



**Mattson  
Macdonald  
Young** structural engineers



Charles has volunteered with Engineers Without Borders (EWB) for over 11 years working on projects in Central and South America. He now volunteers with the EWB Minnesota Professional Chapter designing school facilities for communities in rural Guatemala.

Outside of work he enjoys a life spent outdoors. He often is found biking to work and around town or camping and fishing around the Midwest.

### **Charles Vermace, P.E.**

Charles joined MMY in 2018 after several years designing heavy industrial and energy generation facilities. Charles brings a diverse background in helping design earth retaining structures, warehouse renovations, heavy industrial facilities, historic renovations for new occupants, pipe bridges, industrial equipment supports, and recreational facilities.

In 2013 Charles moved to Denmark to continue his education exploring methods in super-light concrete systems, historic renovations, and design of timber structures at the Danish Technical University (DTU). Returning to complete graduate school in Minnesota, he mentored students in steel design and structural analysis. He brings the same enthusiasm to projects at MMY, treating each structure as a new challenge to explore.

Notable projects include:

#### St. Louis County Jail – Duluth, MN

Adaptive reuse of the 1925 St. Louis County jail into over 30,000 square feet of multi-family housing. Originally assembled with modular jail cells, the new steel framing reflects the original load path while enabling flexible floor plans in the new apartments.

#### The Wycliff Industrial Building – St. Paul

Adaptive reuse of an existing storage and manufacturing facility into over 300,000 square feet of mixed-use spaces. Work included analysis of existing timber and concrete frames, representing over 100 years of construction vintages, for new loads and wall opening configurations.

#### 4-Stories Building – Minneapolis, MN

Adaptive reuse of an existing office building into 2,000 square feet of wine bar and food service. Work included reinforcement of existing roof and floor framing and reconfiguration of the building lateral system.

### **Education**

Master of Science in Civil Engineering – University of Minnesota, Twin Cities, 2016

Bachelor of Civil Engineering – University of Minnesota, Twin Cities, 2014

### **Registration and Memberships**

License Professional Engineer - Minnesota  
M. ASCE - Structural Engineering Institute