

**2016 ACE AWARDS**

**PearlWest**

Category 10: Best Building Project  
(\$40 –\$70 Million—General Contractor)

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<b>PROJECT TEAM</b>	<b>ARCHITECT</b>	<b>CIVIL ENGINEER</b>
<b>OWNER</b>	Shears, Adkins, Rockmore Architects	JVA, Inc.
Ten Eleven Pearl, LLC (Nichols Partnership)	<b>OWNER’S REPRESENTATIVE</b>	MEP ENGINEER
<b>GENERAL CONTRACTOR/ CONSTRUCTION MANAGER</b>	Project One Integrated Services	M-E Engineers
JE Dunn Construction	<b>STRUCTURAL ENGINEER</b>	ELECTRICAL ENGINEER
	JVA, Inc.	M-E Engineers
		LANDSCAPE ARCHITECT
		StudioTerra

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**PROJECT NARRATIVE**

**Project overview**

PearlWest in Boulder is redefining the term mixed-use as a state-of-the art building that merges the Pearl Street mall experience with modern office and retail. The project boasts many technologically advanced design elements that establish it as the benchmark for all future office/mixed use construction.

Located on the historic Daily Camera site, at the WestEnd of the Pearl Street Mall, PearlWest provides an extension of the pedestrian mall that serves as a junction where business, retail, and entertainment meet. The 287,420 SF project consists of two buildings, 1048 Pearl St. and 1023 Walnut St., both with below grade parking totaling 123,160 SF.

**Solutions of special projects**

PearlWest was constructed on an urban infill site that was the home to the historic Daily Camera building, originally constructed in 1891. Given the sites landmark status, the PearlWest building was carefully designed and modeled after the area’s distinct aesthetic characteristics. Design elements such as steel, masonry, and natural stone were evaluated under the highest scrutiny by the City of Boulder and Shears, Adkins, Rockmore Architects. The project provides increased open space with an inviting plaza on Pearl Street and a 6,000 SF public terrace on Walnut Street.

The site is located directly over an active aquafer that channels groundwater to the nearby Boulder Creek. Due to the presence of significant groundwater and the deep excavation of the Pearl building parking structure, a secant pier earth retention system was used to cut-off the flow of water around the project site. This marine style shoring system allowed the project to effectively isolate the excavation site without interruption of the flow of ground water around the project. The final below grade structure is isolated by a “bathtub” waterproofing system used to permanently eliminate the need for dewatering and water treatment systems.

The team also faced significant site access challenges based on the zero lot line location directly off of the Pearl Street Mall and the infill location on Walnut Street. Access to construct the project was limited to the use of an alley that separated both buildings. Nearly all of the material deliveries, mass excavation, concrete trucks/pumps, and hoisting had to enter and exit through the same access point.

### **Excellence in project execution and management/team approach**

In addition to the collaborative effort between the owner, architect and contractor team to deliver this project, we extended that partnership to include the neighboring community to ensure effective project execution with minimal disruptions to ongoing operations. Delivering this project on an active site with shared wall construction on two sides of infill site required extensive coordination with adjoining property owners. Public access through the alley also required continuous coordination with local businesses to allow continuous access during construction activities. Pearl Street Mall access and public safety were a primary concern. JE Dunn worked over the course of the project to ensure continuous public egress and local business access while constructing the project along the zero lot line condition. Other good neighbor efforts included:

- Mass Excavation including the removal of 55,000 CY of soil and bedrock while continuing to manage local traffic and access around the project site. All materials were removed based on the approved trucking route through a single alley.
- A secant pier shoring system provided the stability required for a deep excavation while ensuring zero foundation impacts to the immediately surrounding properties. This system allowed for excavation through bedrock conditions with almost zero vibration impacts to surrounding properties.

### **Construction innovations/state-of-the-art advancement**

The project boasts the first Self-Guidance Automated Guided Vehicle Storage (AGV) system installed west of the Mississippi. This state-of-the-art parking system allows the Owner to park vehicles at a rate that is 3x greater than conventional parking garages. The AGV system uses laser technology to scan cars entering the garage. The car then descends on an automatic elevator and is greeted by a four-foot-tall robotic valet that parks the car in the most efficient way, allowing four times as many cars to be parked there than in a traditional garage of the same size. When the car needs to be retrieved, the driver just swipes their card at the kiosk or keys in a code, and the car will be returned within two minutes. The AGV system operates 60 parking spaces in the building, which will also contain an additional 220 traditional underground parking spaces.

PearlWest is currently pursuing LEED Platinum. Key strategies towards achieving this certification include:

- o Optimized Energy Performance = >40% above ASHRAE 90.1
- o Renewable Energy through the installation of Photovoltaic Systems
- o Water Use Reduction >40% through the use of low volume water closets

### **Environmental/Safety**

Like any JE Dunn job, safety is always the number one priority. With this project being in downtown Boulder with lots of traffic and pedestrians, there were many factors to consider to ensure the safety of the community and environment. The initial phase of the project involved the demolition of the existing Daily Camera building on both the Pearl St. and Walnut St. properties. Demolition in a heavily occupied public mall required a highly coordinated and logistically sound approach to ensure public safety. The Walnut building demolition required a surgical approach to ensure that the adjoining properties were protected and the existing tenants were able to continue with uninterrupted operations.

Covered walkways were installed and maintained around all public accessible sides of the project. Walkways were integrated into the local business marketing and advertising plan to ensure business impacts were minimized. Additional aesthetic treatments were installed on the Walnut walkways to provide an inviting storefront appearance while continuing to maintain public safety.

High risks for fall hazards were mitigated with daily protective management and continuous safety audits by the project staff. All trade partners participated in daily project stand-up meetings and Jobsite Analysis (JSA) as required to ensure zero Lost Time Accidents on the project.

### **Excellence in client service and/or contribution to the community**

JE Dunn's proactive involvement with the local community and the City of Boulder resulted in a partnership built on trust, commitment, and collaboration. This incredibly complicated and intrusive project located in the heart of the Boulder Central Business District concluded with a flawless record of community satisfaction and appreciation. The project has created a central point of growth, vitality, and excitement never before seen at the WestEnd of the Boulder Central Business District.







ORIGINAL BUILDING



PRIOR BUILDING BEFORE DEMOLITION



