

## LUDGATE ENGINEERING ENGINEERING for LAND DEVELOPMENT

LUDGATE ENGINEERING has provided civil engineering for land development since the company was founded by Bob Ludgate Sr. in 1976. Although rules and regulations have changed, the planning process still deals with the several impacts imposed by almost all development plans. While the site civil engineer provides plans to identify and offset or mitigate impacts, the Engineer must do so in a way that does not impede the essential functions the site shall provide, nor shall the plan compromise the Architect's vision of the development.

Each site plan deals with the impacts of traffic management and parking layout. Managing stormwater for drainage and flood prevention often governs the design. Bringing sewer, water, and other utilities to the site can present difficult problems for the Engineer to solve.

Some Recent Projects Include:

### JACQUET MANUFACTURING BUILDING

Jacquet is an aluminum processing company located near the Lewis Road/Limerick exit of Route 422. They wanted to relocate from Pottstown to a new facility. They have a particular operations layout that needed to be followed. The site plan was prepared in order to facilitate this operations layout. This required considerable earthwork and associated site work. The project was "fast tracked" in order for Jacquet to get their new facility ready before the lease on their previous site expired.

### PHYSICIANS CARE SURGERY CENTER

This project is located adjacent to the Phy Care Hospital and Rothman Institute MOB. This project complimented this health care campus. This building is located near the Lewis Road/Limerick exit of Route 422. The site design incorporated this new building into the campus as well as allowing for a two-floor / two-entrance layout. The Surgery Center is located on the lower floor, and separate Physician Offices are located on the second floor (each with separate at grade entrances). The site designed needed to allow for the grade changes needed for the access points, as the two main entrances, from opposite sides of the building, was accomplished by the two-level grading plan.



**SAINT JOSEPH'S HOSPITAL**

### SAINT JOSEPH'S HOSPITAL

Located on Route 183 near Reading Airport posed two particularly difficult impacts to resolve. Direct access to a four-lane highway was not possible so a stretch of two lane Route 183 had to be reconstructed. Convenient surface parking for over 3000 cars had to be built.

The site geology was sinkhole-prone Karst. Still stormwater management that did not adversely impact the various neighbors down-slope of the site had to be engineered. Twice new sinkholes appeared during construction of stormwater detention basins. New solutions had to be designed "on the fly" to both close the sinkholes and mitigate any increase in site run-off.

### COMMITTED TO YOUR SUCCESS

Ludgate serves developers, contractors, landscapers, realtors and homebuilders, institutions, and redevelopment authorities for residential, commercial, institutional and industrial projects. Our Engineers are driven to find realistic, cost-effective solutions for your projects to realize success.

### FIRST ENERGY



### FIRST ENERGY TRANSMISSION BUILDING

The building site at the GPU/Met Ed campus along Route 61 in Berks County "took" one of Met Ed's former parking lots plus some adjoining land Met Ed purchased to add to the project site.

This development required three parking plans. First the existing lot was surveyed as well as a nearby location for a new lot to replace the one being taken. Second was the plan for the new lot.

Third was the plan for parking on the Transmission Building lot.

This building requires a high level of security and operates 24/7. Hence the perimeter fencing and all required utilities had to be secure at all times. Third this site was in an area of past flooding, requiring much special attention to stormwater management engineering, especially for the new parking lot.

### JACQUET MANUFACTURING



**PHYSICIANS CARE SURGERY CENTER**



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