

International Project Solutions

PROFILE | **MGM CityCenter** | Las Vegas, Nevada, USA

Grace Construction Products



One of the largest sustainable developments in the world, the MGM CityCenter covers 68 acres along the Las Vegas strip. It's protected with fireproofing, roofing underlayment and air barrier technologies from Grace Construction Products.

The Project

The largest privately funded construction project in the history of the United States, the MGM CityCenter is a vast urban community comprised of a mix of retail and public space right in the heart of the Las Vegas strip. CityCenter combines a 4,004-room, 61-story resort & casino with approximately 500,000 square feet of retail and entertainment space, 2,400 residences and two world-class hotels. CityCenter is also the largest green building project in North America with six Gold LEED certifications and constructed with fireproofing and waterproofing materials from Grace Construction Products. In addition, Grace fireproofing was used to protect the adjacent LEED Gold-certified Cosmopolitan of Las Vegas that features nearly 3,000 rooms, two 50-story towers, three distinct pool environments and an 110,000 square foot casino.

► The Challenge

Eight leading architectural firms with offices around the world were involved in the CityCenter project, which made the Grace's global specification support critical. On a project of this scale, it was also vital to have high performance materials, coordinated teamwork and careful planning to get the fireproofing and waterproofing work done on schedule while maintaining safety. During the peak of construction there were over 8,000 workers on the worksites, which added to the complexity for the applicators. At times, the crews had to work at night to avoid the intense daytime desert heat. Despite these challenges, they were able to meet stringent quality control requirements and challenging project deadlines. Together, the CityCenter and Cosmopolitan projects comprised over 20 million square feet of structural support beams and columns that were coated with fireproofing materials. CityCenter also needed a top-quality waterproofing solution for over 200,000 square feet of stainless steel roof surface and 100,000 square feet of wall surface. These products had to provide excellent performance while withstanding extreme desert temperatures.

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"The job was so big, our decision on fireproofing products was based on which company has the best quality control, performance and field support so we could meet our very fast critical path schedule. Only one company offered us everything we needed to meet his huge challenge—and that was Grace. One reason we've used their products for 30 years."

— Richard Clayton, Founder, President and CEO, Clayton Coatings Inc. dba Clayton National

Clients: MGM CityCenter, The Cosmopolitan of Las Vegas

Architects: The CityCenter projects are a collaboration of more than eight of the world's foremost architectural firms

Fireproofing: Clayton Coatings Inc. d/b/a Clayton National

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GRACE

► **Grace Solution**

For fireproofing, the general contractor turned to Clayton National, the largest fireproofing contractor in North America and a UL Qualified Spray-Applied Fire-Resistive Materials (SFRM) Contractor. Grace fireproofing products were selected to ensure the highest quality materials and support. Over 500,000 bags of Grace fireproofing material was spray-applied on the CityCenter project. Grace’s Monokote® MK-6® was used wherever the structural steel would be concealed. Monokote® Z-146® high-density cementitious fireproofing was used in exposed and high-traffic areas that would be subject to contact and abrasion, while Monokote® Z-106® medium-density fireproofing was used in the parking garages, mechanical rooms and electrical rooms. Clayton’s 175-member team included six full-time quality control people in the field to ensure the thickness, density and coverage were correct.

For waterproofing, CityCenter’s architects specified Grace Ultra roofing underlayment for areas to be covered with stainless steel roofing. The exceptional heat resistance of Grace Ultra’s butyl-based adhesive chemistry and its proven superior performance made it an ideal choice for this “hot roof” assembly.

In addition, Grace’s Perm-A-Barrier® Wall membrane HT (high temperature) was applied on wall surfaces, a self-adhering, self-sealing air and vapor barrier membrane, specifically designed for the kind of elevated temperatures found in the desert heat.

Thanks to talented construction teams and reliable products from Grace, when it came to ensuring a quality fireproofing and waterproofing job in this high-stakes city, nothing was left to chance.



“If an issue arose, all we had to do was pick up a phone and there would be an entourage on site from Grace. The support and backup we got from them was unmatched.”

— Richard Clayton, Founder, President and CEO, Clayton Coatings Inc. dba Clayton National



Grace Product Solutions Used

Monokote® MK-6® Z-146® and Z-106® Fireproofing

Grace Ultra Roofing Underlayment

Perm-A-Barrier® Wall Membrane HT Air and Vapor Barrier

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