

Construction Engineering and Management COLLEGE OF ENGINEERING

FUTURE UNDERGROUND CONSTRUCTION LEADERS (FUCL) DEVELOPMENT PROGRAM



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Purdue University — College of Engineering Construction Engineering and Management (CEM) Division Coordinated by the CEM UIT (Underground Infrastructure Team)

During the past few years, Purdue CEM has made a dedicated effort to get engineering students more aware, excited and committed to careers related to underground construction. This is done at the undergraduate and graduate level. This is accomplished through our internship program for undergraduate students which require 3 - 12week internships before they can graduate.

Purdue is blessed by having both a NASTT and a UCA Student Chapter which work jointly to provide undergraduate and graduate students with maximum opportunity to developed leadership skills and to get them actively involved is all aspects of developing underground space from utilities to large tunnels. Professor Dulcy Abraham is the faculty advisor for our NASTT chapter, and professor Tom Iseley is the faculty advisor for our UCA chapter.

Our major accomplishment during the Fall semester was to take 22 students to Fort Wayne, IN to visit the 3RPORT CSO tunnel. Please contact us for our project report if you are interested. We are very thankful for the financial support provided by UCA of SME.

Our programs at Purdue cannot adequately prepare UC leaders without industry partners. We can do the academic component but that is not enough. Our students are encouraged during their university experience to accomplish the following 3 things:

- Do the best job they can academically to get the best grades,
- Developed leadership skills by being involved in student chapters, and
- Get maximum exposure to the UC industry.

The last bullet is where we need your help.

We plan to accomplish 2 major opportunities to expose students to the UC industry:

- Getting 30 students to the Underground Construction Technology (UCT) conference on Feb 7-9, 2023 in Orlando, Florida (<u>https://uctonline.com/tag/ underground-construction-technolo-</u> gy/). Last year our delegation was 25. Please contact us for our trip report if you are interested.
- Getting 30 students to visit the CSI precast concrete manufacturing facility in Macedonia, Ohio and also visit one of the Northeast Ohio Regional Sewer District (NEORSD) tunnel projects in Cleveland on March 3, 2023.

Beavers & UCA Provide Support to Purdue Construction Engineering and Management (CEM)

The Beavers is a heavy engineering construction association. It is a social, honorary organization formed in 1955. It was organized and continues to be managed by construction companies and individuals who are or have engaged in heavy engineering construction. The Beavers encourages students to be involved with the heavy engineering construction industry. On October 3 and 4, Dave Woods (Executive Director Beavers, Inc. & Beavers Charitable Trust) and John Bollier (President of the Board of Directors for the Beavers & Stacy & Witbeck, Inc.) visited the division of Construction Engineering and Management (CEM) at Purdue University and met with CEM students and faculty members. The CEM at Purdue University started in 1979. Dr. Tom Iseley joined the CEM in 2020 and his position at Purdue (Beavers Heavy Construction Distinguished Fellow) is funded in part by the Beavers.



Left to right: John Bollier. Tom Iseley, and Dave Woods — Purdue University

On October 22, twenty UCA of SME, NASTT, and ASCE G-I Student Chapter members at Purdue University along with 3 CEM faculty members visited the Three Rivers Protection & Overflow Reduction Tunnel (3RPORT) project in Fort Wayne, Indiana. Special thanks to Lance Waddell (Lane Construction) and Sara Doran (Schnabel Engineering) for hosting Purdue University group and providing the tunnel tour. The tunnel depth is about 220 feet below the ground surface. The 3RPORT project is a segmentally lined tunnel with 19foot bore diameter and 16-foot finished diameter. There are seven connections to the tunnel (drop shafts). The project will reduce the number of CSOs into the rivers by 90% (it can convey about 800 million gallons per day. Also, thanks to Everett Litton (WSP) for making the trip arrangement. Purdue CEM would like to express sincere appreciation to UCA and all the affiliated "Down For That" societies (UCA of SME, ASCE, DFI, Beavers, Moles, and NASTT) for providing the financial support for this trip.



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