Developing the Nines Hotel: Challenges & Solutions

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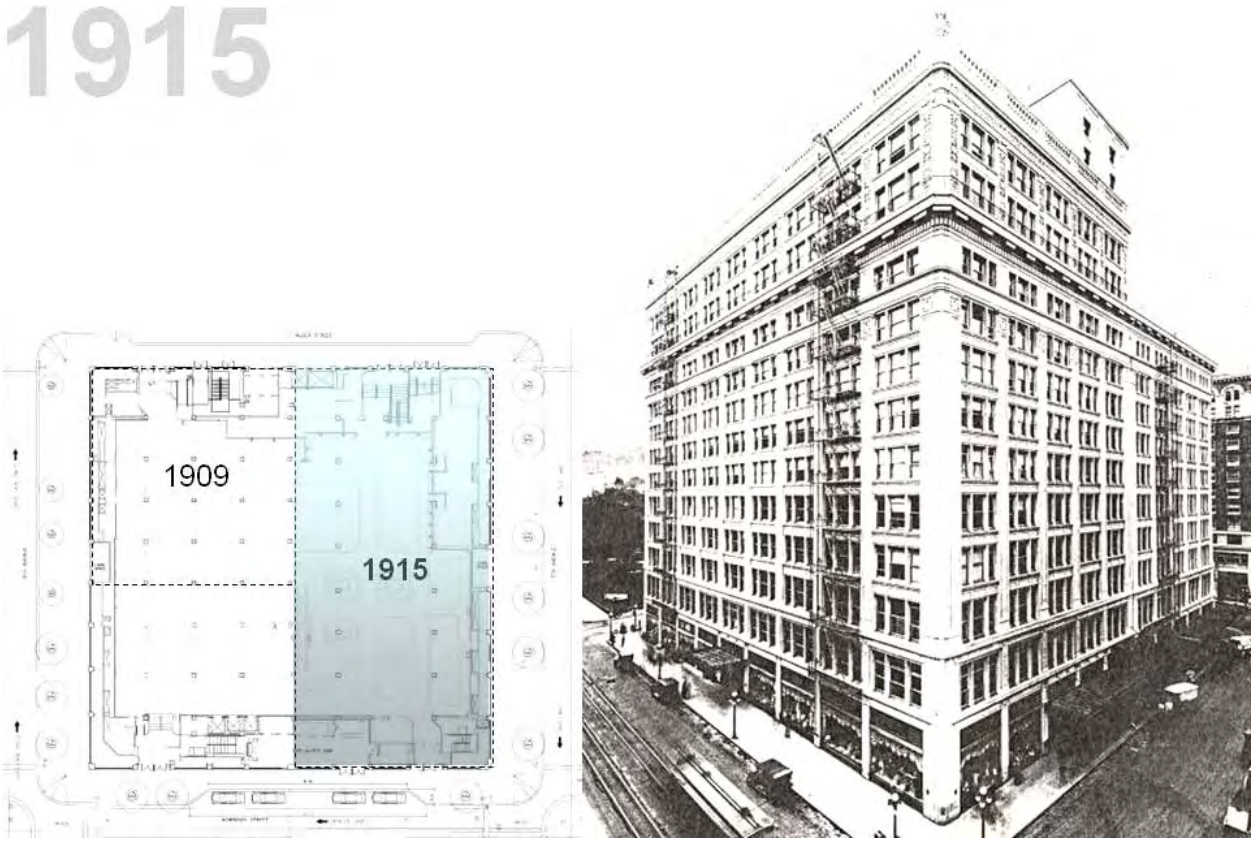
In October 2008, Sage Hospitality opened the doors of its new downtown Portland hotel, the Nines, operated by Starwood, The story behind the hotel illustrates the opportunities, challenges, and complications of renovating a downtown Portland landmark. Designed to reflect the elegance of the historic Meier & Frank building, the new Nines Hotel culminates years of work to partner public and private sector resources to rehabilitate a downtown landmark.

Since 1908, the Meier & Frank building has been an anchor for downtown retail activity. While most people think of the building as a single structure occupying an entire block in the central city, few realize that the Meier & Frank building is actually an aggregate of three different buildings, each one built in a different decade. In keeping with the building's genesis, the current $160-million rehabilitation aggregated many disparate needs of public and private stakeholders. This article describes multiple historic, economic, public/private, design, and management challenges requiring innovative solutions to achieve historic rehabilitation, adaptive reuse and sustainable design on this scale.

Portland's Retail Heart

The Meier & Frank Building site was first developed in 1898 as a 5-story structure known as the Whidden & Lewis building. A 10-story annex, the Doyle & Patterson building, was built in 1909 and connected to the main department store. In 1915, the original 1898 department store was demolished and a new 15-story structure was built on the same footprint, followed by another 15-story addition built in 1932.



The three structures comprising the Meier & Frank Building totaled 650,000 square feet, making it the largest commercial facility in the State of Oregon until the 1983 construction of

Portland's U.S. National Bank Tower. It was the first department store in Portland to be clad in white-glazed terra cotta and was the location of the first escalators installed on the west coast.[1]

The building was listed on the National Register of Historic Places on July 8, 1982. As detailed in the National Register nomination, "The Meier & Frank Building achieves significance as Oregon's earliest example of the white terra cotta commercial style department store, and as the first major commission for A.E. Doyle" who was a leader of the Portland architectural community during the years 1907-1928.

Meier & Frank was acquired by the St. Louis-based May Company in 1966, though May kept a regional office in the downtown Portland flagship store. Given its location adjacent to Pioneer Courthouse Square, East/West MAX light rail lines, and the downtown Pioneer Place, the Meier & Frank Building has long held its logistical and historical position at the retail heart of downtown Portland. However, the once-thriving store increasingly suffered from a lack of reinvestment as retail trends lured shoppers away from downtown department stores, resulting in declining revenues for the longstanding business.

Increasing space became available in the building as the store's merchandise lines continued to shrink and, by the 1990s, sales per square foot had begun to slip. In 2002, the May Company moved 600 jobs from Portland to its headquarters in Ohio, leaving the downtown Portland building with 200,000 empty square feet.

A Downtown "White Elephant"

At 650,000 square feet and rising 15 stories, the Meier & Frank building's struggle for success adversely impacted Portland's downtown. The design process of the rehabilitation effort began in 2001, when the Portland Development Commission (PDC) formulated the goal to keep the department store downtown and to retain the vitality of the landmark location. The long-standing question for owner, May Company, was how to rationalize the investment of millions of dollars for a location that many saw as a liability. Compounding the project's challenges, any renovation of this historic building would require approval not only from the City of Portland's Landmark Commission, but also from the National Parks Service, due to its listing on the National Register of Historic Places.

The architect, SERA Architects, and structural engineer, KPFF Consulting Engineers, were retained to study the structure. The team prepared a feasibility study outlining the seismic upgrade opportunities, costs and benefits of upgrading the historic building. This study outlined development options for the building including consolidating the department store on the lower floors and renovating the upper floors for condominiums, apartments, office or hotel. The study also provided PDC with the materials to illustrate the property's potential for adaptive reuse.

[1] *Source: Saving One of America's Great Stores: The Renovation of the Meier & Frank Building, Heritage Consulting Group, 2008*

Designed from the Outside

The team's study concluded that the Meier & Frank building had suffered from a lack of investment over the years, requiring fire, life safety as well as mechanical, electrical and plumbing system upgrades, and a full seismic upgrade to accommodate new uses. The seismic issues posed big challenges for the project's design, as well as its budget. To make the rehabilitation pencil out for the May Company, the design and construction team was asked to bring the entire building up to current code requirements for seismic performance, while at the same time maintaining the occupied retail space as fully operational. This challenge was compounded because the team was rehabilitating not just one building, but three separate buildings on the same block at the same time.

Early in the project, the team determined that the most common solution, concrete shearwalls for seismic reinforcement, would not be feasible as the concrete's mass would subtract valuable square footage from the ground floor retail use. A relatively new technology, viscous dampers incorporated into the existing steel frames, was chosen for flexibility and proven performance in a seismic event. While the approximately $8 million cost of the viscous dampers might be considered expensive, the dampers made the renovation possible because the technology is less disruptive to the existing building structure and accommodated the restoration efforts to preserve integrity of its historic architectural fabric.

Development Opportunities

A key part of the PDC's study was to outline potential development options for the building, including consolidating the department store on the lower floors and renovating the upper floors to condominiums, apartments, office or hotel. The opportunities for adaptive reuse were constrained by the building's 40,000 square-foot floor plates, limited parking options and deep cavernous floor plans that would never be considered Class A office space. According to John Echlin, Design Principal at SERA Architects, this was no easy task. "It took creative thinking to renovate the building from a seismic perspective, maintain the building's historic qualities, and at the same time find a new use for the building's upper floors," said Echlin.

Given Portland's projected growth in population, residential development was considered as a potential opportunity. Affordable apartments were initially considered, but taken off the table as the project would not have generated sufficient return on investment. Not only did the building's layout make conversion to high-end condominiums uneconomical, it was also determined that federal Historic Tax Credits would not apply to condominiums in the building. Condominium development was further complicated by limited potential for location and ownership of parking spaces.

Parking emerged as a significant issue from both bottom line and design perspectives. The team initially explored turning the basement levels of the building into parking space. However, with the highest-value square footage embodied in the ground floor retail space, the May Company was not interested in losing ground floor space to parking ramps. Once it was determined that parking would not work in the building, residential uses such as condominiums were no longer feasible options.

Expanded retail use was briefly considered, but discarded as a viable option, as it is extremely difficult to successfully operate retail on upper floors. The team explored office and hotel uses as they can be made to work with offsite and valet parking. Converting the historic building to office use would have resulted in Class B space. At the time, Portland's office market would not support 300,000 square feet of new Class B office space. In addition, office use was not a publicly accessible active use and potential rents did not appear able to support renovation costs. The hotel option emerged as the most promising alternative due to Portland's improving occupancy rate and rising room rates, apparently viable economic returns, and ability to use existing parking garages with valet service.

While the team worked towards the best model for the building's adaptive reuse, PDC was concurrently engaged with Portland's downtown retail association, the Association for Portland Progress (now the Portland Business Alliance), to study the entire downtown Portland retail core. The broader study was focused on creating strategies for downtown retail revitalization, job-creation, improved tax-base, and other shared economic benefits. Redevelopment of the Meier & Frank building was frequently discussed as PDC and the downtown retail association wrestled with what to do with what was considered as an underperforming white elephant.

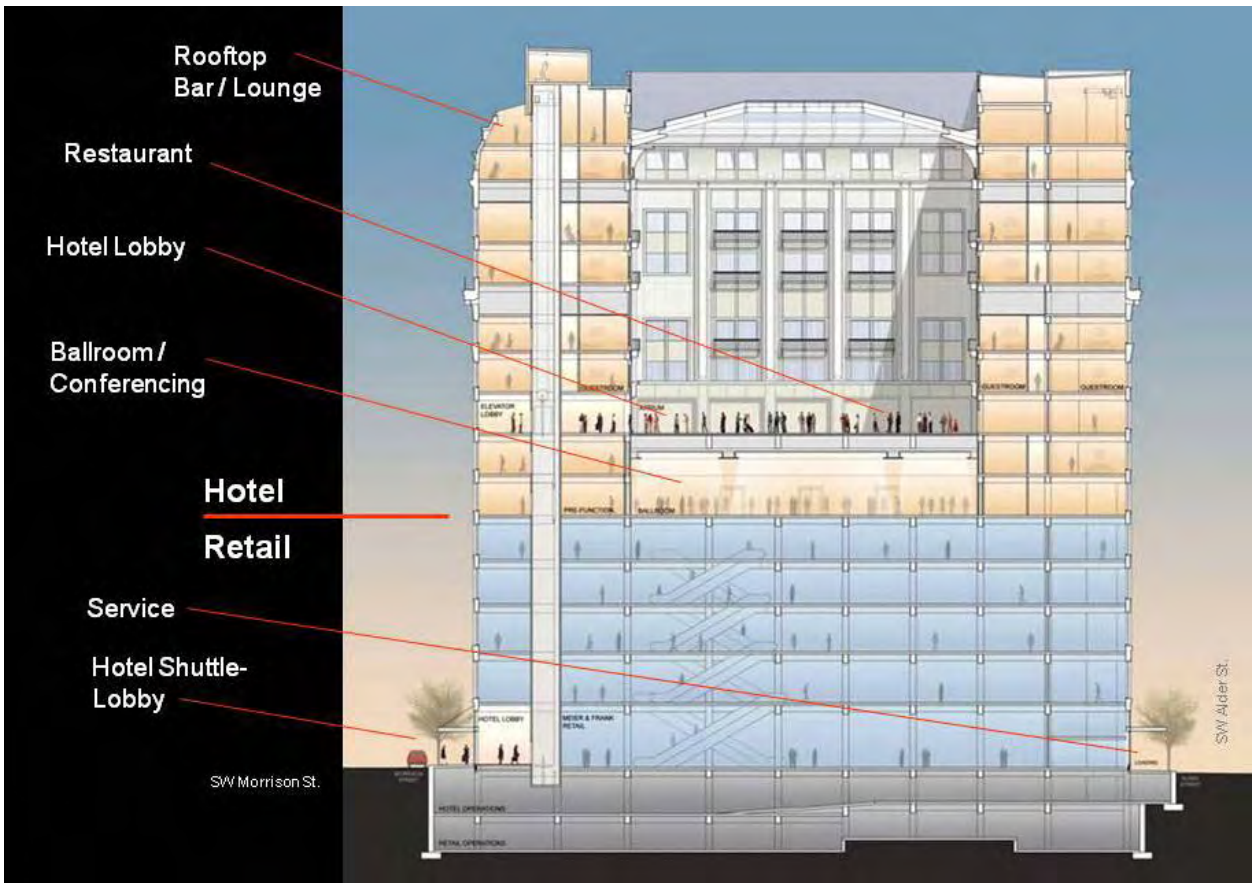
"We formed a citizen's advisory committee, a technical advisory committee, and worked with retail consultants to look at downtown strategies. Everyone concluded that we needed to keep

the Meier & Frank department store downtown because it was still a draw for people and the company did a huge amount of advertising from which the rest of downtown benefited. Making sure we kept the historic building anchored with a department store and finding better uses for the upper floors became our number one priority," said Ross Plambeck, Project Manager for the Portland Development Commission.

A Plan Emerges

In 2002, the Denver, CO-based hotel developer, Sage Hospitality Resources (Sage), visited Portland looking for potential sites on which to develop a large luxury hotel. Sage had been surveying Portland's emerging, vibrant downtown culture and had determined it to be a good match with their track record for converting high-quality historic buildings into hotels. The Meier & Frank building immediately attracted Sage's attention. SERA Architects embarked on a study for Sage and PDC to determine how many hotel rooms could potentially be developed and what it would take to renovate the historic structure.

With guidance and aid through the Portland Development Commission, Sage and the May Company structured a complicated renovation project. Sage's proposal included purchasing the top nine floors of the building in which to construct a 331-room luxury hotel. Hotel amenities would include a 7,000-square foot skylit atrium, 14,000 square feet of ballroom and meeting facilities, lobby, restaurant and roof-top lounge.



The May Company would completely rehabilitate the interior five lower floors of retail space, while remaining in continuous operation. New lighter and brighter storefronts and awnings would generate mid-block retail activity opening to sidewalks on 5th and 6th Avenues while reinforcing retail energy north on the downtown Transit Mall.

The project would include complete interior and exterior rehabilitation, as well as seismic upgrades utilizing viscous dampers throughout all three existing structures. After working with PDC to set the stage for the project, SERA Architects would be retained as the shell architect and architect of record for the project, responsible for integrating the seismic technology into the building, designing the architectural changes to the existing structure and coordinating with sub-consultants and three interior design firms. SERA would provide the design, process it through governmental agencies, prepare and coordinate construction documents with the various disciplines (including structural, civil, mechanical and electrical engineers, audio-visual specialists and graphic artists) and coordinate with the hotel interior designer, hotel restaurant designer and rooftop lounge interior designer.

The combination of the new hotel and rehabilitated, rebranded department store was projected to create and retain a significant number of jobs, adding to downtown Portland's redevelopment energy. Based on information provided by PDC, the Meier & Frank renovation project would generate over 800 construction jobs, as well as 370 permanent operations jobs. In addition, the revamped facility would contribute over $70 million in federal tax revenue as well as $45.4 million in state and local tax revenue over a 10 year period.

Putting the Deal Together

The $160-million renovation of the historic Meier & Frank building was made possible by a complicated financing package that effectively leveraged urban renewal funding. Dividing the building into commercial condominiums was the crucial first step in making the deal work for all parties involved. The May Company, which was sold to Federated, which rebranded the store as a Macy's, sold floors six through 16 and the exterior shell to Urban Heritage Portland Hotel LLC, a limited liability company created by Sage Hospitality Resources as the ownership entity. The proceeds from this sale, $20 million, was combined with $10 million in cash from Macy's corporate headquarters to consolidate and modernize retail operations on floors one through five plus the basement. The upper floor buyer then undertook a $133-million project to seismically upgrade the building, rehabilitate the exterior and adapt the upper floors for hotel use, including a 12,000 square foot rooftop restaurant and lounge, and a central ten-floor atrium.

Four loans from the Portland Development Commission totaling $17 million enabled the project to move forward. According to PDC documents:

1. The first loan aided in funding the seismic retrofit. It was $8.625 million over 25 years with a 3% interest-only payments during the first three years, followed by 3% principal and interest payments based on a 32-year amortization schedule. At the end of the 25th year, the owner would make a final balloon payment.

2. The second loan was a bridge loan of $2 million over an eight year period at 3% with interest-only payments for the first three years followed by interest plus $100,000

annual principal payments in years four through eight, with the balance due after the eighth year.

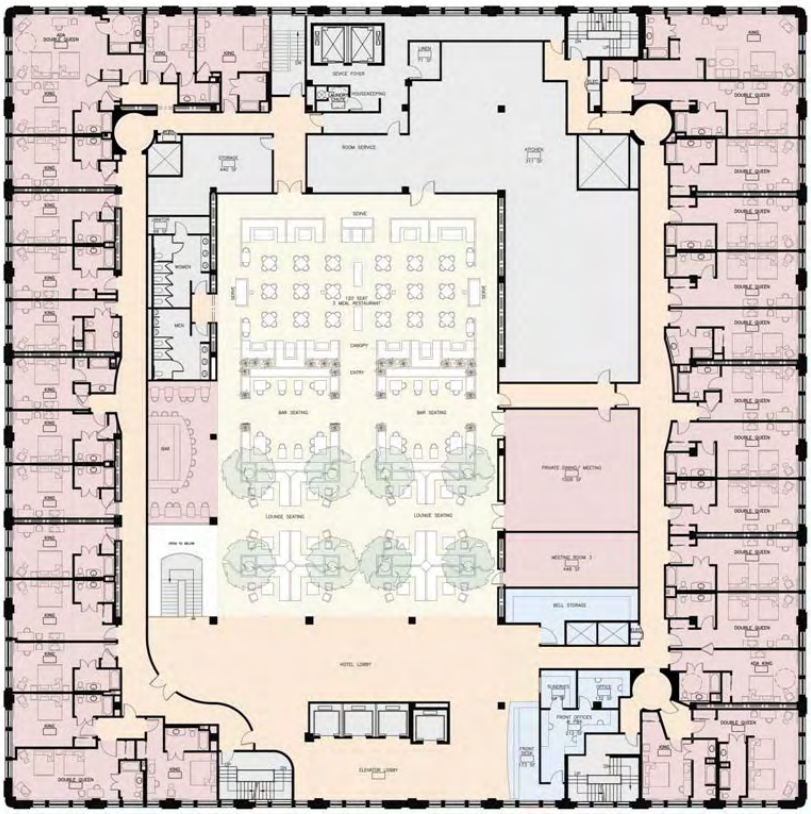
3. The third loan helped fund the project. It was a $3.3 million loan for 15 years with a sliding interest rate that ends with a balloon payment.

4. The fourth loan of $3 million is a seven-year term loan at 5% interest.

In addition to these loans, Sage was responsible for $36 million in developer equity funds. This included the 20% federal investment historic tax credit, New Market Tax Credits (NMTC), and energy tax credits. Sage also secured a $46 million mortgage and an $11-million mezzanine loan. PDC assisted Sage in preparing the NMTC application with Sage being awarded $72.5 million in tax credits, the largest single allocation to a single project in the country.

The federal investment tax credits for historic preservation, estimated at $21 million, required that the building be rehabilitated according to the U.S. Secretary of the Interior's Standards for Historic Rehabilitation. Coupled with the $72.5 million New Market Tax Credits, this equated to approximately $28.2 million of equity for the project. Sage's financial package was completed with a first mortgage of $46.7 million plus a mezzanine loan of $10.7 million.

Because the Portland Development Commission requires a LEED Silver Certified level of sustainable design and environmental efficiency for projects it helps finance, the project has been submitted for LEED Certification by the U.S. Green Building Council.



Hotel Design Challenges

When studying whether an existing building is a good candidate to be rehabilitated into a hotel, it is common to begin by working out the typical guestroom floor first to see how well it accepts the module of a standard hotel room. If the existing window spacing, column bay spacing and building depth work out well, there is a good chance of creating an efficient floor plate that will maximize the number of guestrooms and contribute to a workable pro-forma. In the Meier & Frank Building, the window spacing is generally 14 feet for two windows, which worked out reasonably well.

One of the project's biggest design challenges was the unique grid structure of three different buildings. The column spacing was somewhat odd, exacerbated by the fact that the grid differed in each of the three phases of the original construction. The team customized the design to fit existing conditions while at the same time meeting the Starwood brand's national standards for luxury hotel rooms.

While appropriate for retail, the 200-foot by 200-foot floorplate — nearly an acre of space on each floor — presents an inherent challenge for a hotel, since hotel rooms are relatively small and need both light and air which large floorplates preclude. The solution in this case was to cut an atrium space into the building, bringing in light and creating an efficient double-loaded corridor layout for the guestroom floors. Fresh air would be ducted into the atrium, as well as to all rooms. This approach would require the removal of nearly 70,000 square feet of total floor area. In addition, cutting out the atrium reduced the mass on the upper floors of the building, reducing potential seismic stresses.

The atrium approach also allowed resolution of a second major challenge in converting an existing building into a full service hotel, that of finding sufficient clear span space for a large ballroom. By cutting the atrium down to the 6th level of the building and adding back an infill floor at 8th level, a new double height clear-span 7,200-square-foot grand ballroom space was created as a key hotel amenity.

Having worked out the design approach for the upper floors, the team still needed to address how the hotel would function sitting on top of five floors of retail space and how best to manage the vertical separation the mixed-use occupancy would create. The main issues to resolve were the guest arrival sequence, back-of-house functions, and vertical connections through the retail space.

The ground level sales floor is the most valuable square footage for the department store, so it was critical that the hotel functions minimize their size on that level. To solve this issue, the hotel would occupy a 900-square-foot "Welcome Lobby" on the ground floor located along SW Morrison Street, which is the vehicular drop-off point for hotel guests. That lobby would contain some valet and bell functions, a small seating area and access to the hotel guest elevators. The guest elevators connect to the main lobby on level eight, the guestroom floors, and to the feature top floor lounge of the building.

The back-of-house elements including employee facilities, housekeeping, maintenance, and mechanical equipment, were located on the first basement level (the building has four levels of basement) taking up about half of the floor's square footage. Connection to the hotel above and to the street for loading was achieved via the addition of two service elevators that connect

from basement to the top floor with access to the Alder Street loading area that both the hotel and department store share on the ground level. An employee entrance and stair to access the back-of-house functions on the lower level was also added.

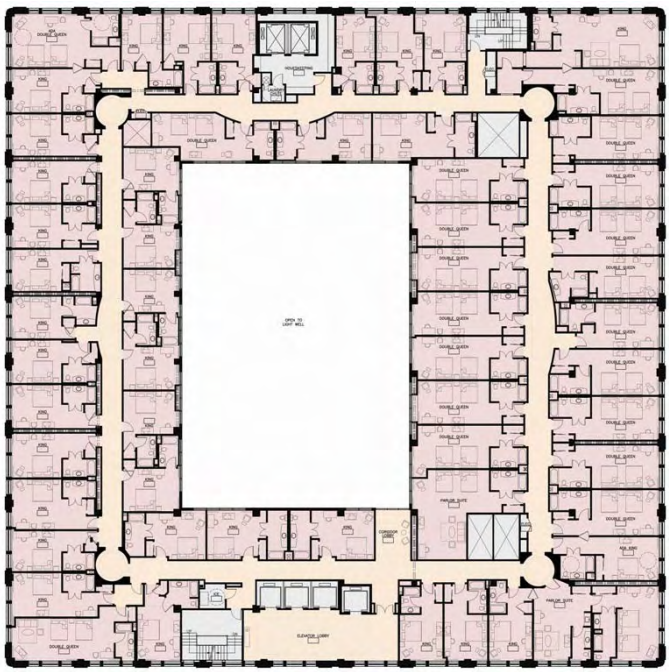
These approaches to the guest arrival sequence and location of back-of-house functions allowed the hotel to occupy only approximately 2,000 of the 40,000 square feet of area on the ground floor. Minimizing this area and creating an integrated vertical connection of both guest and service traffic was a major design contribution to the deal's success.

Greened to the Nines

While the PDC's participation mandated a concerted effort at green building, Sage had no prior practical experience of sustainable practices or with LEED projects but did resolve to of create its first LEED-rated hotel. Although SERA's team had previously designed numerous LEED-rated projects, setting out to design a LEED-rated hotel in 2004 was fairly uncharted territory. At the time, only one hospitality property in the U.S. had received basic LEED Certification (the current number is still below ten). The major brands did not yet recognize the demand for green hotels and they had no green operations or development policies in place. There were no data on construction cost impacts for LEED specific to the hospitality industry. Also, there was a perception that greening a property meant reducing the quality of the guest experience in terms of finishes, lighting, and shower quality.

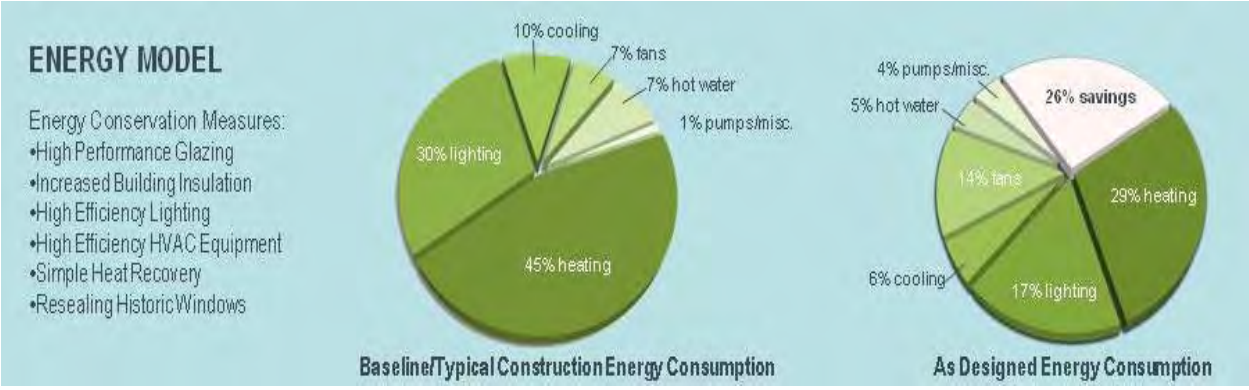
The challenge was presented to the team to deliver a luxury-level LEED Silver hotel with minimum impacts on the construction budget and no negative impacts to the guest experience. The design approach focused on four elements; energy efficiency, water efficiency, indoor environmental quality, and maximization of available incentives.

The approach to energy efficiency incorporated "state-of-the-shelf" technologies using the best of available products with which the contractor and building trades were already familiar. This included high-performance glazing in the new infill elements, resealing the existing historic windows, increased insulation in the additions to the building, high efficiency lighting utilizing both compact fluorescent lighting [CFLs] and light emitting diodes [LEDs], high efficiency mechanical systems, and heat recovery. The HVAC system consists of central high-efficiency condensing boilers, fired by natural gas, for heating and a water-cooled chiller and cooling tower. Each individual room is equipped with a fan-coil heat-exchanger unit with heated water and chilled water coils to control temperature and humidity. The exhaust air from the guest rooms is collected for heat recovery to preheat outside air for guest room ventilation, which is delivered



through the fan coil units. This combination of elements resulted in a 26% reduction in energy consumption.

These measures cost $291,750 more than what would have been spent typically, but would pay back over $100,000 per year in energy savings. The efficiencies would also help to qualify the project for over $317,000 from the State of Oregon Business Energy Tax Credits (BETCs) and the Energy Trust of Oregon grants. The scale of incentives available to the project and the potential for operational savings made achieving energy efficiency an obvious and rewarding goal for the project.



The effort to reduce water consumption brought up a significant challenge for all hospitality projects, the potential clash between guest comfort and green initiatives embodied in the showerhead. Quality of the shower experience is one of the elements on which guests focus and can be a source of constant guest complaints if a property has low water pressure. Though options for showerheads that operated below the industry standard 2.5 gallons per minute were investigated, it was decided it was best to use standard showerheads and look for efficiencies in other places. The final strategy used water-managed, back-of-house fixtures, as well as water-saving measures in the guest rooms, such as aerators on the sinks and dual-flush toilets. This resulted in a 28% efficiency savings in water consumption over the baseline. One of the biggest benefits was receiving a reduction in City system development charges based on the reduced water and sewage use. This amounted to a $280,963 savings to the project, while only costing an additional $32,300 for the fixtures to achieve the efficiency.

The third element was to focus on improving indoor environmental air quality. Though these measures would not pay back like those for the energy and water initiatives, they would contribute to a recognizably improved experience for guests and employees. Measures here included low volatile organic compound [VOC] -emitting paints, adhesives, sealants, and carpet systems throughout the hotel.

The result of these strategies has been delivery of a LEED Silver targeted design with a premium of only 1.2% of construction costs *(see sidebar on the next page).* After incentives are factored in, this premium is reduced to just 0.2% with the utility savings covering the remaining premium in a period of 18 months. The utility cost savings will continue to payback over time, resulting in nearly one million dollars in operational cost savings over ten years. With an annual operating expense savings of $100,000 from an incremental investment of

$730,000 the return on cost is 13.7%. This does not include the additional cash incentives for water and energy efficiency of $579,000 in the first year.

COSTS		
Soft Cost Premium		-$210,260
Hard Costs		
Sustainable Sites	-$59,660	
Water Efficiency	-$32,300	
Energy & Atmosphere	-$291,750	
Materials & Resources	-$100,000	
Indoor Enviromental Quality	-$32,000	
Innovation & Design	-$4,000	
Hard Cost Premium		-$519,710
Soft & Hard Cost Premium		**-$729,970**
		1.2% of construction costs

INCENTIVES		
Energy Trust Incentives	$101,104	
BETC Tax Credit (pass thru value)	$216,104	
Reduced City Development Charges	$280,963	
Total Incentives		**$598,171**
Cost Premium Less Incentives		**-$131,799**
		0.2% of construction costs

PAYBACKS	
Straight Pay Back Period	**18 Months**
10 Year ROI	**$992,880**
Return On Investment	**37.10%**

While it took more than a decade to complete, the complicated and challenging project used a wide variety of historic, design, construction, economic and management tools and techniques to save a Portland landmark.