

**WELCOME**



# Memorial Highway Reconstruction Project

# Business Open House



**MEMORIAL  
HIGHWAY**  
IMPROVEMENTS

# GENERAL OVERVIEW



The North Dakota Department of Transportation in conjunction with 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 2021. Key project improvements include:



ADD SIDEWALKS  
OR TRAILS



IMPROVE TRAFFIC  
FLOW AND  
INTERSECTION SAFETY



IMPROVE  
DRAINAGE



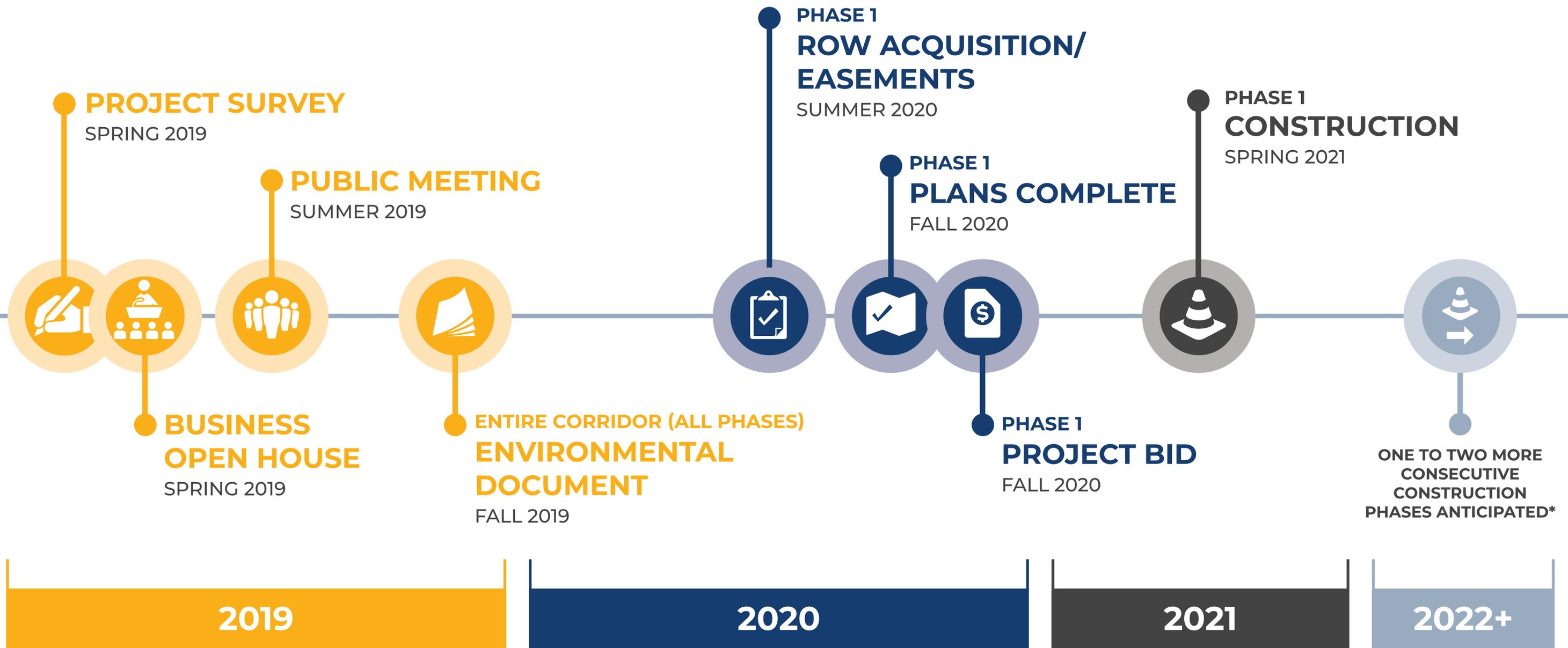
PROVIDE SAFE  
ACCESS TO  
BUSINESSES

BEGIN PROJECT

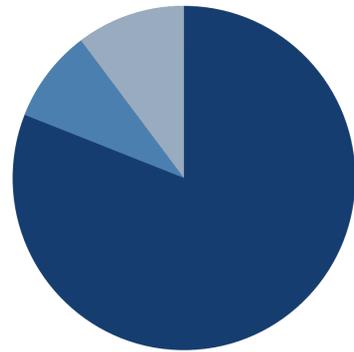
MEMORIAL HIGHWAY

END PROJECT

# 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

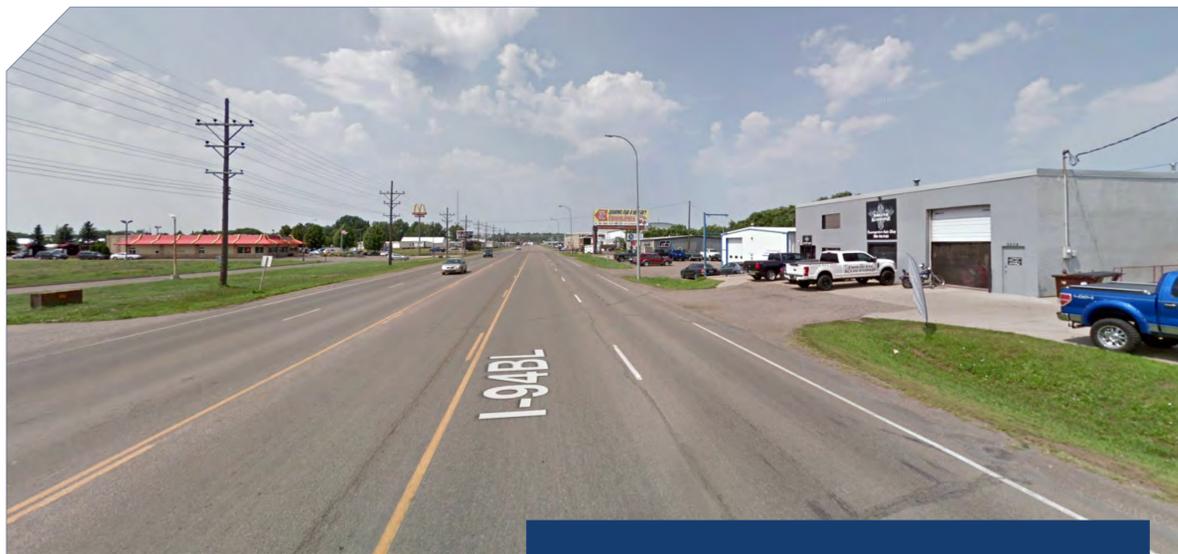
# CONSTRUCTION STAGING



STAGE 1



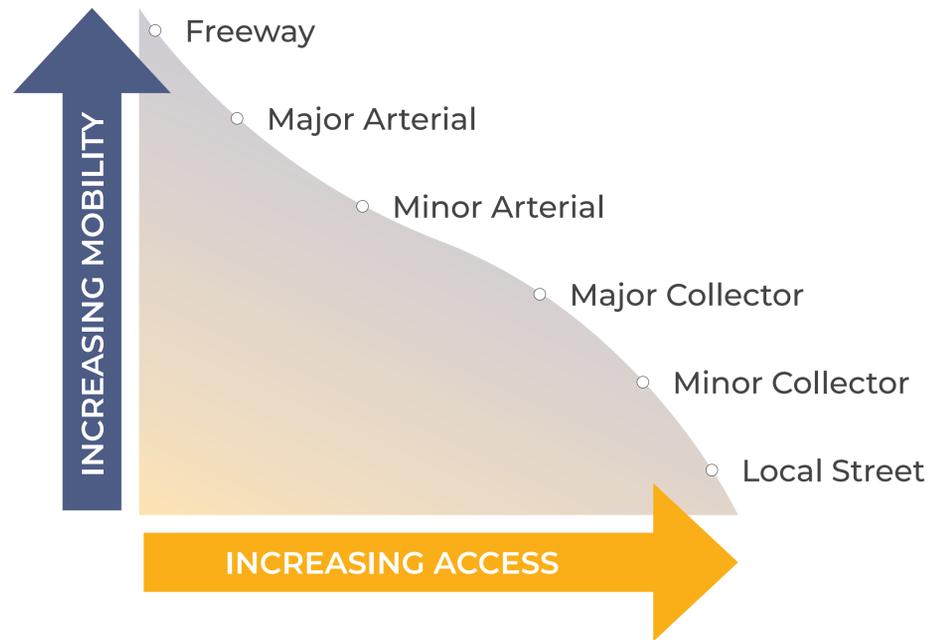
CONSTRUCTION ACCESS EXAMPLE



EXISTING CONDITIONS



STAGE 2



## 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

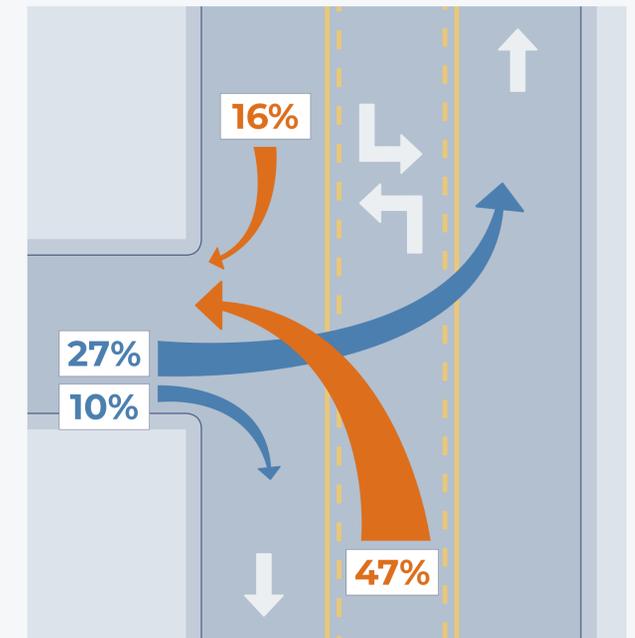
Source: Access Management Manual from the Transportation Research Board



**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.

Source: Federal Highway Administration



Percentage of crashes by driveway movement. Source: Federal Highway Administration, Office of Operations, 2006.

