

## Cannabis Facilities

### Cannabis Grow Facility

Warwick, NY

Size: 125,000 sq-ft

This company is an international cannabis company whose mission is to continuously research and grow naturally sourced cannabis with a goal to make cannabis more accessible to society. The Warwick site can support up to 125,000 sq-ft of total cultivation and processing space. RAN understands that grow lamps, plants, and plenty of flammable materials being used in the growth process can lead to a quick spread of a fire, therefore our approach requires specific but impactful solutions.



RAN Fire Protection Engineering was retained to provide designs for automatic fire sprinkler systems throughout all buildings to protect the grow facility. RAN also designed a fire alarm and detection system that activates the occupant notification system.



### Cannabis Production Facility

Lowell, MA

Construction Cost: \$325,000 Size: 80,000 sq-ft

Cannabis production facilities have to obtain licenses to grow, prepare, and package cannabis. These facilities also tend to sell their cannabis to retail cannabis sellers or to cannabis product manufactures, and not directly to consumers.

RAN Fire Protection Engineering was retained to provide fire sprinkler and fire alarm system design for the cannabis growth facility located in Lowell, MA. The sprinkler design included wet pipe fire sprinkler systems protecting mother, growth, and flower rooms. A high hazard sprinkler system was designed to protect the flammable conditions created within the extraction room. The fire alarm design included manual pull stations and notification appliances throughout the 80,000 square foot facility. RAN also developed design criteria carbon monoxide detection within the growth and flower rooms which were constantly supplied with carbon dioxide to stimulate plant growth, where the system monitored carbon monoxide levels for compliance within OSHA allowable limits.

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### Pharmaceutical & Recreational Cannabis Facilities

*San Diego, CA; Lakeland, FL; Portsmouth, VA; Milford, DE*

This company is one of the largest cannabis companies in the country with locations across the US. RAN Fire Protection Engineering has provided a range of services for these locations, each providing unique challenges. The challenges stemmed from the variety of extraction methods used. The extraction methods required different materials, which in turn had the capacity to alter the hazard classification of each facility—requiring specific solutions for each location.



Engineers reviewed the buildings to ensure compliance with NFPA standards and local building/fire codes and provided code compliance plans to bring the facilities up to code. Due to the materials often used in the extraction and production processes, hazardous materials plans were proposed. Additionally, preliminary procedures for an Emergency Response Plan for fire, gas leaks, explosion, hazardous material exposure, and security threats were developed.



### Cannabis Dispensary

*Worcester, MA*

*Construction Cost: \$15,000 Size: 25000 sq-ft*

This company is one of the leading providers of cannabis products and related services. Their staff consists of professionals that implement the company's vision of a retail cannabis experience that is educational and inviting to all consumers. They use their expertise to create professional and user-friendly experiences for both recreational and medical use. They use four core principles at their company, which are science, access, dignity, and compassion. These core principles allow the

dispensary to provide their consumers with access to safe, reliable, and high-quality cannabis products.

RAN Fire Protection Engineering provided fire protection design services for the cannabis retail facility located in Worcester, MA. RAN designed the fire sprinkler and fire alarm systems for the project, while developing a cost-efficient design while working within the parameters of the existing 100+ year old building construction.