



**Commission Meeting
December 2nd, 2024**

2025-2029 Hwy & Bridge Plan

Cass County Highway Department

Cover

CASS COUNTY COMPREHENSIVE HIGHWAY & BRIDGE 5 YEAR PLAN



2025-2029

Cass County Highway Department Cass County, North Dakota

This document was prepared pursuant to NDCC 11-31-03(2) and is intended to be used for internal planning purposes. Data used herein is deemed to be accurate, however, is not all-encompassing. Maps within are graphical displays of conditions at the time of preparation and are not to be used as a substitute for an accurate field survey.



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Plan Purpose

Plan Purpose

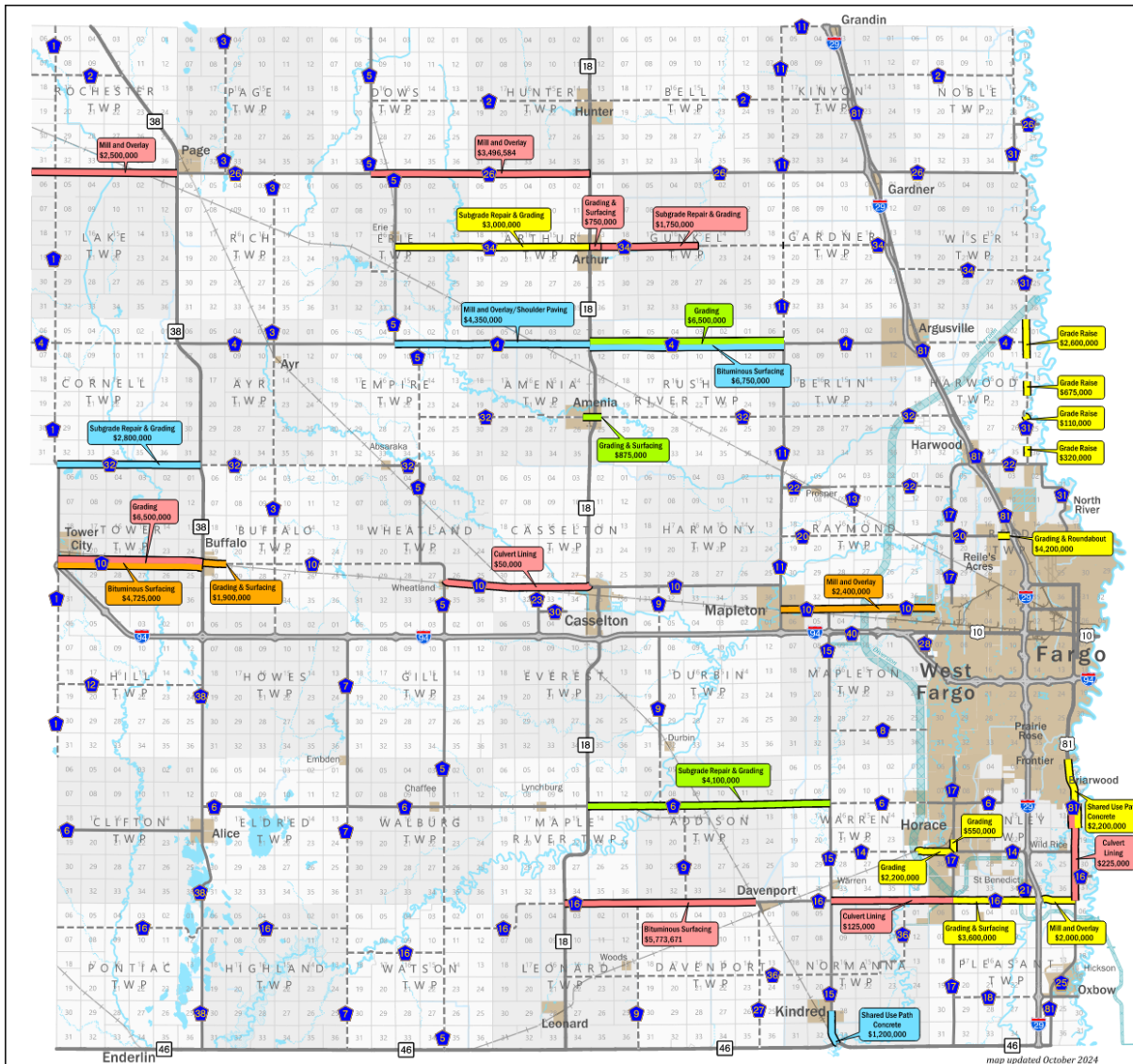
Cass County operates and maintains a highway system, which in conjunction with local, regional, and state systems, helps to serve the transportation needs of its residents and businesses. The Cass County Comprehensive Highway Plan provides the framework for development of the long-range highway and bridge planning guidance for 2025-2029. The Plan describes system principles and standards, evaluates the existing County transportation system, identifies future system needs, develops a maintenance plan, identifies funding sources, and outlines strategies to implement the Plan. The Plan provides the framework for decisions regarding the roadway and bridge infrastructure improvements necessary to develop a safe and efficient highway system.



Estimated Revenue

<i>Table 2 - Estimated Revenue</i>					
Revenue Description	2025	2026	2027	2028	2029
Property Taxes	\$12,673,227	\$13,433,621	\$14,239,638	\$15,094,016	\$15,999,657
Highway Distribution Tax and Additional State Funding	\$7,799,040	\$8,111,002	\$8,435,442	\$8,772,859	\$9,123,774
Other Income (Interest & Permits/Fees)	\$784,508	\$808,043	\$832,285	\$857,253	\$882,971
Prairie Dog Bill	\$6,571,730	\$0	\$6,571,730	\$0	\$6,571,730
Legacy Fund Grant	\$0	\$2,423,296	\$0	\$2,423,296	\$0
Border County & Cities Shared Projects	\$0	\$0	\$1,500,000	\$0	\$0
Total Revenues	\$27,828,505	\$24,775,961	\$31,579,094	\$27,147,425	\$32,578,131
Previous Year Carry Over	\$5,250,000	\$9,246,533	\$3,422,401	\$4,927,170	\$3,925,050
Diversion Reimbursement	\$0	\$0	\$3,705,000	\$0	\$0
Other (Grants or Oil Dollars)	\$2,000,000	\$0	\$4,860,000	\$0	\$960,000
Federal Aid Highway Funding	\$7,502,417	\$0	\$0	\$0	\$0
Federal Aid Bridge Funding	\$0	\$0	\$0	\$0	\$0
Total Revenues, Carry Over, & Federal Aid	\$42,580,922	\$34,022,494	\$43,566,495	\$32,074,595	\$37,463,181
Total Operating Cost	\$7,717,216	\$7,871,560	\$8,028,992	\$8,189,571	\$8,353,363
Total Available for Road/Bridge Projects	\$34,863,706	\$26,150,934	\$35,537,503	\$23,885,023	\$29,109,819

5 Year Proposed Road Projects



Appendix 1

2025 - 2029 5 Year Capital Improvement Plan Proposed Highway Projects



TABLE 5 - PROPOSED HIGHWAY IMPROVEMENTS

HWY	LOCATION	PROJECT TYPE	FUNDING	YEAR	COST
16	State Hwy 18 to Davenport	Bituminous Surfacing	Federal	2025	\$5,773,671
26	Hwy 5 North to State Hwy 18	Mill and Overlay	Federal	2025	\$3,496,584
26	Barnes Co. Line to ST Hwy 38	Mill and Overlay	Grant	2025	\$2,500,000
16	Hwy 15 to Hwy 17	Curbed Lining	Local	2025	\$125,000
10	Cassides to Wheeland	Curbed Lining	Local	2025	\$50,000
81	76th Ave S to Hwy 16W	Curbed Lining	Local	2025	\$225,000
34	State Hwy 18 to 0.5 Mile East	Grading & Surfacing	Local	2025	\$750,000
34	Half a Mile East of State 18 to 4.0 Miles East	Subgrade Repair & Grading	Local	2025	\$1,750,000
10	Hwy 1 to State Hwy 38	Grading	Local	2025	\$6,500,000
10	State Hwy 38 through Buffalo L Mile East	Grading & Surfacing	Local	2026	\$1,900,000
10	Hwy 11 Mapleton to Sheyenne Diversion Bridge	Mill and Overlay	Local	2026	\$2,400,000
10	Hwy 1 to State Hwy 38	Bituminous Surfacing	Local	2026	\$4,725,000
14	Diversion to Hwy 17	Grading	Local	2027	\$2,200,000
17	Hwy 14 to 0.50 Miles North	Grading	Local	2027	\$550,000
20	129 in 6th Street	Grading & Resurfacing	Grant	2027	\$4,200,000
34	Hwy 5 to State Hwy 18	Subgrade Repair & Grading	Local	2027	\$3,000,000
31	54th Ave S to 88th Ave S	Shared Use Path Concrete	Grant	2027	\$2,200,000
16	Hwy 17 to 129	Grading & Surfacing	Local	2027	\$3,600,000
16	129 to Hwy 81	Mill and Overlay	Local	2027	\$2,000,000
31	Improvement 2: South Segment - River Stage 37 Impacts	Grade Raise	Diversion	2027	\$320,000
31	Improvement 3: South Center Segment - River Stage 37 Impacts	Grade Raise	Diversion	2027	\$110,000
31	Improvement 4: North Center Segment - River Stage 37 Impacts	Grade Raise	Diversion	2027	\$675,000
31	Improvement 5: North Segment - River Stage 37 Impacts	Grade Raise	Diversion	2027	\$2,600,000
4	State Hwy 18 to Hwy 11	Grading	Local	2028	\$6,500,000
6	Hwy 15 to St 18	Subgrade Repair & Grading	Local	2028	\$4,100,000
32	State Hwy 18 West to 0.5 Mile through Amenia & East 0.25 Mile Through Wheeland	Grading & Surfacing	Local	2028	\$875,000
15	State Hwy 38 to C1	Shared Use Path Concrete	Grant	2029	\$1,200,000
4	State Hwy 18 to Hwy 11	Bituminous Surfacing	Local	2029	\$6,750,000
4	State Hwy 18 to Hwy 5 North	Mill and Overlay/Shoulder Paving	Local	2029	\$4,530,000

Note: Years to be completed are illustrative and subject to change and approval annually and/or as necessary by the Road Advisory Committee.
*project for which grant is possible

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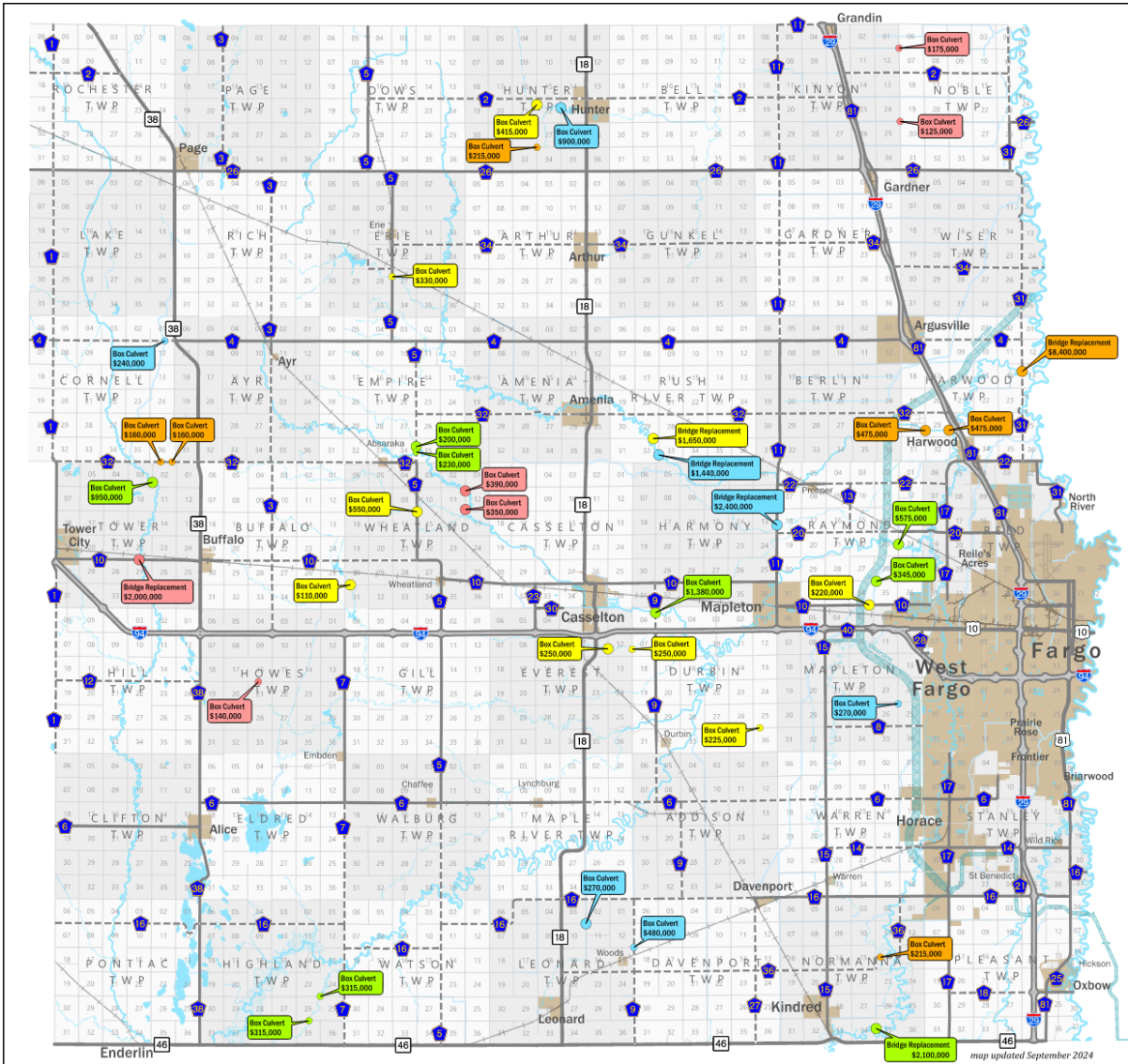
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5 Year Proposed Bridge Projects



Appendix 2 2025 - 2029 5 Year Capital Improvement Plan Proposed Structure Projects

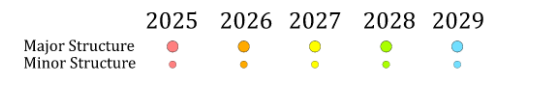


TABLE 7 - PROPOSED BRIDGE IMPROVEMENTS

HWY	LOCATION	PROJECT TYPE	FUNDING	STRUCTURE TYPE	YEAR	COST
	1 Kinyon/8 Noble Drain 16	Box Culvert	Local	Minor	2025	\$175,000
	16/21 Howes - Buffalo Creek Trib.	Box Culvert	Local	Minor	2025	\$140,000
	11/12 N Wheatland Twp - Swan Creek	Box Culvert	Local	Major	2025	\$825,000
	11/24 Wheatland Twp - Swan Creek	Box Culvert	Local	Major	2025	\$350,000
	25 Kinyon/30 Noble Drain 19	Box Culvert	Local	Minor	2025	\$125,000
18	C10 - 22/27 Tower Twp - Maple River	Bridge Replacement	Local	Major	2025	\$2,000,000
22	C32 - 36 Cornell/2 Tower - East Structure - Maple R. Branch	Box Culvert	Local	Minor	2026	\$160,000
22	C32 - 36 Cornell/2 Tower - West Structure - Maple R. Branch	Box Culvert	Local	Minor	2026	\$160,000
	33/34 Hunter Twp - Elm River Trib.	Box Culvert	Local	Minor	2026	\$215,000
36	C36 - 14 Normanna Twp - Sheyenne River Trib.	Box Culvert	Local	Minor	2026	\$215,000
21	C31 - 13/14 Harwood Twp - Sheyenne River	Bridge Replacement	Local	Major	2026	\$8,400,000
29	Harwood Twp - Bush River	Box Culvert	Local	Minor	2026	\$475,000
	29/30 Harwood Twp - Bush River	Box Culvert	Local	Major	2026	\$475,000
	25/36 Durbin Twp	Box Culvert	Local	Minor	2027	\$225,000
	11/12 Everett - Wheatland Channel	Box Culvert	Local	Major	2027	\$250,000
	30/31 Wheatland Twp - Buffalo Creek Trib.	Box Culvert	Local	Major	2027	\$110,000
	7 Durbin/12 Everett Twp.	Box Culvert	Local	Minor	2027	\$250,000
	29/32 Bush River Twp - Bush River	Bridge Replacement	Local	Major	2027	\$1,650,000
18	C10 - 34 Raymond/3 Mapleton - Dr 14	Box Culvert	Local	Major	2027	\$2,000,000
5	15/16 Wheatland Twp - Swan Creek	Box Culvert	Local	Major	2027	\$210,000
5	21/22 Hunter Twp - South Branch of the Elm River	Box Culvert	Local	Major	2027	\$415,000
5	CS - 27/28 Eric Twp - Bush River Trib.	Box Culvert	Local	Minor	2027	\$330,000
5	34/35 Empire - North	Box Culvert	Local	Major	2028	\$200,000
5	34/35 Empire - South	Box Culvert	Local	Major	2028	\$210,000
	23/26 Highland Twp - Maple River Trib.	Box Culvert	Local	Minor	2028	\$315,000
	26/35 Highland Twp - Maple River Trib.	Box Culvert	Local	Minor	2028	\$315,000
	23/24 Raymond Township - Maple River	Box Culvert	Local	Major	2028	\$575,000
	35 Raymond Township	Box Culvert	Local	Major	2028	\$345,000
	2/3 Tower Twp - Maple River	Box Culvert	Local	Minor	2028	\$950,000
9	C9 - 5/6 Durbin Twp - Swan Creek	Box Culvert	Federal	Major	2028	\$1,380,000
	34/35 Normanna Twp - Sheyenne River	Bridge Replacement	Local	Major	2028	\$2,100,000
4	1/12 Cornell Twp - Drain 56	Box Culvert	Local	Minor	2029	\$240,000
	25/26 Mapleton Twp - Drain 21	Box Culvert	Local	Minor	2029	\$270,000
	2/11 Leonard Twp - Drain 15	Box Culvert	Local	Major	2029	\$270,000
	32/33 Bush River Twp - Bush River	Bridge Replacement	Local	Major	2029	\$1,440,000
11	41 Harmony/18 Raymond	Bridge Replacement	Local	Major	2029	\$2,400,000
	12/13 Leonard Twp - Drain 39	Box Culvert	Local	Minor	2029	\$400,000
	22/23 Hunter Twp - Branch of the Elm River	Box Culvert	Local	Major	2029	\$900,000

Note: Years to be completed are illustrative and subject to change and approved annually and/or as necessary by the Road Advisory Committee.

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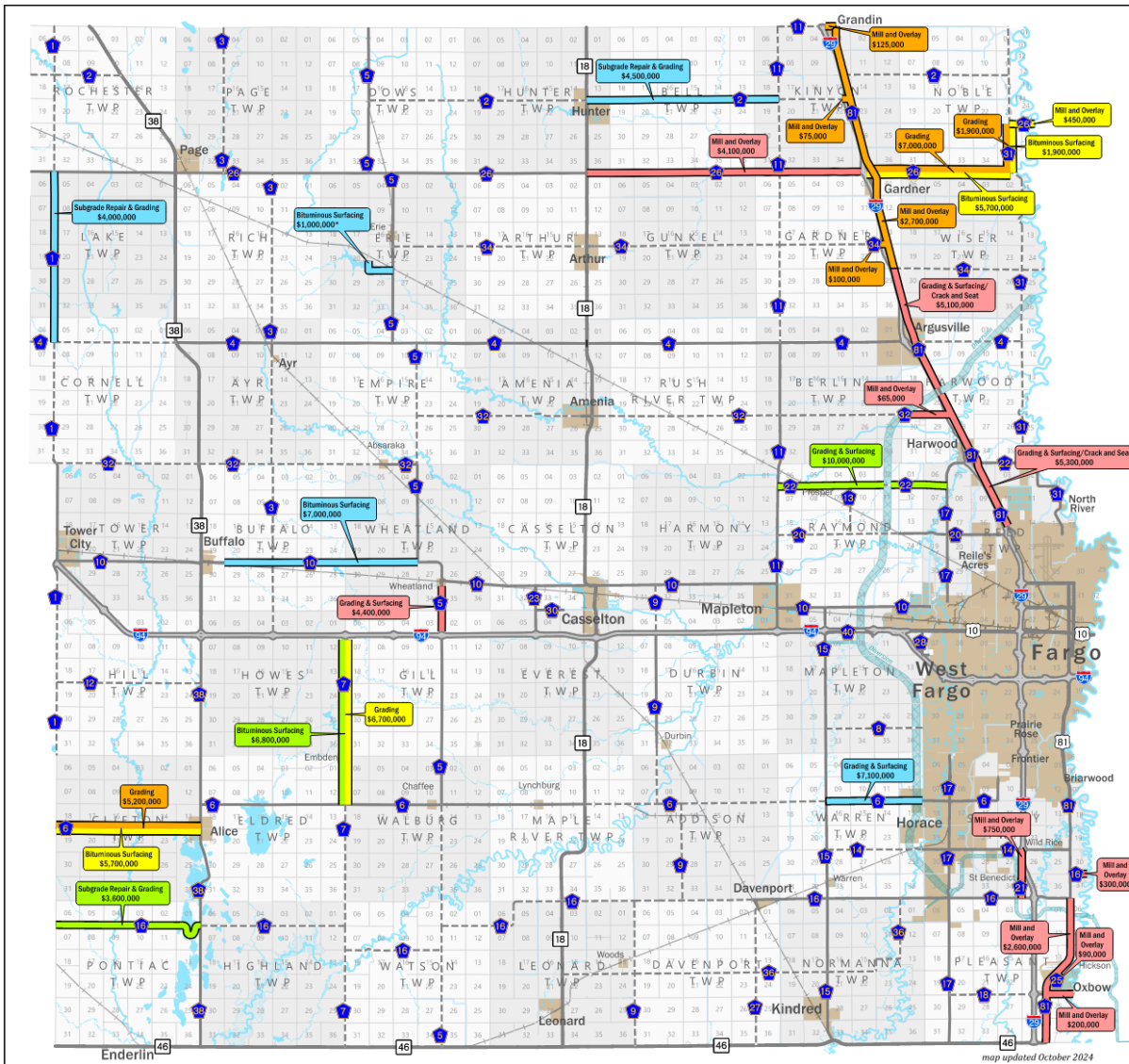
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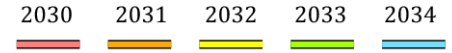
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6 to 10 Year Proposed Road Projects



Appendix 15 2030 - 2034 6-10 Year Capital Improvement Plan Proposed Highway Projects



LONG RANGE PROPOSED HIGHWAY IMPROVEMENTS						
HWY	LOCATION	PROJECT TYPE	FUNDING	YEAR	COST	
16	Hwy 81 to Red River	Mill and Overlay	Federal	2030	\$300,000	
18	I29 to Red River	Mill and Overlay	Federal	2030	\$200,000	
25	Hwy 81 through Hillcross	Mill and Overlay	Local	2030	\$900,000	
21	Hwy 16-W to State Hwy 46	Mill and Overlay	Federal	2030	\$2,600,000	
31	Hwy 16 to Hwy 14	Mill and Overlay	Local	2030	\$750,000	
26	State Hwy 18 to I29	Mill and Overlay	Federal	2030	\$4,100,000	
5	Wheatland to I94	Grading & Surfacing	Local	2030	\$4,400,000	
81	Diversion to Hwy 34E	Grading & Surfacing/Crack and Seal	Local	2030	\$5,100,000	
32	C81 to West of I29	Grading & Surfacing/Crack and Seal	Local	2030	\$65,000	
81	City of Fargo to Diversion	Grading & Surfacing/Crack and Seal	Local	2030	\$5,300,000	
81	Hwy 34E to Trail County	Mill and Overlay	Local	2031	\$2,700,000	
11	Through Grandin	Mill and Overlay	Local	2031	\$125,000	
2	Over I29	Mill and Overlay	Local	2031	\$75,000	
34	Over I29	Mill and Overlay	Local	2031	\$160,000	
26	I29 to C31	Grading	Local	2031	\$7,000,000	
31	Hwy 26 West to Hwy 26 East	Grading	Local	2031	\$1,900,000	
6	Hwy 38 to Barnes County	Grading	Local	2031	\$5,200,000	
7	I94 to Hwy 6	Grading	Local	2032	\$6,700,000	
26	I29 to C31	Bituminous Surfacing	Local	2032	\$5,700,000	
31	Hwy 26 West to Hwy 26 East	Bituminous Surfacing	Local	2032	\$1,900,000	
26	Hwy 31 to Red River	Mill and Overlay	Local	2032	\$450,000	
6	Barnes Co Line to Hwy 38	Bituminous Surfacing	Local	2032	\$5,700,000	
7	I94 to Hwy 6	Bituminous Surfacing	Local	2033	\$6,800,000	
22	Hwy 17 to Hwy 11	Grading & Surfacing	Local	2033	\$1,030,000	
16	State Hwy 38 to Barnes County Lane	Subgrade Repair & Grading	Local	2033	\$3,600,000	
2	5718 to Hwy 11	Subgrade Repair & Grading	Local	2034	\$4,500,000	
6	Shoysness Diversion to Hwy 15	Grading & Surfacing	Local	2034	\$7,100,000	
4	Hwy 4 to Hwy 26	Subgrade Repair & Grading	Local	2034	\$4,000,000	
10	CSN to Buffalo	Bituminous Surfacing	Local	2034	\$7,000,000	
	Brewer Lake Park Road	Bituminous Surfacing	Grant	2034	\$1,000,000*	

Note: Years to be completed are illustrative and subject to change and approved annually and/or as necessary by the Road Advisory Committee.
*project for which grant is possible

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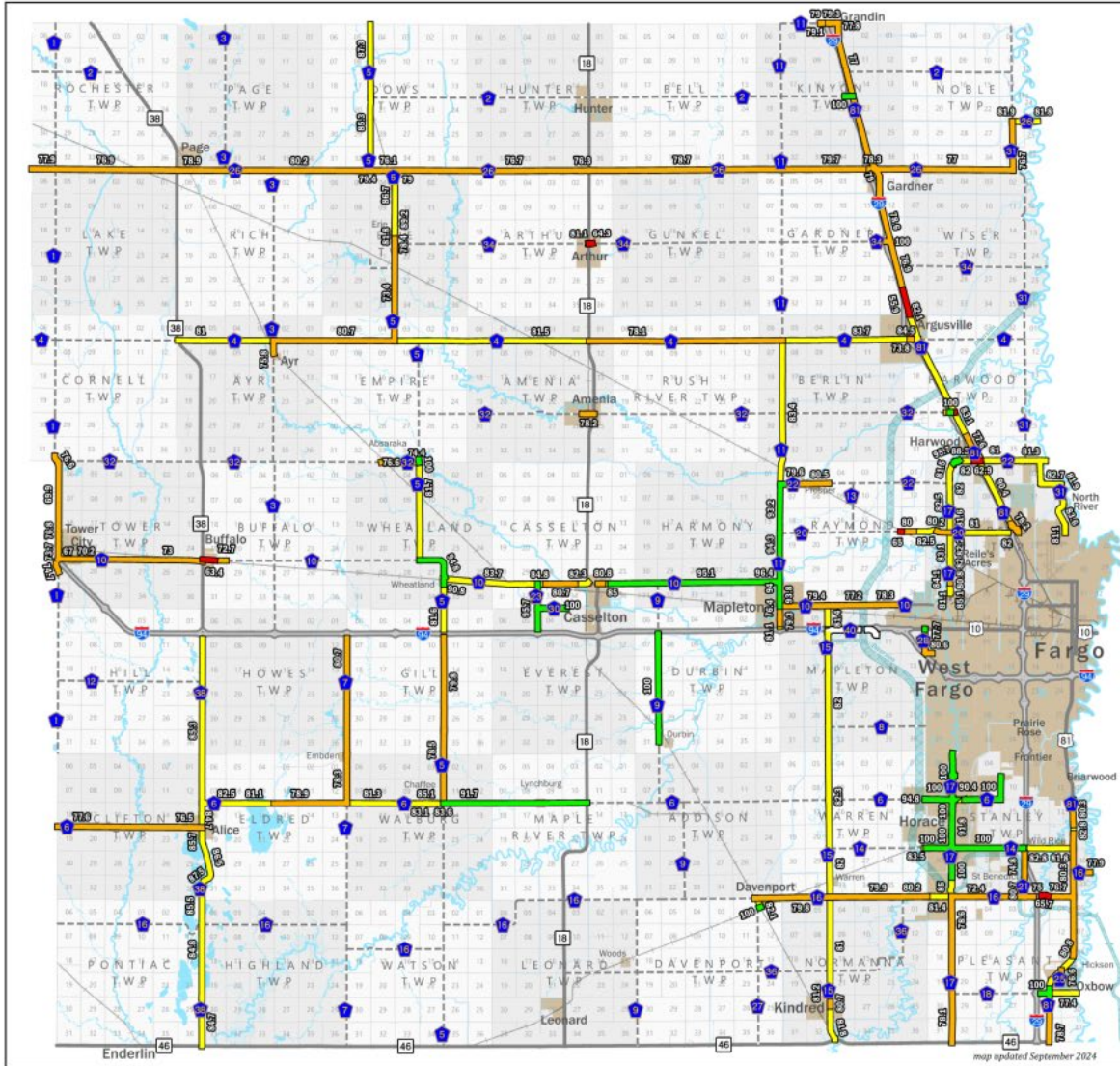
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Pavement Condition Index (PCI) 2022



Appendix 3

Pavement Condition Index (PCI) 2022 Testing Results

- █ Poor
- █ Fair
- █ Good
- █ Very Good
- █ Unknown

PCI	Paved Miles	% of Paved Miles
Poor PCI 0 - 65	2.44	0.78%
Fair PCI 66 - 80	150.23	47.82%
Good PCI 81 - 90	117.39	37.36%
Very Good PCI 91 - 100	42.34	13.48%
not measured/unknown	1.78	0.56%

Total Paved Miles: 314.18

Average PCI*: 82.03

**prorated per length*

Pavement Evaluation completed by American Engineering Testing in 2022. The evaluation consisted of deflection testing with a Model 8002 & 8012 Dynatest Falling Weight Deflectometers. Pavement surface condition assessment based on the Pavement Condition Index (PCI) method developed by the Army Corps of Engineers. The resulting data is analyzed to evaluate the structural and surface condition of the existing pavements on the tested road segments.

Roads reconstructed or repaved after 2022 have been assigned a PCI value of 100.

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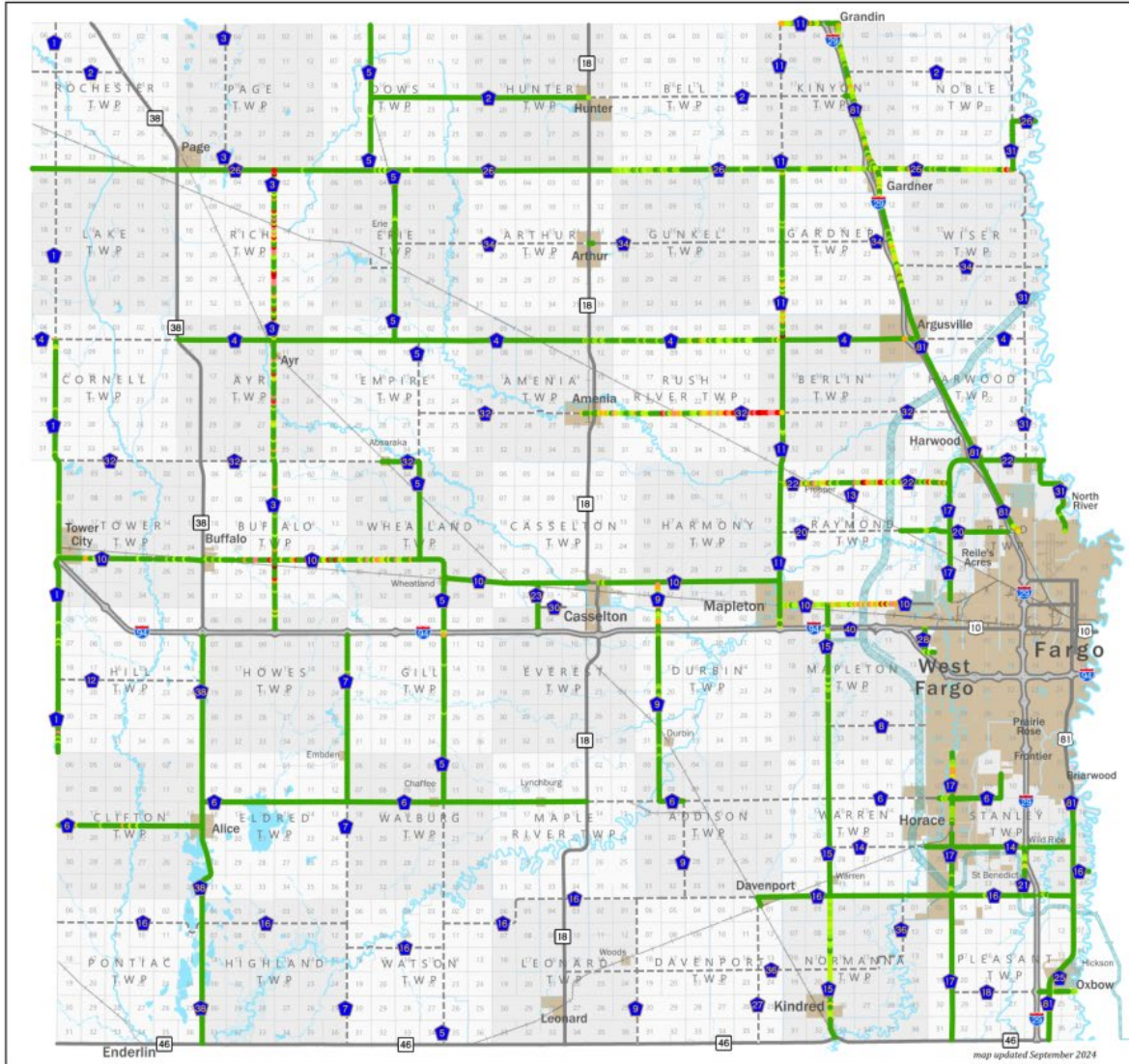
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Highway Load Capacity 2022 Testing Results



Appendix 4

Highway Load Capacity 2022 Testing Results

Tons/Axle

- 3 (worst)
- 4
- 5
- 6
- 7
- 8
- 9
- 10 (best)

Pavement Evaluation completed by American Engineering Testing in 2022. The evaluation consisted of deflection testing with a Model 8002 & 8012 Dynatest Falling Weight Deflectometers. Pavement surface condition assessment based on the Pavement Condition Index (PCI) method developed by the Army Corps of Engineers. The resulting data is analyzed to evaluate the structural and surface condition of the existing pavements on the tested road segments.

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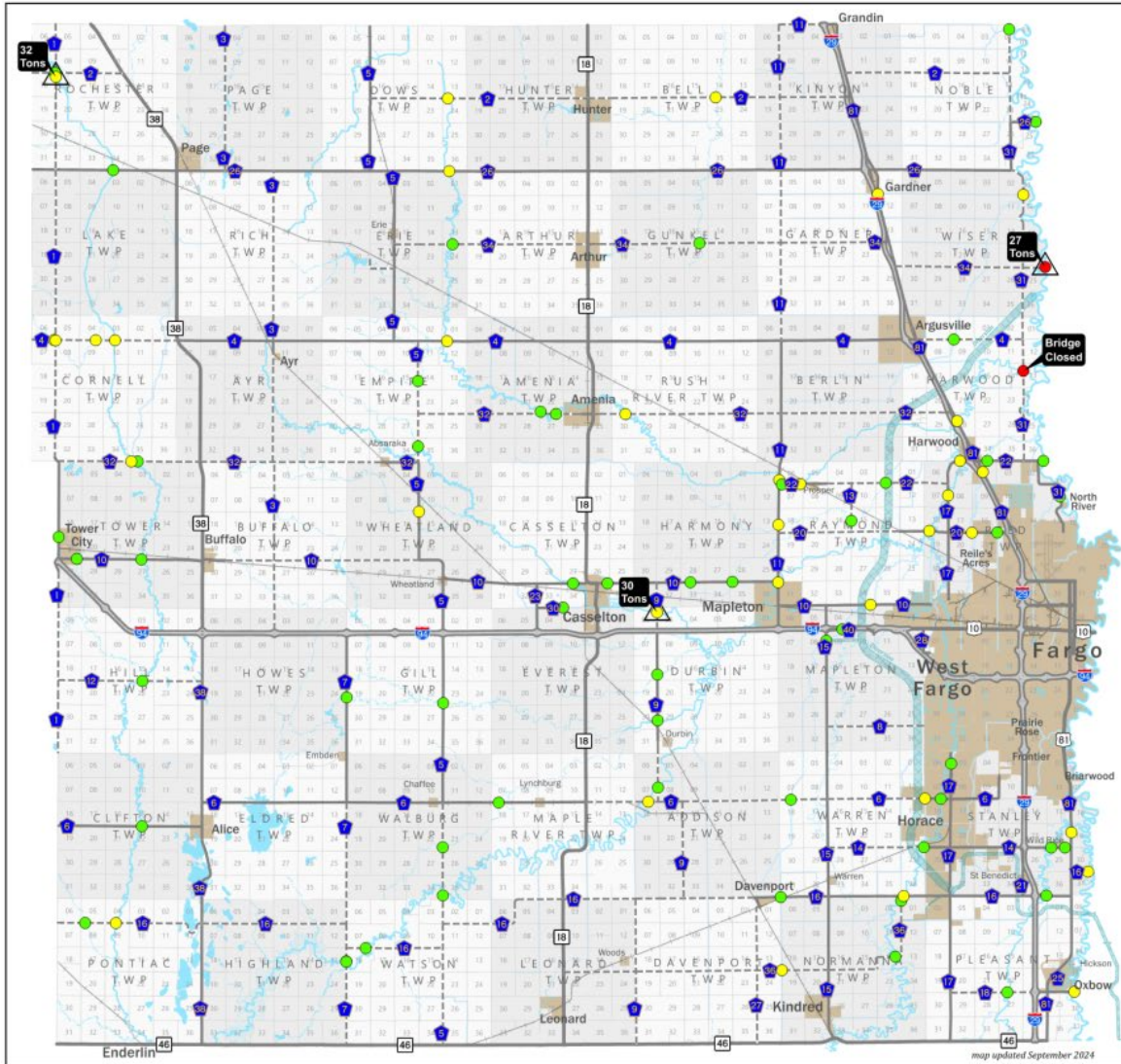
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Bridges on County Roads – 20' & Longer



Appendix 7 Bridges on County Roads: ND DOT Bridge Inspection and Appraisal

- Condition**
- GOOD (54)
 - FAIR (34)
 - POOR (2)
- Posted Tons**
- △ Posted (3)

Bridges constructed after testing have an assumed rating of good.

Cass County Highway Department

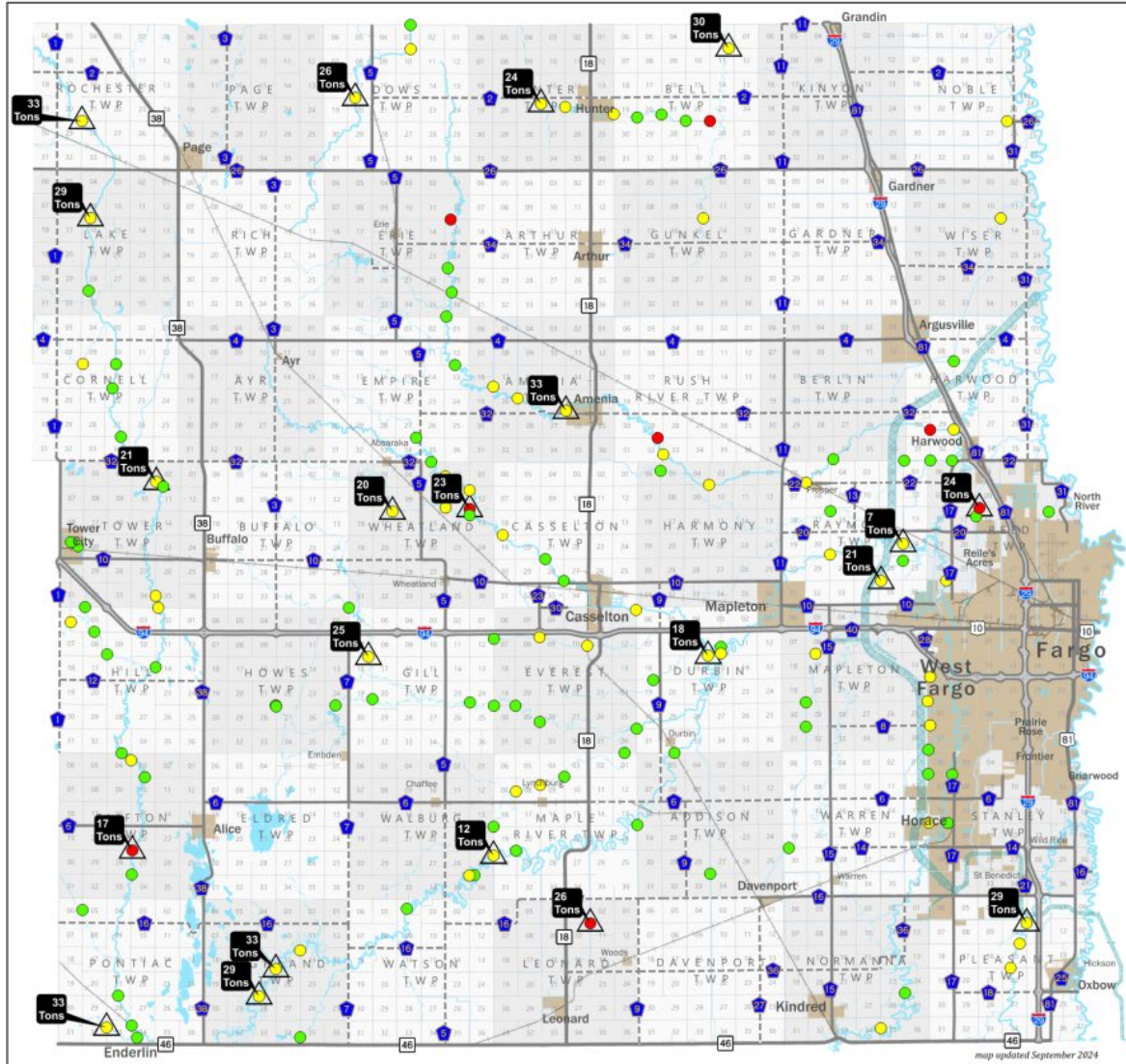
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Bridges on Township Roads – 20' & Longer



Appendix 8 Bridges on Township Roads: ND DOT Bridge Inspection and Appraisal

- Condition**
- GOOD (73)
 - FAIR (57)
 - POOR (8)
- Posted Tons**
- △ Posted (21)

Bridges constructed after testing have an assumed rating of good.

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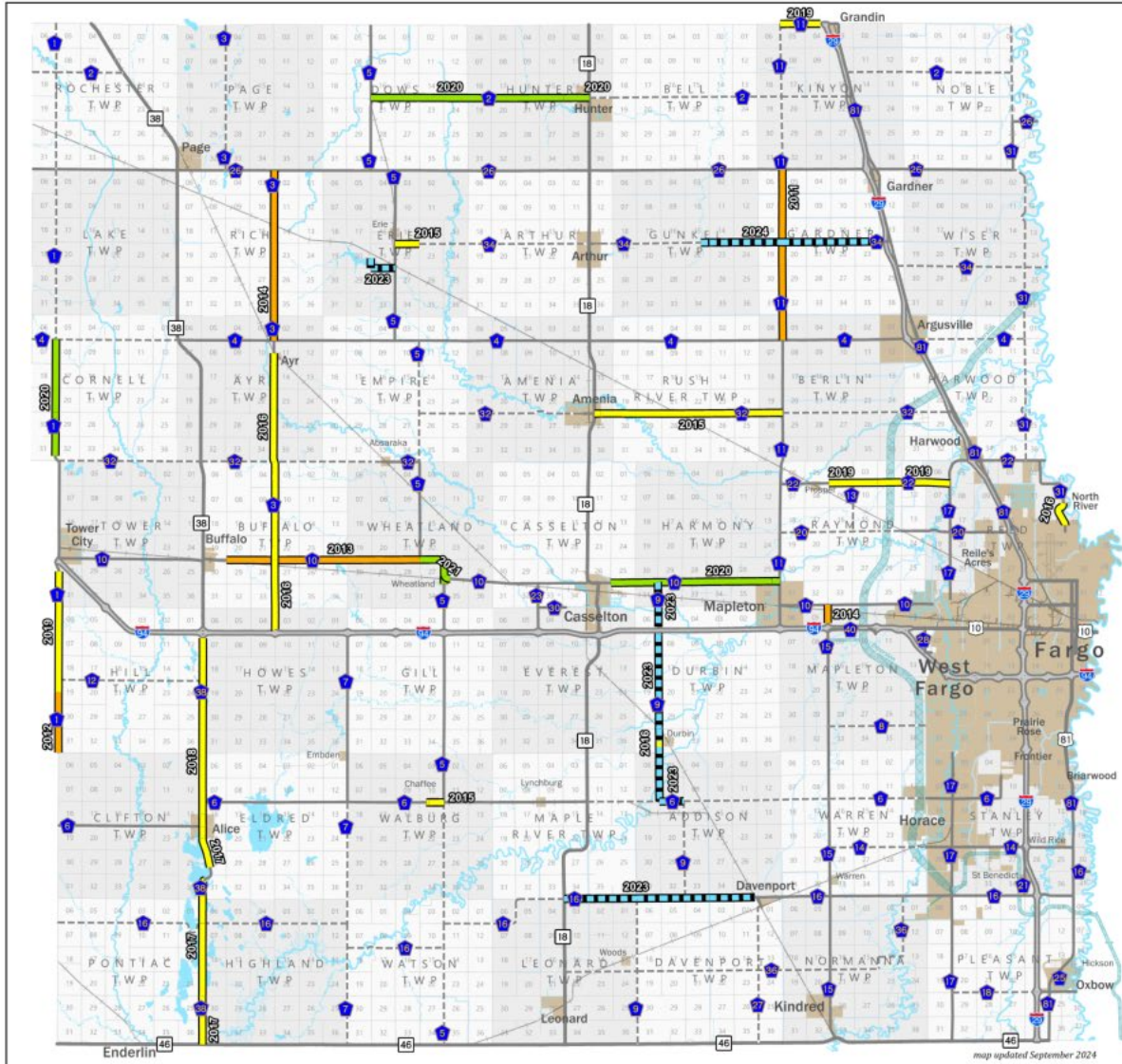
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Subgrade Repair Projects



Appendix 12

Subgrade Repair Projects

Year of Last Project

- 2010 - 2014
- 2015 - 2019
- 2020 - 2022
- 2023 - 2024

Year	Gravel Miles	Paved Miles	Total Miles
2010 - 2014	24.57	0.75	25.31
2015 - 2019	32.06	18.09	50.15
2020 - 2022	13.81	9.16	22.97
2023 - 2024	21.86	4.44	26.3
Total	92.29	32.43	124.72

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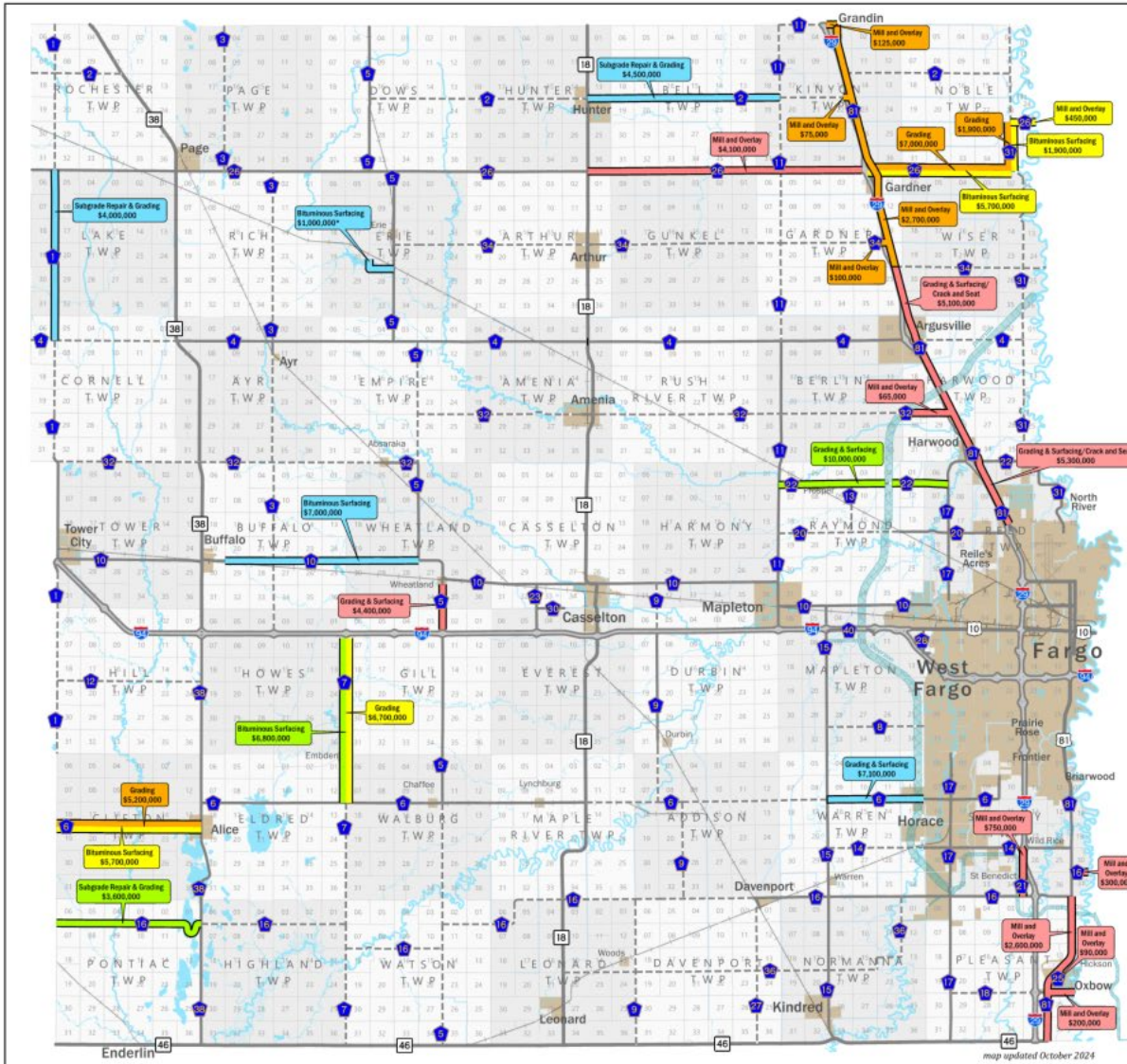
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2030-2034 CIP - Hwys



Appendix 15

2030 - 2034 6-10 Year Capital Improvement Plan Proposed Highway Projects



LONG RANGE PROPOSED HIGHWAY IMPROVEMENTS					
HWY	LOCATION	PROJECT TYPE	FUNDING	YEAR	COST
16	Hwy 91 to Red River	Mill and Overlay	Federal	2030	\$100,000
18	E29 to Red River	Mill and Overlay	Federal	2030	\$200,000
25	Hwy 81 through Hickson	Mill and Overlay	Local	2030	\$90,000
02	Hwy 16 W to State Hwy 46	Mill and Overlay	Federal	2030	\$2,600,000
22	Hwy 16 to Hwy 14	Mill and Overlay	Local	2030	\$750,000
26	State Hwy 18 to 129	Mill and Overlay	Federal	2030	\$4,100,000
5	Wheatland to R4	Grading & Surfacing	Local	2030	\$4,400,000
01	Diversion to Hwy 34E	Grading & Surfacing/Crack and Seal	Local	2030	\$5,100,000
32	CR1 to West of 129	Mill and Overlay	Local	2030	\$65,000
01	City of Fargo to Diversion	Grading & Surfacing/Crack and Seal	Local	2030	\$5,300,000
01	Hwy 34E to Trail County	Mill and Overlay	Local	2031	\$2,700,000
11	Through Grandin	Mill and Overlay	Local	2031	\$125,000
2	Over 129	Mill and Overlay	Local	2031	\$75,000
34	Over 129	Mill and Overlay	Local	2031	\$100,000
26	E29 to C31	Grading	Local	2031	\$7,600,000
33	Hwy 26 West to Hwy 26 East	Grading	Local	2031	\$1,900,000
6	Hwy 38 to Barnes County	Grading	Local	2031	\$5,200,000
7	R4 to Hwy 6	Grading	Local	2032	\$6,700,000
26	E29 to C31	Bituminous Surfacing	Local	2032	\$5,700,000
31	Hwy 26 West to Hwy 26 East	Bituminous Surfacing	Local	2032	\$1,900,000
26	Hwy 31 to Red River	Mill and Overlay	Local	2032	\$450,000
6	Barnes Co Line to Hwy 38	Bituminous Surfacing	Local	2032	\$5,700,000
7	R4 to Hwy 6	Bituminous Surfacing	Local	2033	\$6,800,000
22	Hwy 17 to Hwy 11	Grading & Surfacing	Local	2033	\$1,600,000
16	State Hwy 38 to Barnes County Line	Subgrade Repair & Grading	Local	2033	\$3,600,000
7	E710 to Hwy 11	Subgrade Repair & Grading	Local	2034	\$4,500,000
6	Shepstone Diversion to Hwy 15	Grading & Surfacing	Local	2034	\$7,100,000
1	Hwy 4 to Hwy 26	Subgrade Repair & Grading	Local	2034	\$4,000,000
10	CSN to Buffalo	Bituminous Surfacing	Local	2034	\$7,000,000
	Brewer Lake Park Road	Bituminous Surfacing	Grant	2034	\$1,000,000*

Note: Items to be completed are illustrative and subject to change and approved annually and/or as necessary by the Road Advisory Committee.
*project for which grant is possible

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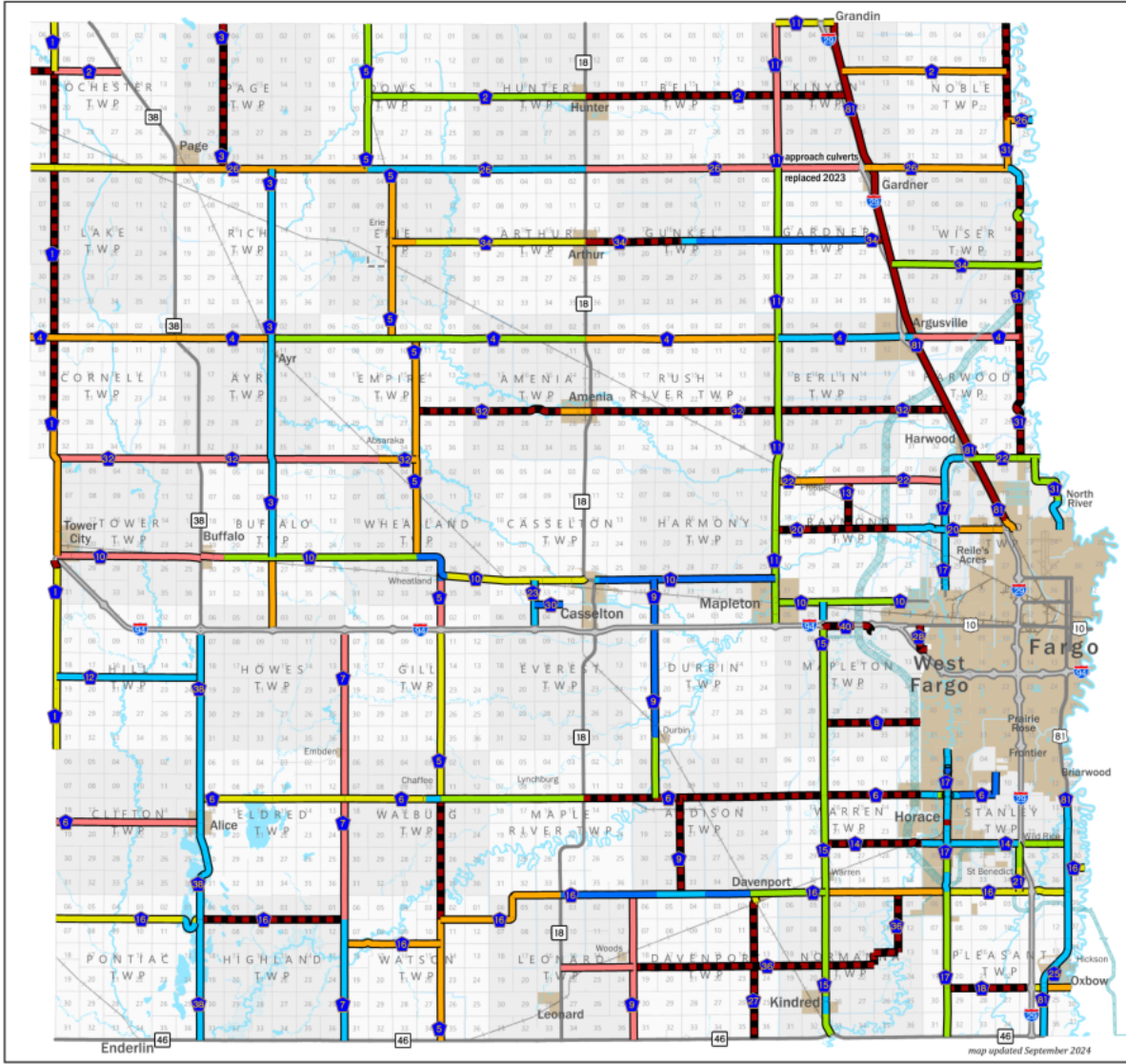
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Age of Highways & Estimated Age of Culverts



Appendix 17

Age of Highways and Estimated Age of Culvert Infrastructure

Year of Road Grading - Est. Age of Culverts

- unknown/TBD 65+ years old
- 1937 - 1949 75 - 87 years old
- 1950 - 1959 65 - 74 years old
- 1960 - 1969 55 - 64 years old
- 1970 - 1979 45 - 54 years old
- 1980 - 1999 25 - 44 years old
- 2000 - 2019 5 - 24 years old
- 2020 - 2024 0 - 4 years old

Year of Road Grading	Miles	% of Mileage
unknown/TBD (65+ years old)	142.8	22.32%
1937 - 1949	22	3.44%
1950 - 1959	78.4	12.25%
1960 - 1969	96.4	15.06%
1970 - 1979	59.4	9.28%
1980 - 1999	110.1	17.21%
2000 - 2019	97.5	15.24%
2020 - 2024	33.3	5.20%

The age of highways is based upon the year of road grading.
In most cases, the age of culverts is equivalent to the age of highways.

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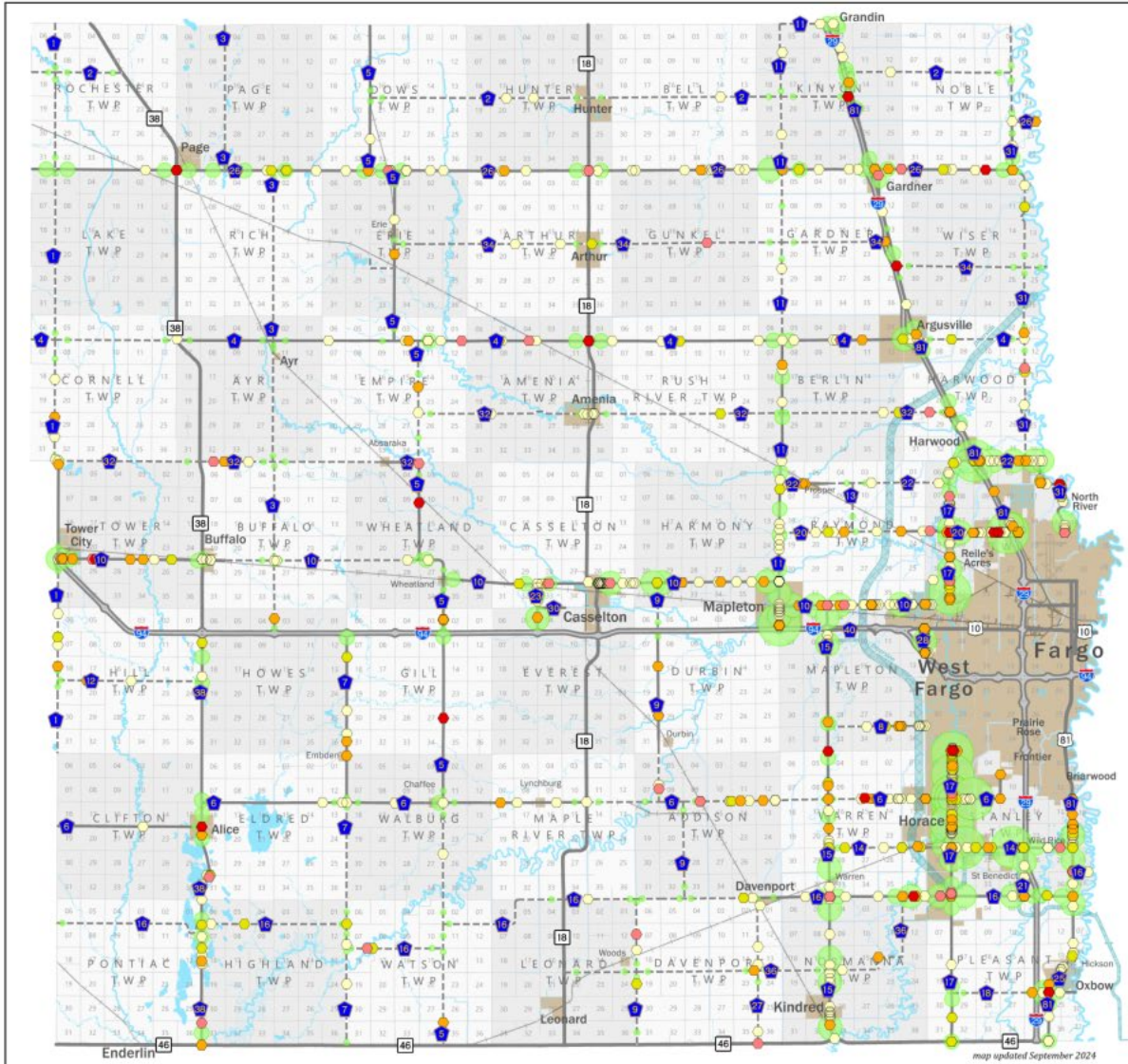
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Crashes on County Highways



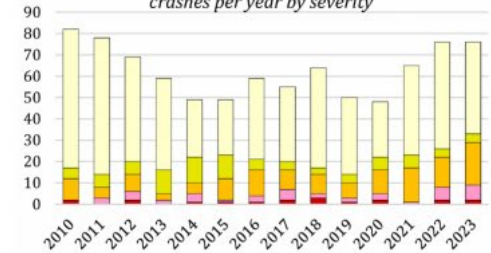
Appendix 18

Crashes on County Highways: 2010 - 2023

Crash Severity

- Fatal
- Incapacitating Injury
- Non-incapacitating Injury
- Possible Injury
- Property Damage Only (PDO)

crashes per year by severity



Adjusted Average Daily Traffic Count (2023)

- 2250
- 21000
- 22500
- 28160

County Highway Type

- Paved
- - Gravel

Crash Data Source: North Dakota Department of Transportation
Traffic Counts Source: KLI Engineering

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65 MPH County Highways

Appendix 19

65 MPH County Highways

-  65 MPH Posted Speed Limit
-  65 MPH Proposed Speed Limit

The speed limit increase on designated county highways from 55 MPH to 65 MPH was passed by the Cass County Commission on October 19, 2020. Approximately 119.86 miles of County Highway now have a speed limit of 65 MPH.

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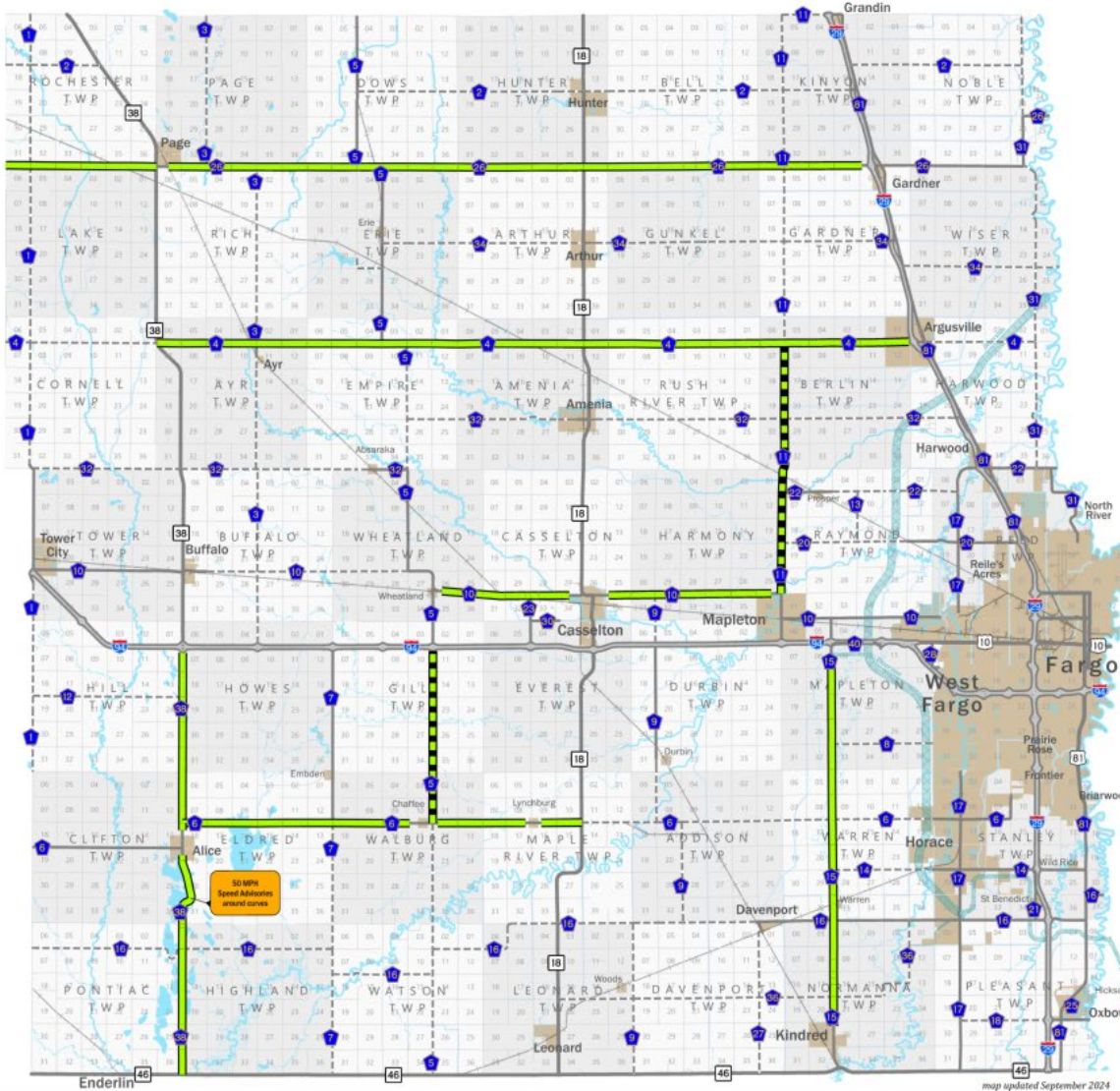


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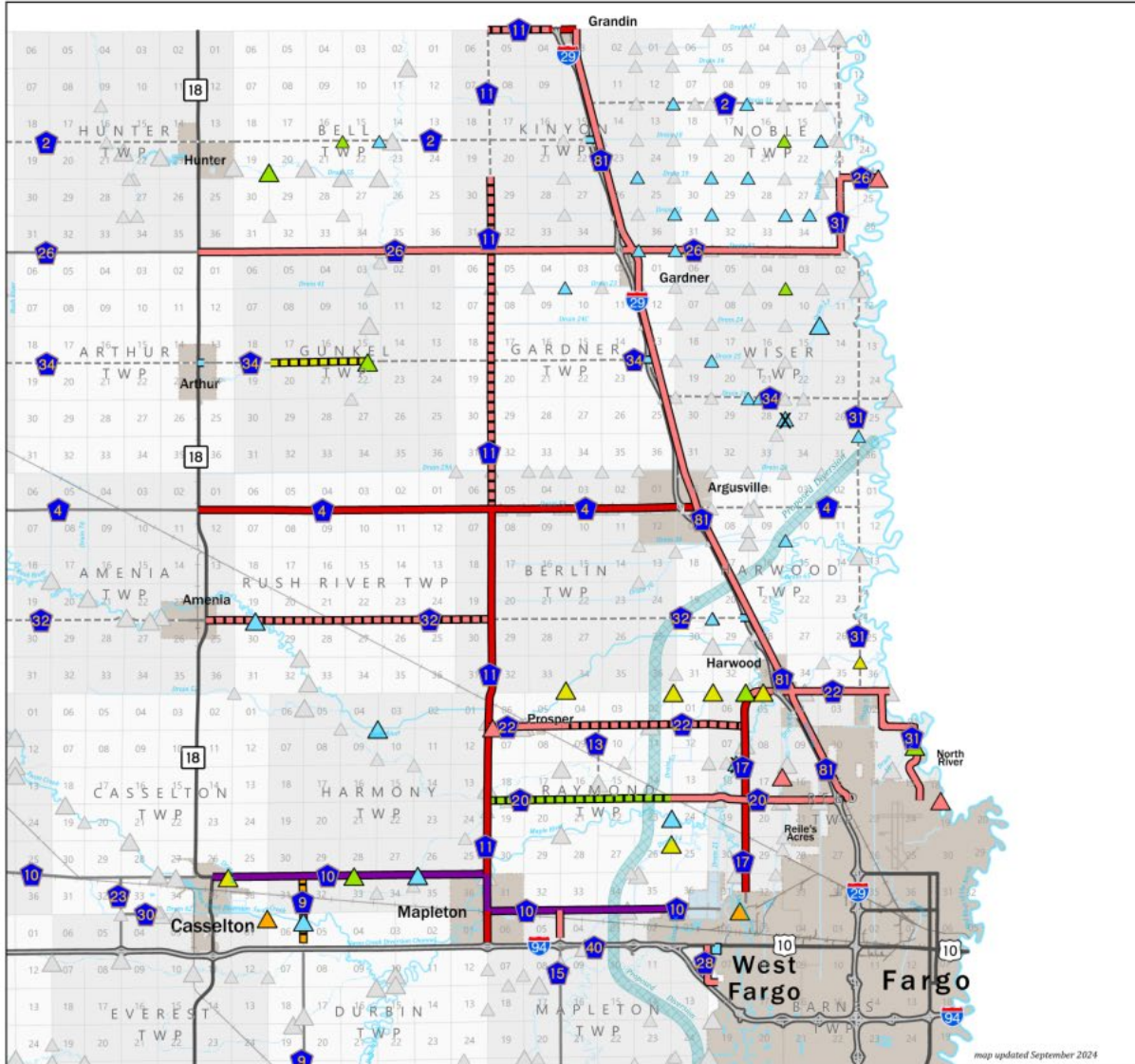
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2000-2023 Construction History – NE Quadrant - \$84.3 M



map updated September 2024

Appendix 20a

2000 - 2023 Construction Project History northeast quadrant

County Structures

cost per structure in this quadrant

Minor	Major	Removed	
▲ (21)	▲ (6)	✕ (2)	under \$100K
▲ (3)	▲ (5)	✕ (0)	\$100K - \$250K
▲ (1)	▲ (6)	✕ (0)	\$250K - \$500K
▲ (0)	▲ (1)	✕ (0)	\$500K - \$1M
▲ (0)	▲ (3)	✕ (0)	over \$1M

Projects also occurred on structures currently in Fargo and West Fargo that are displayed in the map but are not included in the counts above. Since being constructed by Cass County, these structures have been turned over to those cities.

County Highways

cost per highway in this quadrant

Gravel	Paved	
▬	▬	under \$100K
▬	▬	\$100K - \$250K
▬	▬	\$250K - \$500K
▬	▬	\$500K - \$1M
▬	▬	\$1M - \$5M
▬	▬	\$5M - \$10M
▬	▬	over \$10M

Bridge Removals	2	\$50,286
Bridge Repairs	10	\$480,825
New Bridges	44	\$22,401,125
Total Bridge Cost		\$22,932,236
Total Road Cost		\$61,374,071
Final Cost		\$84,306,307

Note: Projects for school beacons and snow gates on County Highways are not displayed in the map but are included in highway costs.

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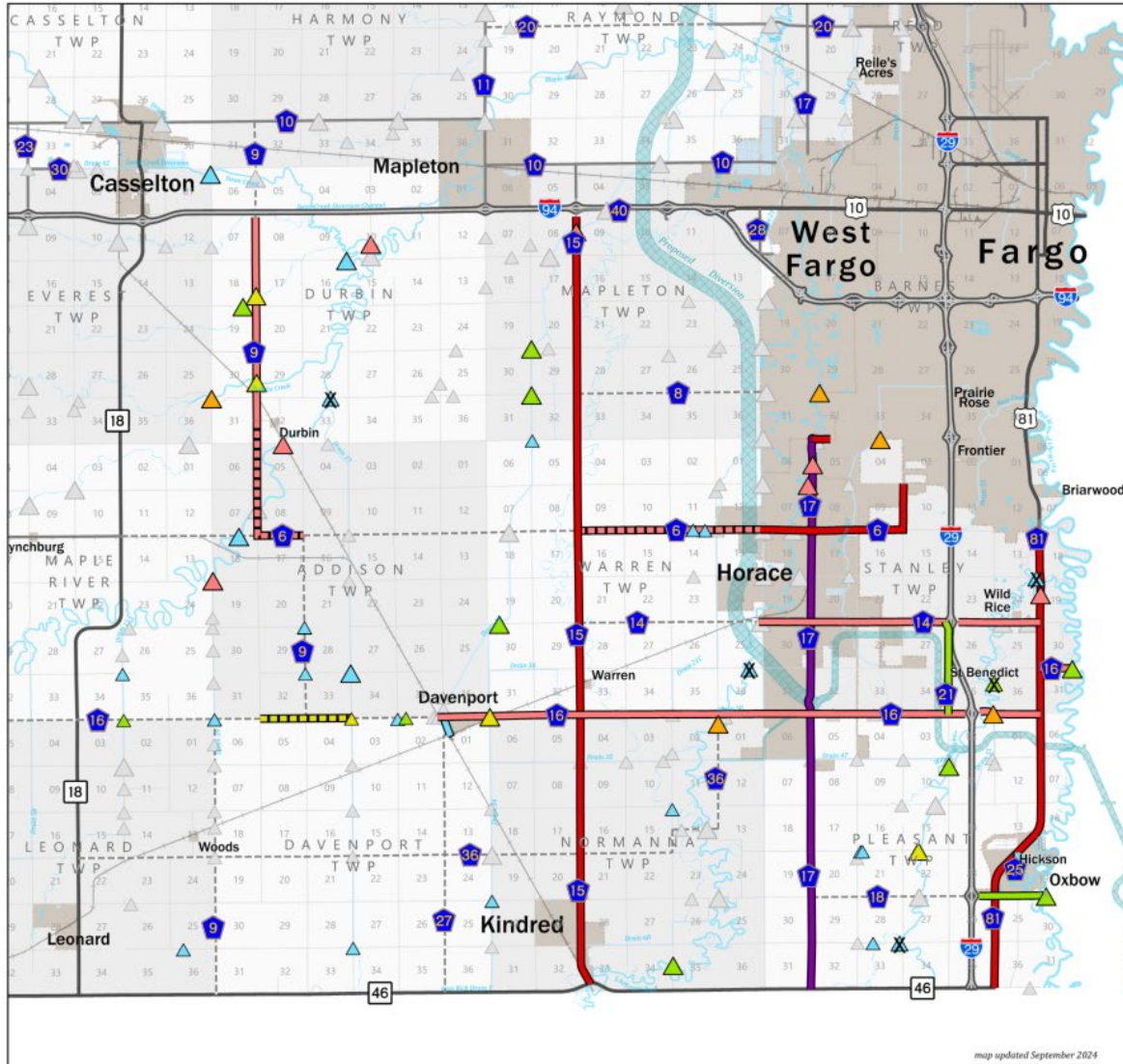
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2000-2023 Construction History – SE Quadrant - \$69.4 M



Appendix 20b

2000 - 2023 Construction Project History southeast quadrant

County Structures

cost per structure in this quadrant

Minor	Major	Removed	
▲ (16)	▲ (5)	✕ (4)	under \$100K
▲ (2)	▲ (9)	✕ (1)	\$100K - \$250K
▲ (1)	▲ (4)	✕ (0)	\$250K - \$500K
▲ (0)	▲ (3)	✕ (0)	\$500K - \$1M
▲ (0)	▲ (7)	✕ (0)	over \$1M

Projects also occurred on structures currently in Fargo and West Fargo that are displayed in the map but are not included in the counts above. Since being constructed by Cass County, these structures have been turned over to those cities.

County Highways

cost per highway in this quadrant

Gravel	Paved	
▬	▬	under \$100K
▬	▬	\$100K - \$250K
▬	▬	\$250K - \$500K
▬	▬	\$500K - \$1M
▬	▬	\$1M - \$5M
▬	▬	\$5M - \$10M
▬	▬	over \$10M

Bridge Removals	5	\$283,732
Bridge Repairs	13	\$990,497
New Bridges	40	\$19,691,740
Total Bridge Cost		\$20,965,970
Total Road Cost		\$48,496,885
Final Cost		\$69,462,855

Note: Projects for school beacons and snow gates on County Highways are not displayed in the map but are included in highway costs.

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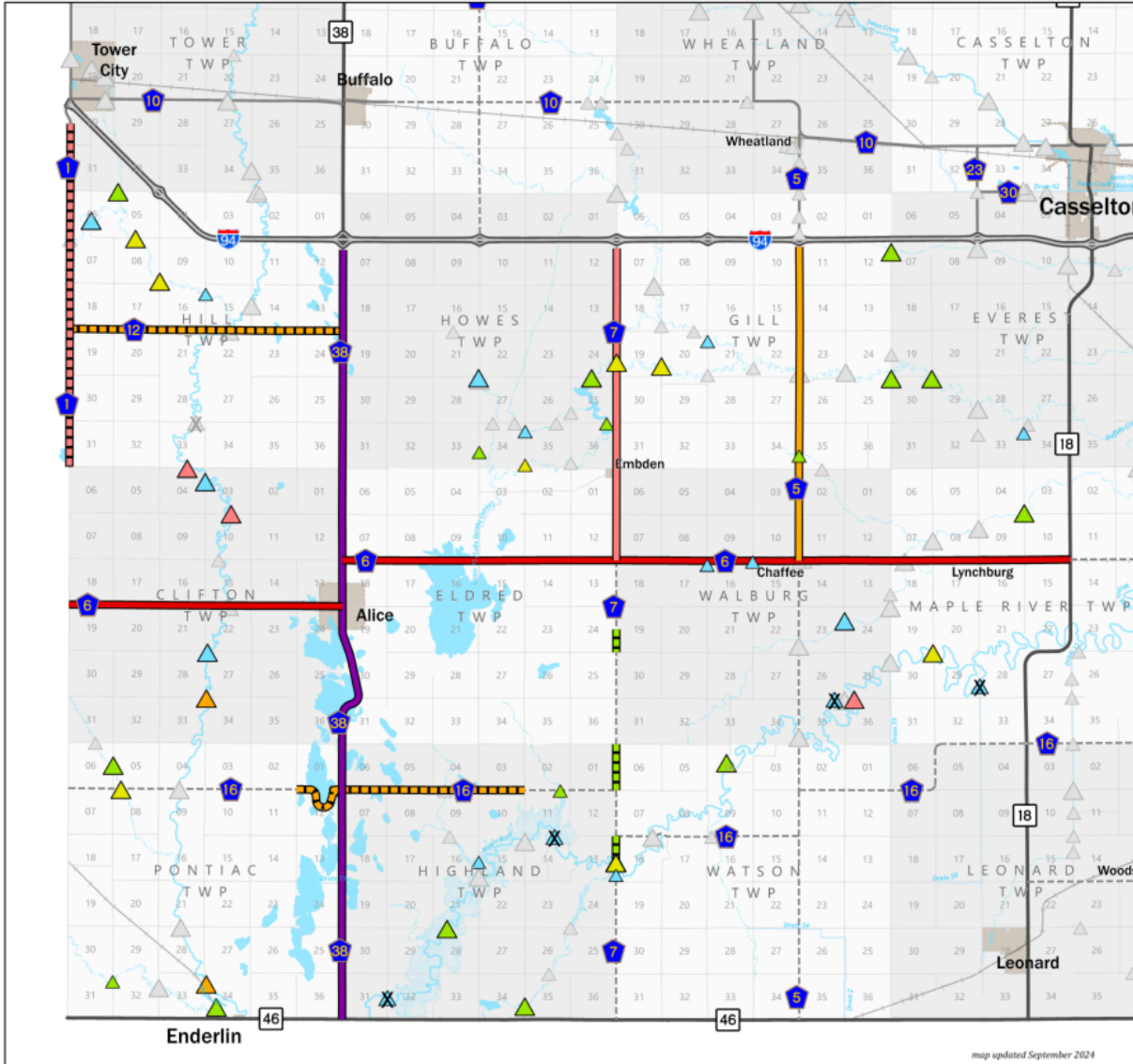
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2000-2023 Construction History – SW Quadrant - \$43.9 M



Appendix 20c

2000 - 2023 Construction Project History southwest quadrant

County Structures

cost per structure in this quadrant

Minor	Major	Removed	
▲ (8)	▲ (5)	✕ (4)	under \$100K
▲ (5)	▲ (11)	✕ (0)	\$100K - \$250K
▲ (1)	▲ (8)	✕ (0)	\$250K - \$500K
▲ (0)	▲ (2)	✕ (0)	\$500K - \$1M
▲ (0)	▲ (3)	✕ (0)	over \$1M

Projects also occurred on structures currently in Fargo and West Fargo that are displayed in the map but are not included in the counts above. Since being constructed by Cass County, these structures have been turned over to those cities.

County Highways

cost per highway in this quadrant

Gravel	Paved	
■	■	under \$100K
■	■	\$100K - \$250K
■	■	\$250K - \$5000K
■	■	\$500K - \$1M
■	■	\$1M - \$5M
■	■	\$5M - \$10M
■	■	over \$10M

Bridge Removals	4	\$221,892
Bridge Repairs	10	\$538,471
New Bridges	40	\$12,363,492
Total Bridge Cost		\$13,123,855
Total Road Cost		\$30,821,379
Final Cost		\$43,945,234

Note: Projects for school buses and snow gins on County Highways are not displayed in the map but are included in highway costs.

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map updated September 2024



2000-2023 Construction History – NW Quadrant - \$45.1 M

Appendix 20d

2000 - 2023 Construction Project History northwest quadrant

County Structures

cost per structure in this quadrant

Minor	Major	Removed	
▲ (8)	▲ (3)	✕ (2)	under \$100K
▲ (5)	▲ (9)	✕ (0)	\$100K - \$250K
▲ (1)	▲ (8)	✕ (0)	\$250K - \$500K
▲ (0)	▲ (0)	✕ (0)	\$500K - \$1M
▲ (0)	▲ (1)	✕ (0)	over \$1M

Projects also occurred on structures currently in Fargo and West Fargo that are displayed in the map but are not included in the counts above. Since being constructed by Cass County, these structures have been turned over to those cities.

County Highways

cost per highway in this quadrant

Gravel	Paved	
■	■	under \$100K
■	■	\$100K - \$250K
■	■	\$250K - \$500K
■	■	\$500K - \$1M
■	■	\$1M - \$5M
■	■	\$5M - \$10M
■	■	over \$10M

Bridge Removals	1	\$9,040
Bridge Repairs	4	\$97,160
New Bridges	33	\$7,056,328
Total Bridge Cost		\$7,162,528
Total Road Cost		\$37,937,779
Final Cost		\$45,100,307

Note: Projects for school beacons and snow gates on County Highways are not displayed in the map but are included in highway costs.

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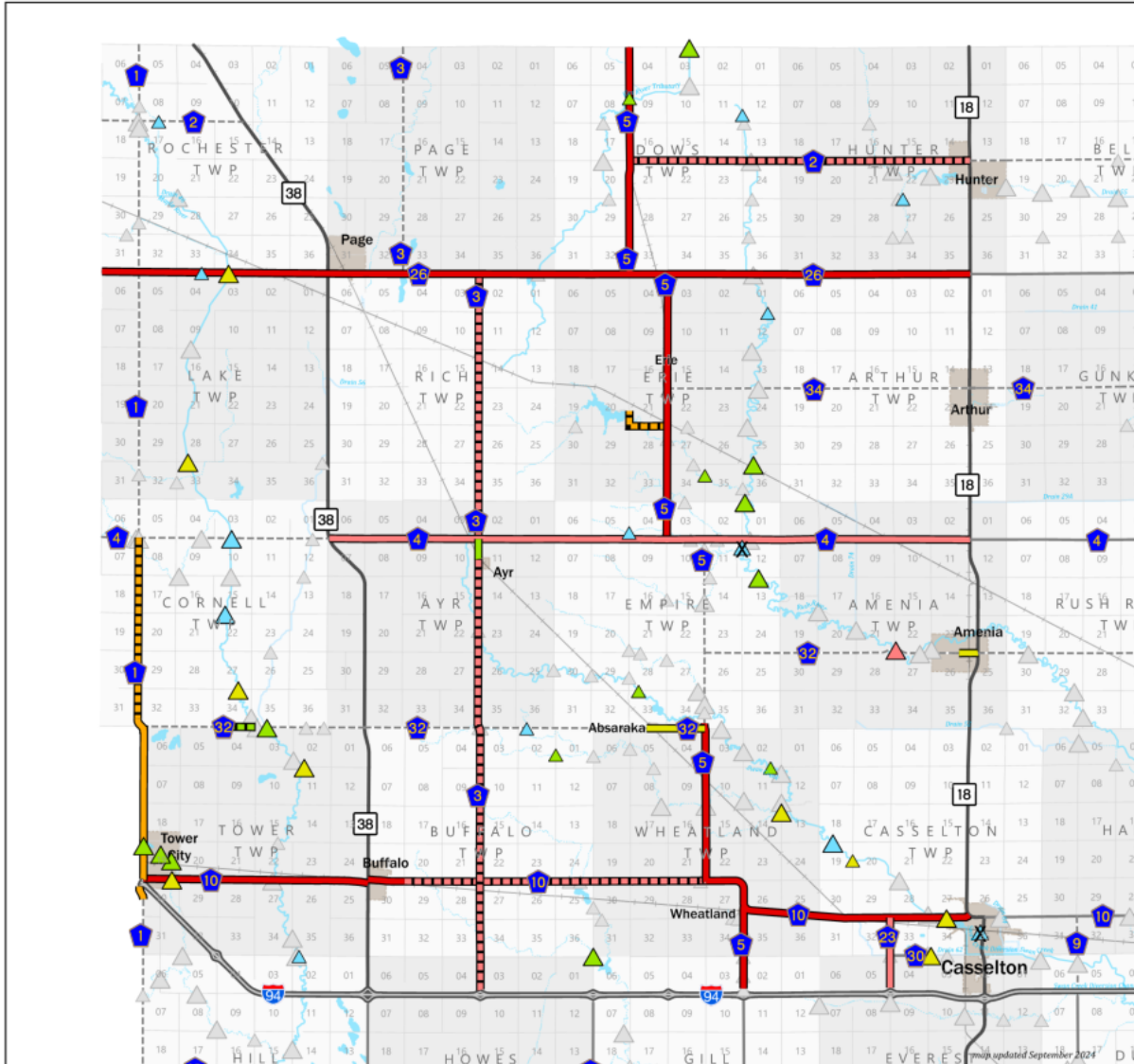


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