

The Forum Shops at Caesars Las Vegas, NV

The Forum Shops at Caesars is the most successful shopping venue in the country. On a typical day, the shops attract 50,000 people. According to the Las Vegas Convention and Visitors Authority, average shopping expenditures have risen 25 percent over the past five years.

The Forum Shops at Caesars opened in May 1992 with 283,000 square-feet of GLA. The shopping center completed a second phase in 1997, increasing its size to 500,000 square-feet. The 2004 Phase III expansion was the third expansion in eleven years.

Phase III expansion tenants include Joe's Seafood, Prime Steak & Stone Crab (of South Beach fame), Donald Pliner, Casa Fuente, Sushi Roku, Villa Reale (Art de Mexico), Harry Winston, Il Mulino New York, Scoop, Baccarat, Elie Tahari, Bally, Sony Style, and Kate Spade. Additionally, Louis Vuitton and Christian Dior, two top international luxury brands—both owned by LVMH Fashion Group—have undergone major expansions at The Forum Shops.

At the time of construction, Simon Property Group, Inc. (NYSE: SPG) was the sole owner of the property.

Design and Construction

Perini Building Company's construction contract included expanding the existing mall approximately 304,000 square-feet. Retail and restaurants consisted of 175,000 square-feet. The remaining square footage consisted of back-of-house operations and a basement for tenant storage. Perini started construction on February 3, 2003 and completed the project October 22, 2004 opening roughly one month early and on-budget. Fifty-four of the project's fifty-seven tenants were finished on Grand Opening Day—one of the highest tenant openings in Las Vegas.

KGA Architecture was the executive architect. Dougall Design Associates, Inc. created the exterior themed concept design and was the project interior designer. Dougall also designed Phases I and II of The Forum Shops.

The project's design centers on what has become the signature Caesars Palace motif—architectural elements of ancient Rome dating between 300 B.C. and 300 A.D. The expansion's theming is

complementary to the existing design of The Forum Shops. The sheer expanse of the project's three-level atrium and its newly added street presence has enhanced the grandeur of the existing mall.

Interior Innovation

The concept of The Forum shops is a variation of a Roman Appian—a Roman main street that directs people through the center of town. Because Roman architecture is grandiose in nature, the challenge of the design team was to create custom finishes that are authentic to Roman and Greek architecture, while meeting today's building codes.

Structural quality and safety is the highest priority in any construction project. To remain true to Roman architecture while complying with today's building and safety codes, the design/construction team incorporated Romanesque architectural elements around structural steel and other load-bearing construction elements. For example, large statues are built around structural steel.

The project's facades and details simulate ancient Roman streets. Marble countertops are installed in the public restrooms and marble flooring from Italy, China, Pakistan and Israel is installed throughout the common public areas. The interior has multiple-stepped soffits, detailed vaulted ceilings and a three-story atrium with a 44-foot diameter domed skylight. In the atrium, distinctive features include marble goddesses, a replica of Hadrian's Palace with Romanesque statues, four spiral escalators, a decorative ceiling and an interior reflecting pool. Individual tenants were responsible for their own storefront design and construction.

Considerable research went into ensuring the custom finishes were authentic to Roman and Greek architecture. Artisans at KHS&S were responsible for creating the interior facade. To accurately construct the design, KHS&S researched the architectural rules of Palladio, Vitruvius and Paine. These rules were applied to the entire project—all the way down to the smallest details, such as the volutes and acanthus leaves. Craftspeople created stylized imitations of existing marbles using a variety of faux techniques. The intricate finishes created are one of the project's design focal points.

A fine artist created the ceiling's elaborate design. Sections of the illustration were digitally copied and applied to the ceiling like wallpaper.

The Forum Shops contain four, Mitsubishi spiral escalators located on each side of the lobby. The side placement of the escalators greatly increases the amount of usable floor space and alleviates pedestrian congestion. Stacking the escalators above each other creates an atrium effect. The arrangement in a continuously rising pattern offers patrons a unique, panoramic view of the building. The escalators are supported at each end with no middle support. The structural engineer designed a three-dimensional box girder that is underneath each of staircases. This cantilevered effect adds to the sculptural quality and appearance—so much so it appears that the escalators are floating in air.

Exterior Innovation

A goal was to create one of the most ornate exteriors in Las Vegas. The classic Roman architecture of the expansion, combined with the newly constructed Plaza on Las Vegas Boulevard, also built by Perini, are designed to create a signature entrance to The Forum Shops, as well as to Caesars Palace.

Perini hired Raymond Company to construct the majority of the exterior facade. According to the subcontractor, Roman architecture is extremely precise. All of the building's structural parts and design elements must be in proportion to one another. To achieve this required a highly set of skilled craftsmen.

The exterior facade consists of structural steel framing, structural stud framing and exterior sheathing with a synthetic exterior plaster finish. The facade juts in and out all along the exterior, sometimes as much as six feet at a time. Because of the size and complexity of the facade, it required its own structural steel frame, which is built around and attaches to the exterior of The Forum Shops' base structure. Much of the facade exterior work was performed from lifting equipment because of the all of the dimensional design elements.

The sculptures that line the exterior are all designed by artists and required individually designed molds and casts. In certain areas, the exterior paint has an automotive base. To achieve the marble look, a number of skilled artists completed the process through detailed brushwork. Other effects include hand-painted patterns that surround the exterior. The patterns have been distressed or aged for the desired effect.

There are eight main exterior Roman facades designed as a series of ancient Roman buildings. The entrance is approximately 130-feet wide by 100-feet high. The exterior is based off the Italian Palazzo, and like the original, it has Corinthian columns, balustrades, entablatures and cornices. The exterior is lined with deep reliefs that hold many of the smaller statues that adorn the exterior. The exterior includes 57 classical statues with the tallest statue standing 38-feet tall. Other focal points include a 60-by-30-foot reflecting pond. A two-thirds scale replica of the Italian Trevi Fountain faces the strip. Also replicated is Gian Lorenzo Bernini's Triton Fountain. The exterior deck areas are covered with a waterproofing system and granite stone.

The project required over 2,200 tons of steel, 10,000 cubic-yards of concrete, 300,000 square-feet of exterior EIFS and over 470,000 square-feet of interior drywall.

Construction consisted of conventional concrete footing foundations with structural columns and beams with concrete over metal deck. The entrance into the shops had to remain open 24-hours a day, 7-days a week to accommodate the mall's daily influx of guests. Neither Caesars Palace nor The Forum Shops closed its business operations during construction.

Construction Challenges

The three-story expansion ties into the existing shopping center. The building sits on the corner of Las Vegas Boulevard. The most formidable challenges of building The Forum Shops were the limited accessibility, the busy location and the tight fit of the construction site. Perini self-performed all of the concrete work at The Forum Shops.

Sequencing

The ability to maintain public access to the existing shopping during construction was a condition of Perini's construction contract. In fact, construction was actually planned around unobstructed public access to the existing mall and Caesars Palace.

Foot traffic alone at The Forum Shops averages 50,000 customers a day, with approximately 18 to 20 million customers annually. The entrance into the shops had to remain open.

The choreography of coordinating all of the project's logistics while staying attuned to the needs of guests was a substantial feat. Perini planned the project in three phases to sequence pedestrian access around construction. To efficiently move people, Perini built two temporary entrances, each containing a moving walkway. To transport people to the existing Forum Shops, it was necessary to build the walkways directly through the construction site.

The first people mover was built on the south side of the property, which faces the Las Vegas Strip. It was built right next to The Forum Shops' existing pedestrian walkway that was demolished once the temporary walkway was in place.

With the completion of phase one, a second people mover was constructed on the opposite end of the property. The people mover transported people through the second level of the facility and was accessible from the Las Vegas Strip. The final phase was the middle section of the facility.

The walkways were either partially or fully enclosed structures made of concrete, steel framing and interior finishes. Because of the project's quality and guest expectations, walkways were designed with custom wall coverings.

Coordination

Precision coordination was paramount to the success of this project. Due to the tight space, the amount of construction space available to Perini and its subcontractors was extremely limited. Throughout the expansion, none of the major subcontractors or their equipment was housed on site. All deliveries were coordinated daily so subcontractors could move their equipment to and from the job site in a timely fashion. The same is true for supplies and vendors.

To complete the project, Perini hired over 40 subcontractors totaling about 450 craftspeople and over 60 suppliers and vendors. Every activity made was scheduled down to the minute to keep the project running smoothly.

The construction site was literally 30-feet from the Las Vegas Strip. Seamless logistics and tight coordination with local transportation officials was not only essential for Caesars Palace's and Simon Property Group's daily operations, but for commuters traveling on Las Vegas Boulevard.

Below Grade

Construction on the basement was done concurrently with the three main phases. The basement is 16-feet below street level. The loading dock, which is accessible from the Las Vegas Strip, is 4-feet below the basement. Construction challenges included removing a substantial amount of caliche, pumping ground water, constructing a retaining wall and building around and among all of the existing underground utilities.

Safety

Building a complex facility around numerous people dictated that safety exceed all other issues. Perini's safety team met with each of the subcontractors and worked through verbally, as well as in written form, how each planned to handle all potential safety issues on the project.

An example of a safety precaution taken was the installation of the glass dome in the main atrium. An anchor was built into the roof of the dome so workers would have a secure line to tether from. To lay each section of glass required walking out on to the previous installed glass section.

A structural engineer designed the scaffolding used at The Forum Shops. In between the scaffolding towers, platforms were enclosed with metal guardrails so craftspeople could work safely and efficiently. All scaffolding was encased with either a net or screen to catch any falling object.

The moving walkways were constructed not only for convenience, but also for durability and safety. The walkways were constructed out of concrete and steel framing and were completely covered when exposed to any construction hazards.

Escalators

With the installation of the Mitsubishi Electronic Spiral Escalators in The Forum Shops expansion, the upscale shopping mall can now claim to be at the forefront of technology in addition to fashion.

The spiral escalators connecting the new three-level structure is only the second installation within the United States. Mitsubishi has perfected the spiral escalator technology and is the world's only manufacturer such a product. The elegant functional layout enhances the architecture as well as widening passenger perspective.

The structural support of the escalators is also unique. Designed by KGA Architecture, the structures follow the curving lines of the escalators. Unlike vertical column structures that are usually built to support spiral escalators, KGA designed a free-standing effect that does not interrupt the artistic aesthetics.

In addition to the technical contribution of the escalators, the new upscale retail opportunities now available to Las Vegas visitors is unmatched.

In Conclusion

The Forum Shops represents one of the most elaborate, detailed themed properties in the country. The expansion came as Las Vegas continued to solidify itself as a world-class shopping destination, with average shopping expenditures per visitor rising more than 25 percent in the last five years, according to the Las Vegas Convention and Visitors Authority statistics.

The expansion's interior and exterior are ornate and grand and include a variety of impressive effects. The Greek and Roman architectural authenticity of the project brought words such as "extravagant," "beautiful" and "gorgeous" from shoppers who first entered the facility.

The new shopping Mecca at Caesars Palace further merges the strip into a "one-stop" family destination spot. Combining shopping, gaming, hospitality, dining and entertainment tend to keep the consumer close at hand with no reason to venture. The Forum Shops immediately ranked as one of the most successful shopping centers in the nation in sales per square foot.