Making A Dream Come True

Six Years After The First Steps Were Taken, St. Louis’ Union Station Opens Again In Grand Style.

When a consortium of 22 railroads constructed St. Louis’ Union Station in 1894, no expense was spared to make it one of the finest in the world. Ninety-one years later, the same attitude (and $135 million) has revived the majestic structure’s grandeur and supplied it with vibrant life as a hotel/retail complex. The six-year adventure that led to the largest mixed-use rehabilitation project in the country was a mammoth undertaking that pulled together all the main players: developers, investors, designers, artisans, and contractors.

Plans for the original station were developed in 1891, when the Terminal Railroad Association sponsored a national competition for the design of a new St. Louis station. The winning plan by local architect Theodore C. Link included three main areas: the headhouse or actual tram station, the midway, and the train shed. When finished, it was to be the largest single-level passenger terminal in the world, costing about $6.5 million. Today, it still boasts the largest single-span train shed in the world, twice the size of New York City’s Grand Central Station.

The headhouse featured a Romanesque design and contained the ticket
office, waiting rooms, offices, and a restaurant. The midway provided a covered transfer area for passengers, while the shed consisted of a large roofed area covering the loading platforms and the 31 tracks. A hotel was added to the project after the competition but before construction was started, and it was built adjacent to the western side of the headhouse.

Almost every skill available to builders of the day was put to use in constructing the station. The Grand Hall in the headhouse was adorned lavishly with mosaics, decorative plasterwork, bas-relief, gilt, stained glass, and marble. A 4,500-pound chandelier, with a diameter of 20 feet and containing 350 lights, hung in the hall. The lower part of the walls were earthenware blocks covered with a dark green glaze, called faience blocks. The upper sections were light green scagliola, an imitation marble consisting of gypsum, adhesive, and colored stone dust.

A stained-glass semicircular window over the hall’s staircase depicted three major train stations during the 1890s: New York City, St. Louis, and San Francisco. Each city was represented by a woman, with St. Louis in the center. Coloration reflected early morning light over New York City and twilight over San Francisco.

Materials from all over the world were brought together in the station’s construction. The interlocking floor tile in the Grand Hall came from England; Germany supplied the plain floor tile used on the ground level and the enamel tile used as wainscoting in the ladies waiting area, which also featured a mosaic floor from Belgium. Italy provided sienna and white marbles. Green marble was brought over from France and Switzerland. Africa supplied nubian marble. Closer to home, Vermont provided marble for the steps and wainscoting in the cafe. Georgia and New York provided marble for the men’s toilet area and the dining room, respectively. And the station’s exterior brick walls were faced with gray limestone from Bedford, Ind.

While this monumental grandeur befitted the station, which between 1904 and the 1940s was the world’s busiest, it couldn’t halt the rapid evolution of transportation in the U.S. As train travel began losing its popularity, the number of passengers dwindled. In 1973, the station was closed to all traffic except Amtrak, which pulled out in 1978. During this time, the station was purchased by a development firm, Union Center Venture, which after several tries was unable to get a revitalization off the ground.

In 1979, Union Center Venture was reorganized as St. Louis Station Associates, with Oppenheimer Properties Inc. as general managing partner. Its executives turned to The Rouse Co., famous for its urban redevelopments in Boston, Milwaukee, Baltimore, and other cities, to redevelop the station. Omni International Hotels, a division of Dunfey Hotels Corp., which is half-owned by Oppenheimer, was signed to operate the hotel portion, which was outside The Rouse Co.’s area of expertise. Once these major players were in place, architectural firm Hellmuth, Obata & Kassabaum of St. Louis was commissioned to create a conceptual design. By the spring of 1983, the project was fuming up.

HOK’s plan designated approximately 160,000 square feet for specialty retail, restaurant, and entertainment.
The retail area runs parallel to the headhouse along the midway and then turns south into the train shed. In that section, the wood roof was repaired and glass skylight areas were added to provide natural light. Soaring spaces, greenery and natural materials, such as the wooden ceiling, predominate even in the new construction, such as in this lounge area of the new hotel space (below). Hotel buildings were constructed underneath the mammoth train shed, which soars to between 100 and 140 feet at the tip of each iron truss. As brick was considered too heavy an element, designers specified an exterior insulation in four different colors.
The headhouse, which now serves primarily as the hotel’s lobby, is a monument to intricate architectural detail, incorporating marble and other materials from around the world. The Grand Hall displays many moldings and columns, as well as the restored allegorical stained glass window at the rear. It depicts three women, representing train stations in San Francisco, St. Louis, and New York City. A visitor ascending or descending the stairs in the station cannot help but be overwhelmed by the majesty of the restored beauty.

areas. A 550-room luxury hotel complete with three restaurants, two ballrooms, and conference rooms was penciled in for 825,000 square feet. The immense headhouse would be restored to its original look for use as the hotel lobby and some hotel suites. The expansive midway where passengers queued for trains would become the center for market activity; an L-shaped commercial street would run east and west through this 70’ x 606’ area before turning south into the shed. Running parallel to the retail space on the east side of the train shed would be the bulk of the hotel to the west. Separating them was to be a garden that led further back to a lake and terraced plaza. These would drop off to the main parking area at the southern tip of the property.

**Financing was puzzle . . .**

Providing the financing to make this become a reality was as complicated as the design was magnificent. It too was a matter of fitting the pieces of a puzzle together, according to a report in *St. Louis* magazine. With a final target of $135-million, investors were lined up one by one: $35 million from the Bank of Montreal; $30 million from The Bank of America in San Francisco, $25 million from The Globe Investment Trust of London; $10 million in an Urban Development Action Grant (UDAG) from the federal government; $35 million in limited partnerships sold to 400 investors; and an additional $12 million in “inducement money” from Oppenheimer.

Helping to make the project attractive from an investment standpoint was that the station qualified for a 25% investment tax credit. In addition, since any work performed inside the historic structure qualified, and the train shed literally covered all work being done, even the essentially new-construction work performed under this umbrella classified. The project is the
largest ever to qualify for the program, developers said.

While the players and the finances created a puzzle with many pieces, they were nothing compared to the task facing HOK in developing the specifics that would provide a coherent design scheme for the various functions and styles outlined in their overall program. “There was a great deal of complexity in working out the overall design,” said John Ward, associate project architect, who worked under the direction of project architect Henry Winkelman.

The team generated a design response that confronted the “essential paradox” they faced: relating three different existing building types that had to be combined; blending hotel and retail space on a large scale and under a train shed; and finally, marrying new and old space, as well as “new under old space,” Ward explained.

“The biggest challenge in the entire project was tying the hotel/train shed space to the grand old headhouse, and then tying retail space into this,” he elaborated. The team, and Winkelman in particular, spent a lot of time at the station just sitting and visualizing various plans. “It’s seldom you have to design a project of this scope and continuously be looking up at your problems,” Ward said.

The team had several givens going into the project, such as the amount of space allotted to rooms in the headhouse and the size of the retail area, which were the results of an early feasibility study. At first, the retail section was to run through the center of the shed with the hotel to one side. Ultimately the retail space was shifted to the side and a conscious decision was made “not to overshadow the retail space with the hotel,” Ward said.

Computer aided design . . .

A significant portion of the general design theorizing was accomplished on HOK’s Computer-Aided Design (CAD) system, according to Philip Falembier, a marketing and program developer for the Computer Service Group of HOK. Once the basic outline of the train shed was fed into the computer, designers could play with the space underneath in a multitude of ways. “We could use the computer to visualize the new buildings that would fit into the space,” Ward explained. “It gave us the freedom to fly around inside the shed and look at ideas from all kinds of angles that would not have been possible otherwise.”

The design process constantly evolved as construction progressed.

Design and construction administration teams met at the site in order to expedite the process. Weekly sessions refined each level of design as it was encountered, and unresolved design issues were hammered out on the spot. Two HOK design teams approached the project: one dealt with issues already decided that needed to be coor-
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dinated, while the other handled new design problems. Two full years were spent in the design stage, “massaging all the needs of all the various interests,” Ward said. Rouse in particu-
lar played a large role in the considerations. “They were very much involved in the retail design and provided a lot of needed input,” he added.

The final approach was to create a special “town” within the original railway complex, its streets and parks linking the hotel, retail, and market activities. Through careful restoration of the exceptional headhouse and thoughtful planning and design of the new structures, the architecture creates a special sense of place, which becomes particularly dramatic within the historic context of the railroad terminal and train shed.

Headhouse was focal point . . .

The headhouse received the most intense attention, in order to retain its original grandeur. The Bedford limestone exterior has been restored and the red tile roof that was installed in the 1950s was refurbished. Inside, four main areas were restored: the Grand Hall, the Gothic corridor, the Signature restaurant, and the hotel’s atrium.

Tim Samuelson, an architectural historian from Chicago, oversaw restoration of the Grand Hall. An expert on the work of Louis J. Millet, the colorist responsible for much of the ornamentation in the station, Samuelson worked with Conrad Schmitt Studios of New Berlin, Wis., to restore the Millet masterpieces. These included the allegorical stained-glass window above the main entrance. Throughout the spaces, Millet’s original pallette, if not the actual colors, was reproduced.

Ornamental work, friezes, and column capitals were glazed, painted, gilded with gold leaf, and finished with a protective coat of lacquer or varnish. The Grand Hall’s lavish decorations were completely restored, and stenciling on its barrel-vaulted ceiling that had been painted over was uncovered and repaired. In the Gothic corridor, coffered ceilings and chandeliers were restored. Oak wainscoting was refurbished in the dining hall (now the Omni Signature restaurant), and its ceiling has been painted to its original condition. The atrium’s rotunda has been restored, with its glass-block floor reilluminated. Four Schmitt craftsmen
stayed on the project for two years to bring the various details back to life.

**Shed proved difficult . . .**

The train shed created a host of challenges, with its iron framing and large size (606' x 810' with arches soaring to a height of 100 to 140 feet at the peak of each truss). The HOK team worked with the National Park Service to determine how to deal with this space. Extensive structural engineering studies were conducted to verify the condition and longevity of the shed. It was stabilized, cleaned, and painted, but the original steel support structure was retained “to remind visitors and shoppers of the train shed’s original use and dramatize its vast scale,” a HOK spokesman said.

A beer garden was established at the rear of the train shed, which is open to the elements. It provides a transition from retail and hotel space to the parking lot beyond the shed. A small lake with stepped platforms that provide visual breaks offer a unique element for the complex. Placed in the lower left quadrant of the shed, it separates the hotel from parking spaces at the far end of the space.

The original wooden roof featured bands of metal ventilators spanning it. Over the hotel space, this roof was stripped away to leave the metal bands
and the latticework of iron trusses. Over the retail space on the other side of the shed, the wood decking was replaced and the sides of the ventilators, which had had their original glazing removed at some point to improve smoke ventilation, were reglazed to create clerestory windows. This gave the designers the open, glassy effect they were seeking, which allowed the train shed to float free of the buildings while providing climate control for the space.

What type of building to construct underneath this envelope posed another major design question. Some 482 of the hotel’s 550 rooms needed to be housed beneath the shed in a structure harmonious with the umbrella overhead. Brick was first considered for this building, but designers felt such a strong building material was inappropriate.

The architects’ final decision was to use prefabricated, light-weight insulated panels to create a series of colorful, playful six-story buildings that define the “neighborhood.” Four custom colors were used: cool light gray, warm rosy gray, taupe, and bluish green. “The colors blend to produce an overall effect that is theatrical and pavilion-like, with a light, airy quality appropriate for the hotel’s outdoor/indoor garden setting,” the HOK spokesman said.

The hotel lobby, located in the restored headhouse, connects to the new hotel via a bridge over the midway at the second level. Within the new space are the central hotel facilities, including 35,000 square feet of multi-purpose meeting rooms. Additional space for ballrooms, which includes one of 16,000 square feet and another of 8,000 square feet. These were added onto the west side of the train shed.

The structural frame of the midway, which separates the hotel from the headhouse, was retained and strengthened, with a new roof and skylight added. The arched stone entrances at either end also were cleaned and retained. Public concourses, two levels of varied and distinct retail, as well as areas for cultural performances and artistic exhibits, were designed for this space. Three levels of specialty retail and restaurant space then continue down into the shed. They run parallel to the hotel and end at a plaza and lake at the rear, just as designers planned.

Functions remained the same...

The result of this work is that, while the essential function of the train station has changed dramatically, in many instances its spaces still serve the same purpose. The Grand Hall, designed as public space, remains public as the lobby of the Omni International Hotel; the station’s restaurant has been restored as a restaurant; the midway is still a gathering spot as the focal point of the retail mall; and the magnificent train shed continues to float above the activity below.

The eyes of renovation architects, contractors, and developers throughout the country will be focused on this work for some months, as they monitor its success in drawing clientele from the entire Midwest, as its developers feel it must—and will. Union Station’s significance in terms of size, scale, dollars invested, and sensitive development undoubtedly will greatly impact the way many others approach historic renovation in the future.

Editor’s Note: According to a recent article in the Wall Street Journal, Rouse Company’s St. Louis Station is off to the best start of any of the developer’s festive retail centers. For the September to December period, sales at the 160,000-square-foot renovated train station ran at an annual rate of $450 per foot, surpassing the previous opening record set by Harborplace in Baltimore. A company official says the 1985 World Series in St. Louis helped to boost sales.

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