



CASE STUDY

Orchid Gaming & Smoking Patio®

Solving Air Balance in Smoking Casinos

Orchid Gaming & Smoking Patio is Maryland’s first “outdoor” gaming area and features 6 live action table games, 27 electronic table positions, more than 230 of the latest slot machines, and an exclusive bar offering lounge seating, an extensive collection of spirits, and specialty-built humidors to house premium cigars. When The Cordish Companies enlisted Concord Engineering to design an expansion of the Orchid, to replace their former buffet, they also called on our expertise to improve the existing smoking area which was experiencing numerous complaints about air quality.

THE CONCORD DIFFERENCE

- Updating an existing HVAC system within an operational casino smoking patio required analysis of the space’s location, size, air volumes and air movement.
- Designing a solution that responds to the behavior of “cold” smoke from cigars and cigarettes to ensure uniform ventilation and ideal airflow distribution.
- Providing an innovative approach for reuse and enhancement of existing ventilation (ie. Fresh air) systems offered optimized performance and minimized impact to existing building infrastructure, cost, maintenance and utility usage.

THE CHALLENGE

- Update/modify existing ventilation systems to more effectively remove smoke while maintaining comfort for smoking patio guests.
- Implement same approach via repurposing existing kitchen exhaust systems, formerly servicing a buffet, for the smoking patio expansion.
- Minimize disruption to existing casino operation.
- Mitigate smoke migration problem in adjacent non-smoking casino.

CONCORD ENGINEERING SOLUTION

- Provide mechanical, electrical, plumbing, and fire protection (MEP/FP) design consulting services specialized in gaming facilities.
- Repurpose existing under-floor air system to create above-floor airflow distribution with additional exhaust, air moving equipment, and filtration.
- Facility air balance with respect to smoke migration and existing HVAC systems’ capabilities.

+ LOCATION

Hanover, Maryland

+ SERVICES

MEP/FP Engineering
Design Consulting
Engineer of Record

+ PARTNERS

The Cordish Companies
Beth Bloom Designs

+ TAGS

Commercial Gaming
Power & Infrastructure
HVAC

GET IN TOUCH

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