

MSP Airport East Cell Lot Redevelopment



From left to right: Rediet Dereje, Ben Brandt, Rawan Hamida, Paul Sievert, Evan Peters.



TEAM 11

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PROJECT BACKGROUND & DESIGN GOAL:

The current holding lot at Minneapolis-Saint Paul International Airport is not optimized for current operations. As the airport continues to grow, the space no longer supports operational needs. **The goal of this project is to redesign the site to a more efficient and accessible facility that improves traffic flow and future airport operations.**

DESIGN OUTCOMES:

The redesigned layout improves how vehicles enter, exit, and move through the site for improved operational efficiency and safety. Roadways are extended, and the site is connected to existing utilities to meet the site's new demands. A stormwater management system is designed to safely collect and manage rainfall on-site. Overall, the design better accommodates current demand while preparing the site for future growth.



Figure 1:
Proposed and
Existing Site
Condition



DESIGN CONSTRAINTS:

- Reduce site capacity by 30% while maintaining functionality
- Stormwater management must handle rainfall and meet water quality
- Must meet safety and accessibility requirements for all users
- Must comply with:
 - Federal Aviation Administration (FAA)
 - Minnesota Department of Transportation (MnDOT)
 - Metropolitan Airports Commission (MAC)
 - Americans with Disabilities Act (ADA)
- Must maintain safe and efficient airport operation