

THE SHELTON

Owner AHC, Inc.

Architect Bonstra / Harsign Architects

by Mike Ebrahimi, Vice President

The Shelton is a mixed-use, four-story, 103,138 sq. ft. wood frame building constructed atop a parking garage with a post-tensioned concrete elevated deck, providing 108 parking spaces below grade. A concrete podium structure atop the parking deck provides retail space at street level for local merchants. The 94-unit building contains 15 three-bedroom units, 47 two-bedroom units, 21 one-bedroom units, eight junior one-bedroom units, and three efficiencies. Shared laundry facilities are provided at each floor. Three egress stairs, one passenger elevator, and one freight elevator serve all four floors as well as the parking level below ground.

The building footprint covers an entire city block surrounded by 23rd and 24th Streets at the north and south sides, Shirlington Road on the west, and Kenmore Street on the east. The U-shaped building encompasses a private landscaped courtyard. The three feet of soil above the parking deck allows for small trees and other plants to successfully grow, providing the residents shade and privacy. Paved walkways traverse the courtyard connecting the public spaces of the building at the south and other exits to the northern gate along 23rd Street. Integrated into the courtyard design, a playground provides an additional amenity for the residents.

The project was contracted and constructed in two separate phases. The first phase included demolition of an existing 22-unit, three-story brick building and relocation of existing utilities within the footprint of the proposed building to the perimeter of the site. Harkins completed this phase ahead of schedule and entered into an early start agreement with the owner. This allowed us to commence sheeting and shoring for the parking garage excavation while the building permit was being processed through the City of Arlington.

The presence of the overhead utilities - telephone, cable, and high voltage power lines - around the perimeter of the site presented an enormous challenge for the sheeting and shoring operation. Since it was not possible to use a typical pile driving rig due to the length of the soldier beams and proximity to the power lines, a special rig had to be brought to the site by Clark Foundations. This was a pile driving hammer mounted on an excavator designed to drive shorter piles within height-restricted areas. Soldier beams had to be

Sam Hashemi



Tiger Aerials



cut in half and driven in segments. After driving the first segment so the top was flush with the grade, the next segment was placed on top and welded and then that whole assembly was hammered down.

This operation naturally added time and cost to the sheeting and shoring operation, but provided an opportunity to start excavation of the parking garage. The hope was that this added time would result in obtaining the *footing to grade* permit, which was needed to start the concrete operations and relocation of the overhead power lines by Virginia Dominion Power (VDP). The owner was pursuing both vigorously.

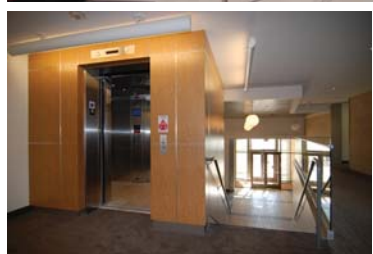
Our as-planned schedule had been sequenced to start construction of the garage from west to east (Shirlington Road toward Kenmore Street). We completed the parking garage excavation and commenced the concrete footings and foundations as planned. However, forming of the concrete walls had to be re-sequenced from west to east to mitigate project delays because the high voltage power lines along Shirlington Road were still there. Geer Concrete had planned to use special one-piece forms that had to be craned in place to form these walls, but the power lines were in the way.

Garage walls, ramp, ground slab, and post-tension deck were completed, and podium construction had commenced when we received the building permit for vertical construction, allowing the framing operations to start. We knew that, after framing the first two stories, we would be getting too close to the power lines to continue. The owner, in the meantime, had engaged a consultant just to deal with and expedite relocation of the power lines to underground. During this time, Harkins was awarded a separate contract to install the duct bank necessary for relocation of the power lines. Duct bank installation had been completed in time, but there was no sign of VDP. At this point, the owner agreed to pay the power company for an interim solution – to install outriggers on the power poles along Shirlington Rd. and move high voltage lines farther away from the building to allow framing operations to continue.

The framing of the building had its own challenges. The exterior bearing walls were not vertically aligned and moved in and out of plane. This created offsets and shadows in the façade of the building and allowed for faux balconies at the French doors of the apartments. Floor joists of the floor below were cantilevered out to carry bearing walls for the floor above. These cantilevers, however, had to be support-

Continued next page...

Photos by John Dawson except where noted.



Feature Project

The Shelton, continued from previous page.

ed by the addition of steel posts and microlam beams, which complicated the design and construction of the structure but provided for a very unique façade. This look is more like what one would see on steel and concrete buildings and is in keeping with the more sophisticated architecture which is the trend in Arlington.

The exterior skin of the building is a complex veneer not typically seen on wood structures. It transitions horizontally and vertically, changing from brick to architectural ground face CMU to stucco and metal panels. Exposed concrete at sidewalk level, spandrel glass at some window panes, flat roof with stepped parapet walls, and several sun control canopies all contribute to the unique look of this building.

Harkins completed installation of all exterior finishes starting within the courtyard to allow for completion of the remaining work in this area. Subsequently, exterior finishes progressed from 23rd Street to Kenmore and turned into 24th Street and finally to Shirlington Road. The power lines were still there. We had to use narrow scaffolding to install the skin on the first two floors, and then had to wait until the lines were finally removed to finish the Shirlington Road façade. This was accomplished just as we were turning units over and completing the project.

This was Harkins' first project with the Bonstra | Haresign team. Their professionalism, commitment to teamwork, and sense of urgency in solving problems felt as if we had worked together for years.

Our thanks go to the AHC Inc. and Bonstra | Haresign staff, especially John Welsh, Joe Weatherly, Dan Revermann, Carlton Miller, Rick Leeds, David Haresign, and Matt Corell for their dedication, proactive and prompt resolution to some very difficult construction issues, and the trust, respect, and spirit of true partnership they brought to the process.

Our major subcontractors are among those deserving special recognition for making this project a success and meeting a very aggressive construction schedule: Clark Foundations, Geer Construction, Modu-Tech, Metcalfe Mechanical, Breeden Plumbing, Colonial Electric, Wolf Fire Protection, Steer Roofing, Advanced Windows, Melco Drywall, and H&M Finish Carpentry.

Harkins team: Mike Ebrahimi, Mike Mallow, Tom Benson, Omar Black, Dave Griffin, Lloyd Miller, Bill Brandt, Reggie Hall, Vinh Quach, Sam Hashemi, Anibal Salguero, Sam Williams, Jan Rider, Michelle Wright, Nola Jackson.

Gates of Ballston is HAND Best Project in Virginia

Harkins client AHC Inc. was the recipient of a HAND Housing Achievement Award in June. The Gates of Ballston, the 464-unit garden apartment community in Arlington, Virginia that Harkins finished renovating for AHC in 2007, was voted Best Project in Virginia. HAND, the Housing Association of Nonprofit Developers, presents the awards each year to recognize best practices in affordable housing projects, programs, and organizations during the preceding year. HAND was formed in 1991 to support a professional community of housing providers in order to increase the supply of affordable housing in the Washington, DC metropolitan area. HAND was incorporated in June 1998 and is an IRS-approved 501(c)(3) nonprofit organization.



Gates of Ballston

John Dawson