

projects

Gross Area:

512,000 SF

483 Residential Units, 30,000 SF Retail

45,000 SF Grocery Store under Residential

718-Car, Below-Grade Garage

Developer:

Comstock

Services:

Master Planning, Architecture

Interior Architecture

Construction Administration

Project Description:

This is an 11-storied project, incorporating extensive ground floor retail space, and includes a 45,000 SF grocery store (Harris Teeter) with 3 levels of below-grade parking for both the residences and retail. Each component is stacked upon the other providing a mixture of uses within one structure.

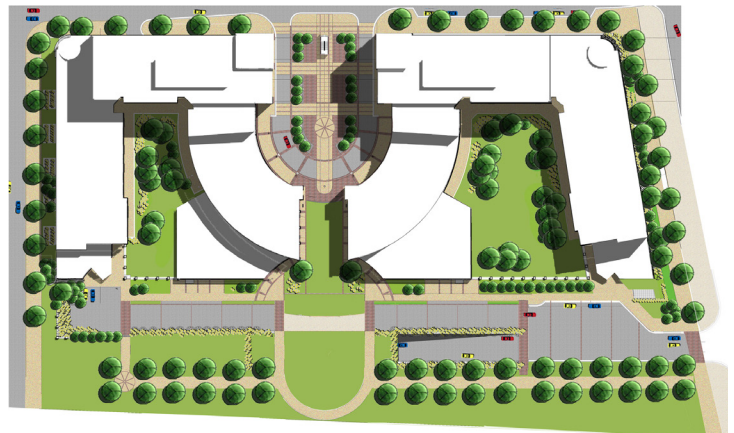
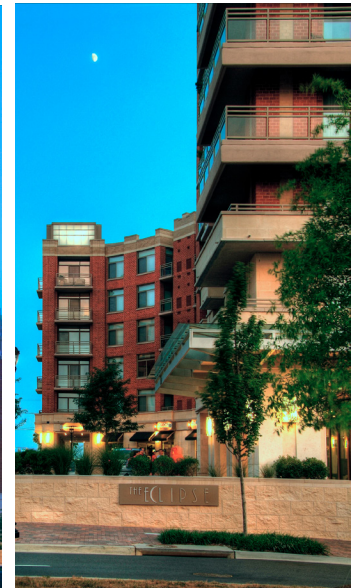
Challenges: Due to inherent conditions of the site. First, it was plagued by poor soil conditions. Second, it had a water table at 8 feet below grade. These issues compounded made designing a structural system difficult if a large column-free grocery store were to be achieved, as it is to be located at the ground floor with a significant amount of residential above. Thirdly, ADA compliance would be a substantial issue, given a significant change in grade from Eisenhower Avenue to the center of the project. Vertically stacking the residential above both large and small retail space created issues in coordinating parking, egress and ingress, HVAC and other MEP systems, given the varying loads each use required.

Solution: Davis Carter Scott worked closely with both the Structural and MEP engineers to develop systems that would not only meet the needs for both the retail and residential, but provide seamless inter-operability.

Pylons were driven over 150 feet deep and a concrete "tub" with extensive water proofing was constructed for the three-level below-grade parking structure in order to overcome the poor soil and water table conditions. This provided the necessary base to develop the complex structural system. Residential units

The Eclipse at National Gateway

Arlington, Virginia



use an Aquatherm system which enables all Residential HVAC systems to be housed within the units themselves, freeing the roof for the larger retail systems. In order to adhere to the building setbacks and height restrictions, designers developed stepped design approach which serves to break up the expansive building. The roofline builds to two tall central towers which frame and a landscaped central plaza.

