



THE PINNACLE AT PLYMOUTH MEETING SENIOR LIVING

CASE STUDY



PROJECT INTRODUCTION

"The Peak of Retirement Living"

The Pinnacle at Plymouth Meeting is a new senior living community in the Philadelphia Suburbs. Located in an ultra convenient location, it is right off of the Turnpike and close to many local attractions. The 4-story facility has 210 units for independent, personal care, and memory care living options along with many on-site amenities.

Originally an undeveloped tract of land in Plymouth Township, significant infrastructure improvements were required to achieve the developer's vision. Highly efficient use of all 6.5 acres was required in the site design to support development and meet all regulatory requirements.

A challenging site for multiple reasons – regular and proactive communication with Township officials helped reduce the number of municipal reviews and the project timeline, leading to the successful execution of the engineering design.

Project Type and Location

58,000 sf new development in Plymouth Township, Montgomery County, PA

Services

Surveying, Land Planning,
Civil Engineering, Landscape Architecture

Developer

Westrum Development Company

Owner/Operator

Blue Harbor Senior Living

Architect

JRP Architects

Contractor

Berks Ridge Company Enterprises

Completion

June 2020



"As civil engineers we are constantly learning, and design standards frequently change. For one of the first slow release concept designs in Montgomery County, communication was the key to the success of this project."

Chelsea Bellay
Site Design Engineer



CHALLENGES & SOLUTIONS

Starting from Scratch

Stormwater Management

The geotechnical study confirmed the presence of karst features on-site, resulting in additional requirements under Plymouth Township's Stormwater Ordinance. With infiltration prohibited, the inability to locate structures over karst features, and the need to line all stormwater management BMPs; a unique stormwater design was needed. Our engineers worked closely with the Township and local Conservation District on a slow release concept design - a new concept and one of the first reviewed in Montgomery County.

The complete stormwater management design consisted of:

- two underground detention basins that manage volume through attenuation and slow release of storm events up to and including the 2-year 24-hour volume;
- two rain gardens with native plants to welcome wildlife and create a natural and aesthetically pleasing setting for residents;
- and non-structural BMPs including soil amendments and landscape restoration.



Sanitary Sewer

During due diligence and the utility study it became clear that public sewer was not easily accessible for this site. Many methods of conveyance were analyzed and reviewed with the client and the Township to make the best decision.

The selected design proposed gravity flow from the building to a private pump station on-site. Flows are then pumped along Corsons Road and Germantown Pike within the right-of-way, to an existing manhole at the intersection with Chemical Road. This route, however was complex due to the myriad of existing utilities in Germantown Pike and required approvals and permits from:

- Norfolk Southern Railway;
- Sunoco Pipeline;
- and PennDOT for a Utility HOP and Bridge Occupancy License.

Ultimately, this was the critical path for the success of this project.