PROJECT **PROFILE**

RESIDENTIAL | DEVELOPMENT

Alta Pinehurst Apartments
Lakewood, Colorado

The scarcity of flat, buildable land has made manipulating site and property grades central to the construction of new housing and other types of commercial development. Keystone's structural segmental retaining wall (SRW) systems enable maximizing buildable space in a structurally sound manner through grade improvement and slope reinforcement.

In the design phase of its new luxury apartment development in Lakewood, Colorado, Wood Partners had to grapple with the challenges involved in construction on a site fraught with problematic grade changes. It was clear from the outset that a large volume of fill would be needed to even out the hilly contours.

Owner: Wood Partners

Engineer: Ground Engineering

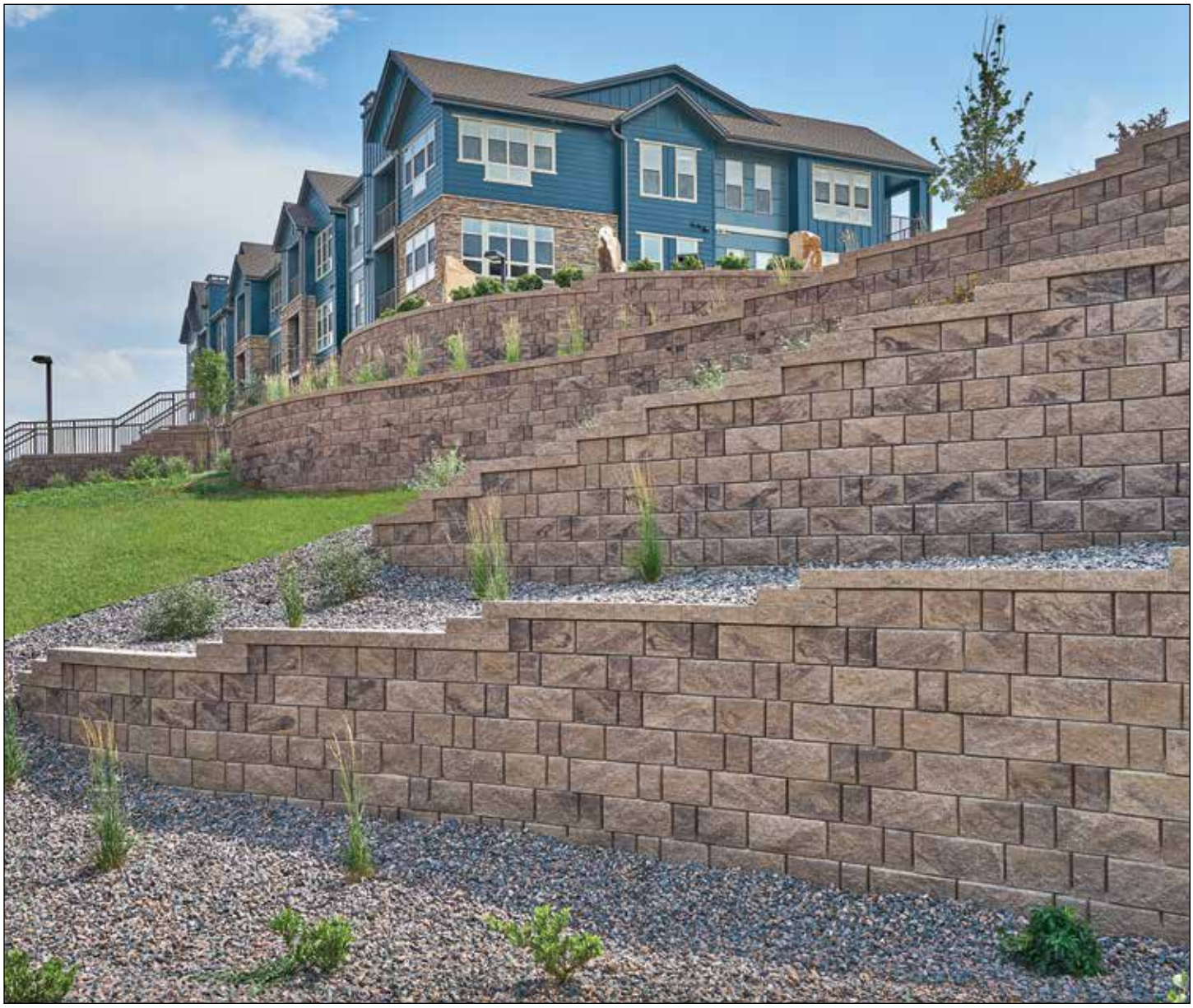
Contractor: Slaton Bros.

Keystone Producer: Colorado Best Block

Technical Description:

- Keystone Compac® III - Regency Wall
- Total Wall Area: 65,500 sf
- Walls: 45
- Maximum Tiered Height: 24 feet
- Geogrid: StrataGrid

Installation: 2016-17



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Keystone Compac® - Regency was proposed by the wall installation contractor, Slaton Bros. Their experience with this SRW system told them it would be both an economical choice in light of the many wall structures that would be required, and also give the grounds of these luxury apartment buildings a more sophisticated hardscape aesthetic than some less decorative and less flexible wall options in the same price range. In addition, the flexibility of the SRW makes possible graceful curves and tight corners within the same wall, adding depth and variability to landscaping.

To visually connect and coordinate exterior site elements and buildings, the developer wanted a wall system with several sizes of block that could generate a random design pattern. Keystone Compac - Regency has scored unit options in addition to a straight split unscored unit. When the faces are combined, the result is a sophisticated ashlar-like pattern: the decorative combination of different sized blocks and color blends creates the look of hand-laid stone. On this project, the ashlar wall face resembles and complements the brick facade of the apartment buildings.

These features coupled with the system's robust structural specifications and its high-strength interlocking pin connection system were the factors that assured its selection. The design for this 19-acre site called for 45 walls, many of them two-tiered, with a 24-foot maximum tiered height. Total length of all walls combined is an impressive 11,000 feet — 65,500 total square feet. Colorado Best Block is the block manufacturer.

Another important aspect of the wall design for Alta Pinehurst was to maximize buildable space. Wall units were installed using the front pin hole configuration, providing a "near vertical" setback (1 degree), a space-conserving design tactic.

Keystone Compac is a nationally-recognized pinned-connection wall system that uses fiberglass alignment pins. In addition to proven structural and durability performance, it is considered a cost-saving alternative to other wall systems and an apt choice when the deep-embedment length of the Keystone Standard® unit is not required. Installers prefer the lighter weight and a tail design that is shorter than standard wall block. Unit dimensions are 8 inches H x 18 inches W x 12 inches D; the weight is 71-76 pounds. Tight radius curves and vertical core alignment are possible because of the shape of the unit.

Slaton Bros. was able to complete the massive installation project in a twelve month time frame that included several mobilizations. Today the property, with its winding stretches of stonework and tiered containment structures, gives the fleeting impression of a castle, albeit one with present-day architectural splendor.

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