

Ward County Highway Department

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Improving Our Road Network

- ▶ Culvert and Bridge Maintenance and Replacement
- ▶ SW and SE Connector Corridor Study

Bridge Repair and Replacement, Prior to 2008

- ▶ The DOT would also complete bridge inspections every other year and we would address any alert codes that came up during the inspection.
- ▶ We would typically replace one bridge every two to three years with federal funding.

Bridge Repair and Replacement 2008 to 2017

- ▶ Goal - to replace one bridge a year
- ▶ Ward County replaced 7 bridges between 2008 to 2017
- ▶ In 2008 we inventoried all the bridge under 20ft
- ▶ In 2015 we started having consultant inspect all of the bridge under 20ft and load rate them, since they were not apart of the DOT inspection process.
- ▶ All the bridge ratings were reviewed and all the bridge restriction signs were updated to meet current standards
- ▶ Our sign department also began inspecting all of the bridge signs twice a year, once in the spring and once in the fall.

Bridge and Culvert Work 2018 to Present

- ▶ 6 bridge structures have been replaced between 2018 and 2021
- ▶ 2 bridge projects are currently under construction
 - ▶ 216 ft three span bridge over the Souris River located on a township road
 - ▶ 277 ft three span bridge over the Souris River located on a county road.
- ▶ ibeamsystems.com/camera/mrefppsawyerndcr23bridgereplacement



Bridge Work Completed in 2021

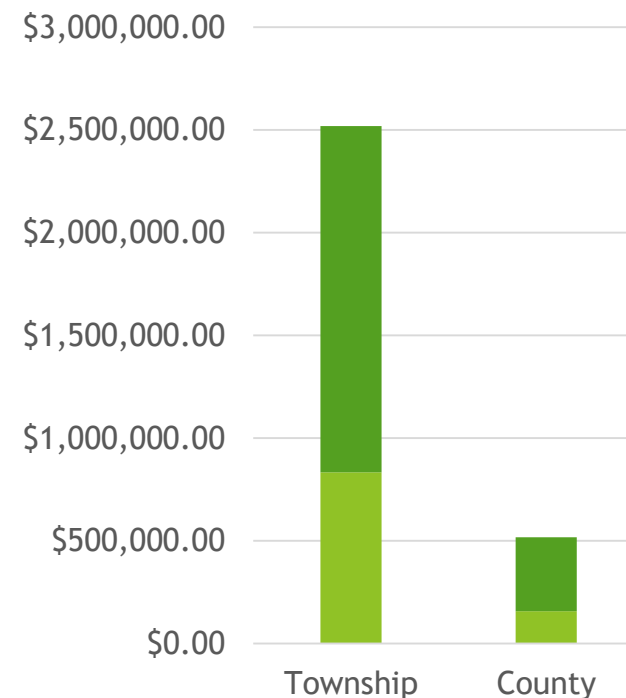
► County Bridges

- Spent \$157,000 Local & \$360,000 Federal
- 1 County Bridge was Replaced with Box Culvert
- Completed minor repair to 7 bridges
- Completed maintenance on 15 bridges

► Township Bridges

- Spent \$834,000 Local & \$1,685,000 Federal
- Replaced bridge over the DesLacs River
- Replace wood bridge with a Concrete Box Culvert
- Rehabbed abutments and replaced bridge deck
- Completed major repairs to 2 Township Bridges
- Completed minor repairs to 4 Township Bridges
- Performed maintenance on 20 bridges

Funds Spent on Bridges
By Road Class



Bridge Deck Replacement



Bridge Deck Replacement



Bridge Deck Replacement



- Bridge Deck \$75,000
- Other Materials \$10,000
- Crane Service \$14,000
- Labor & Equipment \$28,000
- Total = \$127,000

Future Bridge Work

- ▶ 19 bridges have been identified, which should be replaced due to condition or load carrying capacity.
 - ▶ 18 on township roads and 1 on a county road
 - ▶ 4 Bridges are in Poor condition
 - ▶ 10 Bridges are Load Restricted are considered to under 21 Tons (42,000 lbs)
 - ▶ 5 Bridges that are both in Poor Condition and are Load Restricted
- ▶ 18 million in replacement cost
- ▶ The goal is to replace all 19 bridges within 10 years.
- ▶ Only half will qualify for Federal Highway Funds

Farm Equipment is Larger



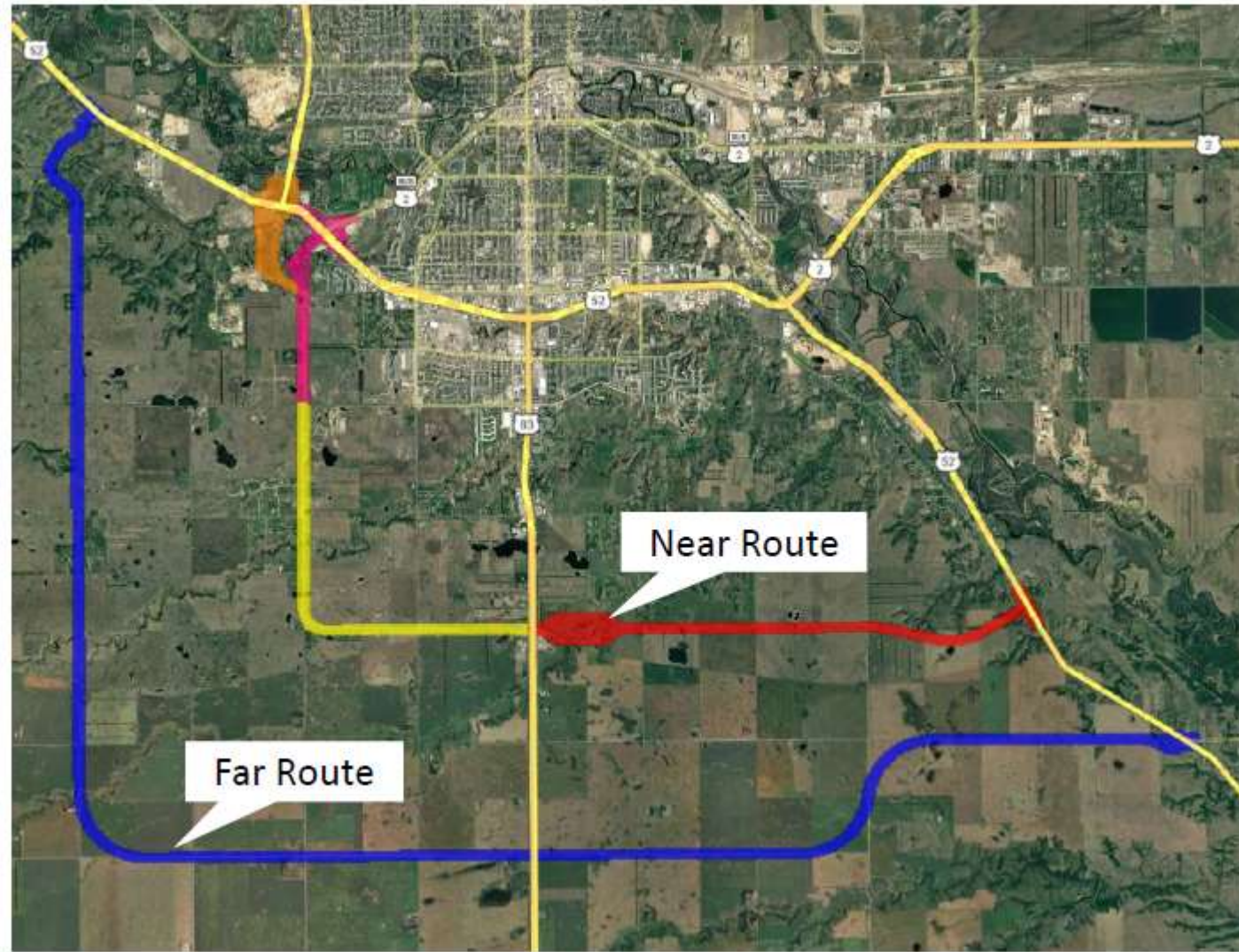
Large Trucks with heavy axel groups



1967 Bridge - 51 ft. - Max Rating 18 tons

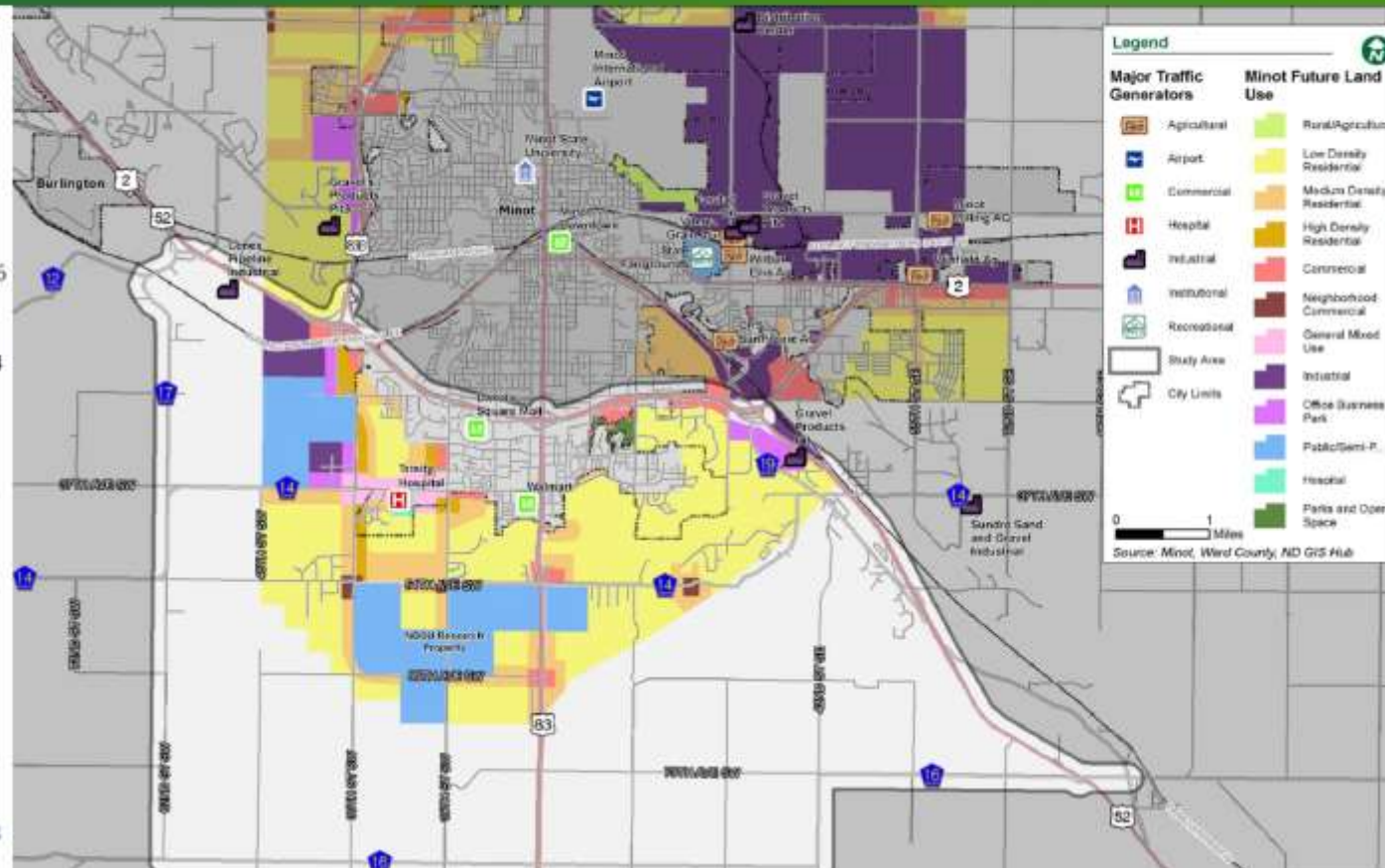
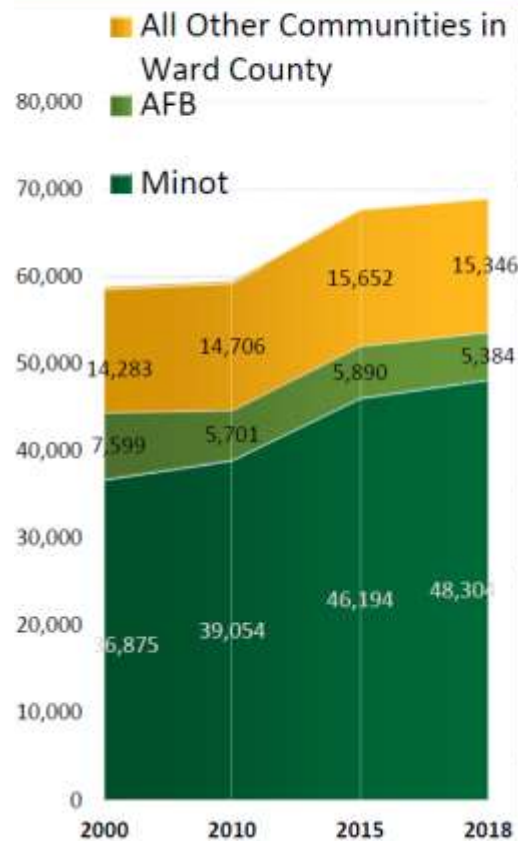


SW and SE Connector Corridor Study






SW and SE Connector Corridor Study

Future Growth Planning



SW and SE Connector Corridor Study

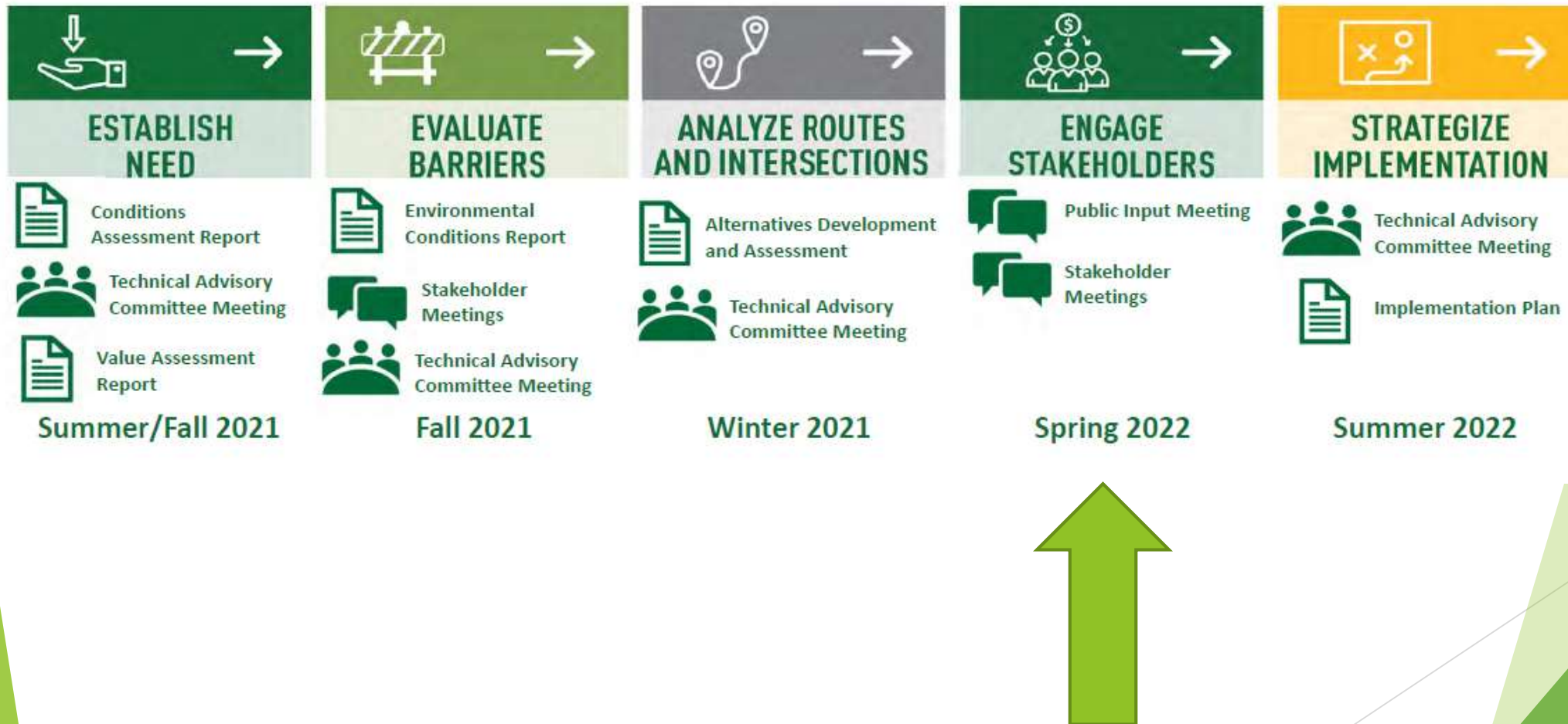
Major Planned Developments

Trinity Hospital	Port of North Dakota	Minot AFB Missile Project
		
<ul style="list-style-type: none">• 800,000 SF with 148 beds and additional services• Will add 500 jobs• Likely to generate additional development	<ul style="list-style-type: none">• 800 acres• 500 independent agricultural producers within 150 miles	<ul style="list-style-type: none">• 10-year project to be completed between 2023 – 2036• Includes 1,200 construction workers and support personnel• Constructing temporary housing

SW and SE Connector Corridor Study

- ▶ Need
 - ▶ Relocation of Trinity Hospital to the SW portion of Minot
 - ▶ Proposed Expansion of the City of Minot
 - ▶ Forecasted Traffic Congestions on US 2 and US 83
 - ▶ Forecasted Increase Traffic Accidents
- ▶ Worked with Local Government to apply for Federal Highway Planning Dollars to study future alternatives to a SW and SE connector corridor in the Minot Area.
- ▶ 80/20 Cost Share
- ▶ Goal, develop at least two alternative of a SW and SE Connector Corridor, along with at least two alternative for each major interstation along the corridor.

Project Approach



SW and SE Connector Corridor - Public Input



- ▶ wardcountyconnector.com
- ▶ <https://storymaps.arcgis.com/stories/347fe8d4e8924577a448dac42aa82958>
- ▶ <https://www.youtube.com/watch?v=RndH8Av2JXQ>

GIS Mapping

- ▶ <https://www.co.ward.nd.us/372/Area-Maps>
- ▶ **Ward County Parcel Viewer** - Parcel ID, Acreage, School District, Owners Name, Legal, Address, Taxes and Valuation. <https://maps.wardnd.com/parcelviewer/>
- ▶ **ND Road Condition Map** - ND State and US Highway Road Conditions, Work Zones and Cameras
- ▶ **Ward County GIS Portal** - Parcel Map, Flood Maps, School Districts, Fire Districts, Voting Districts, and Zoning Map <https://wardnd.maps.arcgis.com/home/index.html>
- ▶ **City of Minot GIS Portal** - Parcel Viewer, Construction Projects, Flood Control, Traffic Impact, Zoning Maps, Capital Improvement Projects, Rosehill Cemetery App, Sanitations Services Info.
- ▶ **North Dakota Risk Assessment Map Service (NDRAM)** - allows users to zoom in and visually display current flood risks, both approximate floodplains from BLE and effective regulatory floodplains from FEMA's NFIP. This new tool also provides users water surface elevations, flood depths, and the ability to download engineering model data and print customized maps making it useful for planning, mitigation, and disaster recovery actions.
- ▶ **NDDOT GIS Maps** - Bridge Conditions, Historic Bridges, Material Sources, Right of Way Plats, RWIS, and Traffic Counts
<https://nddot.maps.arcgis.com/apps/MapSeries/index.html?appid=c9251469c0934f94aae31f9fdb979f41>
- ▶ **North Dakota Oil and Gas GIS Map Viewer** - Oil Well and Rig Locations Information