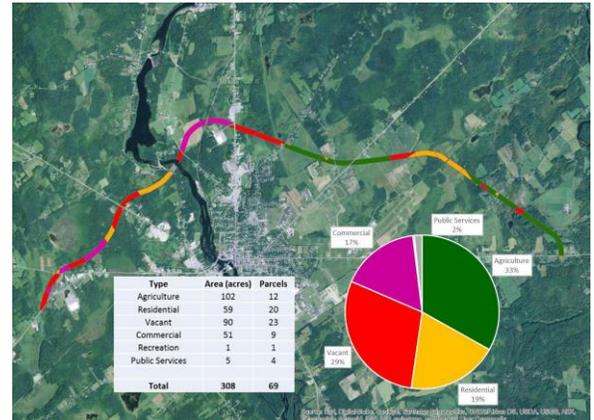


**CONSTRUCTION ENGINEERING MANAGEMENT PROGRAM  
 CLARKSON CEM CONSULTING GROUP PROSPECTUS**

Construction Engineering Management (CEM) at Clarkson University is a sub-discipline of Civil Engineering, focused on the execution of Engineering and Architectural design projects. CEM graduates manage the design and construction process from the inception of a project all the way through, and including, the operations and maintenance of infrastructure and buildings. Through this program we offer Curricular, Experiential Learning, and Co-Curricular opportunities that prepare students for the Construction Industry.

As part of this program, students are required to execute an internship or co-op within the industry. The Clarkson CEM Program has developed an in-house capability that provides pre-professional consulting in planning, engineering, and construction areas. This is an enterprise (the Clarkson CEM Consulting Group or C3G) that uses students in an experiential learning mode in order to deliver products that the market segments indicated below would not otherwise be able to conduct using professional consulting services. Likewise, these efforts help to build community economic opportunities by jumpstarting projects that would otherwise not be able to be done, absent some key preliminary work, data collection, or planning efforts.



Land Use Analysis of the proposed Route 11 Bypass of Potsdam NY

**SERVICES PROVIDED**

The following are just a few of the services that the Clarkson CEM Program can offer clients:

- As-Built Documentation
- GIS Services
- Project Scoping and Conceptual Development
- Community, Urban, and Transportation Planning
- Rough Order of Magnitude and Parametric Cost Estimating
- Periodic Maintenance Planning, Building Investigations
- Construction/Facilities Education Services
- Land Use Planning and Sustainable Stewardship

**EXAMPLE EFFORTS AND PROJECTS**

Since 2015, the Clarkson CEM Program has been executing a range of projects across the spectrum of its expertise. The following is a partial listing of projects that have been executed through the leadership of the CEM Program:

- Village of Potsdam Complete Streets Planning and Alternate Transportation Development Guidance
- Potsdam/Canton Route 11 Bypass Geographic Information System (GIS) and Land-Use Study
- City of Ogdensburg Maple City Trail Extension Concept Plan
- Village of Potsdam Water System Leakage Investigation
- Ogdensburg Bridge and Port Authority Bridge, Building Information Modelling (BIM)
- Clarkson University Buildings Mapping, GIS Implementation and Facility Management Interoperability
- Clarkson University Campus Roadways Design and Preconstruction Package Development
- St. Patrick’s Church, Chateaugay, NY Moisture/Building Envelope Study
- Facility Management Technology Workshop (Potsdam 2016, Schenectady 2017)
- Unmanned Aerial Vehicle (UAV/Drone) Roof Inspections

**MARKET SEGMENTS SERVED**

The following delineates some of the clients/markets that the CEM Program works for/with:

- Communities and Governmental Organizations
- Churches, Synagogues, Mosques, and other Houses of Worship
- Not-for-profit/Non-profit Organizations
- Small Private Owners/Businesses

## CONTRACTING/METHODS OF AGREEMENT

Given the dual academic and pre-professional nature of the work involved in these efforts, there are several ways that clients/partners can tap into these services:

1. **Grant Provisioning:** In some cases it is easiest for the municipality or customer to provide a block grant for deliverables agreed upon through a memorandum of agreement/understanding.
2. **Hiring of Interns:** In some cases what makes sense for a client is to have well vetted, specifically qualified set of interns come on to the staff temporarily for a summer period or other time-limited period.
3. **Student Project Support:** By providing support through class room engagement and donations to the CEM program, limited projects can be executed through problem based learning classroom exercises.
4. **Fee for Service:** A standard service fee arrangement can be drafted with a GMP for a defined scope of services.
5. **Flat Fee Menu:** Currently under development, but in time the program will have certain standard items that it can provide at a flat fixed fee.



## LIMITATIONS AND CLARIFICATIONS

In providing these services, the Clarkson CEM Program, the Clarkson CEM Consulting Group, and those participating must make it clear that the work and services provided are NOT professional services and are student or student-intern work products. As such these may contain errors, omissions or other deleterious aspects that should be reasonably be expected of work products provided by those still learning at the undergraduate level. This caveat aside, clients have repeatedly offered that they see this as a “win-win” for their efforts going forward and an important partnership that they value for the future.

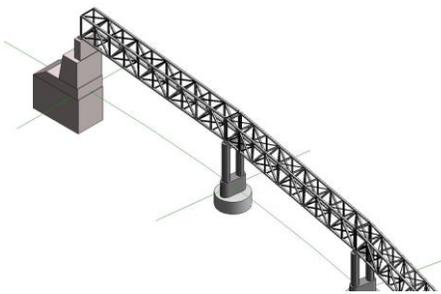
For additional information, contact Erik Backus at 315-268-6522 or [ebackus@clarkson.edu](mailto:ebackus@clarkson.edu)  
<http://clarkson.edu/cem/>



Clarkson Students facilitate a public meeting in support of the Maple City Trail Extension Project



Potsdam, NY Complete Streets planning imagery for improved bike infrastructure on Market Street



Ogdensburg-Prescott Bridge BIM Model Extract