

Christopher J. Tolnar, P.E. (Principal)

Education B.E., Civil Engineering, Youngstown State University (1998)

Registration Ohio - Professional Engineer (68152)

Training Attended seminar on Capacity, Management, Operation and Maintenance (CMOM) of waste water systems
Attended the Ohio Department of Transportation's (ODOT) SAEFTEA-LU Planning Conference as well as various conference seminars
Attended various seminars dealing with personnel management and employee relations
Attended various seminars for the use of engineering related computer software systems

Affiliation American Society of Civil Engineers – Member
Order of the Engineer

Committees Akron Metropolitan Area Transportation Study – Policy Committee (Alternate)
Akron Metropolitan Area Transportation Study – Technical Advisory Committee

Experience Chris has over 10 years of extensive experience on civil engineering projects, as well as construction experience. He has been responsible for engineering a variety of projects including roadway improvements, traffic signal design, culvert and storm water improvements, water and sanitary sewer improvements, buildings, embankments and landslide stabilizations, subdivisions, and earth retaining structures. He has worked on a variety of projects including new construction, expansions, rehabilitations, and construction administration and management.

Municipal Engineering

Chris has an extensive background in a multitude of municipal engineering aspects. He has been involved with numerous projects involving roadways, water mains, sanitary sewers, storm sewers, and various topics involving the Environmental Protection Agency. His knowledge of constantly changing storm sewer requirements has helped him implement new concepts and innovative applications with both large and small projects. His familiarity with design programs such as Bentley Products, HYDRA, and HECRAS has given him the ability to complete a multitude of tasks and design for optimum results. His capabilities include work in the following areas:

- Roadway Projects (intersection improvements, signalization and reconstruction)
- Water Distribution (modeling, rehabilitation, expansion, and new construction)
- Sanitary Sewer (rehabilitation, expansion, construction, and I&I and feasibility studies)
- Storm Sewer (studies and feasibility reports, roadway/trunk sewer design, and culverts)
- Environmental Protection Agency (CMOM program, Storm Water Phase 2, and wetlands)

City Engineer

During the time Chris served as the Deputy Service Director/Superintendent of Engineering for the City of Kent, he was responsible for the operation of the Engineering Division, along with oversight of the Service Department, Water Treatment Plant, and Water Reclamation Facility when necessary. Chris was also initially responsible for construction administration and inspection of all capital improvement projects, subdivisions, and commercial/residential construction projects. The City of Kent has the following assets and responsibilities:

- Population of more than 25,000 (Largest city in Portage County, Ohio)
- Kent State University – Main Campus with 20,000+ Students
- 90 Lane Miles of Roadway
- 362,700 Lineal Feet of Water Distribution
- 330,600 Lineal Feet of Sanitary Sewer
- 370,000 Lineal Feet of Storm Sewer
- 6 Bridges and over 175 Culverts
- Water Treatment Plant
- Water Reclamation Facility
- Several Water Towers
- \$2,000,000 Average Capital Expenditures
- MS4 Operator for EPA Stormwater Permitting

His engineering skills were put to use in the following areas:

- Capital Improvement Projects (Water, Storm, Sanitary, Roadway and Signal)
- Traffic Signal System Studies & Modeling
- Safety Studies
- Storm, Sanitary and Water Studies and Modeling
- Bridge Inspections
- Subdivision Construction
- Assessment Project and Public Involvement Project Coordination
- Funding, Grant & Loan Applications
 - Federal Grants/Loans (CMAQ, STP, TEP, Earmarks, DIFA, WPCLF)
 - State Funding (OPWC, Safety, Safe Routes to Schools, Governor's Highway Office, Municipal Bridge Program, County Engineers Association)

During his time as City Engineer, Chris collaborated and worked with various agencies including the Ohio Department of Transportation, Ohio Public Works Commission, Environmental Protection Agency, Soil & Water Conservation District, and the Akron Metropolitan Area Transit Study. Additionally, the City of Kent has three separate railroads located within its boundaries. Various levels of coordination were required to implement various utility, roadway and bridge construction projects with railroad involvement.

Site Development

Chris has designed, reviewed and implemented all sizes and types of private developments. His opportunities as a consultant, working within the public sector, have

given him insight as to how projects can be designed and delivered to satisfy both the owner and the community they are meant to serve. Chris is able to carry a project with attention to detail, adherence to schedule, and dedication to a quality end product. His capabilities include design and review in the following areas:

- Residential
- Commercial
- Industrial
- Multi-Family Dwelling
- Permits (EPA, Municipal, Army Corps of Engineers, Soil & Water Conservation Districts)
- Value Engineering (agency review process, permit solutions, and tackling issues)

Geotechnical Engineering

Throughout his career, the constant involvement of geotechnical engineering has enhanced Chris' knowledge and understanding of the various aspects within the field of geotechnical engineering. Early in his career, Chris assisted in field operations and acted as the field engineer for a multitude of geotechnical drilling projects. Subsequent to the sampling, he was responsible for the review of soil reports and testing data. During the design and construction of other projects, the uses of various subgrade stabilization techniques were implemented to bridge unsuitable materials. He has also had involvement in deep sewer and other projects through areas of poor soils requiring significant shoring, stabilization and other means of support to properly construct the improvements. He is versed in the following areas:

- Soil Sampling
- Laboratory Testing
- Subgrade Evaluation and Stabilization (Chemical and Mechanical)
- Geotechnical Investigation Reports
- Field Testing

Structural Engineering

Chris has designed several structural elements during his career. He has been involved with large building projects requiring steel design, sized foundations for other structures, and Chris designed retaining walls. Additionally, Chris has also conducted construction administration duties on a dam rehabilitation project. Each project has provided experience and insight into the various aspects of structural engineering, and has continued to develop his broad base of knowledge in the field. Following is a list of representative projects:

- Beeghly Physician's Office Building –Sizing of structural steel members
- Camp Y-Noah Dam Improvements – Earthen embankment improvements and concrete spillway reconstruction and improvements (Construction Administration)
- Foundation design for various metal buildings
- Hudson Community Chapel - Light Gage Metal Framing Design and Detailing
- Raber Road Improvements – Cast-in-place concrete retaining wall