



From left to right: Ahadu Kebere, Himal Acharya, Jenna Kuhn, Michael Springer, Tien Le

PROJECT SUMMARY:

The Oakland Avenue West bridge is an overpass on Highway 105 spanning across I-90 in Austin, Minnesota. Routine bridge inspections show the bridge is at the end of its service life, necessitating a full replacement. The new bridge is designed to ensure safety and functionality for the community. Working alongside experts from MnDOT, the team analyzed critical structural elements and developed designs for the abutments, wingwalls, and piers.

DESIGN GOAL:

The goal of the design of Bridge 50013 is to develop a set of structural design calculations and engineering sketches of the replacement bridge.



**DEPARTMENT OF
TRANSPORTATION**

TEAM 12

INDUSTRY REPRESENTATIVE

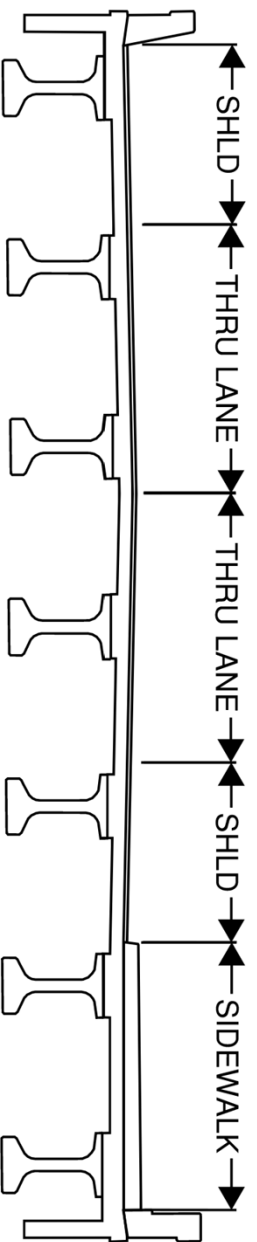
Matt Harold

FACULTY ADVISOR

Jose Capa Salinas

DESIGN CONSTRAINTS:

- Structural analysis methods comply with AASHTO LRFD Bridge Specifications.
- Designs comply with AASHTO LRFD Bridge Specifications.
- Designs comply with MnDOT Bridge Design Manual.
- Bridge elements meet geometric requirements in MnDOT BDM.
- Bridge clearances comply with AASHTO LRFD Bridge Specifications.



Typical cross section