

WELCOME



NORTH
Dakota | Transportation
Be Legendary.™

Memorial Highway
Reconstruction Project

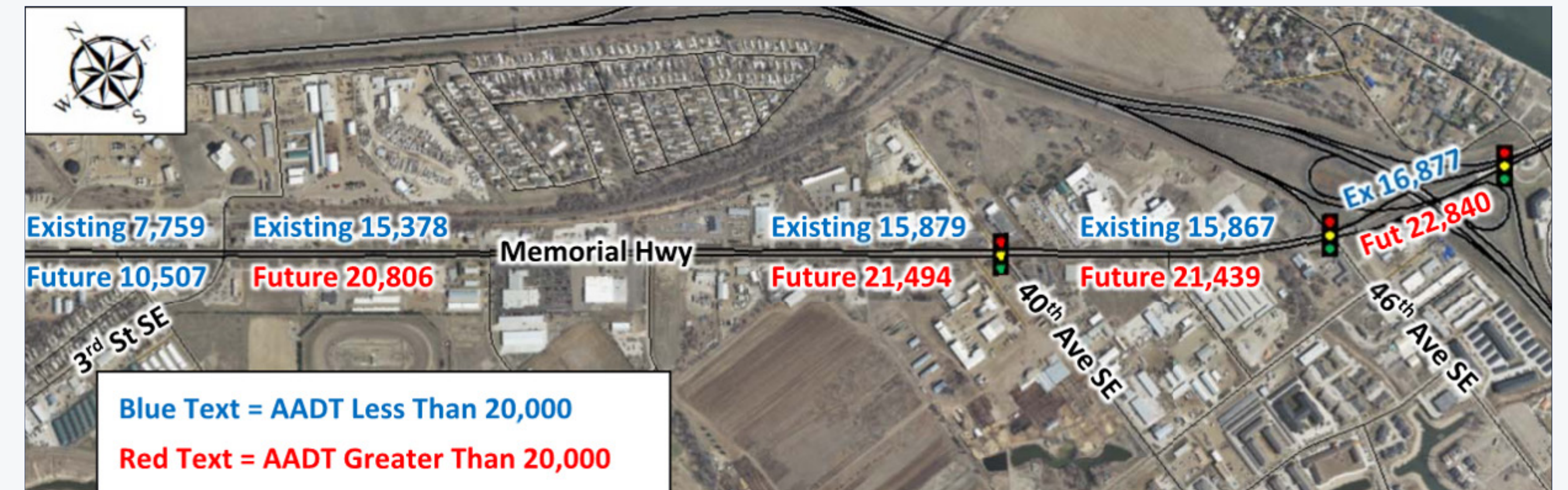
Public Input Meeting



**MEMORIAL
HIGHWAY**
IMPROVEMENTS

TRAFFIC OPERATIONS AND ACCESS MANAGEMENT:

- **~16,000 cars** traveled this corridor daily in 2018 and that number is expected to increase to **~23,000** by 2038
- **112 existing access points** exist today, and that number could be reduced



ROADWAY CONDITIONS

Existing conditions photos taken in 2018-2019



PEDESTRIAN FACILITIES



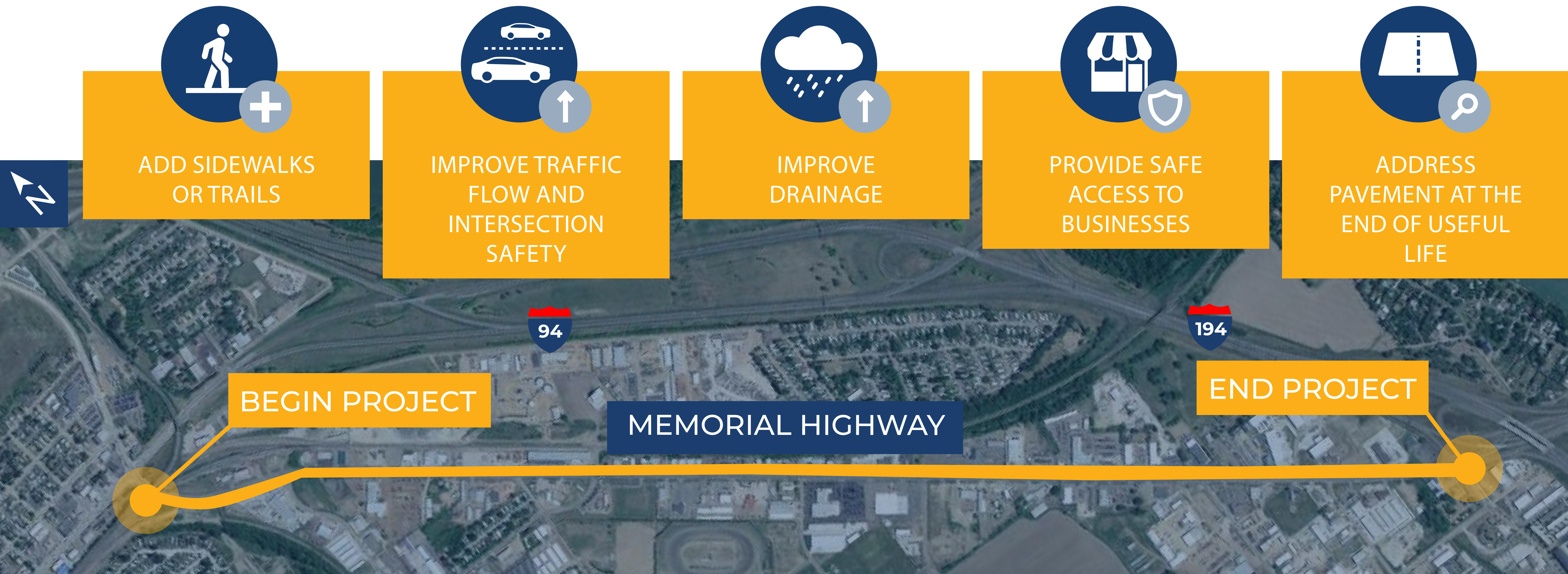
DRAINAGE CONDITIONS



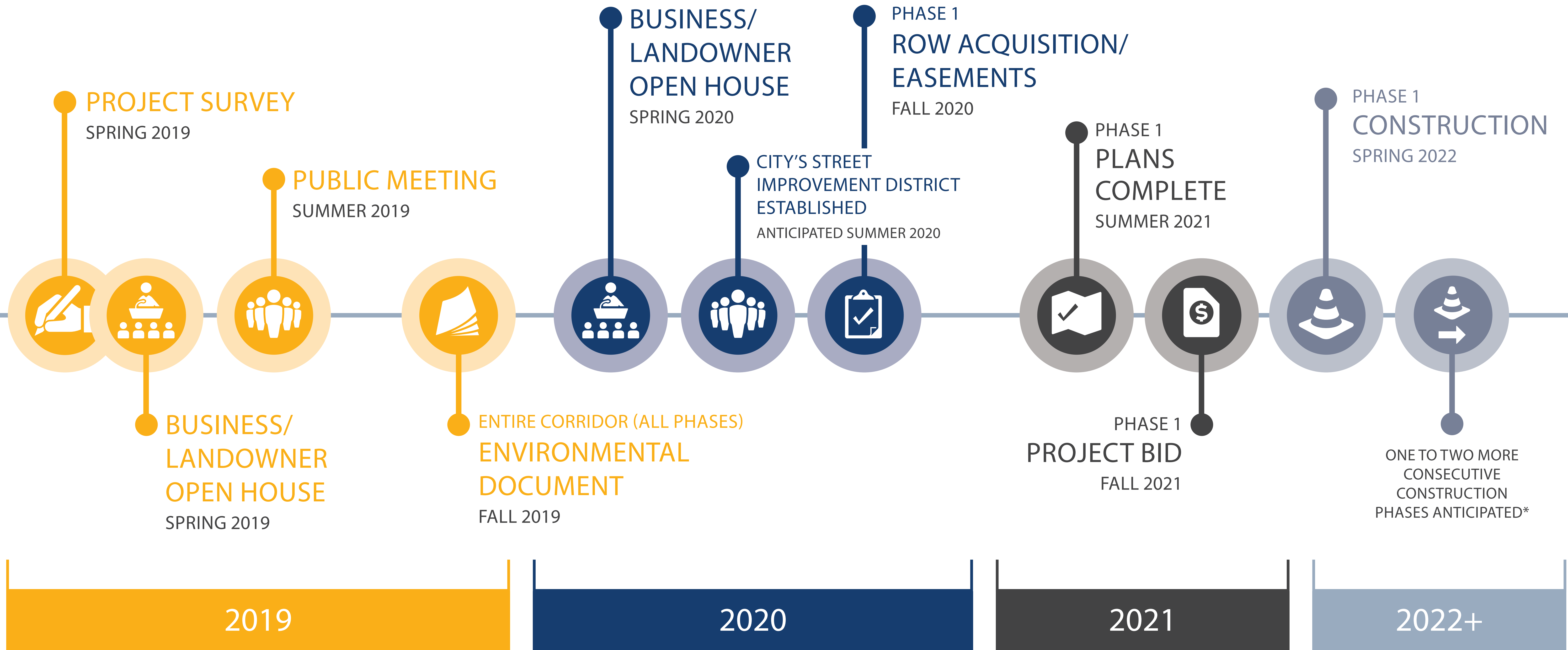
TRAFFIC OPERATIONS



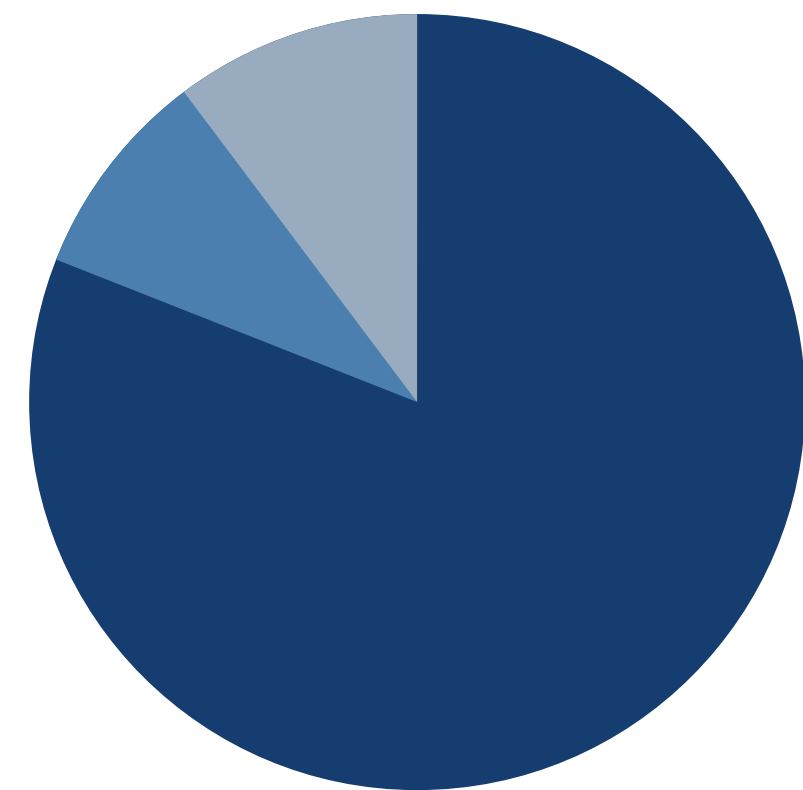
The North Dakota Department of Transportation and the City of Mandan are planning the reconstruction of Memorial Highway between Main Street and 46th Avenue in Mandan. This reconstruction project will improve safety and mobility of the corridor and reduce future maintenance costs. Construction is anticipated to begin in Spring 2022. Key project improvements include:



PRELIMINARY PROJECT SCHEDULE

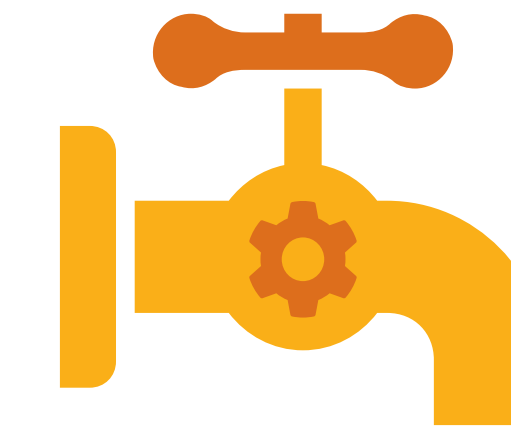
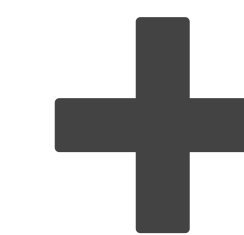


*Project phasing and sequencing will be determined during the preliminary engineering phase



Project Cost Share:

- Federal Cost Share: 80.93%
- State Cost Share: 9.07%
- Local Cost Share: 10%



Additional
City of Mandan
Utilities Upgrade Cost

COST SHARE BREAKDOWN:



FEDERAL COST SHARE

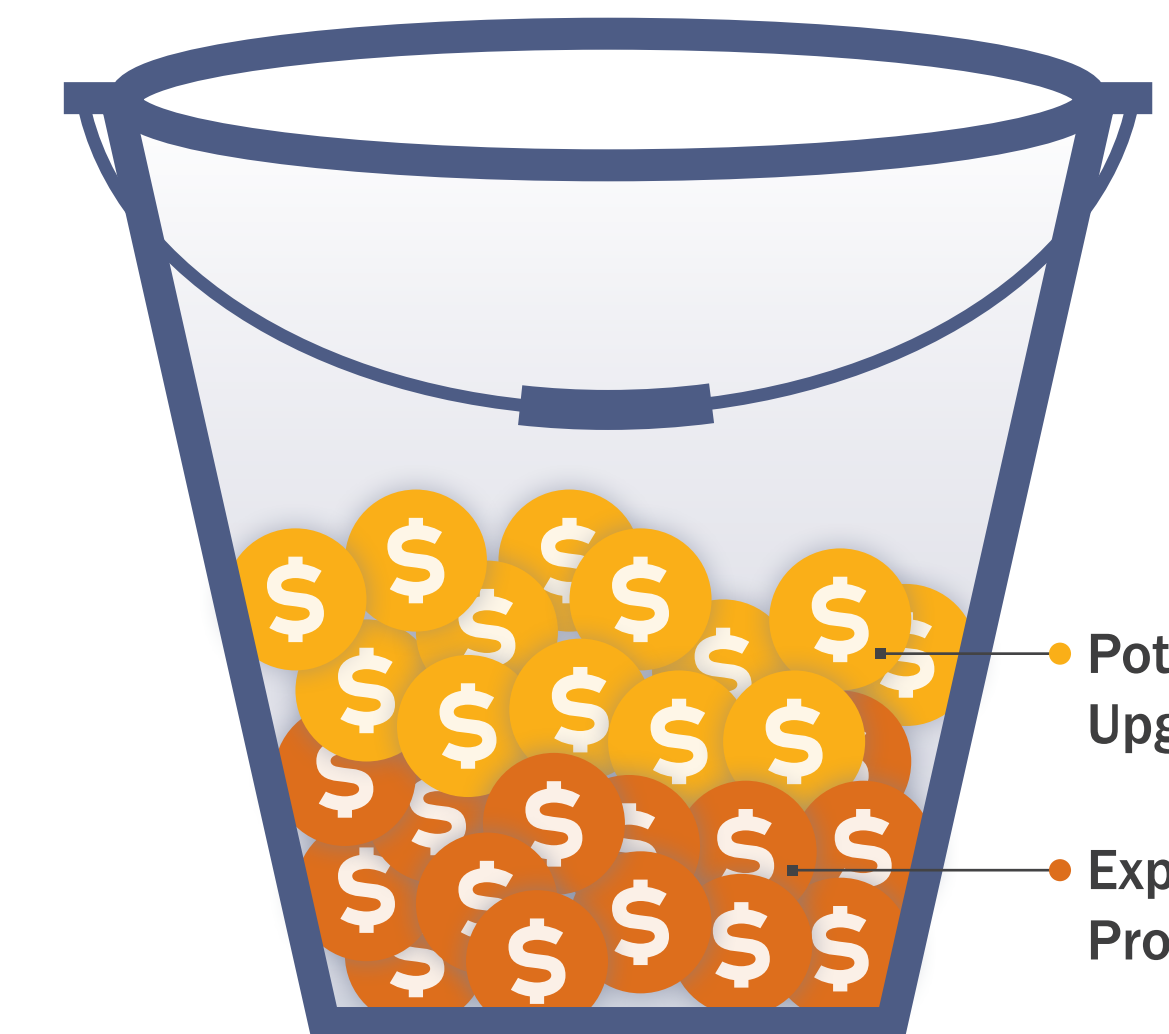


STATE COST SHARE



LOCAL COST SHARE

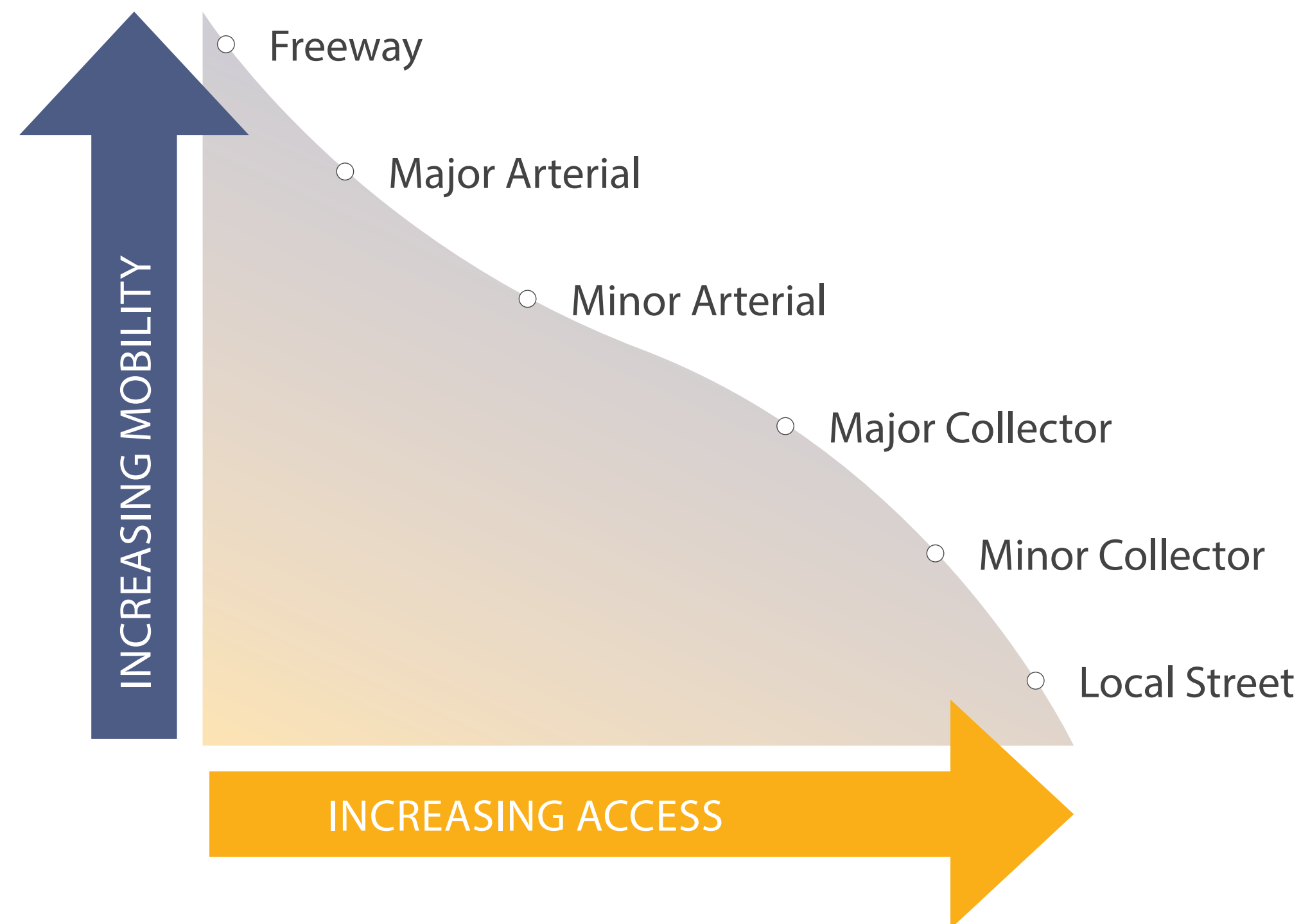
Roadway & Storm



ADDITIONAL CITY
UTILITY COST

Water & Sanitary Sewer

- Potential Utility Upgrades
- Expected Project Costs



PROPOSED ACCESS WIDTHS:

Source: NDDOT Design Manual

10–15 Feet	20–30 Feet	40 Feet
<i>Private Residences</i>	<i>Commercial</i>	<i>Industrial</i>

MEMORIAL HIGHWAY ACCESS:

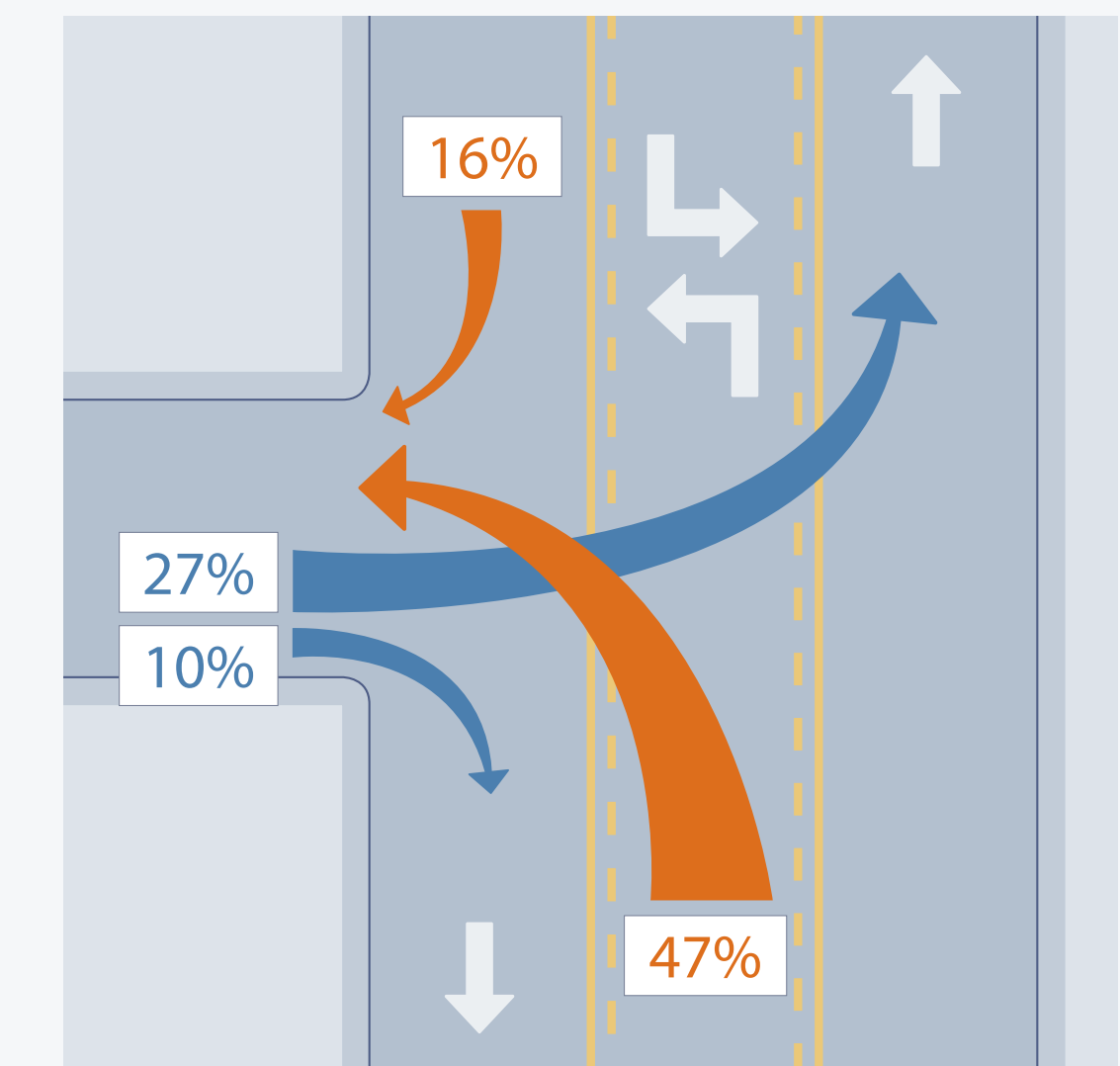
- **112 access locations** were inventoried along Memorial Highway
- From 2016 through 2018, 45 (28%) of the **164 total crashes** occurred at mid block locations
- 660 feet is considered adequate access spacing for unsignalized full access crossings on 40 mph minor arterial roadways

Source: Access Management Manual from the Transportation Research Board

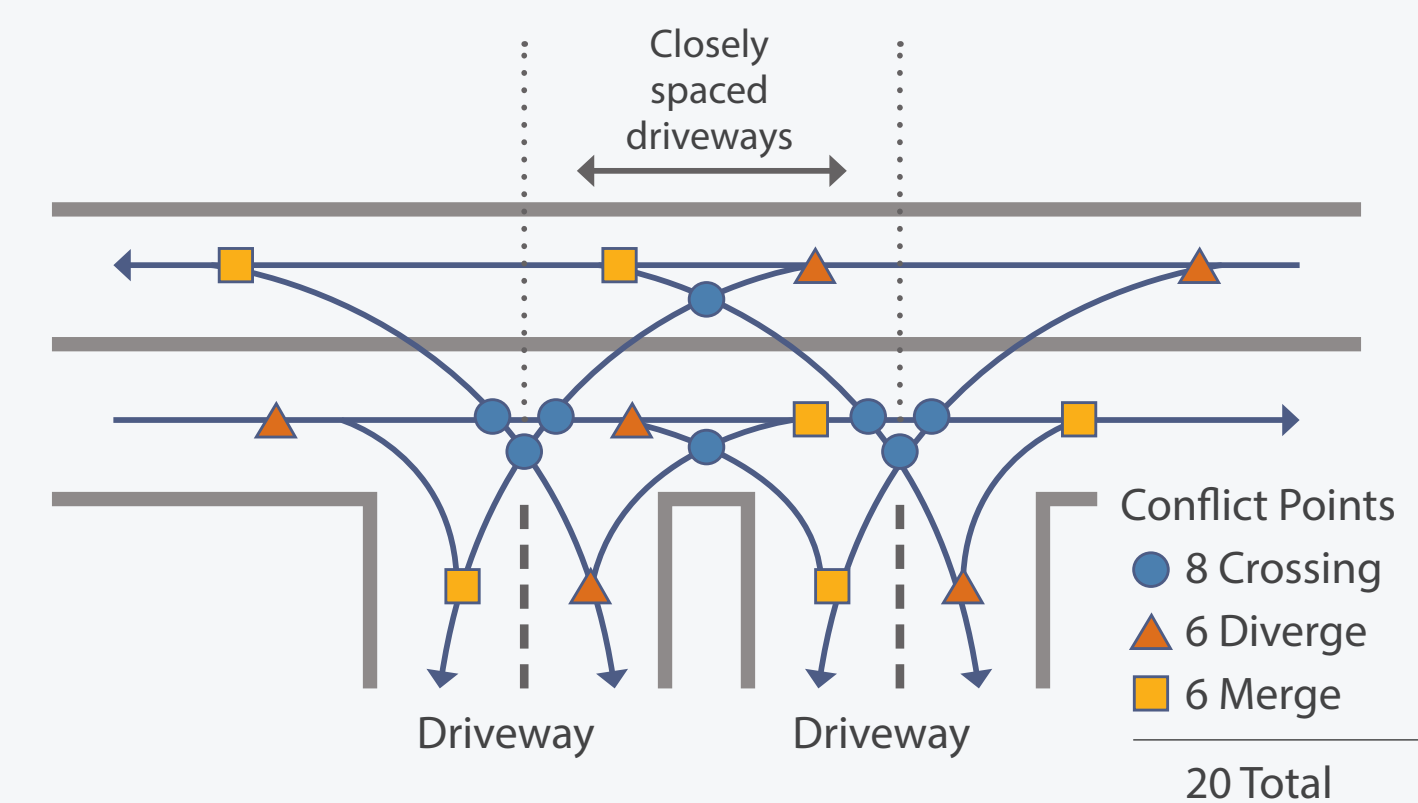


Access management is the programmatic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway.

Access management improves safety by separating access points so that turning and crossing movements occur at fewer locations. This allows drivers passing through an area to predict where other drivers will turn and cross, and also provides space to add turn lanes.

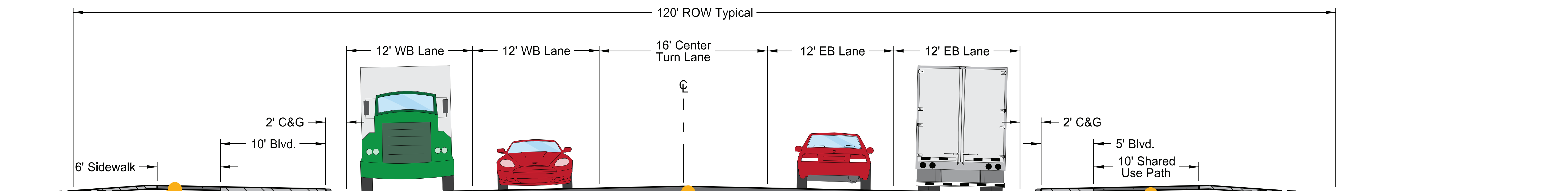


Percentage of crashes by driveway movement.



Source: Federal Highway Administration

KEY BENEFITS:



New pedestrian sidewalk on the north side to provide access to businesses and community connections



Drainage improvements along the roadway include a storm sewer system



Utility improvements include water main replacement and sanitary sewer rehabilitation

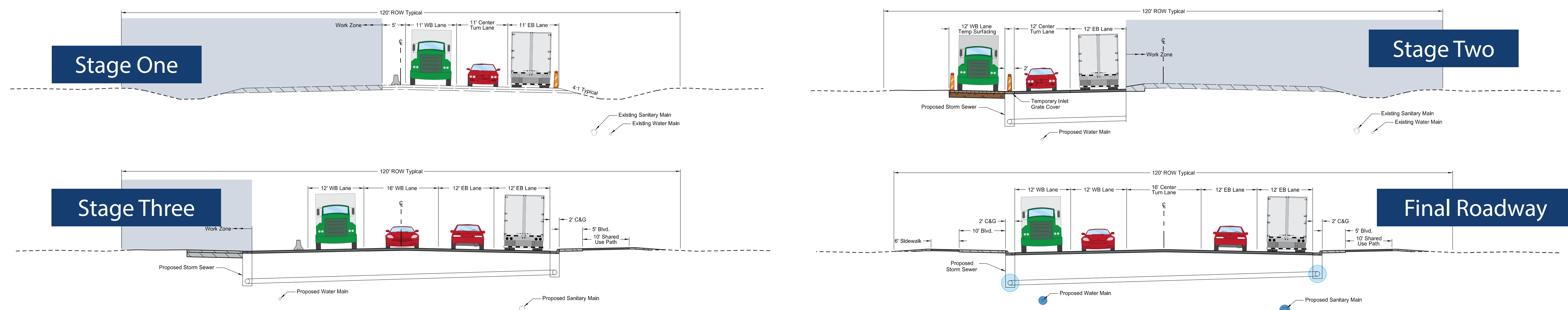


Middle lane allows for access to businesses and becomes a median for added safety at the signalized intersections (including pedestrian safety)



New shared-use path connects the community to the local trail system on the east and west side of the corridor

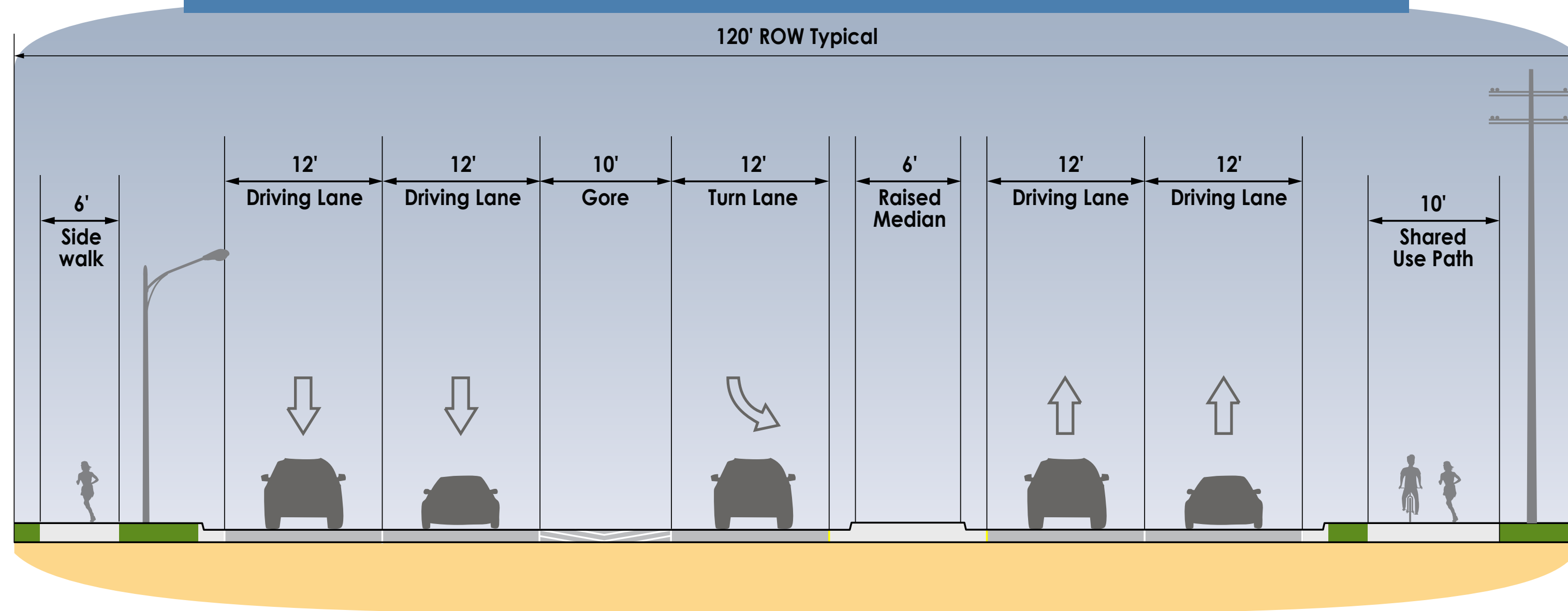
CONSTRUCTION STAGING TYPICALS:



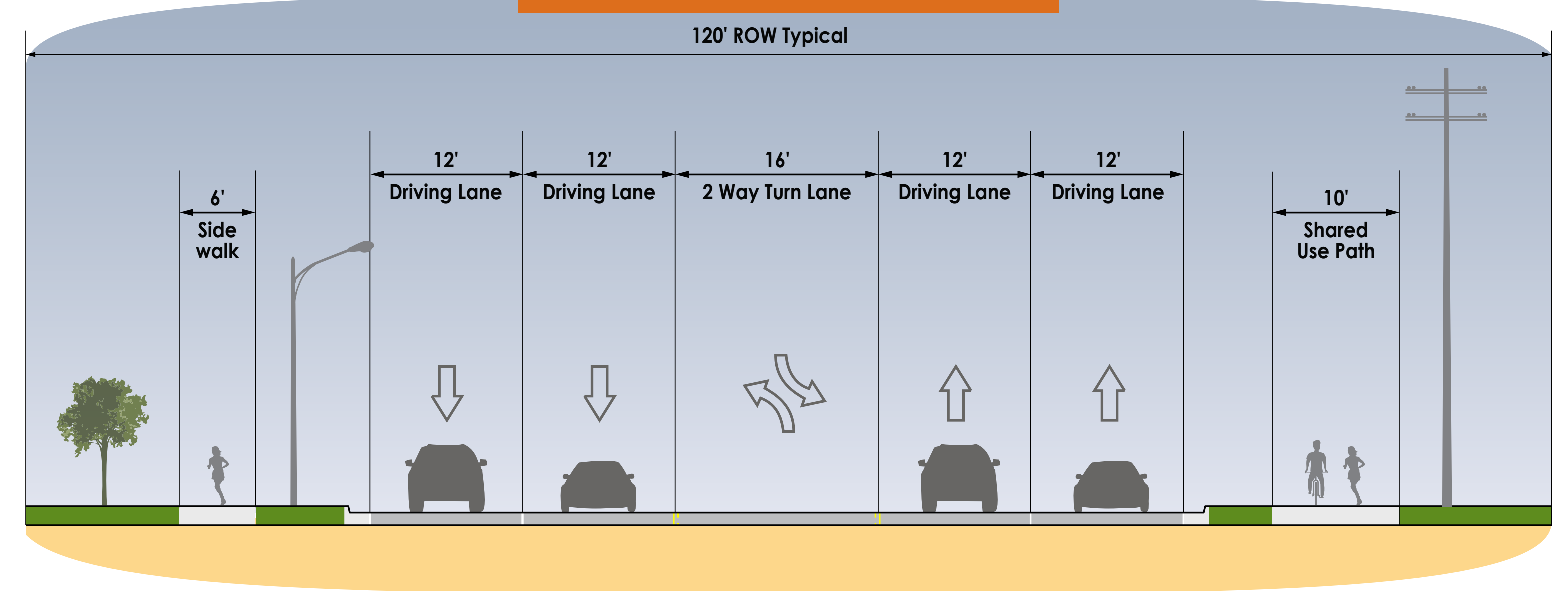
PROPOSED DESIGN



5-LANE SECTION WITH RAISED MEDIAN



5-LANE SECTION



MEMORIAL HIGHWAY LOCATIONS:

