



Spring Mountain Road
Lower Frederick Township



Hydra Artist Studio
City of Reading



Schuylkill River Valley Trail
City of Pottsville



Cell Tower
Upper Uwchlan Township

Reality Modeling

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CEDARVILLE
Engineering Group, LLC

Sustaining Communities by Design

Our growing team of professionals is challenging conventional survey methods by gathering GPS tagged imagery to generate 3D Reality Models that allows users to visualize and measure topography and ground conditions for planning and design purposes. Using a federally registered Unmanned Aerial Vehicle (UAV), an assortment of cameras, control points and proven work-flow, our team is forging new ground for planners, engineers, and designers.



INCREASE YOUR PRODUCTIVITY

Photogrammetry provides a **faster, safer, cheaper**, and more **accurate** option for data collection in an easy-to-use standard drawing file.

- Construction Site Survey & Quantity Monitoring
- Detailed Models of the Exterior of Large Buildings
- Roads and Highways
- Remote Terrain
- Flood Plain Assessments
- Restricted Access Sites
- Cell Towers & Similar Structures
- Natural Resource Management

A NEW STANDARD IN MODELING

3D Reality Models can be created to analyze the surface features of large parcels of land, roadways, and critical pieces of infrastructure. The data can be captured more efficiently than by using traditional topographic survey methods and the model provides a valuable repository of site conditions that can be accessed time and time again without the need for return trips to the site.

“Using the most innovative tools in technology, we have developed a process that efficiently creates three-dimensional scalable models with precision and accuracy. Reality Modeling is where infrastructure of the future begins.”

April M. Barkasi, PE - Chief Executive Officer



State Route 0422
Stowe Interchange



Pottstown Train Station
Pottstown Borough



Cedarville United Methodist Church
North Coventry Township

SUPERIOR TECHNOLOGY AT AN AFFORDABLE PRICE

The models use state-of-the-art photogrammetric and UAV technologies to fine tune data and report results. Our strategy allows us to offer superior technology to ensure you receive the highest quality results at an affordable price. Our techniques allow for the transfer of raw images into reliable data layers that are required for planning and design.

EXPAND YOUR CAPABILITIES WITH CUSTOMIZATION

CEDARVILLE offers an array of customizations that expand the functionality of the models, making your investment more versatile and productive. These customizations can include: flood plain data, parcel data, or demographic information to achieve an accurate representation of site conditions anywhere in the Country.

PROJECT PROFILE

Reality-Capture Technology Aids Brownfield Development Site

Sawyer, Tom. "Reality-Capture Technology Aids Brownfield Development Site." ENR. Web. 27 July 2016

In Coatesville, Pa., a depressed, rust-belt town about 40 miles west of Philadelphia with a population of 13,100, the city manager and the town's consulting engineers are using 3D reality capture to help prospective developers see a diamond in the rough.

April Barkasi, founder and president of Cedarville Engineering Group LLC, Pottstown, came up with the idea of using Bentley System's ContextCapture to build a 3D digital terrain model of a brownfield site as the basis for a redevelopment concept plan. In just a few minutes, a drone captured more than 750 aerial photos of "The Flats," a rugged, 30-acre former steel-mill site. The ContextCapture software processed the drone's photos, combining them with old survey data and other photos to create a detailed model of the site—all without anyone having to set foot on it.

The tract would be expensive to survey conventionally, says Barkasi. The site contains foundations from the steel plant as well as hazardous materials. It also requires special procedures and permits to enter. Further, the site is bounded by easements for active railroad tracks and highways, a floodplain, and a creek—all of which would require separate permissions. "It could be a \$40,000 effort to get a traditional survey," Barkasi says.

Through the modeling, the engineers calculate the stockpiles hold about 22,400 cu yd of fill. Barkasi says this demonstrates that there is already enough stockpiled material on the site to cap—that is, place two feet of fill—over seven acres of the 26 acres within the city boundary.



Capability Statement

CEDARVILLE Engineering Group, LLC (CEG) is a civil and environmental engineering technology and construction management company. We manage the lifecycle of infrastructure from planning through design, permitting, inspection, operations, and maintenance. Our professionals bring value through innovation to government contracting, municipal services, environmental services, asset management, Geographic Information Systems (GIS), and 3D reality modeling.



8(A) Certification
Economically Disadvantaged Woman-Owned Small Business (EDWOSB)
Disadvantaged/Woman Owned Business (DBE/WBE)
SBA Emerging Leaders Initiative, Graduate



CLIENTS

- U.S. Army
- U.S. EPA
- USDA
- NRCS
- Municipal Governments
- City of Philadelphia
- Universities/Institutions
- Private Corporations



SERVICES

- Infrastructure Planning & Design
- Construction Management
- Environmental Compliance
- Green Stormwater Infrastructure
- 3-D Modeling & Photogrammetry
- Topographic Survey
- Asset Inventory & Management
- Soil Investigation/Classification
- Natural Resource Inventory
- Building Code Inspection
- Construction Inspection

NAICS CODES

541330 Engineering – PRIMARY

236116	541370	541620
236210	541380	541690
236220	541420	541715
237110	541430	541990
237310	541490	561210
237990	541512	561499
541340	541611	561790
541350	541618	561990
541360		

