

# Logan Bayer, EIT

## Staff Engineer

Professional Registrations and Certification			
Registration/Certification	State	Number	Date Exp.
Engineer in Training	PA	ET028837	
CFR 1910.120, 40-Hour Health & Safety Training	National	--	current



### Key Expertise

Geotechnical/Slope Stability Analysis

Sampling and Analysis

Reporting

AutoCAD Civil 3D

Technical Presentations

HydroCAD

### Education:

B.S., Civil Engineering, Pennsylvania State University, 2020

**Years of Experience/Years with KEY:** 3.5/3.5

### Professional Experience:

- Geotechnical engineering and soil mechanics
- 3D design and model creation
- Construction inspection and field oversight
- Design of Erosion and Sediment Control Plans
- HydroCAD stormwater modeling
- Geotechnical Stability Analysis

### Technical Skills:

- AutoCAD 3D modeling and analysis—development of surfaces, volume and material quantity estimation, technical drawings, cross sections, and engineering details
- HydroCAD stormwater modeling – site-wide stormwater modeling and design of control features
- Slope stability calculations—analysis of material properties and geometry to determine appropriate factors of safety for geotechnical slopes and structures of interest
- Preparation and editing of reports
- Technical writing

Representative Projects		
Role	Project	Location
Staff Engineer	<b>Former Landfarming Plot:</b> Perform construction oversight on the construction of a cap, assessing site conditions and the suitability of various geosynthetic products. Assist in the reviewing of submittals related to pre-construction and post-construction activities, and assisting in the preparation of the completion report.	NJ
Staff Engineer	<b>Former Wood Treating Site:</b> Perform site reconnaissance & investigation to locate existing cement-bentonite slurry wall and geosynthetic clay liner, and use field investigation info to develop a remedial action plans. A cost estimate, drawing set, and construction documents were prepared for the selected design.	MD
Staff Engineer	<b>Coal Ash Impoundment:</b> Perform construction oversight during the construction of a geomembrane cap. Construction elements overseen include subgrade preparation, geomembrane deployment, seaming, testing, and repairs, and geotextile installation. Assist in the review of construction submittals from the contractor. Assist in the preparation of the certification report and associated documentation.	PA
Staff Engineer	<b>Army Base:</b> Review and assist in the preparation of drawings for the installation of an underground water pipe, needed for the installation of a fire hydrant. Update relevant specifications and details with current practices.	MD
Staff Engineer	<b>Ski Resort:</b> Review and interpret water pump data in order to determine existing usage quantities. Current values were then used in the determination and design of a newly proposed building housing restrooms.	PA
Staff Engineer	<b>Former Landfarming Plot:</b> Perform oversight for impacted materials excavation, off site shipment, and subsequent filling of the plot with clean materials brought on site.	VA
Staff Engineer	<b>Maintenance Facility:</b> Assist in the preparation of drawings for and the operation of HydroCAD to evaluate existing site stormwater conditions and proposed stormwater conditions. Assist in the design and preparation of the site, and perform site revisions when required due to changing site conditions.	PA
Staff Engineer	<b>Oil Tank Demolition:</b> Perform oversight during the excavation of fill material and formation of stockpiles. Perform sampling of the stockpiles to test for chemical/analytical properties for determination of potential future uses.	NY
Staff Engineer	<b>Fresh Water Impoundment:</b> Perform construction oversight on the repair of a berm for an impoundment that was damaged during a major rain event.	WV
Staff Engineer	<b>Former Wood Treating Site:</b> Complete the calculation of maximum possible settlement for various locations for a proposed factory building and access road. Utilize boring logs and blow counts to assign material properties for use in calculation.	NJ
Staff Engineer	<b>Former Energy Generating Station:</b> Review historic documents in preparation of an investigation to determine which existing pipes would be suitable to tie into. Assist in the design of two ponds to store treated leachate sludge. Design included pond sizing, pond placement, and piping system analysis.	OH
Staff Engineer	<b>Industrial Site:</b> Designed a gravity stormwater discharge system in place of the existing oil/water separators in accordance with the Engineering Work Plan and the Post-Construction Wetland Management Plan approved by NYSDEC.	NY
Staff Engineer	<b>Former Energy Generating Station:</b> Assisted in the calculation for geotechnical stability of a slope for the regrading of fly ash and bottom ash in the fly ash pond. Assisted in the determination of geotechnical testing program to acquire material properties.	OH
Staff Engineer	<b>Former Groundwater Treatment Facility:</b> Prepare demolition work plan for the removal of tanks, pipes, and infrastructure used in the treatment of groundwater, having to utilize procedures to deal with potential impacted sediment left behind.	OH