

David M. Baker, PLS

Assistant Chief of Surveys

Years Experience: 30+

Active Registrations: Professional Land Surveyor—Pennsylvania, West Virginia, & Ohio

Education: Pennsylvania State University, 1972-1976
Experienced Wild, Topcon, and Trimble Equipment Operator
OSHA Hazmat Training
Confined Space Certification
NICET Level III Certification

Representative Projects:

In-Depth Bridge Inspection

Various Locations

Turtle Creek Bridge, Homestead High Level Bridge, Elizabeth, Commercial Street Bridge, All Parkway West bridges (Pittsburgh, PA), Fort Henry Bridge (Wheeling, WV), Jennings Randolph Bridge (East Liverpool, OH), I-80 Bridge (Omaha, NE), I-79 over Ohio River and Back Channel (Glenfield, PA).

Tasks Included: chiseling away and measuring scale thickness and extent; hammer checking concrete for surface soundness; measuring tilt of rocker and bearings; measuring expansion joint gaps; locating and measuring crack in steel; sketching and notes for all these tasks, noting deck cracks, noting handrail, condition etc.; ladder work; free climbing; bucket work; scaffolding; painting inspection; and bridge movement monitoring.

Airport Surveying:

Pittsburgh International Airport

Pittsburgh, Pennsylvania

Allegheny County Airport Authority

- Airside Business Park. Location and topographic survey of over 100 acres including subdivision plans and stake out of lots. ALTA survey and legal descriptions of A1, A2, B2, C, E, and F. Utility investigation.
- Yankee North and South Deicing Facilities. Location and topographic surveys for design, base map preparation, and utilities.
- Cargo Road. Detailed surveying, mapping, and construction layout of Cargo Road (5 miles). Responsible for access and security clearance.
- AFCO – Parcel 1. Location and topographic surveys for cargo facility, utility investigation, site and lot mapping, ALTA property surveys, legal descriptions of properties, and lot stakeout.

Runway Protection Zone, Obstacle Clearance

Lawrence County, Pennsylvania

New Castle Airport

Surveyed properties within the RPZ at both ends of runway 5-23. Prepared overview plans showing all impacted properties and individual property plot plans. Surveyed the vertical limits of the clearance, mapping all structures and trees within the clearance area. Tied obstruction location and type to property maps.

Property Surveying:

- **Robinson Township.** Allegheny County, Pennsylvania. Conduct property boundary survey, secure topographic mapping, locate investigative borings installed, and prepare site plan showing gathered information to assist in site investigation and remediation planning.
- **Topographic and Boundary Survey, United States Air Force Base.** Omaha, Nebraska. Coordinated and set ground control for aerial mapping area.

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Property Surveying:

- **Various Mortgage Surveys.** Property and location surveys; data download and deed research for mortgage property transfers in counties surrounding Weirton office.
 - **Various Subdivision/Septic Design Surveys.** Property, topographical and location surveys; preparation of lot plans; and preparation of septic design data at various sites in Weirton office area.
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West Virginia Highway Surveying:

- **West Virginia Route 2 Widening.** Responsible for establishing bench marks, a working baseline survey, a detailed topographic and location survey, location of key property monuments, cemetery mapping, staking out of subsurface borings, setting of construction centerlines for design of widening design of Route 2.
 - **Route 50 Construction.** Parkersburg, WV. Responsible for the stake-out of new construction of Route 50, excavation volumes, material calculations, establishment and maintenance of construction centerlines and rights-of-way delineations, verification of steel placement, abutment layout and contractor control.
 - **Corridor "H" Construction.** Responsible for establishing bench marks, courthouse ownership research, a working baseline survey, a detailed topographic and location survey, location of key property monuments, staking out of 150 subsurface borings, setting of construction centerlines for design, and final survey.
 - **Fish Creek Road Reconstruction (CR74).** Responsible for establishing a baseline and location survey, creating cross-sections extending into Fish Creek, staking out test borings, setting elevation benchmarks and construction centerlines, referencing control points, and assisting in preparation of mapping.
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Utility and Location Surveying:

- **David L. Lawrence Convention Center.** Pittsburgh, Pennsylvania. Involved with various phases of reconstruction including:
 - PennDOT right-of-way plans for street reconstruction, vacating of old right-of-ways and creating of new right-of ways.
 - Construction monitoring and checks of locations, elevations, and settlement during construction.
- **Upgrade of CR208.** Responsible for establishing surveying control for photogrammetry of the CR208 area, compiling digital topographic files at a scale of 50' and contour interval of 2', prepared background mapping of critical or environmentally sensitive areas such as cemeteries, wetlands, contaminated sites. Included are mapping, flagging, and project management.
- **Renovation of Pennsylvania Avenue.** Weirton, West Virginia. Responsible for performing a detailed topographic and location survey, setting of construction centerlines, centerline profiles, control point referencing, setting of benchmarks, geotechnical boring location, utility location, for design of renovation of Pennsylvania Avenue.
- **ALCOSAN Inspection & Hydraulic Analysis of Diversion Structures and Manholes Inspection Program – South Basin.** Allegheny County, Pennsylvania. Responsible for the location of constructed sewer lines and manholes using both conventional and GPS techniques. Maintained field sketches of existing structural conditions and database of survey information in format for use in creating GIS model. Used state plane coordinates to reference surveys. Located over 400 manholes and diversion structures along Saw Mill Run.
- **Slide Monitoring.** Allegheny County, Pennsylvania. Placement of 14 iron pins and 7 monitoring wells throughout suspected unstable earth fill; horizontal and vertical locations of pins and well casings surveyed periodically over a 12 week period, Pittsburgh Airport Property, Pennsylvania.
- **Forward Avenue & Commercial Street.** Surveying and mapping for street improvements
- **Crane Avenue.** Surveying and mapping for sidewalk improvements.
- **Northside Business District Lighting Project.** Pittsburgh, Pennsylvania. Survey and mapping of East Ohio Street, Troy Hill, Observation Hill, Brighton Heights, and Brightwood.
- **Commercial Street.** Design survey, mapping, utility coordination, and computer-aided design.
- **Replacement of Davis Truss Bridge.** Tucker County, West Virginia. Responsible for aerial mapping, horizontal and vertical control, roadway and approach surveys, including R/W, property, utilities and drainage structures, hydraulic sections, staking of core holes, and alignment staking for construction.
- **Buford Pugh Bridge over the New River.** Fayette County, West Virginia. Responsible for aerial mapping, horizontal and vertical control, roadway and approach surveys, including R/W, property, utilities and drainage structures, hydraulic sections, staking of core holes, and alignment staking for construction.