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Cutting-Edge Cannabis Construction - by Parker Snyder

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In recent years, demand for cannabis has soared, expanding the need for grow and cultivation greenhouses, vertically integrated facilities, and dispensaries. This cutting-edge industry requires equally as innovative design and construction solutions. Grow operations, production processes, space ratios, as well as permitting and zoning requirements are all elements that should be explored in the earliest stages of construction to ensure that a cannabis facility is designed and constructed in the most functional and cost-effective manner. Partnering with an experienced contractor that is actively engaged throughout the project will result in a superior finished product and the very best customer experience.

With experience building cannabis cultivation, process, distribution, and retail facilities nationwide, ARCO is expertly capable of providing value-driven solutions for our customers' needs. For instance, we are currently completing a grow facility renovation in North Adams, Massachusetts. Whether it's a new, state-of-the-art grow facility or the conversion of an existing space into a medical marijuana dispensary, ARCO's team of experts have the knowledge and experience to bring our cannabis clients' ideal facility to life, regardless of complexity or scale.

Cannabis facilities each require unique specifications, and understanding the processes of crop growth, cultivation, extraction, post-processing, consumables manufacturing, and quality assurance testing is essential to designing an efficient facility. Improper ratios of space, irrational flow, and a flawed system design can adversely impact overall productivity and efficiency. Design factors such as the number of plants per square foot, height of plants at harvest, and irrigation methods should all be considered. Additionally, grow room conditioning plays a major role in the mechanical design of a facility. Whether or not a space has CO2 supplementation or natural ventilation, the type of lighting on the canopy, and the number of grow room tiers can all affect the functionality, design, and budget of a cannabis facility. Collaboration between the design team, contractor, civil engineers, and equipment vendors in a project's early stages is key to avoiding potentially costly and time-consuming change orders throughout construction.

Creating a stable, controlled environment that can produce repeatable results is one of the most important elements of cannabis construction. Cultivation and vertically integrated facilities must be precisely controlled for humidity, lighting, airflow, and temperature to prevent mold or mildew growth or pest infestation. Facility systems such as lighting, electrical service, and HVAC are also important elements to consider, and it is critical to evaluate options and standards associated with these systems. For example, in addition to the appropriate lighting type for efficiency and effectiveness, proper design and layout must be considered to avoid plants getting too much or not enough light.

Cannabis grow and cultivation greenhouses and vertically integrated facilities require thoughtful design, so it is essential to partner with an experienced team that understands the nuances of space ratios, proper ventilation, and so much more. The design-build process removes the risk of overspending on design and construction by providing clients with a firm price proposal and yields an average overall delivery speed 33% faster than that of traditional plan-and-spec construction. This project delivery method produces the most advanced, high-tech, and cost-effective cannabis

facilities in the industry.

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