening roof tops, our team is familiar with all types of waterproofing systems for vegetative roofs as well as the unique waterproofing requirements for different types of landscaped overburdens.

