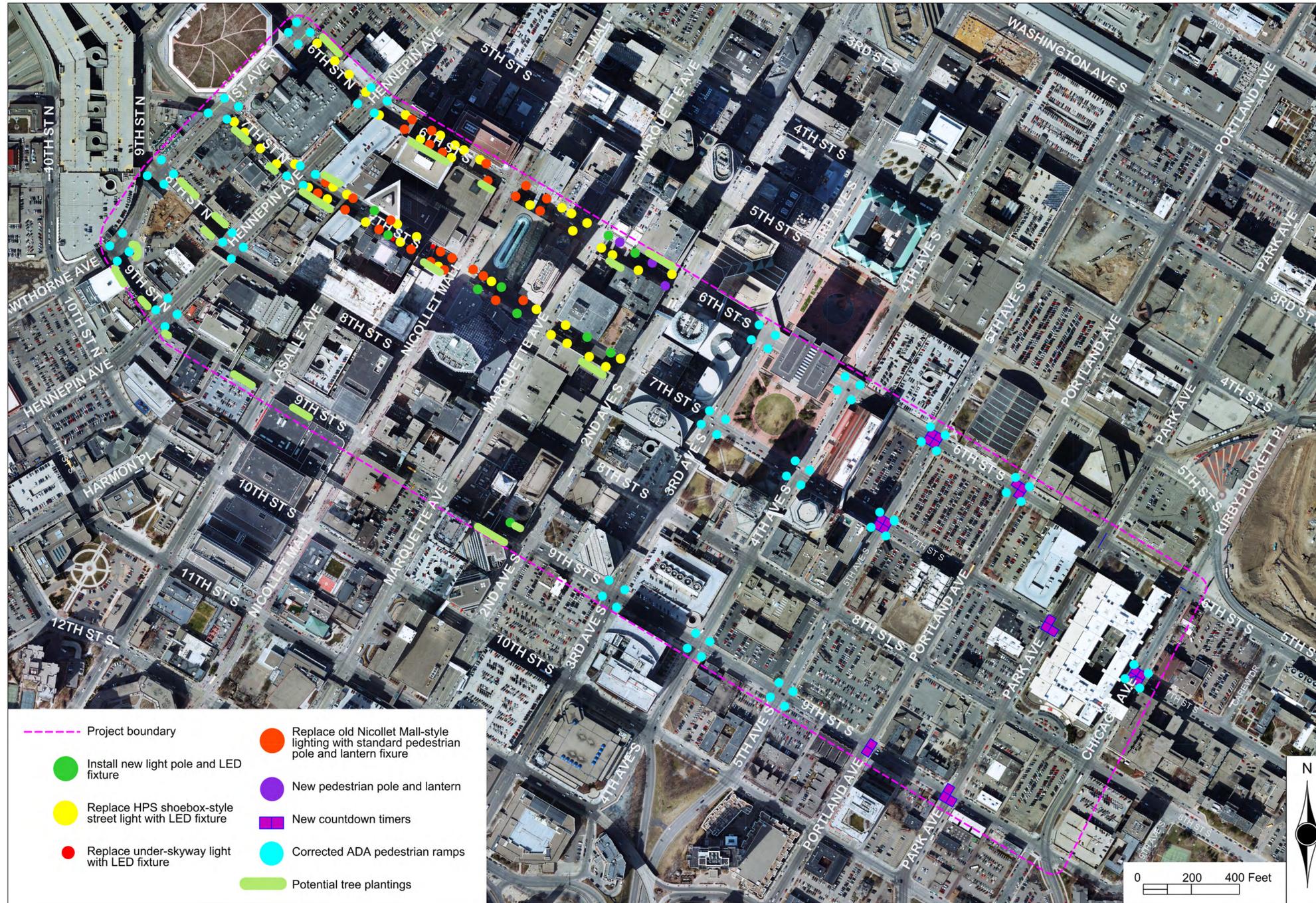


Project Overview



Project Scope

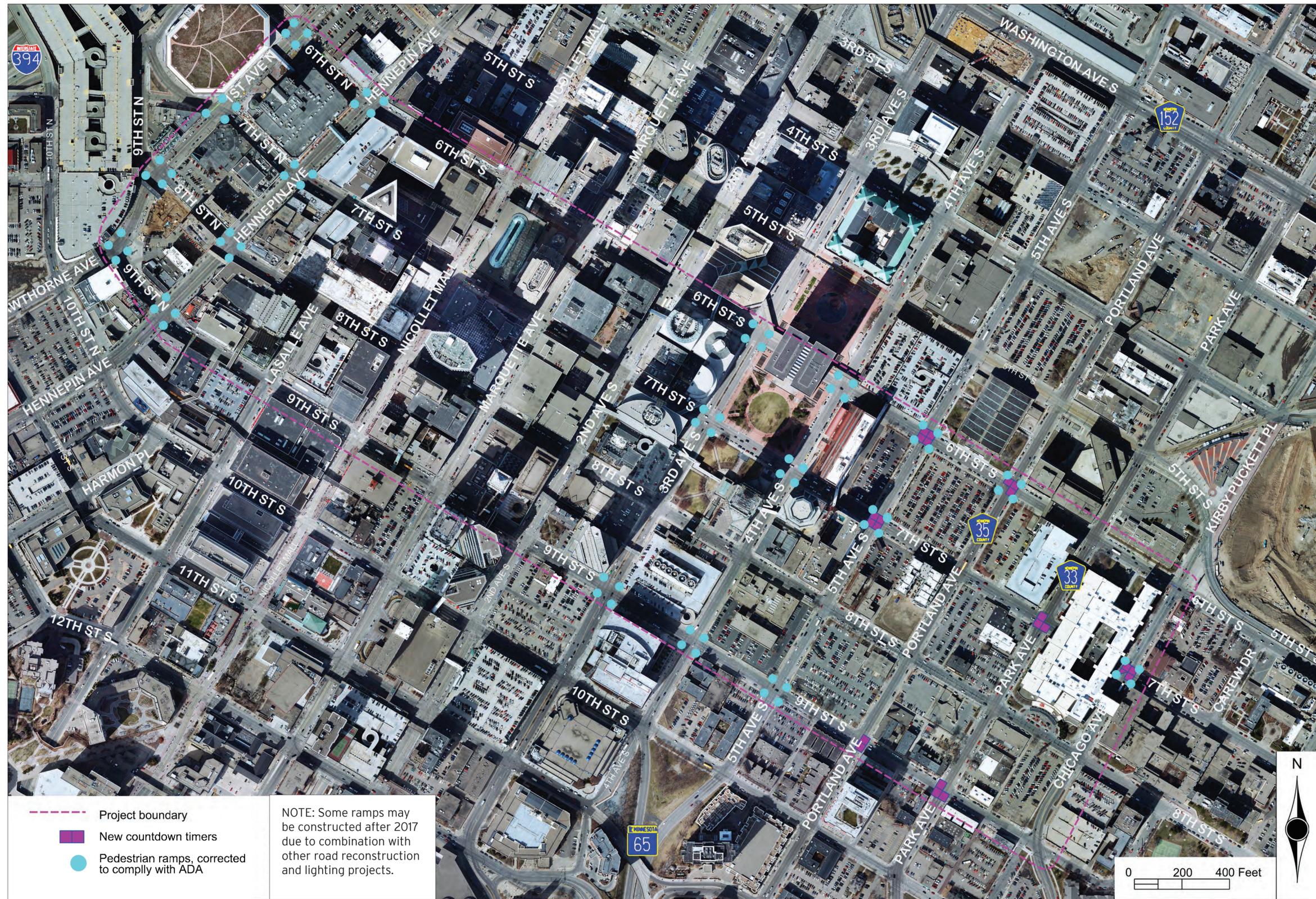
- Sidewalk ramps reconstructed on 19 intersections at all four corners to comply with federal law.
- Pedestrian countdown timers replacing older timers at 16 intersections
- Pedestrian and street lighting improvements on up to 9 blocks
- Tree planting on up to 12 blocks
- Environmental documentation to comply with federal requirements
- Design following federal Americans with Disabilities Act (ADA) requirements and MnDOT standards

Schedule

- December 2015: Draft Environmental Documents
- April 2016: Final Environmental Review Documents
- February 2016: Final Design Plans
- June 2016: Anticipated Project Letting
- 2017: Project Completion

Budget: \$2,016,000

Pedestrian Ramp and Countdown Timer Locations



Pedestrian Ramp Types

Why New Ramps?

- Ramps are being corrected to improve safety and comply with the federal Americans with Disabilities Act (ADA).
- In order to follow federal requirements and fit various site conditions, the project will employ four MnDOT standard ramp types, shown at right.
- While perpendicular ramps are generally considered safest for all users, they don't fit all situations, particularly in an urban context with limited sidewalk space.
- Impacts to utilities and property outside city right of way will be minimal, if not completely avoided.



A. Perpendicular ramp is the simplest type, used where space permits.



B. Combined perpendicular ramps are oriented at right angles to road centerlines and share a common landing (the flat area at top of ramp).

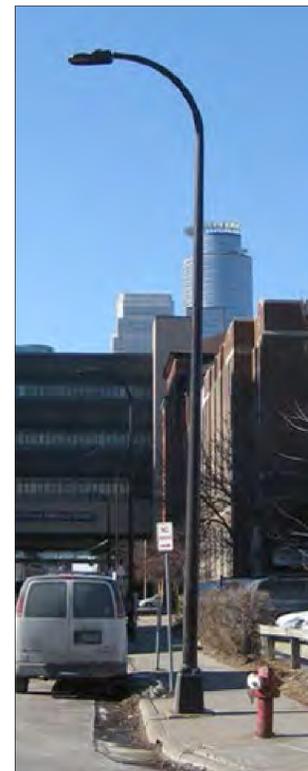
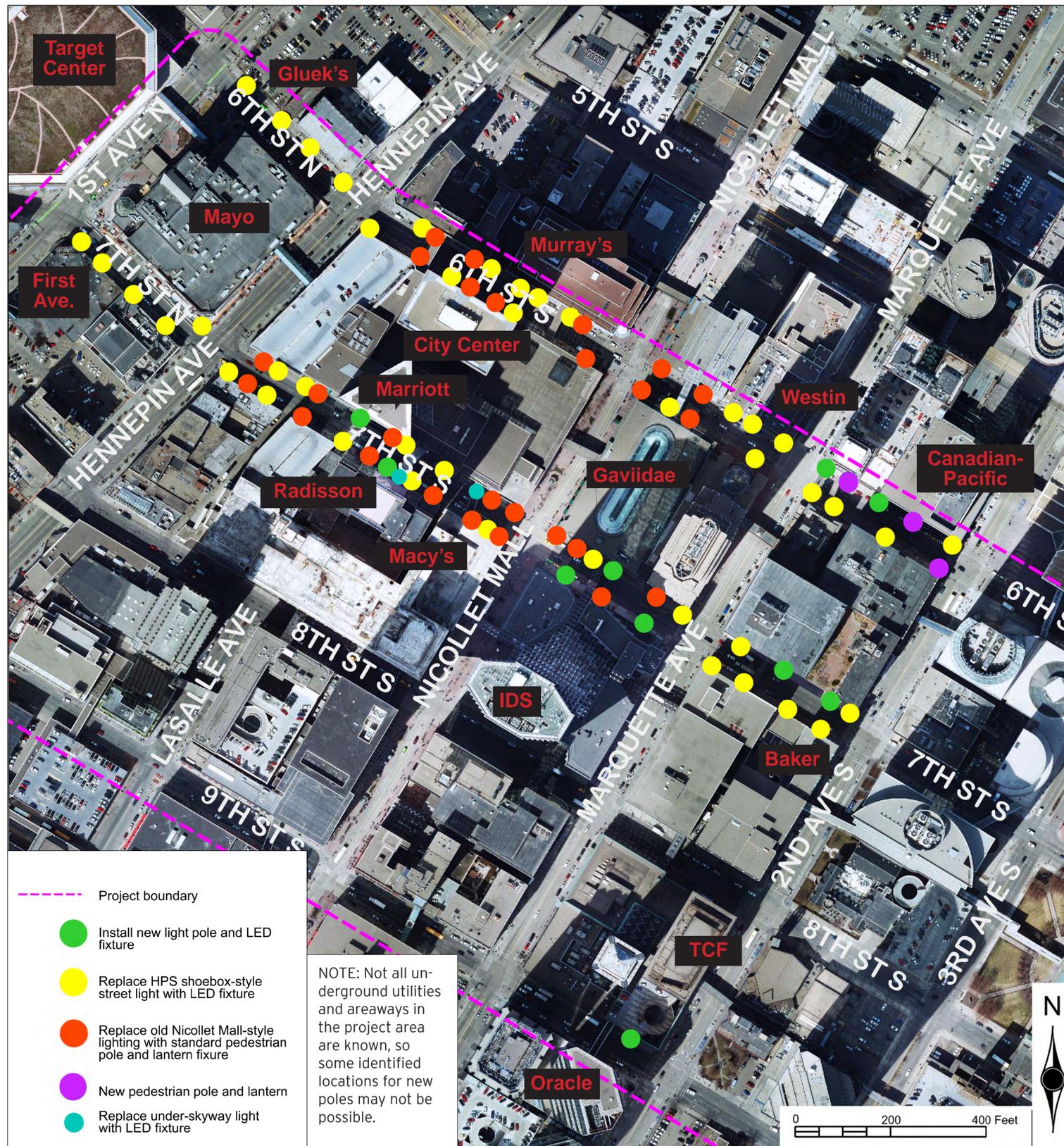


C. Depressed corner ramps, which wrap around the corner and include one continuous landing area, are used where space is very limited.



D. Fan ramp is a variation on the depressed corner ramp, with flares to meet existing grade at edges.

Lighting Locations and City Standard Fixtures



Cobrahead LED streetlight

- 10 LED cobrahead light fixtures on new poles
- 47 LED light fixtures to replace "shoebox" style streetlights on existing davit (curved) poles

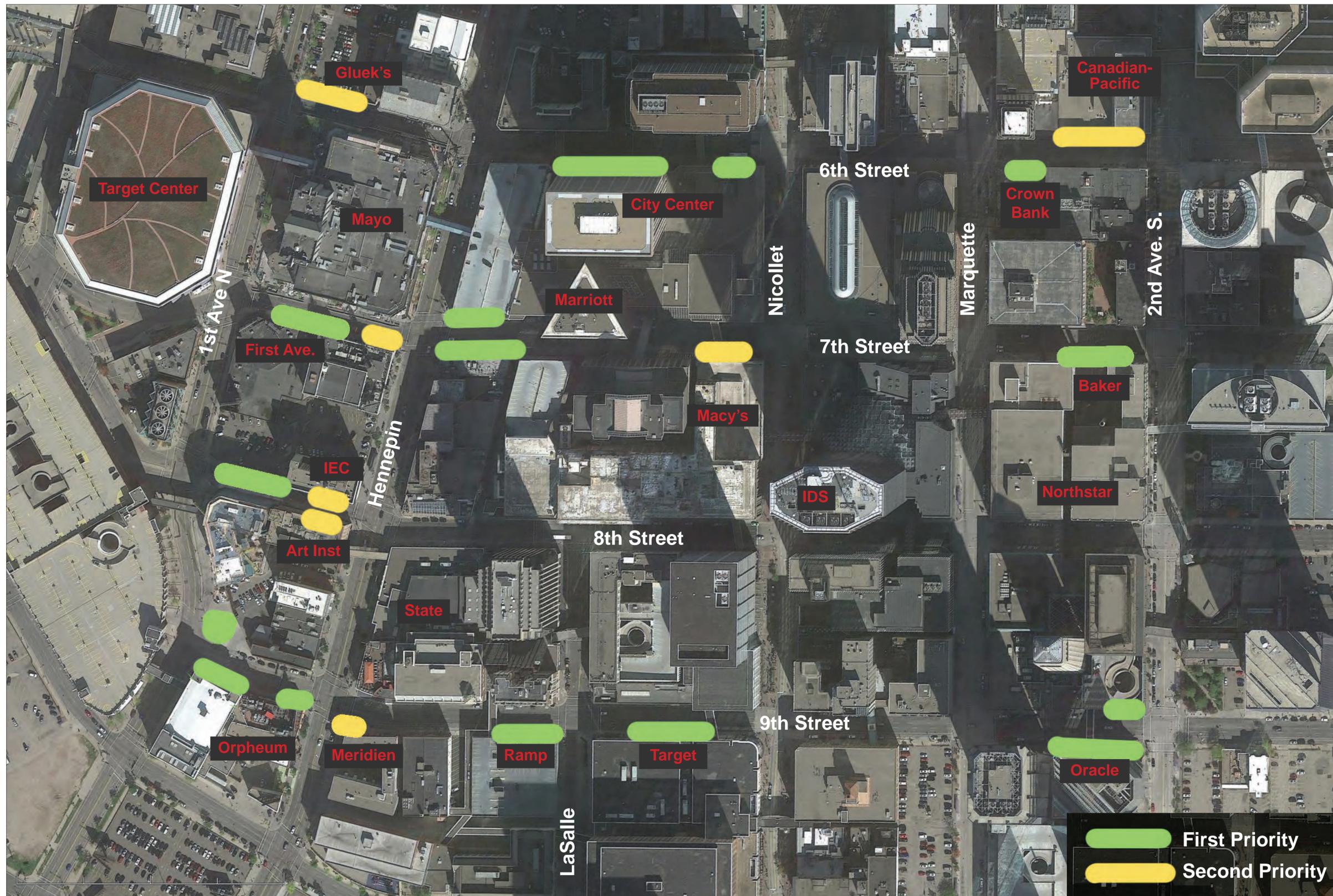


Lantern pedestrian light

- 27 lantern-style LED pedestrian lights (left) to replace old Nicollet Mall "theme" lighting (below) on 6th and 7th Streets
- 3 new lantern-style pedestrian lights
- 2 LED replacement lights under skyways



Tree Planting Priority Areas

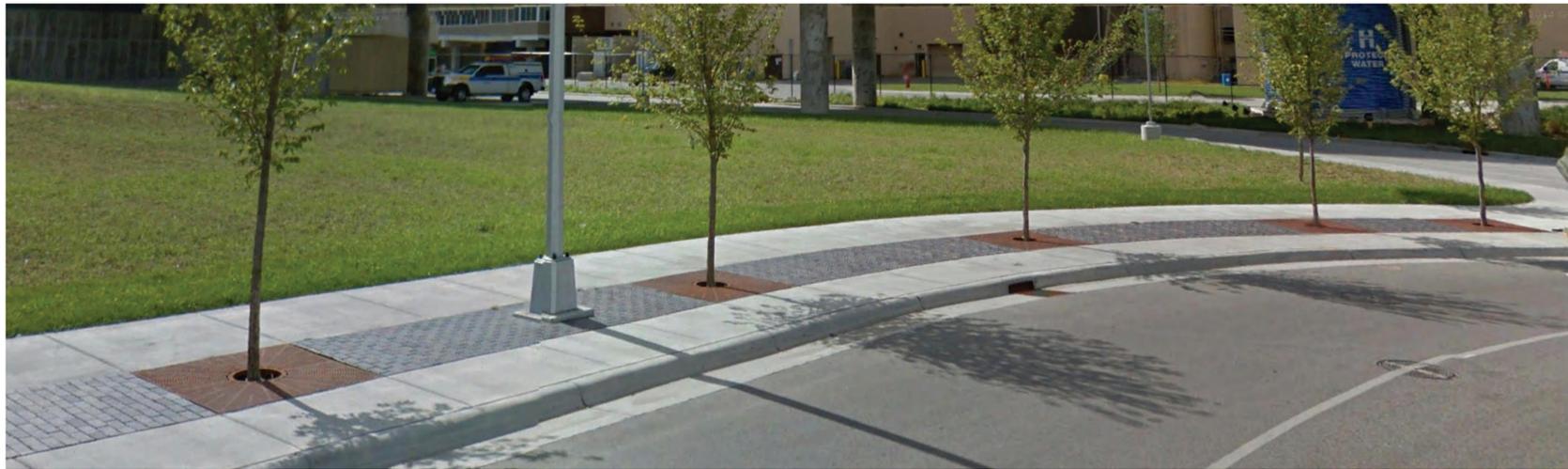


Tree Locations

Planting areas were selected and prioritized based on the aesthetic benefit of adding trees, the condition of existing trees and grates and available space both above and below ground.

Not all underground utilities and areaways (basement-like spaces under sidewalks) in the project area are known, so some identified locations may not receive trees.

Planting and Paving Options



Rectangular tree grates with pervious pavers between (near Target Field)



Pervious pavers with square tree grate (Marquette Avenue)

Tree Planting Considerations

- Grates allow easy access to trees in case replacement is required and they allow water to easily reach the critical root zone.
- Pervious pavers allow water to infiltrate over a larger area rather than running off sidewalks, unavailable to trees.
- Iron grates acquire a rusty patina over time, an aesthetic that some people appreciate. Special coatings do not hold up well in Minnesota's climate and alternative materials are either too fragile (aluminum) or too expensive (bronze).
- Rooting area is "Swedish soil," a combination of aggregate and soil that supports pavement and prevents compaction to keep oxygen, water and nutrients available to trees.
- Project aims for 500 cubic feet root zone per tree to encourage health and longevity.



Concrete sidewalk with standard square tree grates (above) and a modern alternate pattern (left)



Pervious pavers without tree grates