



FINAL
January 2026

VALLEY CITY

SUBAREA TRANSPORTATION PLAN

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Introduction

As part of the collaborative efforts to strategically guide the future growth and development of the Valley City subarea, located south of I-94 between Exits 292 (8th Avenue) and 294 (I-94 Business Loop), ongoing development trends and interest by the City of Valley City, developers, and landowners alike, have highlighted the need to update and reassess the Valley City 2045 Transportation Plan (2019) as it pertains to this subarea study. The Valley City 2045 Transportation Plan (2019) lacks a comprehensive long-term vision for this subarea and does not account for new development at Exits 292 and 294, such as the Love's Travel Stop and Valley Plains Equipment. This subarea study sets forth the purpose of the plan and its goals, provides a detailed description of the area's existing conditions, features, and characteristics, and a thorough analysis of future conditions, transportation and land use projections, and provides guidance for future development alternatives presented as a part of the outcome of this study.

Plan Purpose & Goals

The purpose of the Valley City Subarea Transportation Plan is to create a well-rounded and sustainable transportation plan that meets the needs of Valley City's growth and development in the area south of I-94 and between Exits 292 and 294.

The goals of the project are to:

	<i>Enhance Connectivity and Accessibility</i>
	<i>Support Economic Development</i>
	<i>Address Infrastructure and Topographic Challenges</i>
	<i>Engage the Community</i>
	<i>Develop a Cost-Effective Plan</i>

The Valley City Subarea Plan is intended to guide future development. The subarea planning process involved several phases. The beginning phase established the plan purpose and goals, defined the boundary of the study area, and reviewed previous studies. Public engagement involved several components including intensive stakeholder and public engagement activities, especially involving affected landowners to gain perspective on their issues and considerations concerning future development. The plan inventoried existing conditions for land use and the transportation network, examining traffic safety conditions and crash incidents. Existing water and sewer infrastructure was also inventoried. Key issues were identified, and future conditions were analyzed which included development of a future land use map which included a key subarea slope analysis, projected future traffic volumes, established growth assumptions and identified traffic analysis zones. Key study intersections were analyzed, existing and future Level of Service (LOS) for the subarea was calculated for the near- and long-term development scenarios. Finally, network development and alternatives analysis prioritized alternatives for the future transportation network and this subarea study provides a set of planning recommendations for near and long term development scenarios.

Previous Studies

Five relevant studies were reviewed, summarized, and incorporated into this study as needed. A summary of each is below.

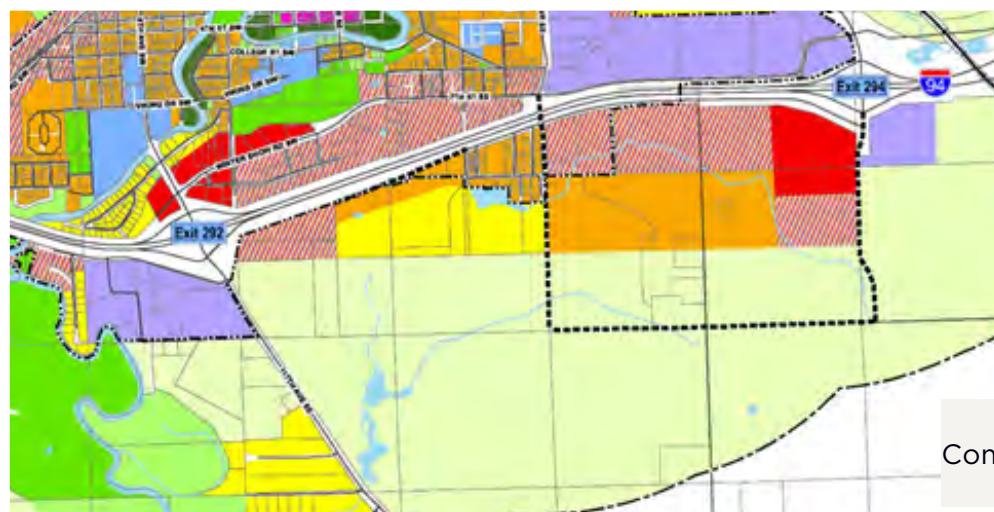
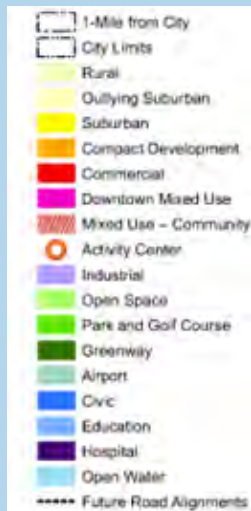
Valley City 2045 Comprehensive Plan (August 2019): Adopted in August 2019 the Valley City 2045 Comprehensive Plan purpose is to guide public and private development in a logical and efficient manner and to protect growth and transportation corridors. The 2045 Transportation Plan was created in conjunction with the Comprehensive Plan and is summarized below. The Comprehensive Plan developed a 2045 Future Land Use (FLU) Map to provide general guidance and long-range planning.

Valley City 2045 Transportation Plan (August 2019): Along with the Comprehensive Plan, this study was adopted in August 2019 and focused on managing and planning for the city's existing and future transportation system. The study identified the area southeast of Valley City as a future growth area and developed

concepts for transportation access and connectivity in this area. Recommended transportation improvements in the SE subarea included connecting the 13th Street SE Frontage Road, connecting the existing I-94 underpass at 12th Avenue SE into 13th Avenue, new collector roadway connecting the existing 12th Avenue SE/13th Avenue SE and 35th Street SE, and a new collector road extending the existing 25th Avenue SE connecting to the existing 35th Street SE.

The Barnes ON THE MOVE initiative also identified a series of future pedestrian/bicycle connections in Valley City:

- Future shared use path along Main Street from 5th Street SW to 9th Avenue SW.
- Future shared use path along Wintershow Road from 8th Avenue SW to 5th Avenue SE.
- Future shared use path along 12th Avenue SE from I-94 to Main Street.
- Future sidewalk along 5th Avenue SE and 6th Street SE from Winter Show Road to 12th Avenue SE.



Comprehensive Plan Future Land Use Map

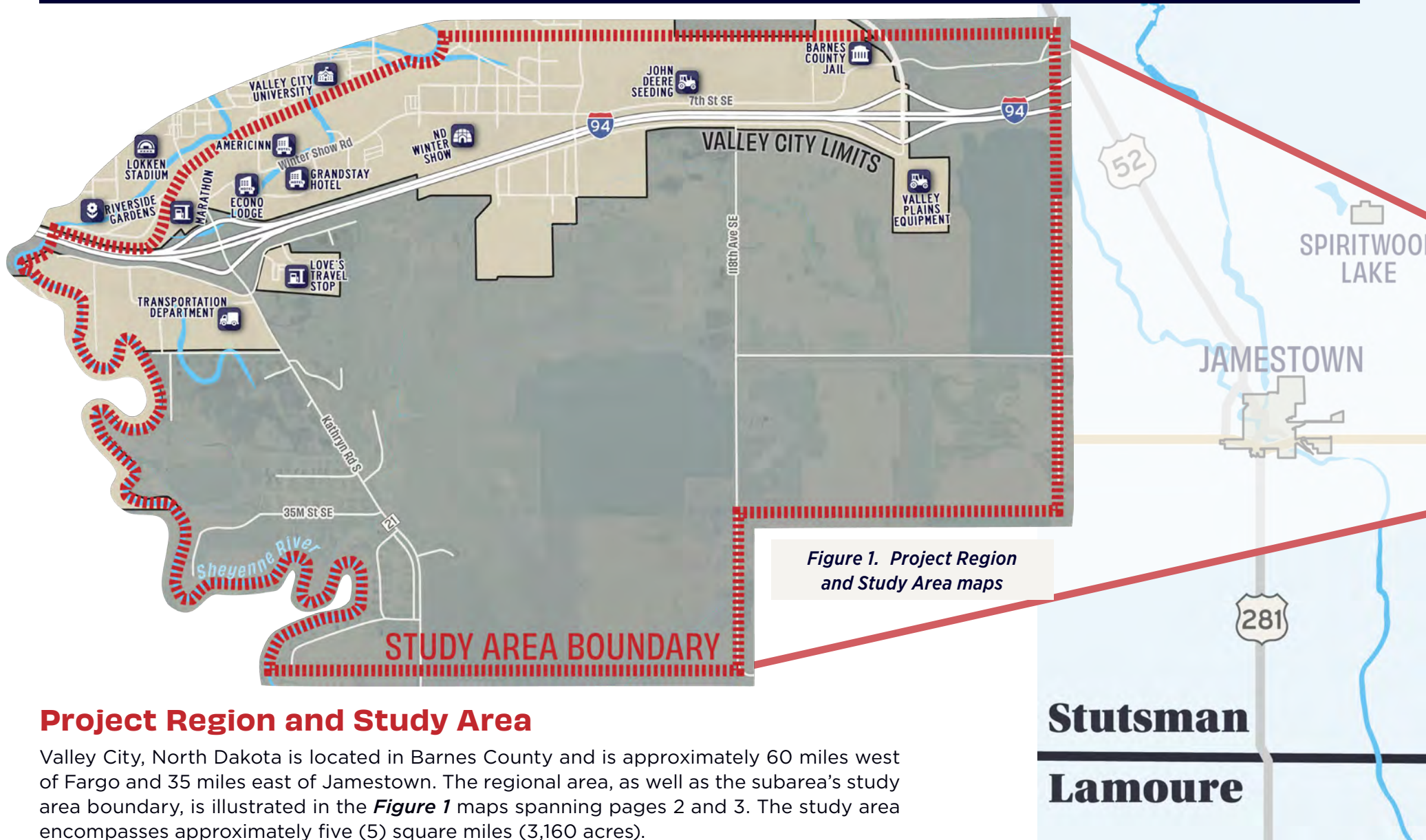
Valley Plains Traffic Study (June 2021): The purpose of the study was to identify any expected traffic impacts due to the proposed Valley Plains Equipment development located south of the I-94 Exit 294 interchange and determine the need for turn lanes and other infrastructure improvements in the area of the intersection of Main Street/I-94 Business Loop and 8th Street SE and new North-South extension south of Exit 294 near the proposed development access. Findings from the study included:

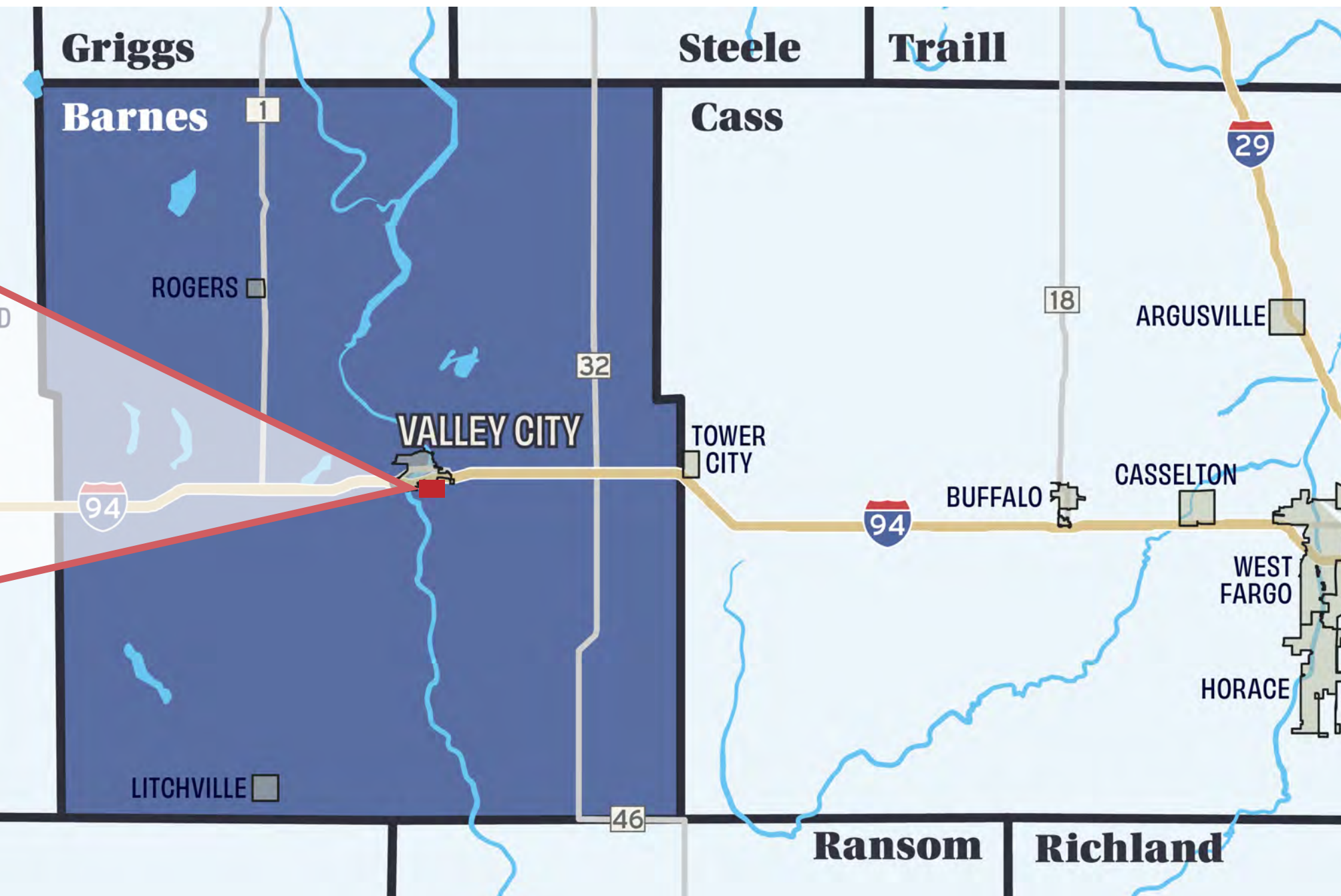
- Future intersection sight distances should be evaluated once the new North-South road extension/connection is made at 8th Street SE south of Exit 294, based on grades and speed limits.
- The NDDOT indicated that access to the site near the current intersection with 8th Street SE is not desirable.
- The study recommended that the site be designed with flexibility so that initial access to the parking lot could be modified based on the changing geometry of a future North/South roadway. In the short-term, access could be the south leg of the existing Main Street/8th Avenue intersection, which then turns east to the proposed development south of the DOT right-of-way. When the time comes when Main Street (I-94 Business loop) is extended further to the south, an access with the desired spacing of 900 feet would be constructed.
- In the short term, turn lanes are not recommended at the future intersection of Main Street and the site access. Instead, a destination light and recovery approach are advised at the site entrance. The site and parking lot should be designed to allow for potential changes in access location as future land use and transportation network modifications occur. A turn lane evaluation is recommended once a new north-south alignment has been established.

Love's Travel Stop Traffic Impact Study (March 2019): The study aimed to assess the traffic impacts resulting from the full development of the Love's Travel Stop located to the south and east of the I-94 Exit 294 Interchange, specifically on the study area roads and intersections expected to experience significant effects. Mitigation measures were analyzed and recommended if traffic operations were expected to be below traffic engineering standards. It was noted that minor impacts were expected on corridors not analyzed in the study and improvements along those corridors may be needed in the future to accommodate incremental traffic growth from the Love's Travel Stop and other area developments. The results of the study found that the proposed Love's Truck Stop was expected to generate 2,400 new trips during an average weekday, 140 new trips during the a.m. peak hour, and 120 new trips during the p.m. peak hour. All the study intersections and corridors were found to operate acceptably throughout the study scenarios.

Valley City Exit 292 Interchange Study (November 2021): In 2020 a Love's Truck Stop and McDonald's restaurant opened in the SE quadrant of Valley City's Exit 292 (8th Avenue SW) interchange. Since the truck stop opened there have been complaints of poor operations at the 8th Avenue SW and 14th Street SW intersection. The purpose of the study was to analyze the entire interchange area to determine if any revisions are needed to improve traffic operations and safety. Recommendations included extending the reduced 25 mph speed limit south to the NDDOT property, intersection revisions allowing for improved turning movements, relocation of the NDDOT property access, consideration for construction of a roundabout or installation of a 3-lane two-way stop-controlled (TWSC) intersection, incorporation of pedestrian/bicycle crossings at revised intersections as appropriate, and install lighting.

Existing Conditions





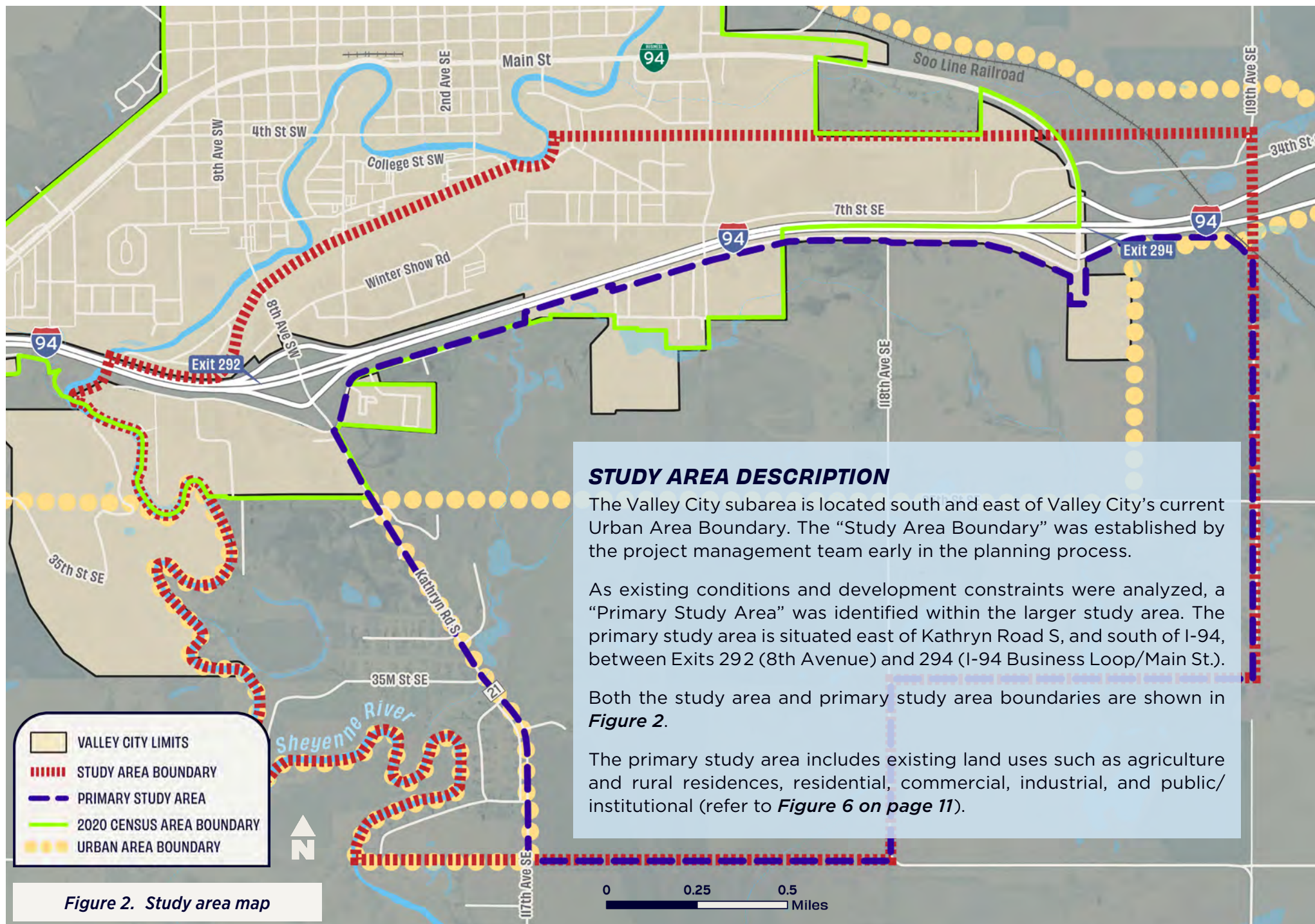


Figure 2. Study area map

SUBAREA LANDOWNER PARCELS

An integral element of this subarea study was identifying landowners to ensure their involvement in the subarea planning process. As part of public engagement efforts, all study area landowners were contacted and invited to participate in public input meetings to gain their feedback and concerns to help guide the planning process. Landowner meeting opportunities were provided on April 15 and 16, 2025. Meetings were held at the KLJ office located at 1010 4th Avenue SW in Valley City. **Figure 3** delineates the existing primary study area Barnes County parcels.

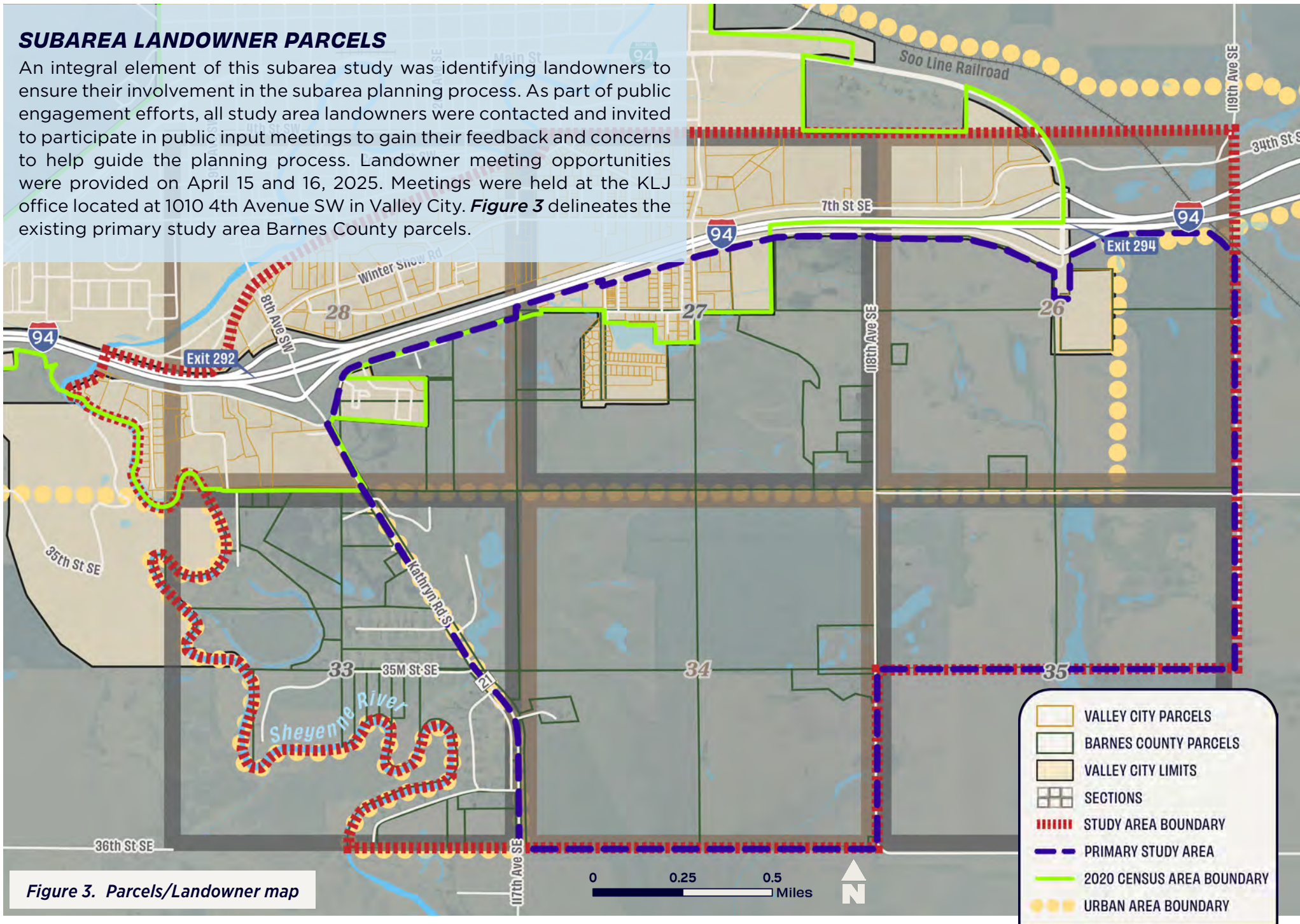
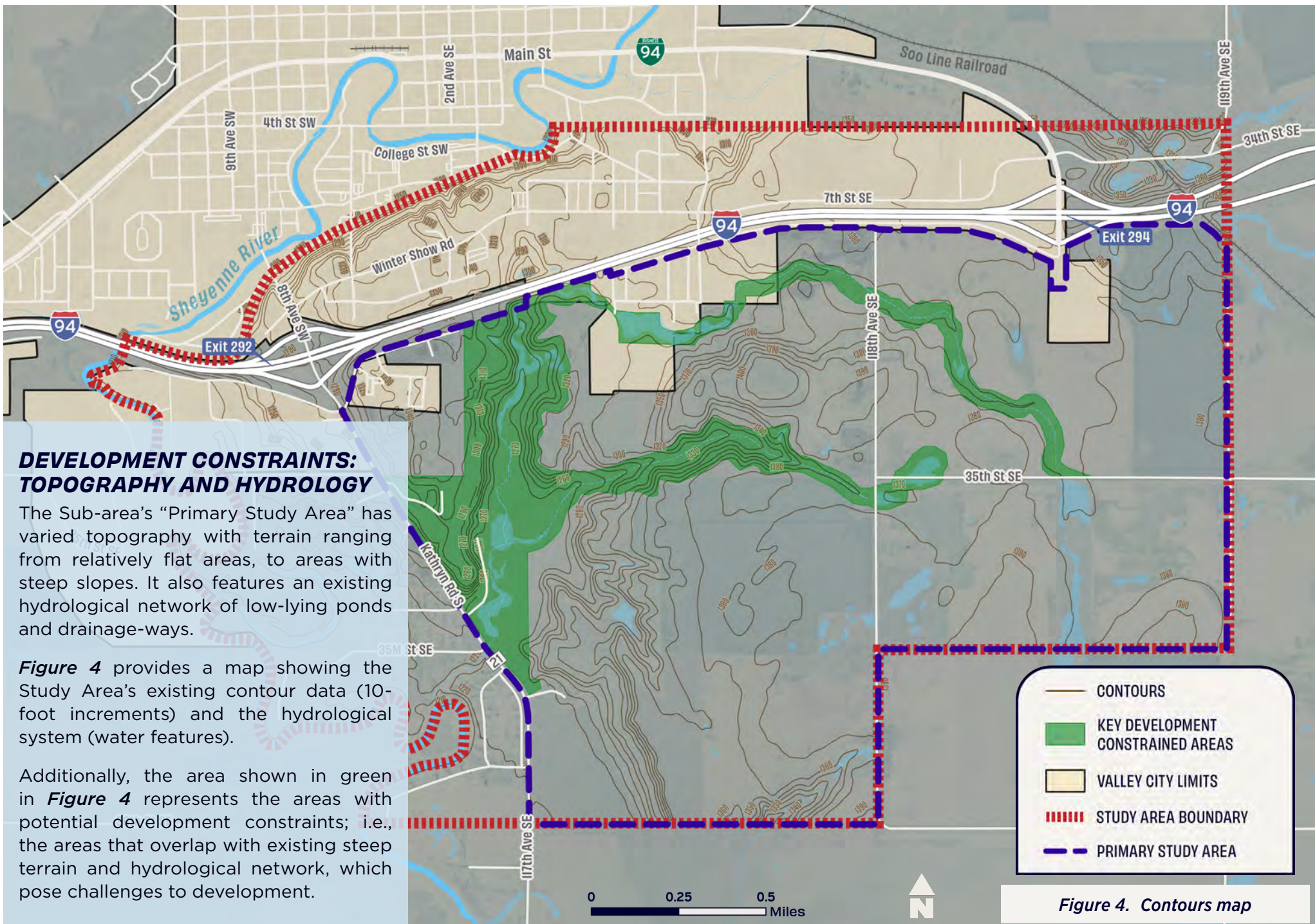


Figure 3. Parcels/Landowner map



DEVELOPMENT CONSTRAINTS: TOPOGRAPHY AND HYDROLOGY

The Sub-area's "Primary Study Area" has varied topography with terrain ranging from relatively flat areas, to areas with steep slopes. It also features an existing hydrological network of low-lying ponds and drainage-ways.

Figure 4 provides a map showing the Study Area's existing contour data (10-foot increments) and the hydrological system (water features).

Additionally, the area shown in green in **Figure 4** represents the areas with potential development constraints; i.e., the areas that overlap with existing steep terrain and hydrological network, which pose challenges to development.

Figure 4. Contours map

SLOPE ANALYSIS

Within the primary study area, known topographic challenges prompted a slope analysis to determine areas where slopes are greater than an eight-percent grade. Slopes greater than eight-percent typically present challenges to development for designing and building of new transportation networks and other infrastructure. These areas were identified early in the planning process to inform the areas that are least suitable for future development and reserved for open space or other non-development land uses wherever feasible.

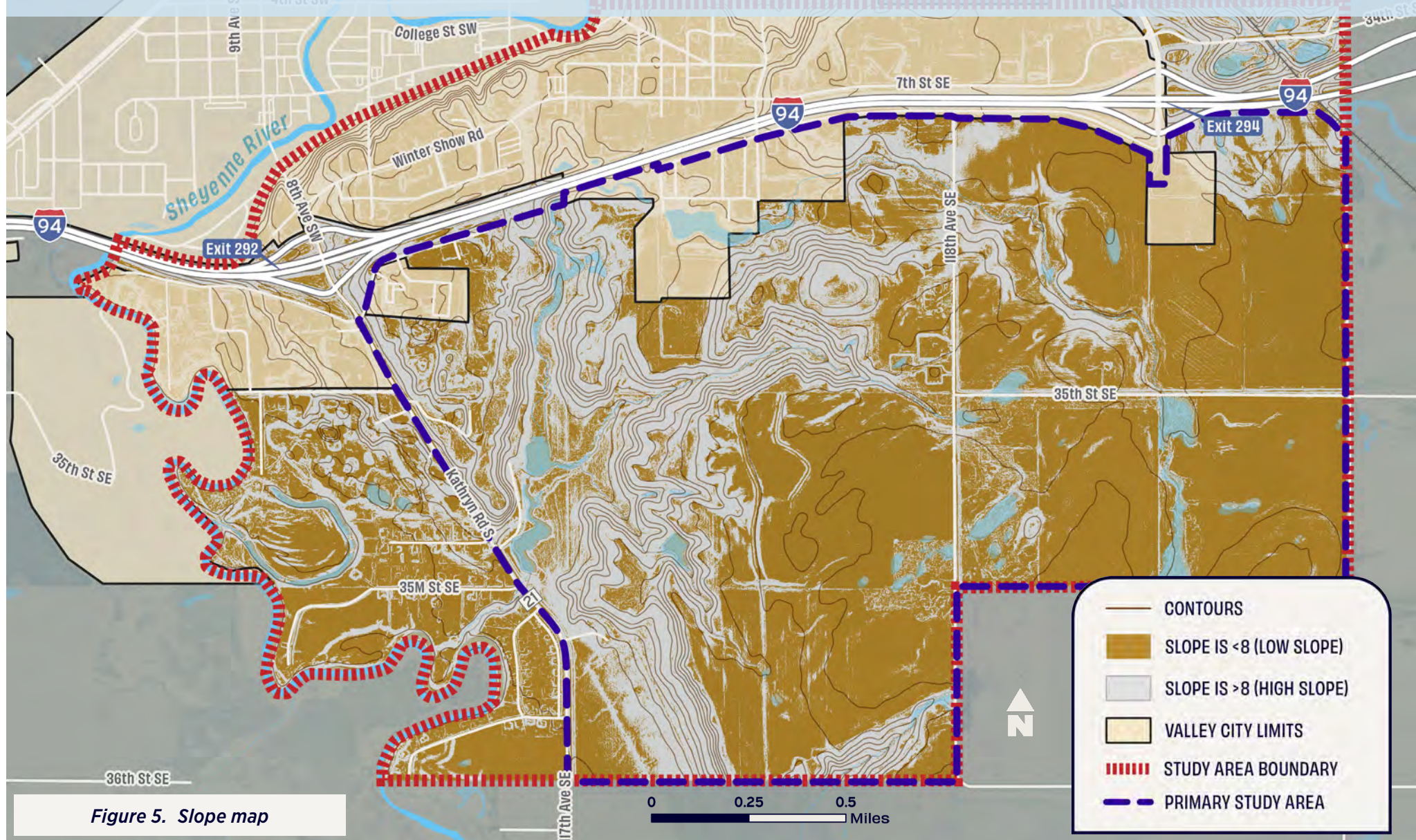


Figure 5. Slope map



Existing Land Use

Within the Valley City subarea, existing land use consists primarily of agricultural, rural residential, and water/wetland areas. Immediately south of I-94 at Exits 292 and 294, east and west of 13th Avenue SE, and at the intersection of 35th Street SE and 118th Avenue SE, exist lesser acreages of commercial, public/institutional, residential, and industrial land uses. Within the primary study area (east of Kathryn Road S, south of I-94, and west of 119th Avenue SE) the total acreage (inclusive of all land uses and water areas) totals approximately 2,040 acres. See **Table 1** and **Figure 6. Primary Study Area Existing Land Use map on page 11.**

Table 1. Primary Study Area: Existing Land Use Acreages

PRIMARY STUDY AREA: EXISTING LAND USE ACREAGES	
LAND USE	ACRES
<i>Ag & Rural Residences</i>	<i>1,765</i>
<i>Residential</i>	<i>49</i>
<i>Commercial</i>	<i>96</i>
<i>Industrial</i>	<i>37</i>
<i>Public/Institutional</i>	<i>28</i>
<i>Water</i>	<i>65</i>
Primary Study Area Boundary	Approx. 2,040

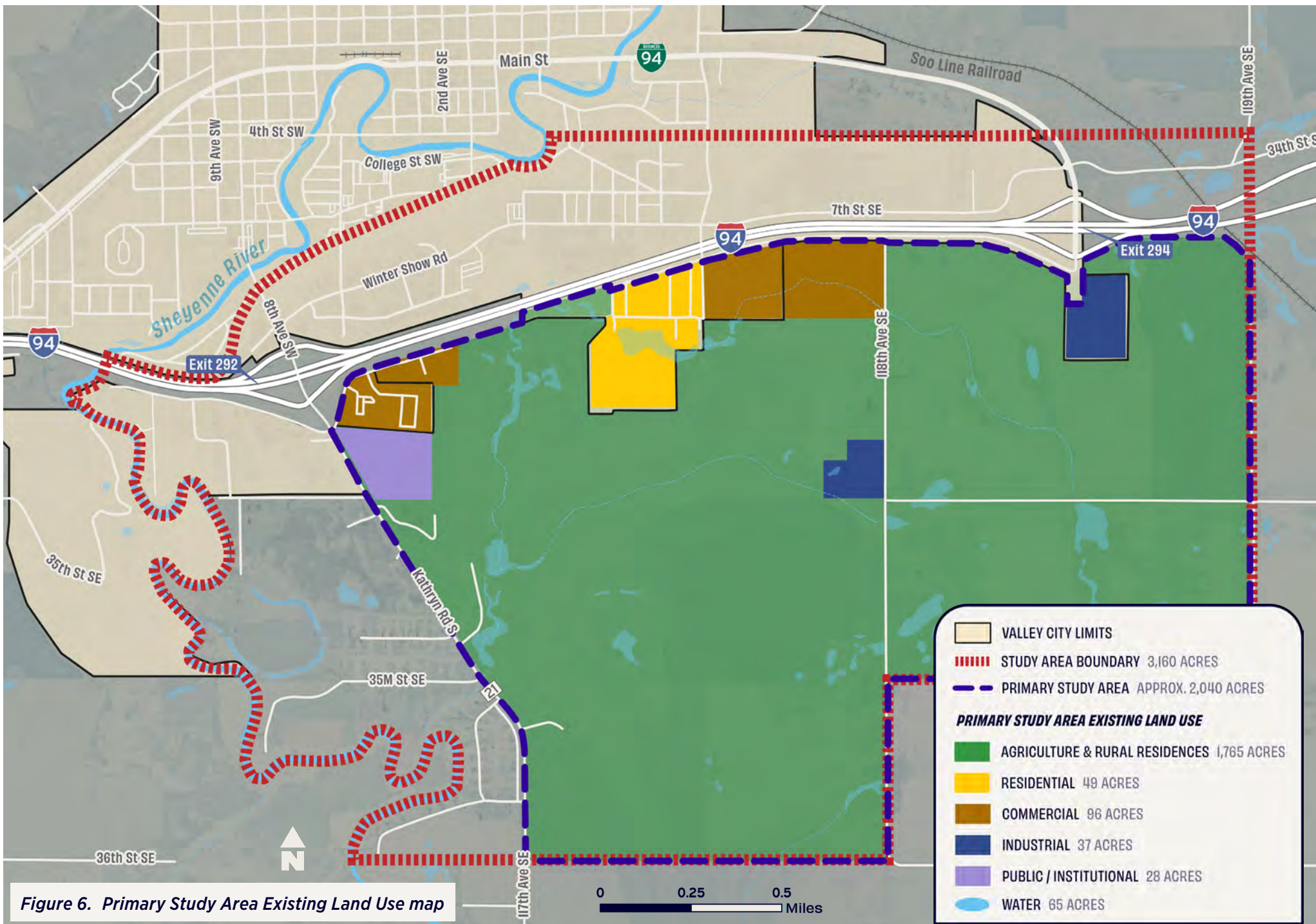


Figure 6. Primary Study Area Existing Land Use map

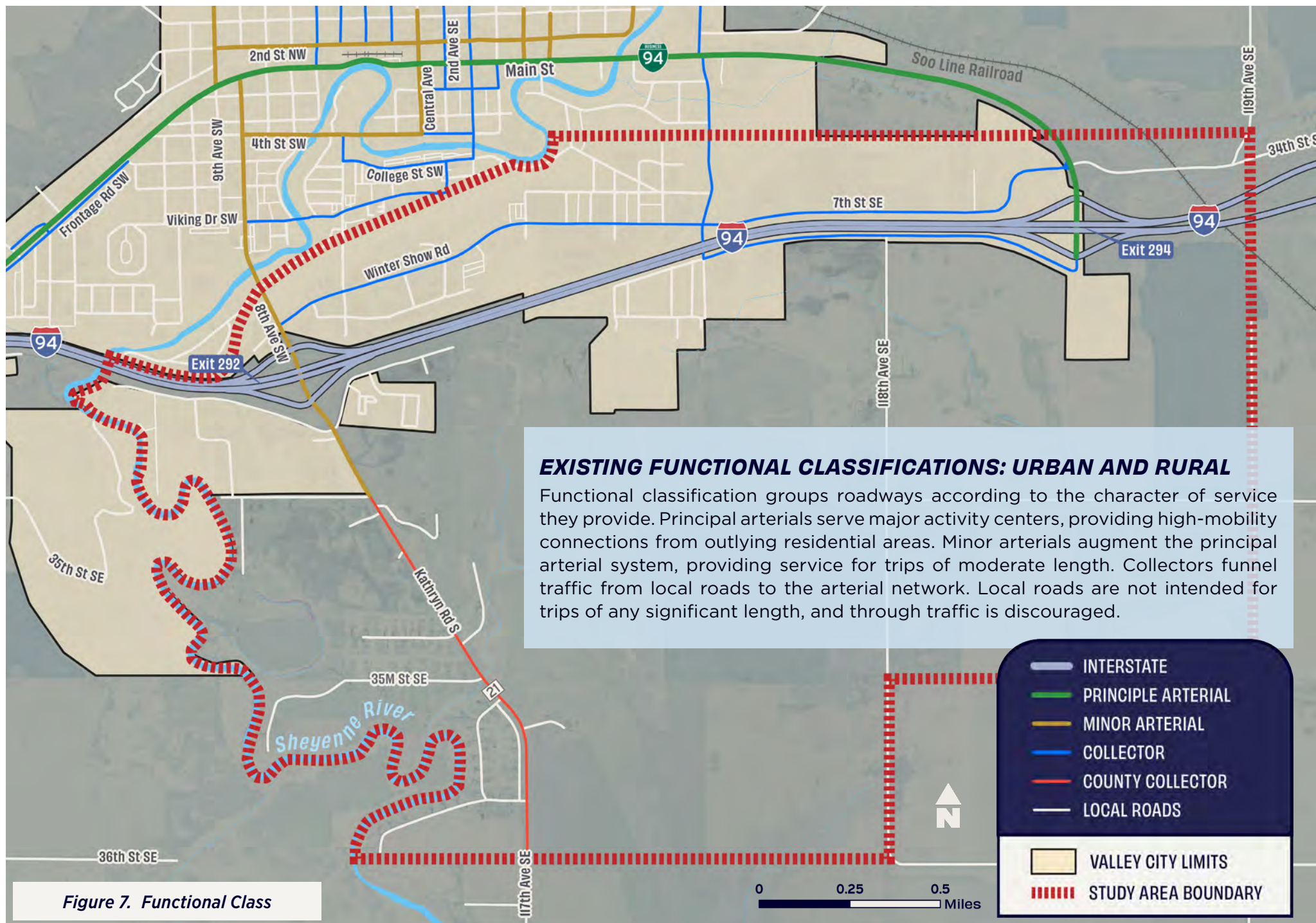


Figure 7. Functional Class

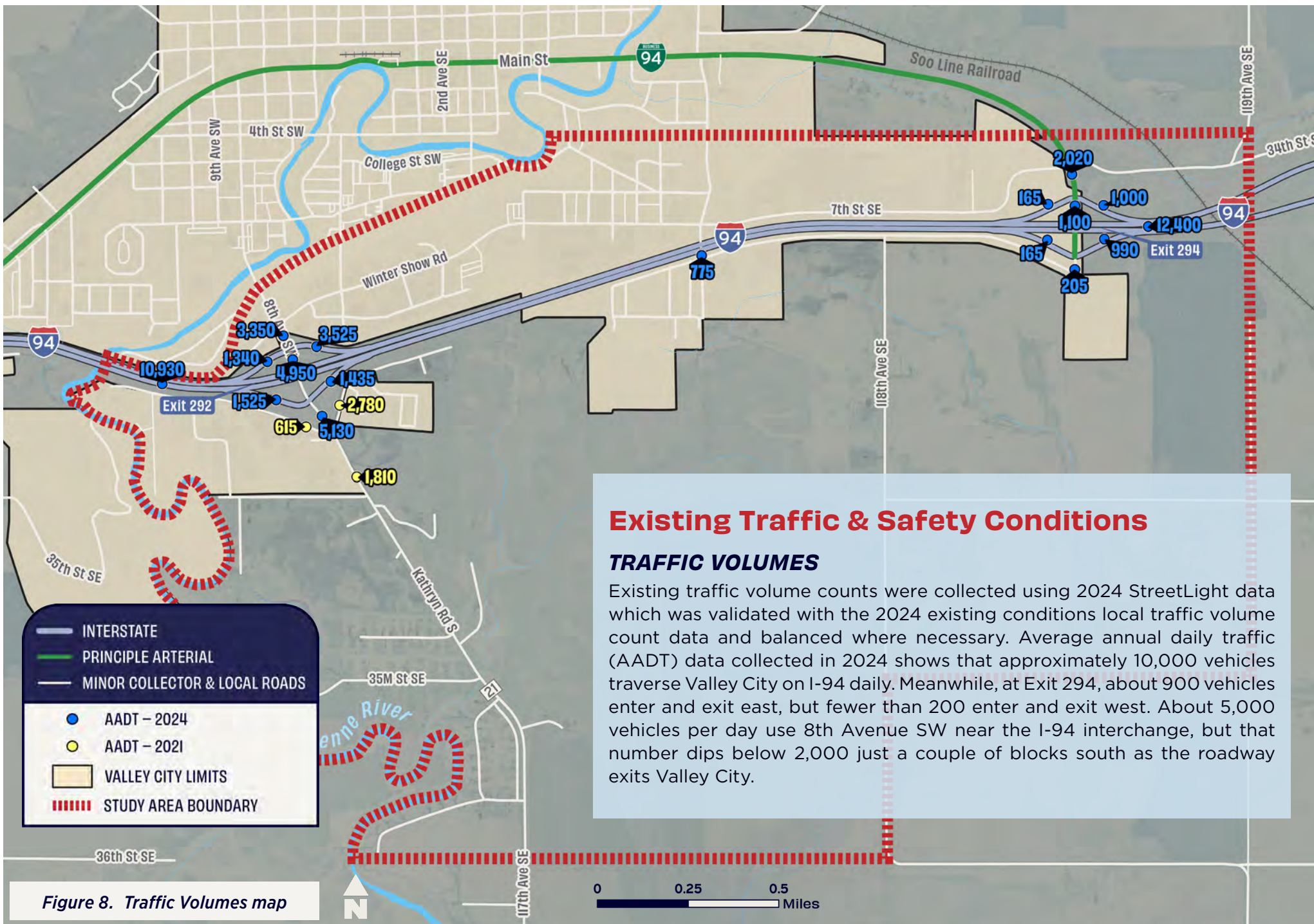


Figure 8. Traffic Volumes map

SAFETY ANALYSIS

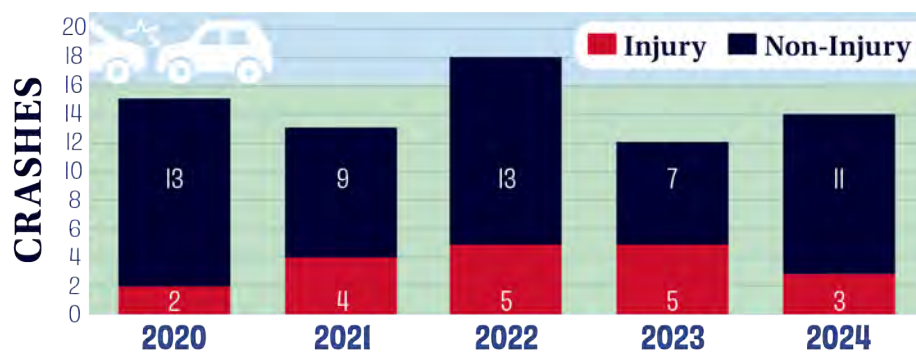
Traffic safety is a foundational element of effective transportation planning. Meaningful improvements require an integrated strategy grounded in the “**Four E’s**” of transportation safety:

1. **Engineering:** Designing infrastructure to proactively minimize risks.
2. **Education:** Promoting safe behaviors among all road users.
3. **Enforcement:** Ensuring compliance with traffic laws.
4. **Emergency Services:** Optimizing response to incidents when they occur.

By addressing these interconnected pillars, communities can create safer, more resilient transportation systems. This comprehensive approach aligns with NDDOT *Vision Zero* principles and fosters long-term safety outcomes.

Five years of crash records from January 1, 2020, through December 31, 2024, were requested from the NDDOT to analyze traffic crash trends within the subarea. The summary of crashes in the subarea is shown in **Figure 9**.

Figure 9. Summary of Crashes by Year (2020–2024)



The high-level crash trends from this data are discussed below.

- There were 72 crashes reported during the five-year analysis period, averaging 14.4 crashes per year.
- There were no fatal crashes reported.
- There were 19 injury related crashes with three crashes involving serious injuries.
- There were 13 intersection related crashes.
- There were no crashes involving pedestrians or bicyclists.
- Eighteen crashes involved heavy vehicles, such as semi-trucks and other large commercial vehicles.
- December recorded the highest number of crashes (12), followed closely by April with 11 crashes.
- The highest frequency of intersection-related crashes occurred at the following locations, each with two reported crashes:
 - 8th Avenue SW & Winter Show Road
 - Exit 292 North Ramp & 8th Avenue SW
 - Kathryn Road/117th Avenue SE & 8th Avenue SE

Generally, there are currently no major safety issues identified within the undeveloped acreage of the subarea. This is mostly attributed to the limited number of roads that currently exist here. The location and type of the crash incidents are shown in **Figure 10 on page 15**.

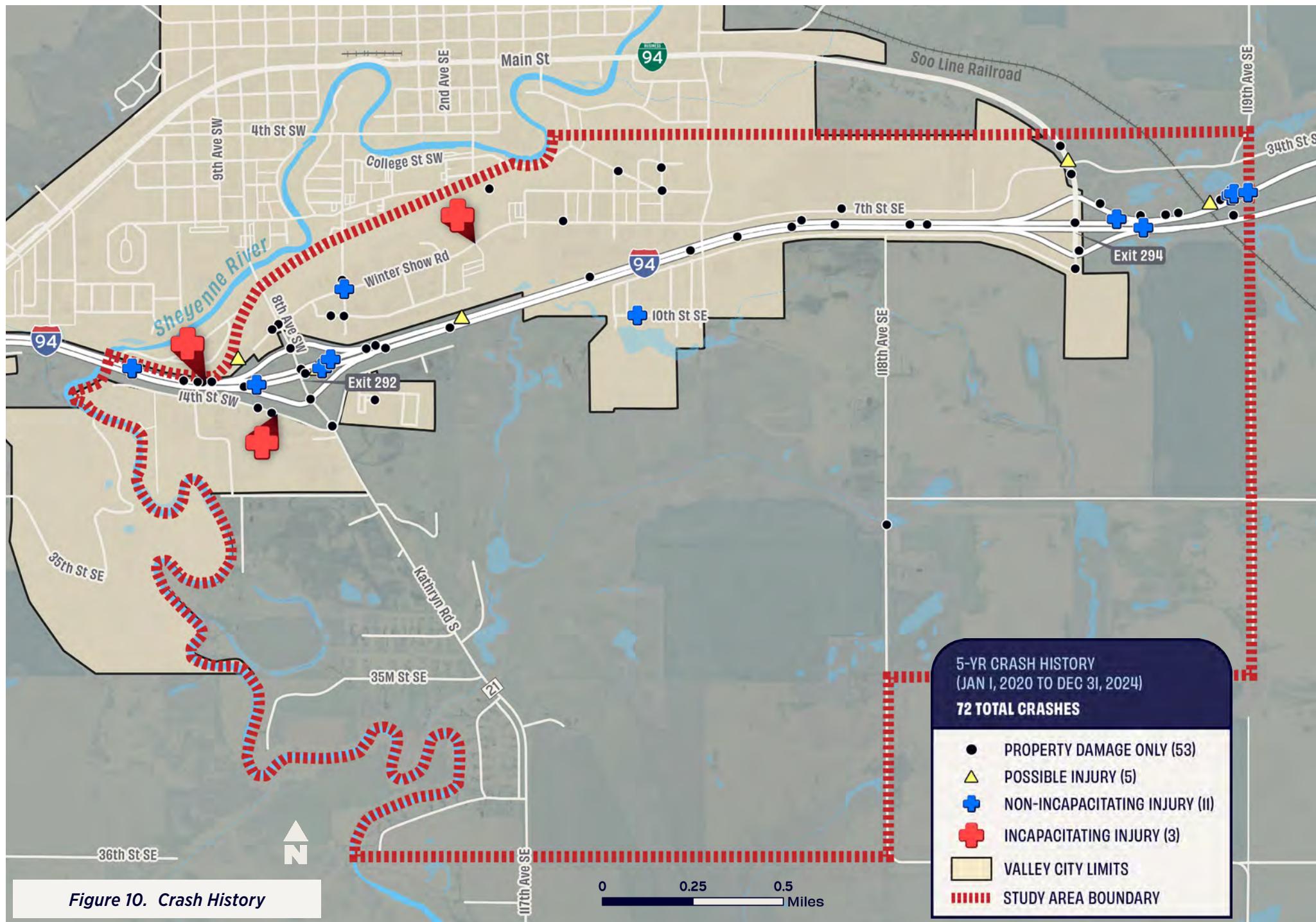


Figure 10. Crash History

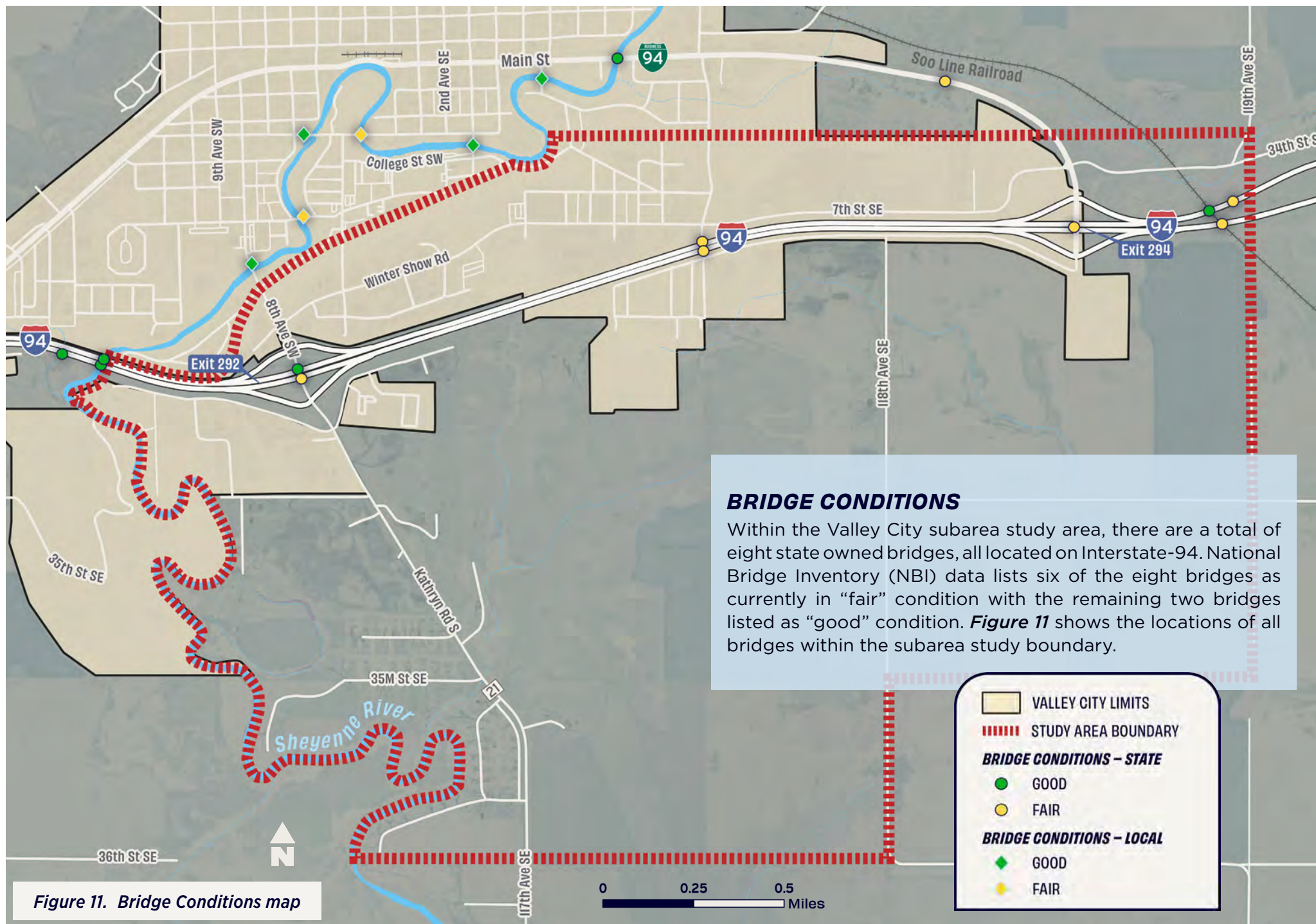
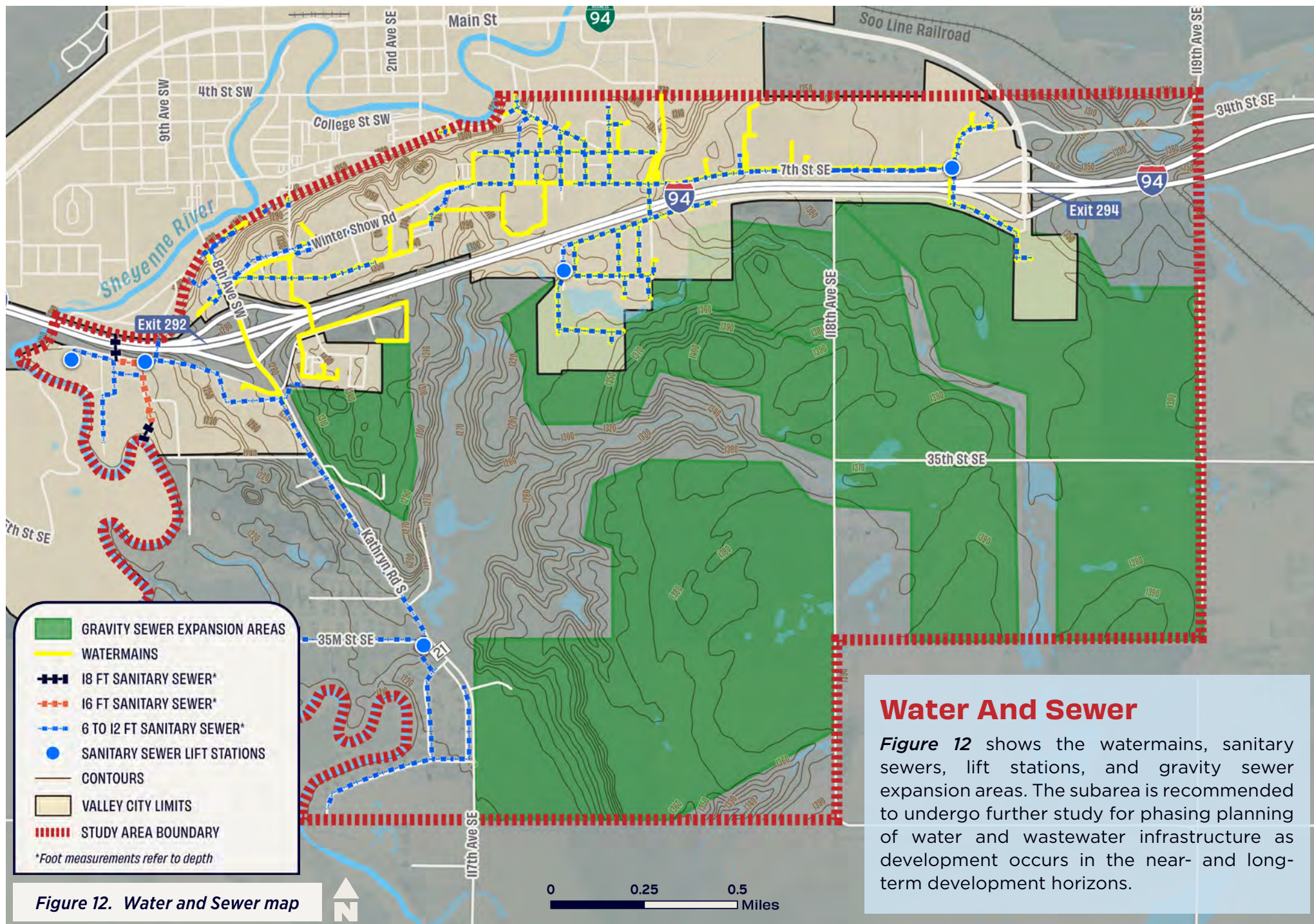


Figure 11. Bridge Conditions map



Water And Sewer

Figure 12 shows the watermain, sanitary sewer, lift station, and gravity sewer expansion areas. The subarea is recommended to undergo further study for phasing planning of water and wastewater infrastructure as development occurs in the near- and long-term development horizons.

Issues Identification

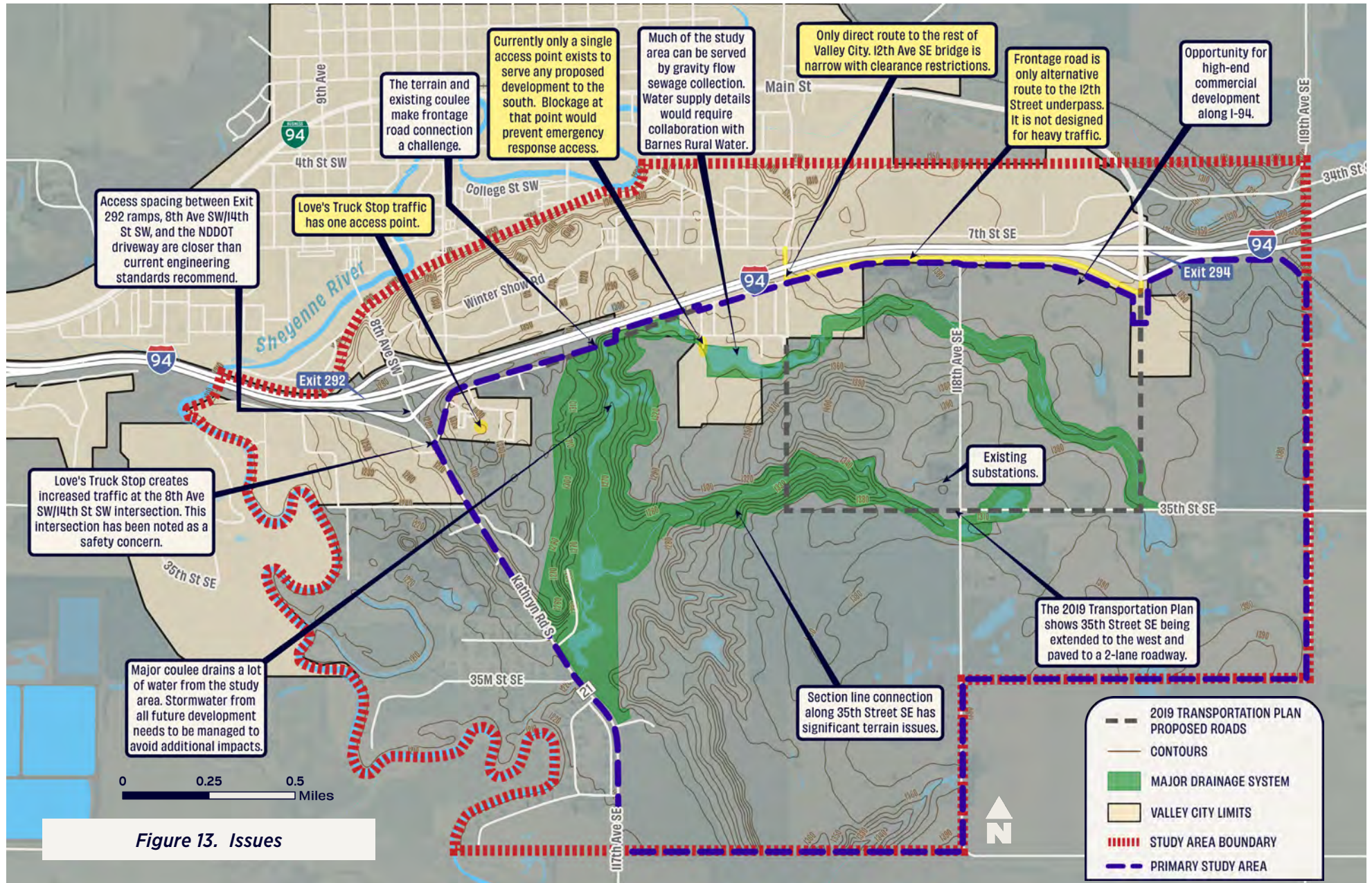


Figure 13. Issues

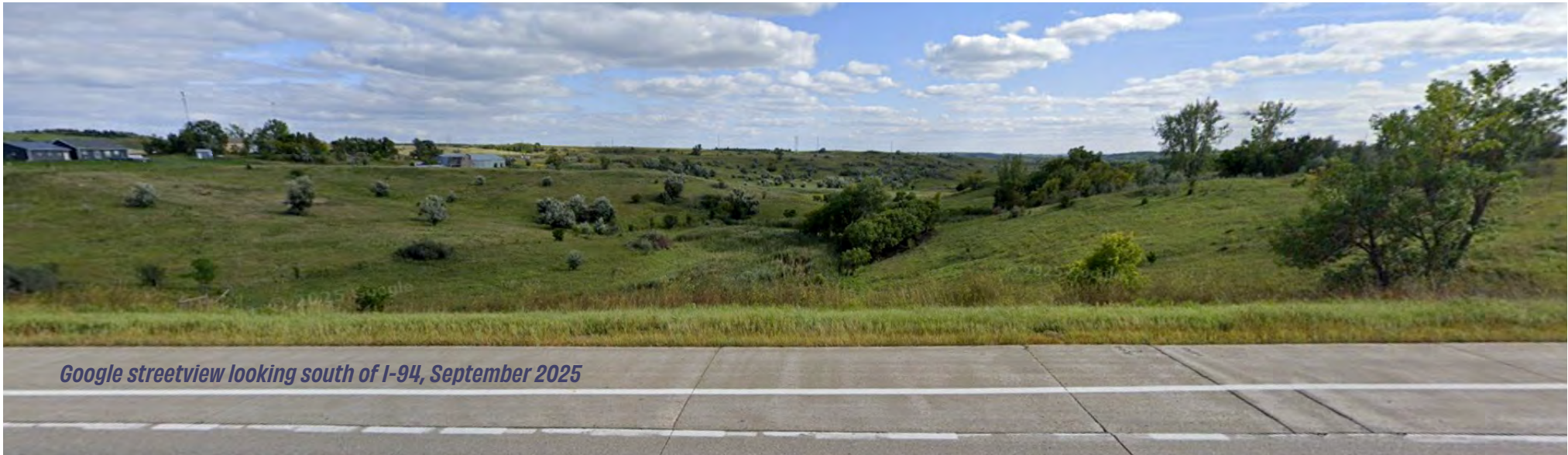
Future Conditions

Future Land Use

Development of the Future Land Use Map (FLUM) was in cooperation with the property owners in the study area, members of the public and key stakeholders, including the City and NDDOT. Future land use is the future pattern of development (residential, commercial, industrial, agricultural, etc.) assumed for this study; it has not been adopted by Valley City and was used solely for the purposes of the plan update process. The land use assumptions were used as inputs into the traffic modeling process and used also to demonstrate a general desire of land owners and the city for potential future land uses in the primary study area. Approval of the Plan does not require use of this FLUM. The development of an updated FLUM by the City of Valley City may be advised by the analysis completed as part of this planning process and the included land use assumptions.

However, conceptualizing and assigning future land use categories and their appropriate acreages and locations is a needed step in developing a transportation network for the subarea. Future land use categories should not conflict with but rather be complimentary to existing land uses where feasible. Determining the future land use for the subarea assists with appropriate future roadway system alignments, functional classification of new roadways, and typical section recommendations.

The Future Land Use Map is shown in *Figure 14 on page 20*.



Google streetview looking south of I-94, September 2025

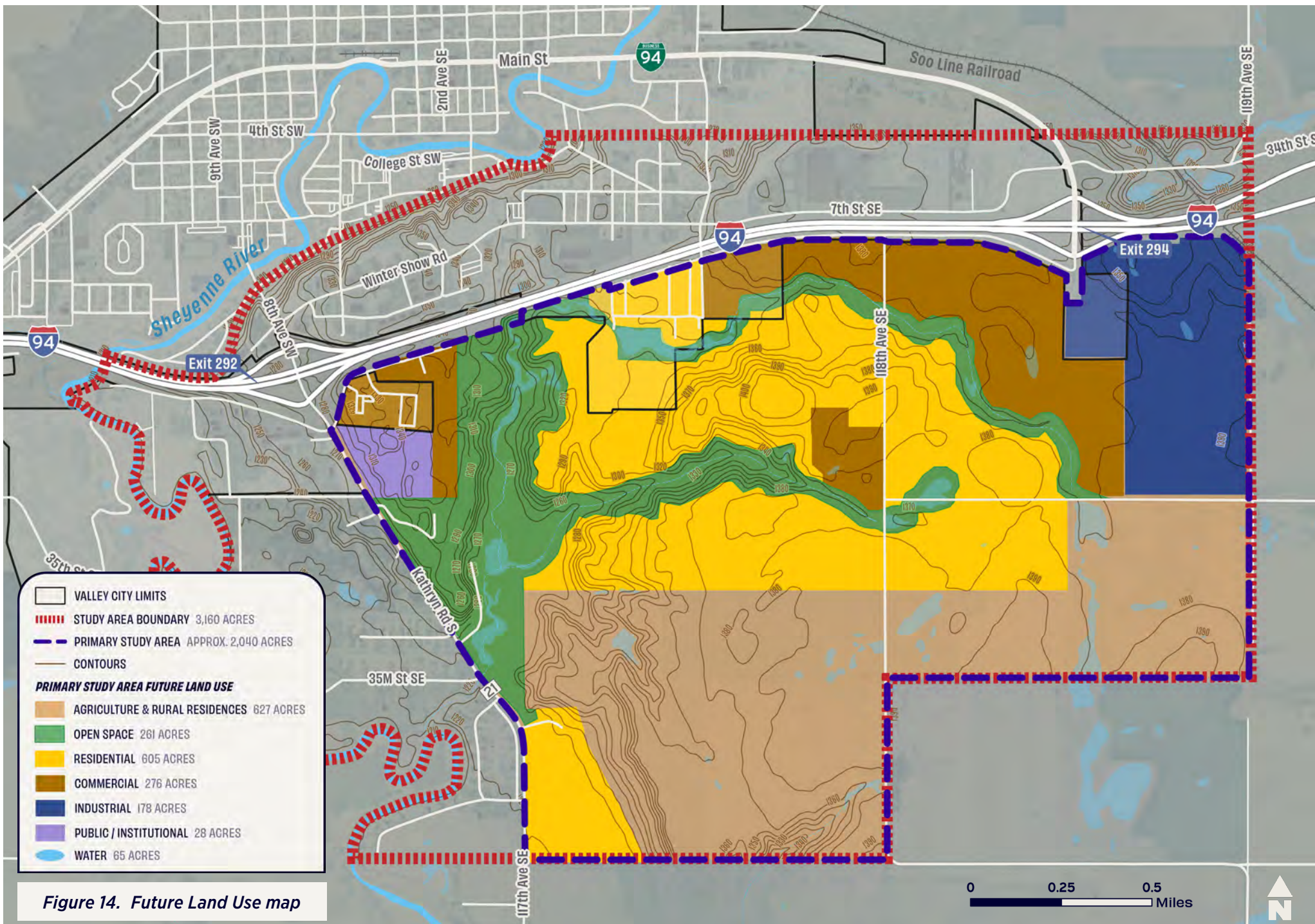


Figure 14. Future Land Use map

Growth Forecasting

GROWTH ASSUMPTIONS AND FORECASTING SCENARIOS

Three forecast scenarios were developed to generate future traffic projections for the study area. Scenario development assumed for varying degrees of future growth within the study, broken into a no build, near-term, and long-term forecast. Traffic forecasting assumptions were based exclusively on the approved future land use plan for the study area.

Three forecasting scenarios were developed as follows:

Scenario 1 - No Build: assumed only 2% regional background growth in study area traffic.

Scenario 2 - Near-Term Growth: assumed 100% of the future land uses identified as near-term, which was anticipated to reflect 8- to 15-year growth horizon.

Scenario 3 - Long-Term Growth: assumes Scenario 2 Near-Term forecast + 50% of identified long-term future land uses, which was assumed to be a 20 plus year growth horizon.

Forecasting scenario future land use acreages are shown in **Table 2** and the areas are shown in **Figure 15 on page 22**.

Table 2. Near- and Long-Term Development

	LAND USE AREA IN ACRES				
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC INSTITUTIONAL	TOTAL ACRES
Near-Term	128	80	0	0	208
Full Build Long-Term	412	120	160	28	720
Near-Term + Full Build Long-Term	540	200	160	28	928

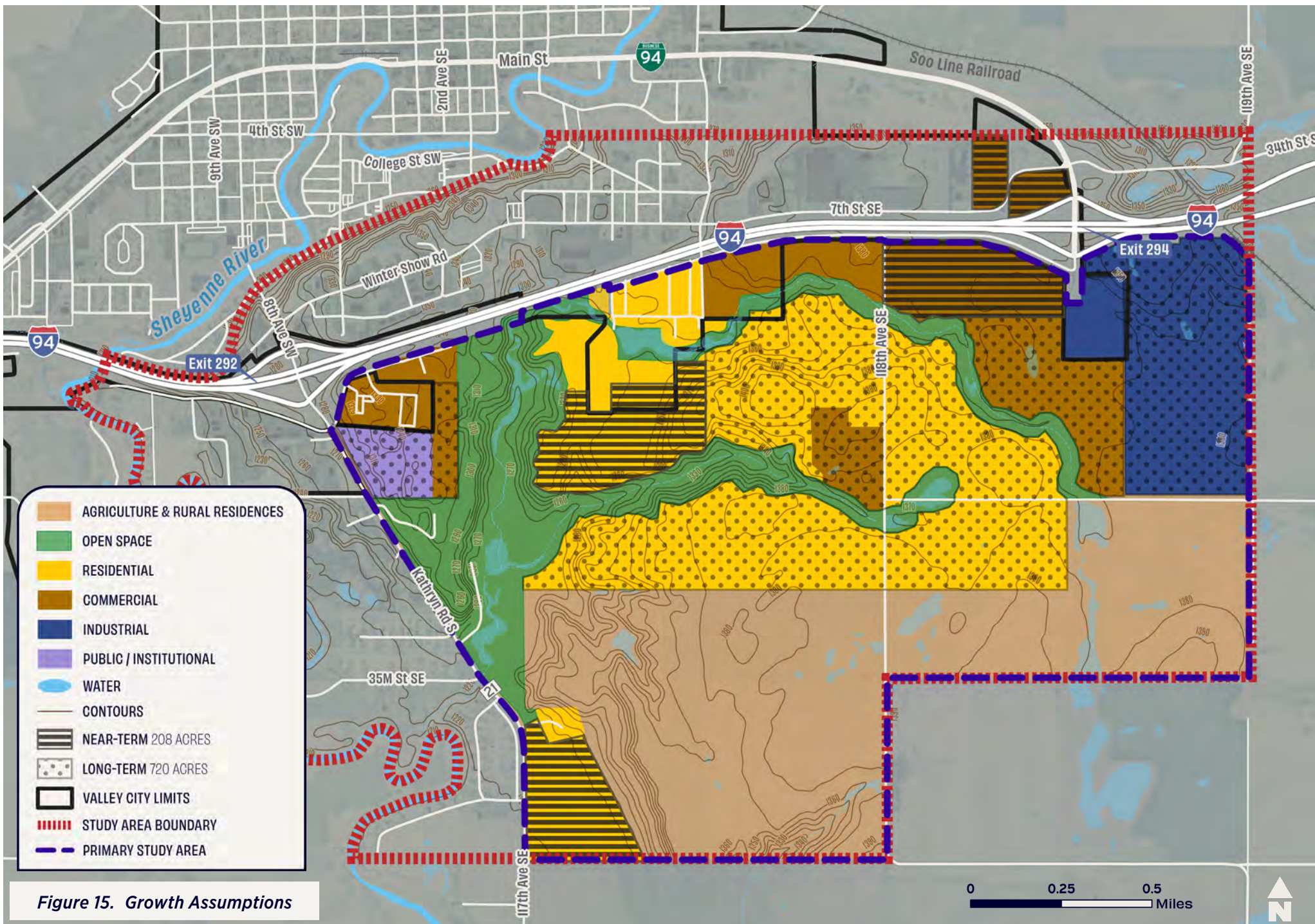


Figure 15. Growth Assumptions

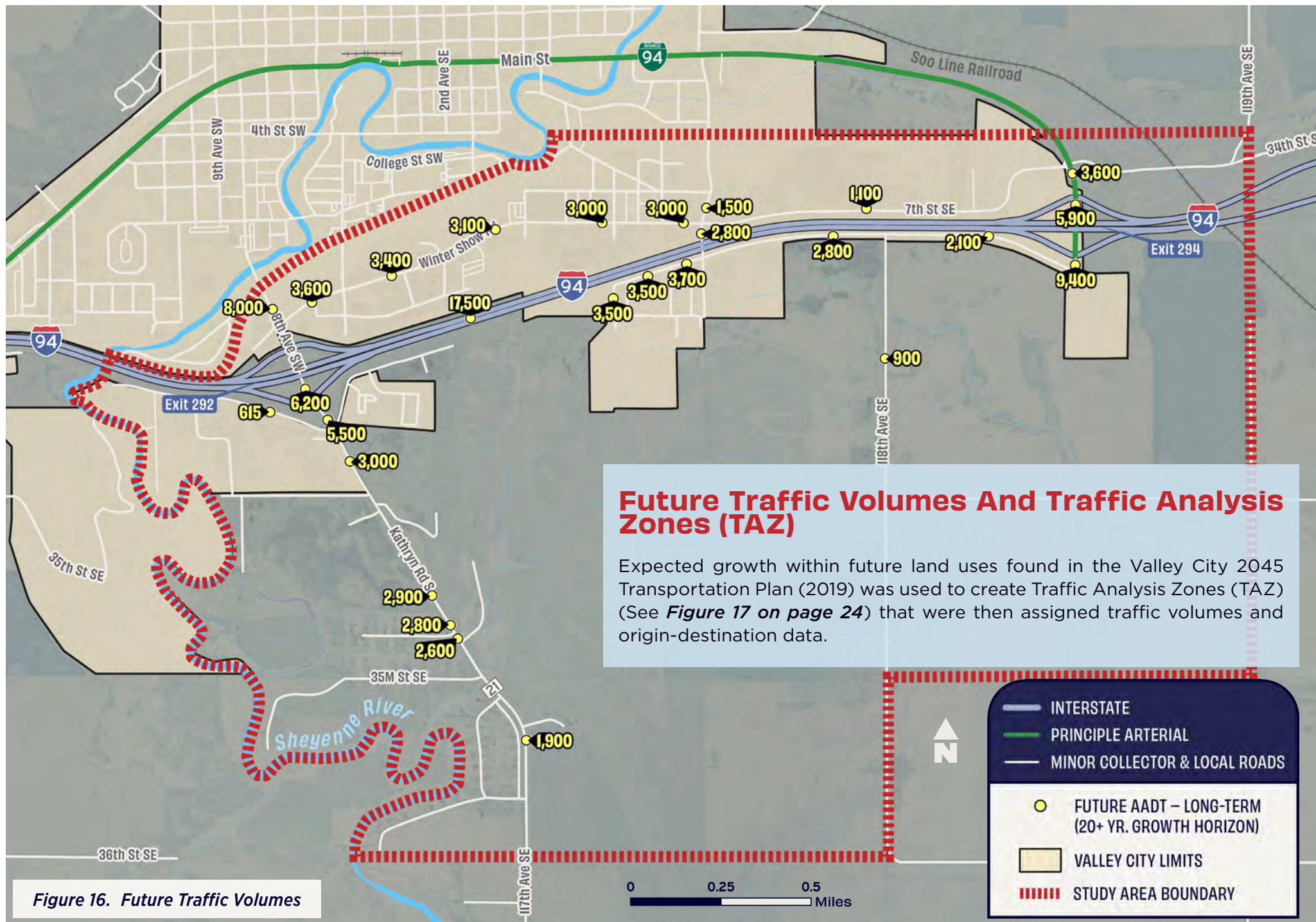


Figure 16. Future Traffic Volumes

StreetLight provided the necessary origin-destination data between each of the TAZs to assign trip generation data throughout the roadway network within the study area. Areas with currently anticipated developments were included (TAZ 1 and 3).

- Marked areas represent potential growth areas
- Full areas were not always used for build scenarios

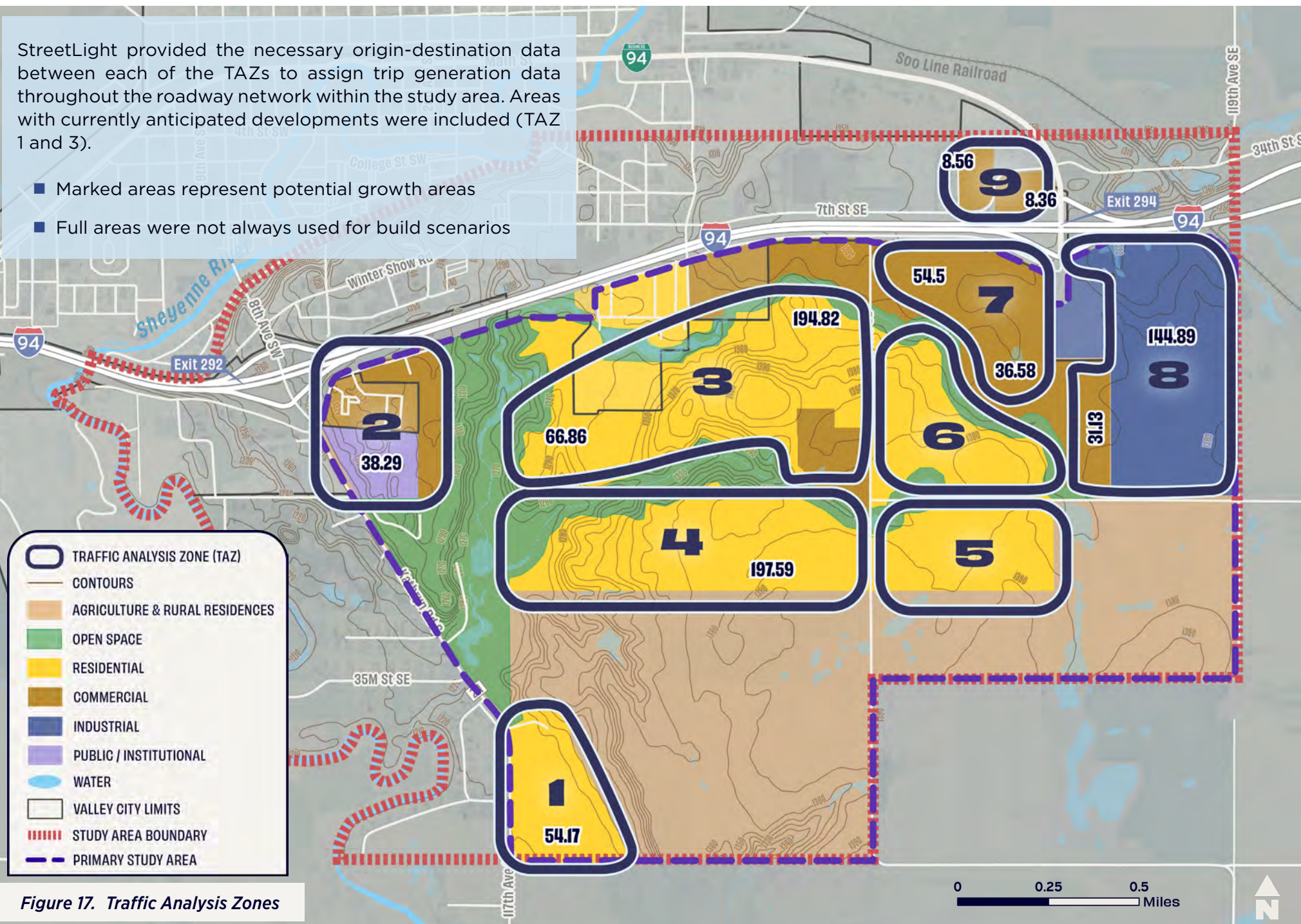


Figure 17. Traffic Analysis Zones

TRIP GENERATION

The ITE Trip Generation Manual 11th Edition was used to develop the trip generation used within the TAZs. Land use types used to estimate trip generation for the subarea were based on the future land use assigned acreage allocations and included single family residential, low-rise multi-family residential, general light industrial, and a mix of commercial uses. In the near-term, there are a total of 640 trips in the AM Peak, with 817 total trips in the PM Peak. In the long-term, there are a total of 2,369 trips in the AM Peak, with 3,048 total trips in the PM Peak. Pass by rates were used for the appropriate land uses in the analysis but the total trip generation for near- and long-term trip forecasts are shown in **Table 3** and **Table 4**.

Table 3. Near-Term Traffic Trip Generation

#	Weekday AADT			AM Peak			PM Peak		
	Total	Destination	Origin	Total	Destination	Origin	Total	Destination	Origin
1	1,424	712	712	113	29	84	149	95	54
2	—	—	—	—	—	—	—	—	—
3	943	472	472	75	20	56	99	63	36
	1,348	674	674	94	23	71	198	127	71
4	—	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—	—
6	—	—	—	—	—	—	—	—	—
7	771	386	386	81	41	41	72	36	36
	420	210	210	30	15	15	49	25	25
	526	263	263	57	30	27	57	29	28
	625	263	263	57	30	27	57	29	28
	72	36	36	13	8	5	16	7	9
	115	58	58	21	13	8	25	11	15
	479	240	240	32	17	15	36	21	15
8	—	—	—	—	—	—	—	—	—
9	360	180	180	67	58	9	59	11	48
Total	6,984	3,494	3,494	640	284	358	817	454	365

Table 4. Long-Term Traffic Trip Generation

#	Weekday AADT			AM Peak			PM Peak		
	Total	Destination	Origin	Total	Destination	Origin	Total	Destination	Origin
1	1,424	712	712	113	29	84	149	95	54
2	188	94	94	15	8	8	20	10	10
3	4,168	2,084	2,084	332	86	246	438	280	158
4	1,386	693	693	110	29	81	146	93	53
5	1,386	693	693	110	29	81	146	93	53
6	4,168	2,084	2,084	332	86	246	438	280	158
7	653	327	327	91	46	46	159	86	73
	643	322	322	70	36	34	70	36	34
	643	322	322	70	36	34	70	36	34
	86	43	43	16	10	6	19	8	11
	180	150	30	—	—	—	90	75	15
	3,074	1,537	1,537	266	138	128	321	167	154
	1,588	794	794	297	258	39	261	47	214
8	—	—	—	—	—	—	—	—	—
9	—	—	—	—	—	—	—	—	—
Total	18,163	9,143	9,023	1,709	762	949	2,178	1,211	967

Level of Service (LOS)

ALTERNATIVES

Three alternatives were developed to examine improving the operation deficiencies seen in both the near-term and long-term scenarios. The long-term scenario was used as the basis for the alternatives since it provides the most conservative estimate and largest breakdown in traffic operations. The alternatives include a new east-west connection between 8th Avenue and 118th Avenue, roundabouts, signals, and a change in access type at 14th Street & 8th Avenue to a right-in right-out (RIRO). **Table 5 on page 28** shows the Vistro model results with a comparison of existing LOS results with the near-term and long-term No Build and the three Build Alternative scenarios.

- **Alternative 1** assumed the development of a new connection between 8th Avenue SE and 118th Avenue SE. This alternative shows improvement to the interchange operations overall but could still use improvement.
- **Alternative 2** assumes a series of roundabouts north and south of Exits 292 and 294. Alternatives 2 brings all intersections up to acceptable operations as there are high volumes of turning vehicles at the interchange intersections that no longer need to wait for larger gaps in traffic.
- **Alternative 3** assumes a series of signalized intersections north and south of Exits 292 and 294. Alternatives 3 shows similar results to Alternative 1 with some improvement but still includes LOS results of E and D.

Alternatives 1, 2, and 3 all appear to address LOS issues near and adjacent to Exit 292. However, Alternatives 1 and 3 are less effective at managing long-term traffic forecasts adjacent to Exit 294. The development of an east-west corridor through the study area (Alternative 1) would still require improvements adjacent to both Exits 292 and 294. Options considered in Alternatives 2 and 3 remain feasible at an area-wide level.

INTERSECTIONS ID

A total of 28 intersections were identified and their baseline data analyzed utilizing Vistro traffic modeling software to forecast near- and long-term No Build and Build intersection LOS. Subarea intersections are mapped in **Figure 18. Intersections ID on page 27**.

LOS ANALYSIS

The No Build near-term and long-term scenarios were initially analyzed to compare how growth would affect the future roadway network over time and provide a basis for other alternatives. Existing conditions represent existing 2025 volumes, and all Build scenario alternatives represent long-term projected intersection volumes for the year 2045.

Existing conditions show all study intersections operating at a level of service of B or higher with no operational concerns. The 2045 near term analysis shows a breakdown in operations near both the I-94 292 and 294 interchanges and Winter Show Road & 8th Avenue. The long-term analysis shows the same breakdown with lower levels of service seen in these areas.

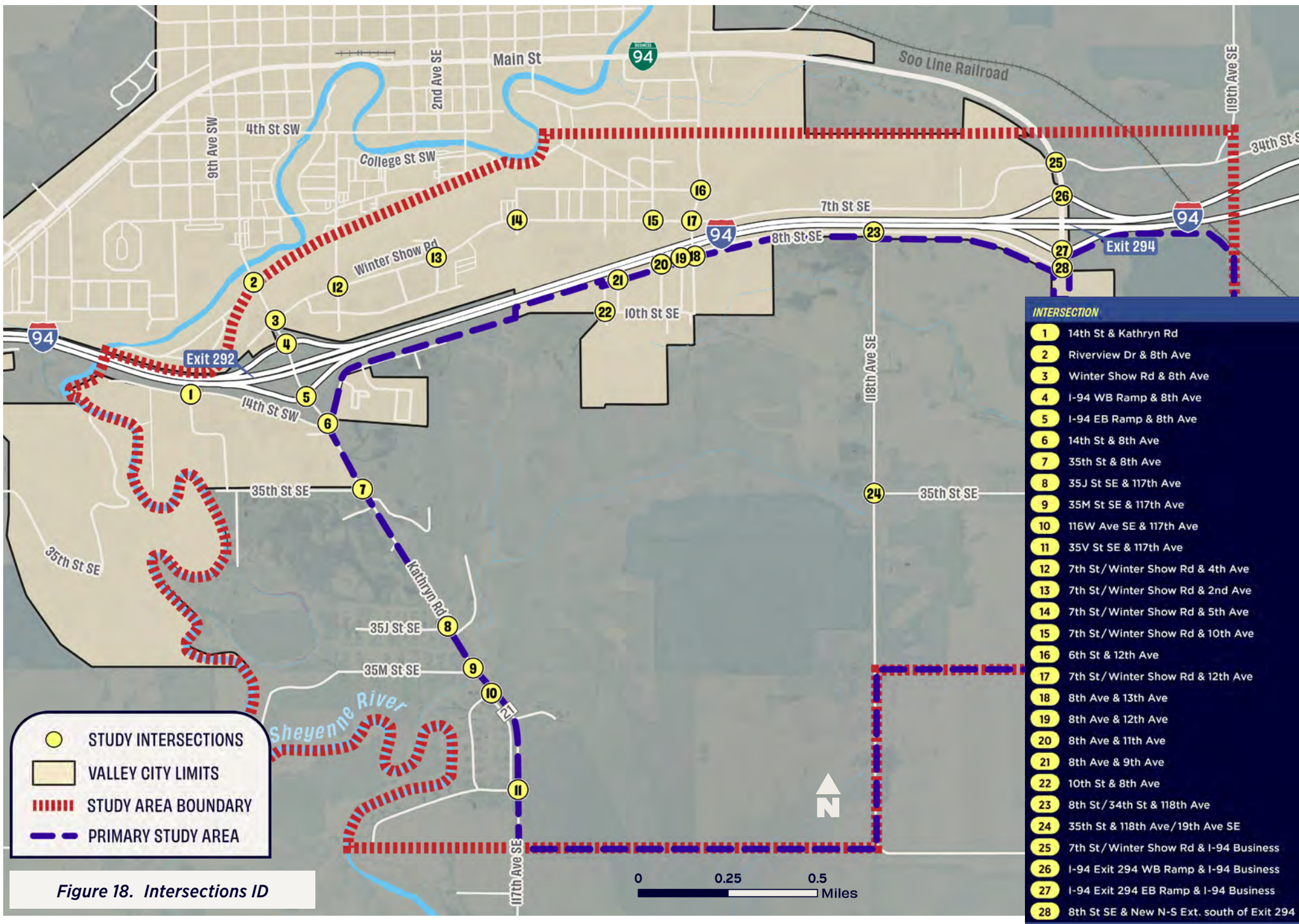


Figure 18. Intersections ID

Table 5. Intersection LOS Results

#	Intersection	Existing		No Build				Build (2045 Long Term)								
		Control Type	2025		2045 Near Term		2045 Long Term		Alt 1 E-W Rd		Alt 2 Roundabout			Alt 3 Signal		
			AM	PM	AM	PM	AM	PM	AM	PM	Control	AM	PM	Control	AM	PM
1	14th St & Kathryn Rd	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
2	Riverview Dr & 8th Ave	TWSC	B	B	B	C	C	C	C	C	TWSC	C	C	TWSC	C	C
3	Winter Show Rd & 8th Ave	TWSC	B	B	C	D	C	E	B	B	RAB	A	A	Signal	B	B
4	I-94 WB Ramp & 8th Ave	TWSC	B	B	B	C	B	C	C	C	RAB	A	B	Signal	C	C
5	I-94 EB Ramp & 8th Ave	TWSC	A	B	C	F	C	F	C	D	RAB	A	B	Signal	C	D
6	14th St & 8th Ave	TWSC	A	A	A	B	A	B	A	A	RAB	A	A	TWSC	A	A
7	35th St & 8th Ave	TWSC	A	A	A	B	A	A	A	B	TWSC	A	A	TWSC	A	B
8	35J St SE & 117th Ave	TWSC	A	A	B	B	B	B	B	B	TWSC	B	B	TWSC	B	B
9	35M St SE & 117th Ave	TWSC	A	A	B	B	B	B	B	B	TWSC	B	B	TWSC	B	B
10	116W Ave SE & 117th Ave	TWSC	A	A	B	B	A	B	A	B	TWSC	A	B	TWSC	A	B
11	35V St SE & 117th Ave	TWSC	A	A	A	A	A	A	A	A	TWSC	A	A	TWSC	A	A
12	7th St / Winter Show Rd & 4th Ave	TWSC	A	A	A	B	A	B	A	B	TWSC	A	B	TWSC	A	B
13	7th St / Winter Show Rd & 2nd Ave	TWSC	A	A	A	A	A	A	A	A	TWSC	A	A	TWSC	A	A
14	7th St / Winter Show Rd & 5th Ave	TWSC	A	A	A	A	A	B	A	B	TWSC	A	B	TWSC	A	B
15	7th St / Winter Show Rd & 10th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
16	6th St & 12th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
17	7th St / Winter Show Rd & 12th Ave	TWSC	A	A	A	B	A	B	A	B	TWSC	A	B	TWSC	A	B
18	8th Ave & 13th Ave	TWSC	A	A	A	A	A	A	A	A	TWSC	A	A	TWSC	A	A
19	8th Ave & 12th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
20	8th Ave & 11th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
21	8th Ave & 9th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
22	10th St & 8th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
23	8th St / 34th St & 118th Ave	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
24	35th St & 118th Ave / 19th Ave SE	TWY	A	A	A	A	A	A	A	A	TWY	A	A	TWY	A	A
25	7th St / Winter Show Rd & I-94 Business	TWSC	A	A	A	A	A	A	A	A	TWSC	A	A	TWSC	A	A
26	I-94 Exit 294 WB Ramp & I-94 Business	TWSC	A	A	D	D	F	F	D	D	RAB	A	A	Signal	D	D
27	I-94 Exit 294 EB Ramp & I-94 Business	TWSC	A	A	B	B	C	C	E	E	RAB	B	B	Signal	E	E
28	8th St SE & New N-S Ext. south of Exit 294	TWSC	A	A	C	C	E	D	C	B	RAB	A	A	Signal	C	B

RAB = Roundabout

TWSC = Two-Way Stop Control

TWY = Two-Way Yield

Alternative Development/Analysis

Alternatives Overview

ALTERNATIVE 1

- New East-West Road
- By itself, Alternative 1 improves the projected LOS at major intersections on the subarea's west end
- Recommendation: Retain as part of Long-Term Network

ALTERNATIVE 2 (ROUNDBABOUTS)

- Construct Roundabouts through both the Exit 292 and Exit 294 influence areas
- LOS C or better at all intersections

ALTERNATIVE 3 (SIGNALS)

- Intersection improvements at Love's
- New access road to Love's
- New backage road west of Kathryn Road (*concept dismissed)



Exit 292 Alternative Options

ALTERNATIVE 2

- Roundabouts at the following locations in close proximity to Exit 292:
 - Winter Show Road
 - North and south ramps
 - 14th Street SW
 - 35th Street SE (*not modeled)

ALTERNATIVE 3

- Signals at Winter Show Road
- Signals at north and south ramps

Exit 294 Alternative Options

ALTERNATIVE 2

- Roundabouts
 - North and south ramp
 - Shift Frontage Road/8th Street access to the south and west
- Two-way stop control
 - 7th Street/I-94 Business Loop

ALTERNATIVE 3

- Signals
 - North and south ramps
 - Frontage Road
- Two-way stop control
 - 7th Street/I-94 Business Loop

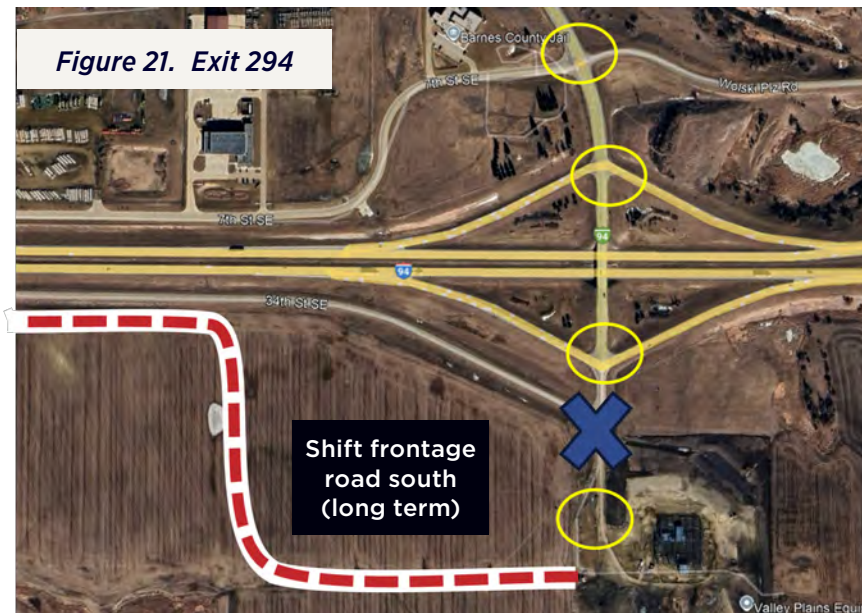
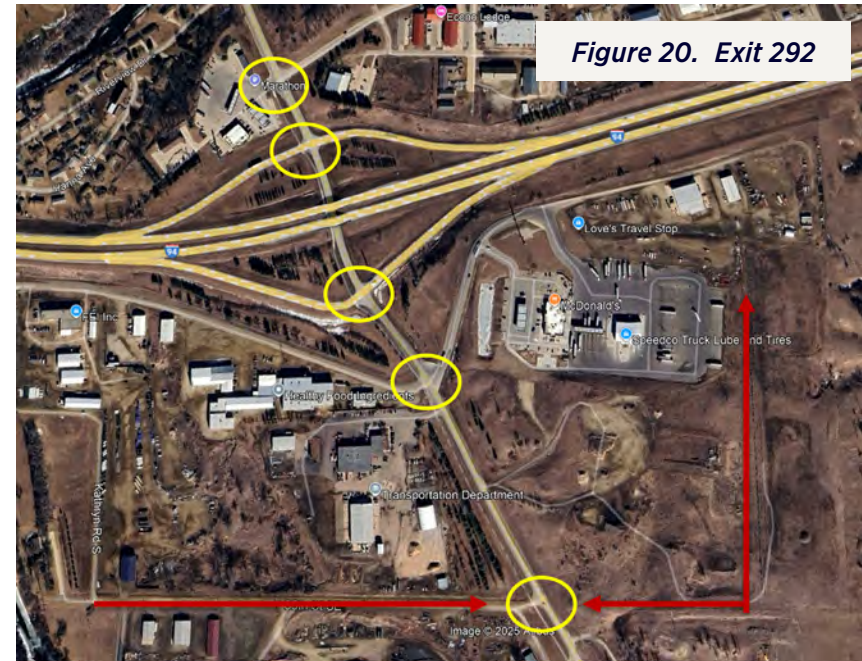
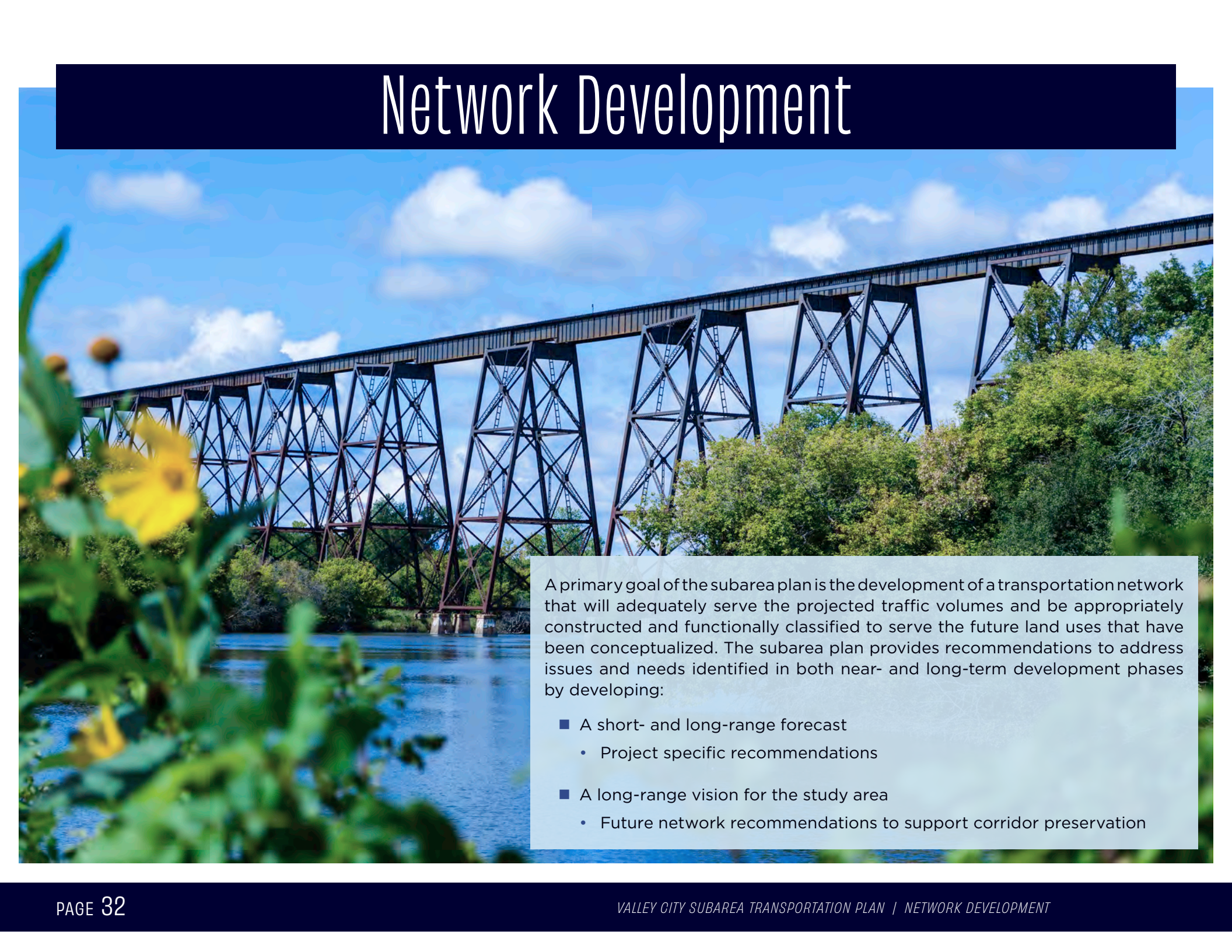




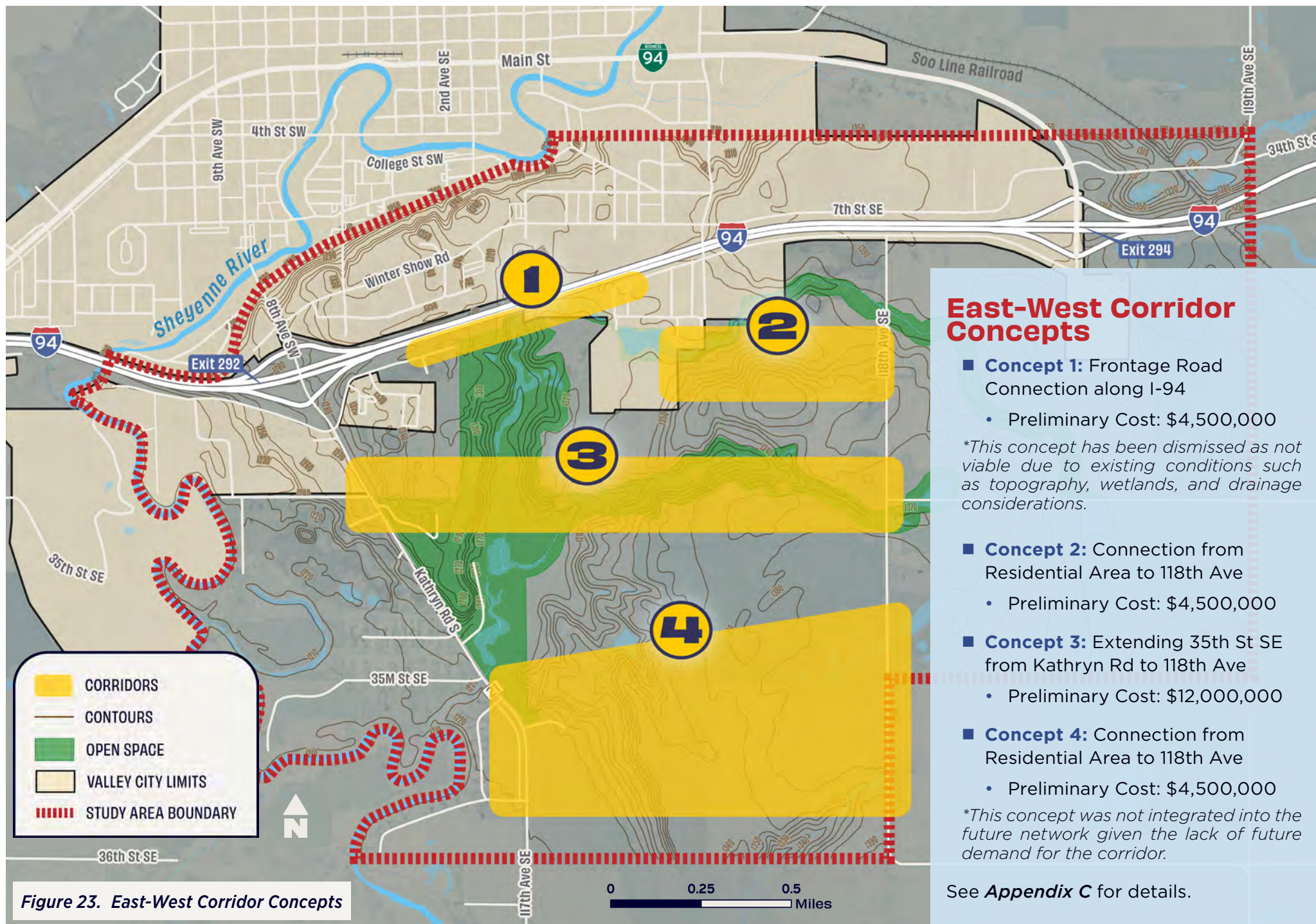
Figure 22. Love's Access Option

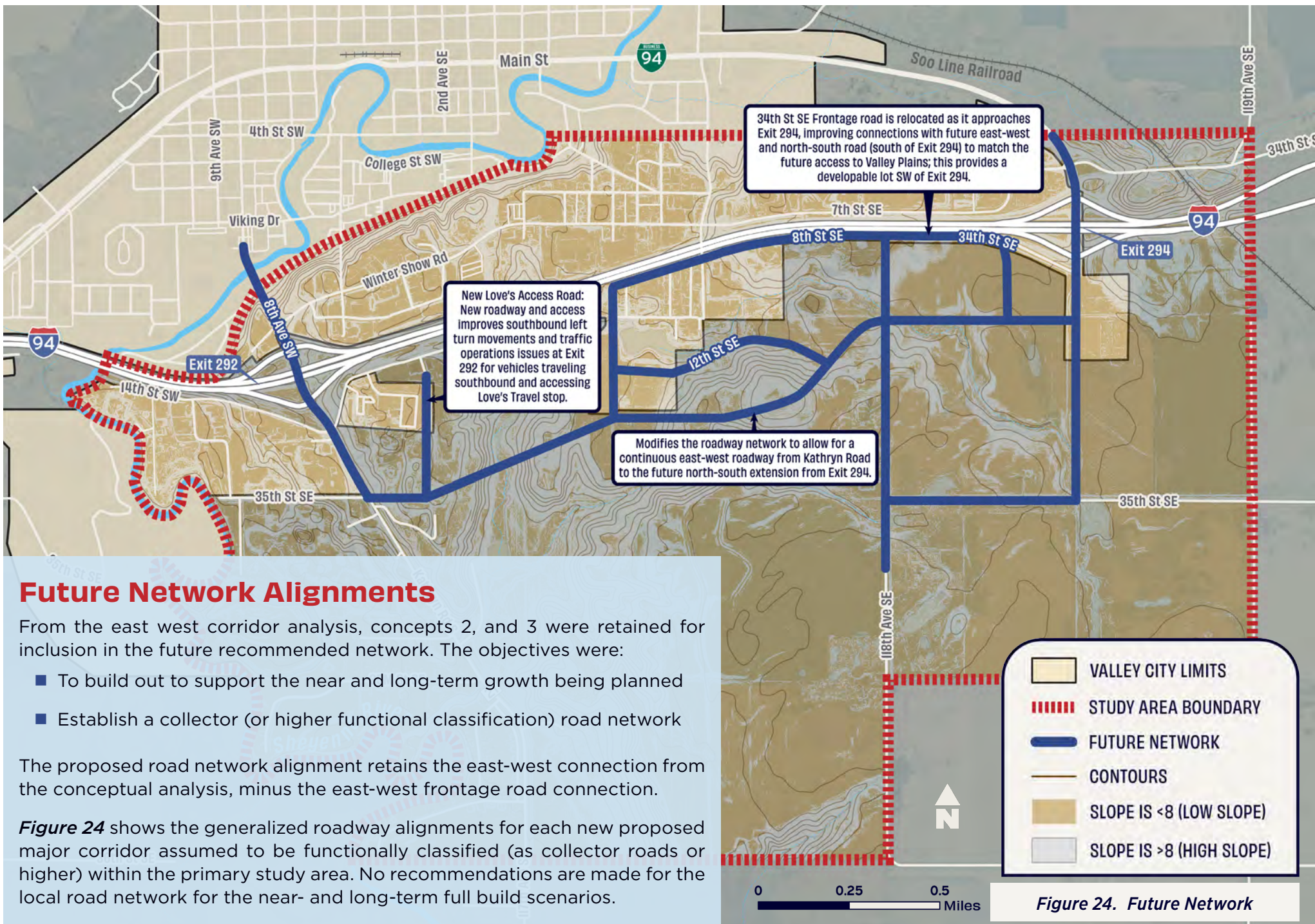
Network Development

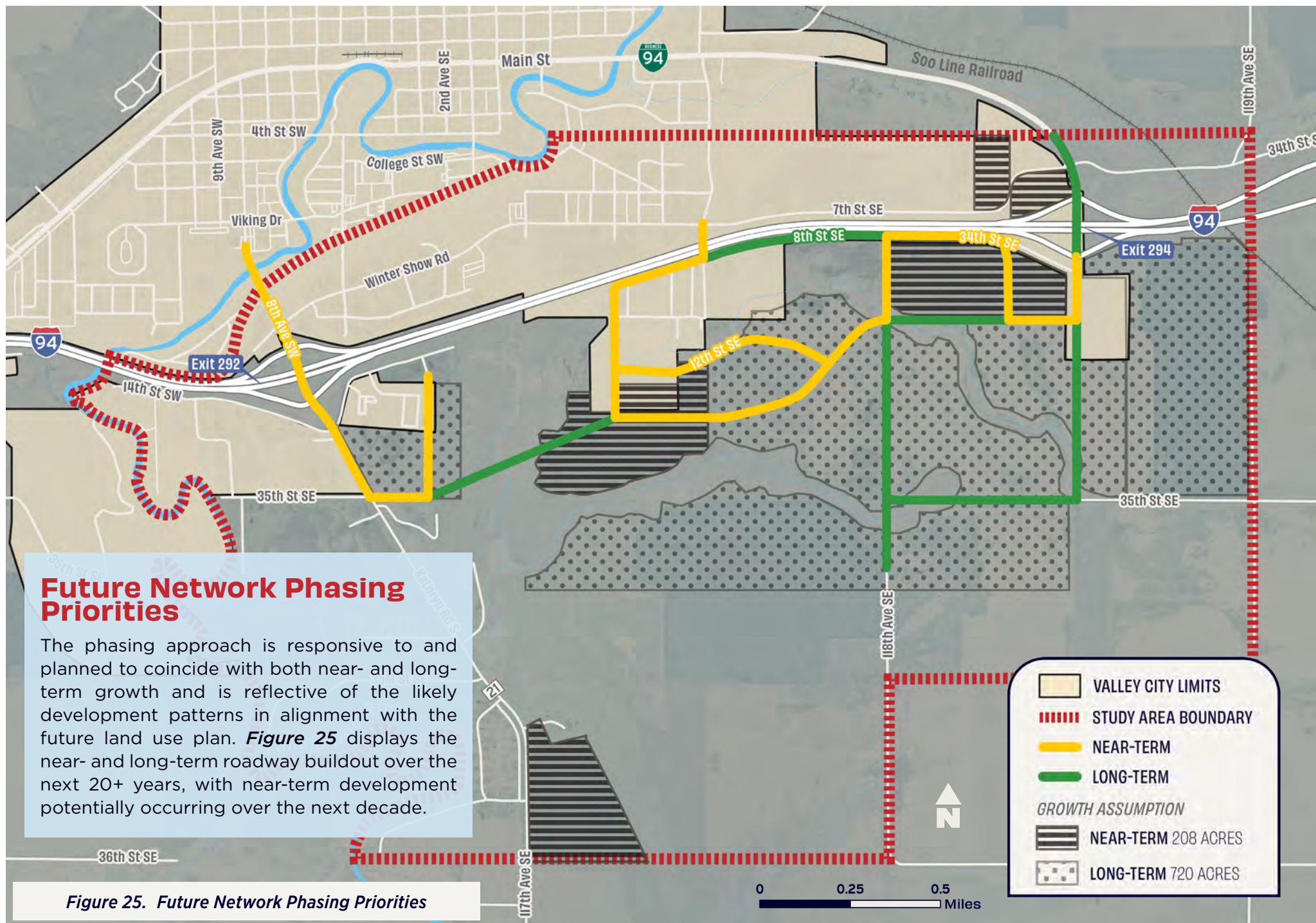


A primary goal of the subarea plan is the development of a transportation network that will adequately serve the projected traffic volumes and be appropriately constructed and functionally classified to serve the future land uses that have been conceptualized. The subarea plan provides recommendations to address issues and needs identified in both near- and long-term development phases by developing:

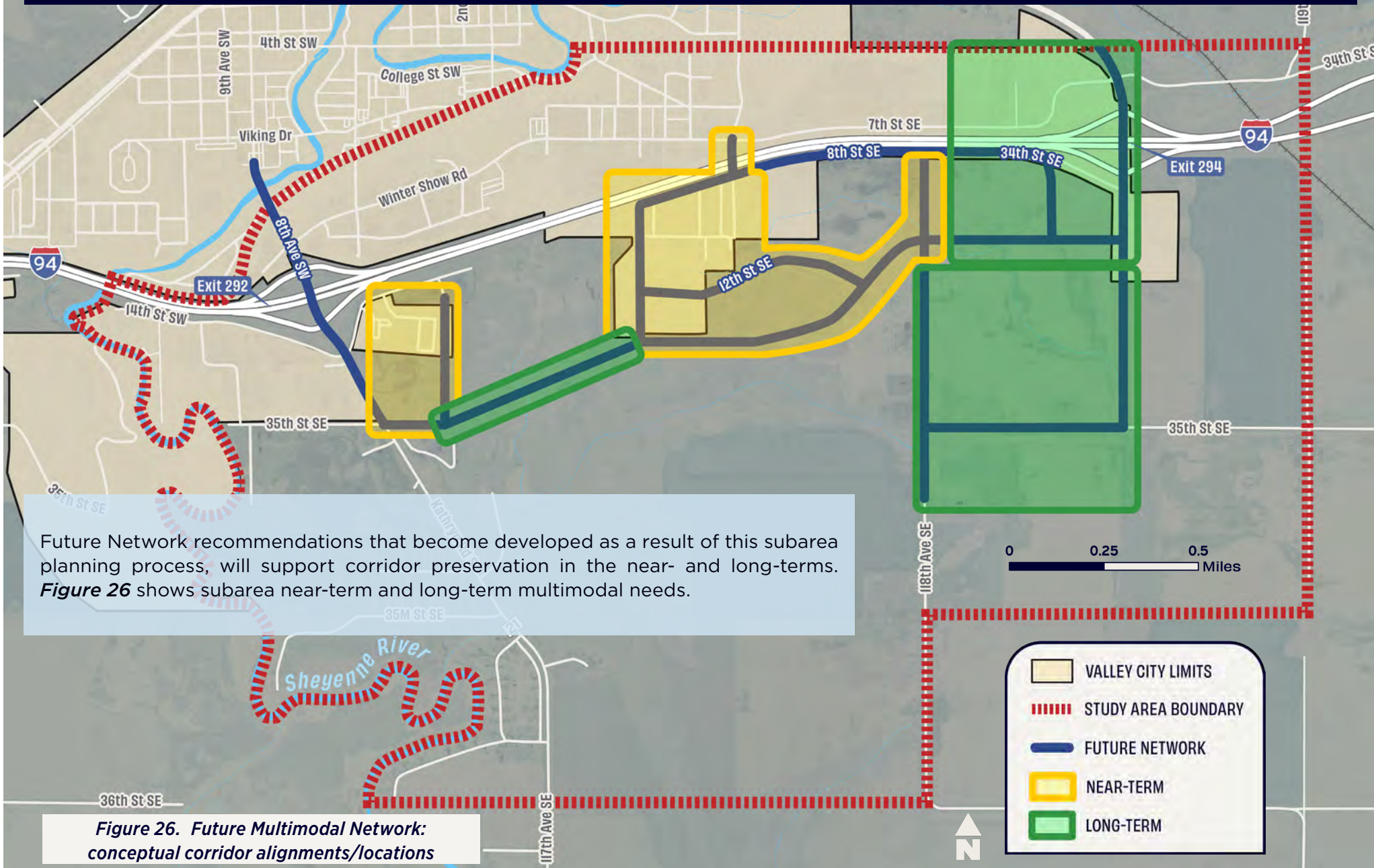
- A short- and long-range forecast
 - Project specific recommendations
- A long-range vision for the study area
 - Future network recommendations to support corridor preservation

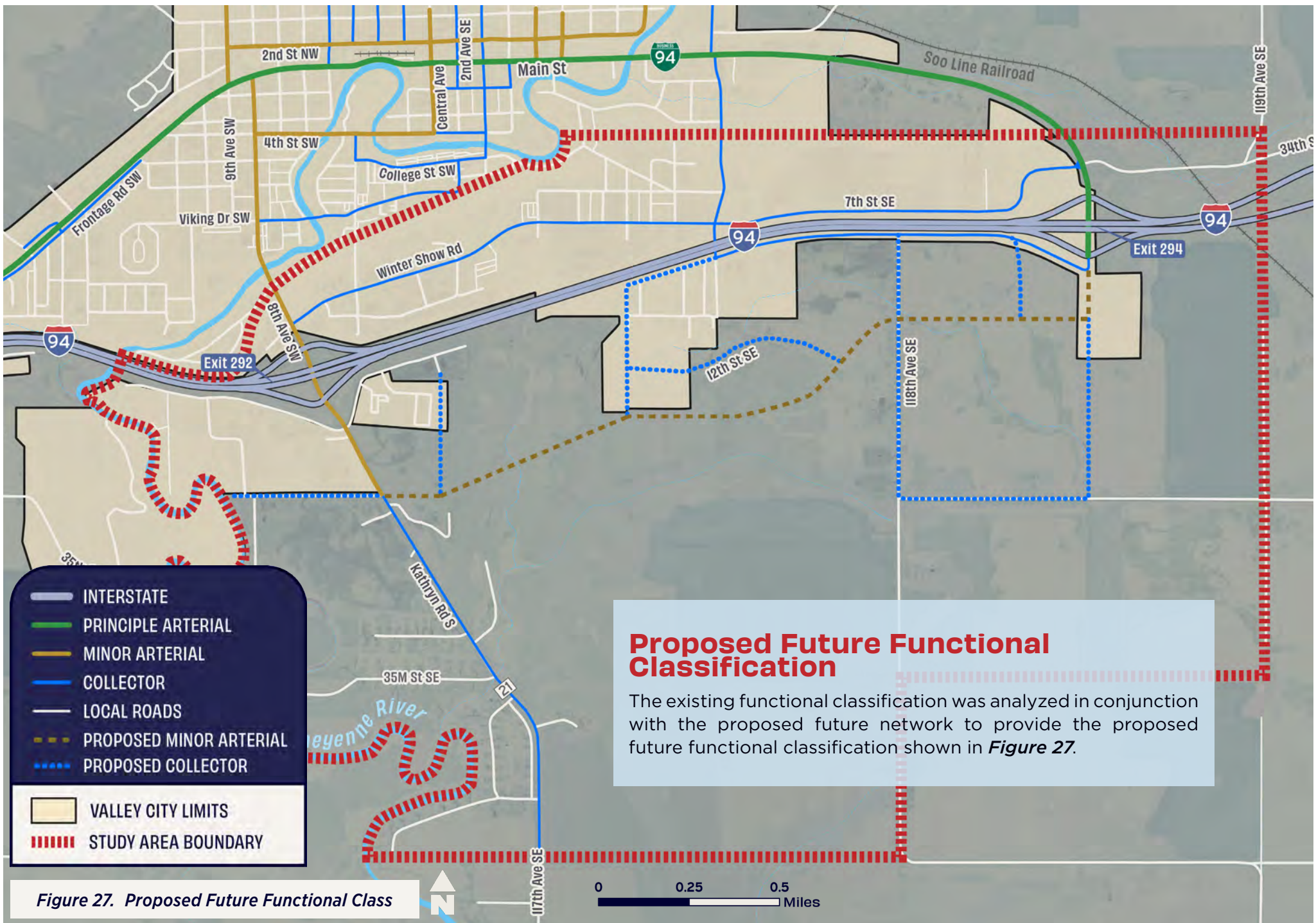






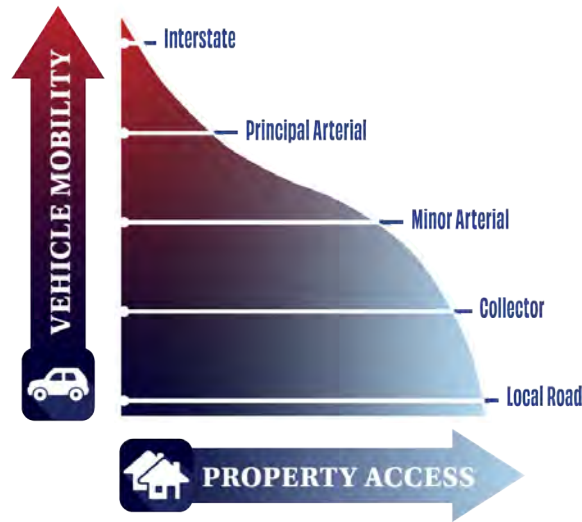
Multimodal Network Recommendations





ACCESS MANAGEMENT

The intention of access management guidelines is to maintain the flow of traffic while accommodating access needs of adjacent development by controlling the location, design, spacing and operation of access points.



Access management guidelines improve the overall transportation network by balancing safety, capacity, and speed.

Two additional practices noted in the 2045 plan for improving access management through design standards included:

- Where practical, ensure that newly or reconstructed streets intersect at right angles ensuring that if a skew is necessary, that the angle of the intersection is no less than 75 degrees and no more than 105 degrees
- Prohibit street intersection jogs with centerline offsets less than 150 feet.

The access management guidelines outlined in **Table 6** were set forth in the Valley City 2045 Transportation plan, to help guide the City in making future access approvals for newly developed or reconstructed roadways.

Table 6. Existing 2045 Transportation Plan Access Management Guidelines for Functionally Classified Roadways

FUNCTIONAL CLASSIFICATION	DESIRED MINIMUM ACCESS SPACING	
	FULL ACCESS	CONDITIONAL OR LIMITED ACCESS
Principal Arterials	1/2 mile	1/4 mile
Minor Arterials	1/4 mile	1/8 mile
Collectors	1/8 mile	Review Required
Local Roadways	330 feet	Not Permitted

Roadway Standards: Recommended Typical Sections

Currently in Valley City, the majority of collector and arterial roadways adhere to a 40-foot face of curb to face of curb roadway width with some arterials extended to a 48-foot roadway width. Some collector roads in residential areas only have parking on one side of the roadway. One example of a modified minor arterial is 5th Ave NE; it is a major truck route and was modified to have wider parking lanes. Another example, Main Street, is a principal arterial that was retrofitted and includes turn lanes.

To address the subarea's major road network's typical sections needs in the near- and long-term, two primary functional classifications are provided: Collector and (Minor) Arterial. Two options for the minor arterial are provided. Arterial Option 1 includes a Two-Way Left-Turn Lane (TWLTL), with Arterial Option 2 providing for an option with no TWLTL, a ditch on one side, and pathway on the opposite side from the ditch. This option was presented in anticipation of constructing a new east-west arterial that will need to consider steep topography in some segments; therefore, a design with a ditch on one side and curb and gutter on the other might offer a practical design concept.

Currently, where residential neighborhoods have 40-foot wide collector roads with two 12-foot wide driving lanes and eight-foot shoulders/parking lanes, parking on the shoulder is permitted. If a new/proposed collector roadway adheres to the same typical section dimensions as existing residential collector roads, but may be a rural corridor or adjacent to an industrial land use, parking may not be permitted. It is recommended that shoulder parking for proposed subarea roadways be evaluated on a case by case basis.

The typical section dimensions recommended for the subarea presented herein, are consistent with most of the City's existing collector and arterial roadway dimensions.

Where feasible, a sidewalk/pathway and boulevard on both sides of each arterial with standard curb and gutter is recommended, as long as the pathway/sidewalk connects to an existing pedestrian facility or to future facilities that can be easily implemented where right-of-way currently exists.

Figure 28. Collector

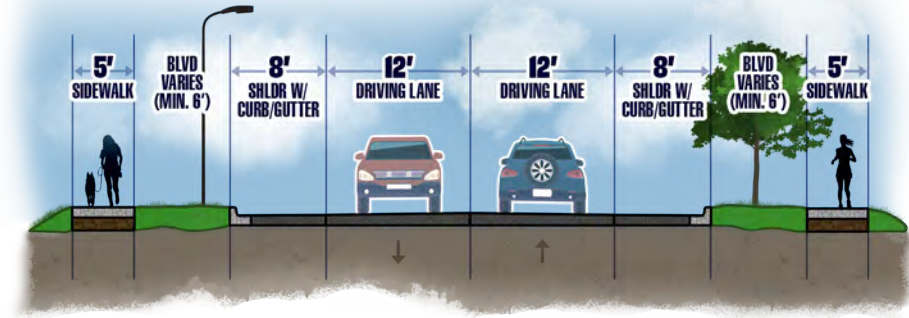


Figure 29. Arterial Option 1

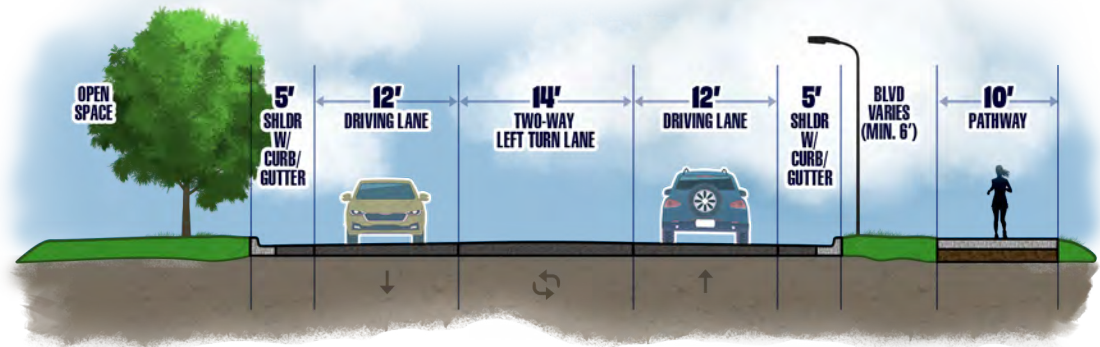
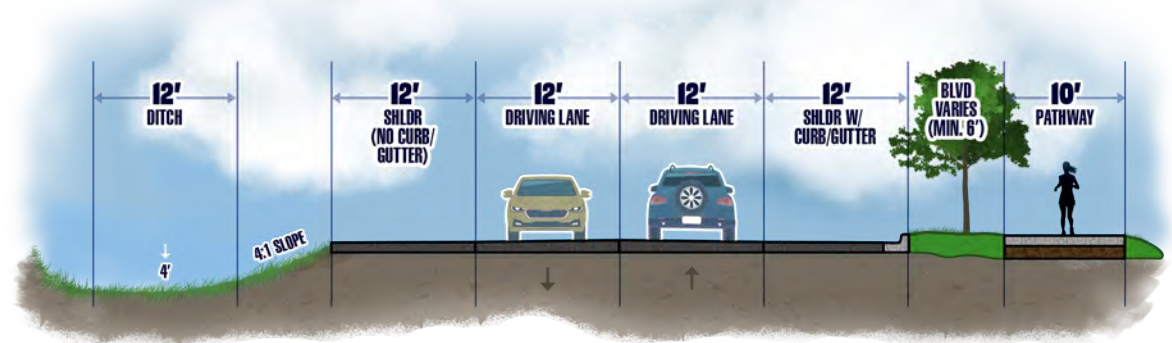


Figure 30. Arterial Option 2



Appendix A: Public Engagement

Agency & Business Drop-in Meeting

May 15, 2025 • 11am to 2pm at AmericInn Conference Room

Attendees included:

- Barnes Rural Water
- City of Valley City, Mayor
- Montana Dakota Utilities
- Valley City Parks and Recreation

Absentees included:

- Loves Truckstop
- Barnes County Development Corporation
- Valley City School District
- Barnes County Highway Department

KEY FEEDBACK AND OBSERVATIONS

- **Water Tower Needs:** A new water tower would be beneficial and likely necessary to support future growth in the city.
- **Rural Water Capacity:** The rural water system currently has sufficient capacity to serve much of the near-term residential development areas.
- **Fire Protection Limitations:** The proposed southern residential area lacks adequate fire flow capacity at this time.
- **Natural Gas Infrastructure:** MDU plans to install a gas line along 12th Street this year. They are seeking projected development figures to ensure the line is appropriately sized.



- **Trails:** Forward looking approach for parks and recreation needs. Outline a good trail connection to the south side of interstate and a proposed future network.

Public Input Meeting #1

May 15, 2025 • 5:30pm to 7:30pm at AmericInn Conference Room

- Approximately 20 members from the public attended.
- Many heard about the meeting through the direct mailing.

KEY FEEDBACK AND OBSERVATIONS

- **Safety Concerns at Love's Access Point:** Frequent incidents involving jack-knifed semi-trucks during winter months highlight a significant safety issue.
 - Request a call log from the police department to document incidents related to Love's access.
- **Navigation Confusion:** Semi-trucks often mistakenly turn onto the frontage road attempting to reach Love's, unaware that the road does not continue through.
- **Residential Road Conditions:** Gravel roads in nearby residential areas become problematic during wet weather, affecting accessibility and safety.
- **Infrastructure Interest:** There is interest in straightening 8th Street to follow the section line.
- **Support for Landuse Plan:** Participants were supportive of the future land use plan

MEETING #1 FLYER

Phase 2 Public Engagement

December 17, 2025 • Drop in Open House • City Hall Commission Room

- Summary of Draft Plan
- Exhibited updates
- Focus is Stakeholders + Public
- Direct invite to study area properties



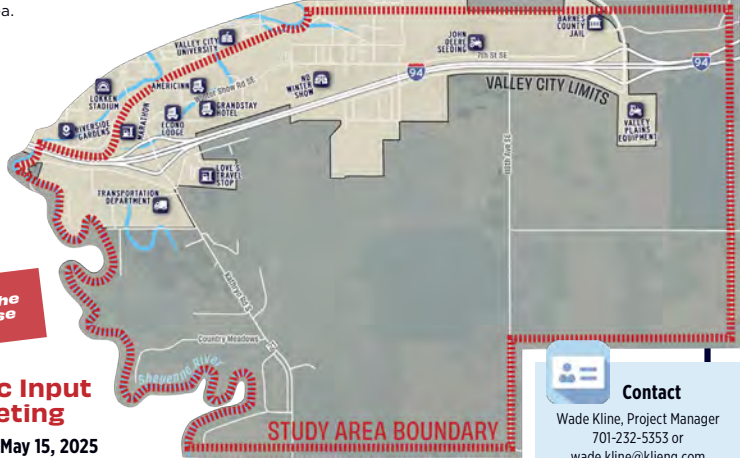
VALLEY CITY
SUBAREA TRANSPORTATION PLAN

Study Goals

-  Enhance Connectivity and Accessibility
-  Support Economic Development
-  Address Infrastructure and Topographic Challenges
-  Engage the Community
-  Develop a Cost-Effective Plan

PROJECT OVERVIEW

The City of Valley City is conducting a transportation study in the area south of I-94, between exits 292 and 294. This plan updates elements of the city's current 2045 transportation plan and will provide guidance for **future growth and roadway access** in the study area.



STUDY AREA BOUNDARY

Public Input Meeting

Thursday, May 15, 2025
5:30 pm to 7:30 pm

Americinn Conference Room
280 Winter Show Rd. SW
Valley City, ND 58072

Open House with formal presentation at 5:45 p.m.

Contact

Wade Kline, Project Manager
701-232-5353 or
wade.kline@kljeng.com

Learn more and provide your input at:

<https://www.valleycity.us/engineers/>



Join us at the Open House

2025 Schedule

Winter – Spring

- Data collection and existing conditions
- Understand issues and constraints
- Existing conditions report
- Draft future land use
- Outreach to stakeholders and hold a public input meeting

Summer – Fall

- Evaluate future conditions
- Finalize future land use
- Create transportation recommendations
- Develop a feasible implementation plan
- Outreach to stakeholders and hold a public input meeting

December

- Develop a draft and final plan for city adoption

Valley City Subarea Transportation Plan

An update to Valley City's 2045 Transportation Plan in the area south of I-94 between exits 292 and 294.



Project Overview

The City of Valley City is conducting a transportation study in the area south of I-94, between exits 292 and 294. This study is an update to the city's 2045 Transportation Plan. The city is looking at how this area is growing now and will continue to grow into the future. The study will provide guidance for future development and roadway access.



Study Goals



Get Involved

FAQs Open House Leave a Comment

+ What is a transportation plan?

+ Why is Valley City developing a transportation plan for this area of the City?

+ How will the City use this plan?

+ How can I be involved?

Public Meeting Presentation



Subscribe to Updates

Get updated when information is available such as meeting information and plan recommendations.

Email address

Submit

Schedule

Planning efforts began in January 2025 and will continue through the remainder of this year.

- Winter 2025- Spring 2025**
 - Data collection and existing conditions
 - Understand issues and constraints
 - Existing conditions report
 - Draft future land use
 - Outreach to stakeholders and hold a public input meeting
- Summer 2025- Fall 2025**
 - Evaluate future conditions
 - Finalize future land use
 - Create transportation recommendations
 - Develop a feasible implementation plan
 - Outreach to stakeholders and hold a public input meeting
- December 2025**
 - Develop a draft and final plan for city adoption

See less

Contact Us

Have questions or want to learn more, contact us below:

Name: Wade Kline, Project Manager
Phone: 701-232-5353
Email: Wade.Kline@ktjeng.com

Plan Sponsors



VIEW OF PROJECT WEBSITE LANDING
PAGE, OCTOBER 2025

<https://inputcentral.com/valley-city-subarea-transportation-plan>

Appendix B: Traffic Methods and Assumptions



Methods and Assumptions Documentation Traffic Projections Valley City, ND Subarea Transportation Plan

IN CONJUNCTION WITH

VALLEY CITY (TOWN)

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION (NDDOT)

Date: February 6, 2025

Authors: Oz Khan, PE-KLJ; Kerry Ribbens, EIT-KLJ; and Ben Freier, EIT-KLJ

Stakeholder Acceptance Page

- (1) All members of the Project Management Team will accept this document as a guide and reference as the study progresses through the various stages of development. If there are any agreed upon changes to the assumptions in this document, a revision will be created, endorsed, and signed by all signatories.
- (2) No deviations from standards are currently known. If it is determined during the study that deviations are required, the Methods and Assumptions (M&A) document will be amended prior to proceeding.
- (3) The M&A document will guide the study. If deviations are required, the document will be amended prior to proceeding with any new or out-of-scope activities.

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1. Methods and Assumptions Document

This Methods and Assumptions (M&A) document serves as a comprehensive historical record of the processes, data criteria, assumptions, procedures, methodologies, and pre-study decisions established by the study team representatives. It outlines the framework used to develop future traffic projections for the Valley City Sub Area as a key component of the Valley City Sub Area Transportation Plan. Key points to note:

- » **Guide and Reference:** This document is intended to guide the study as it progresses through its various stages. Any agreed-upon changes to the assumptions outlined herein will result in a revised version, which must be reviewed, endorsed, and signed by all signatories.
- » **Deviations from Standards:** Currently, no deviations from standards are anticipated. If deviations are deemed necessary during the study, the M&A document will be amended and approved before moving forward.
- » **Scope and Amendments:** The M&A document will govern the study's direction. Should new or out-of-scope activities arise, the document will be revised and approved prior to initiating those activities.

2. Objective

The objective of this document is to outline the methodology and assumptions that will be employed to produce a travel demand model for the Valley City Sub-Area, enabling the projection of future traffic volumes.

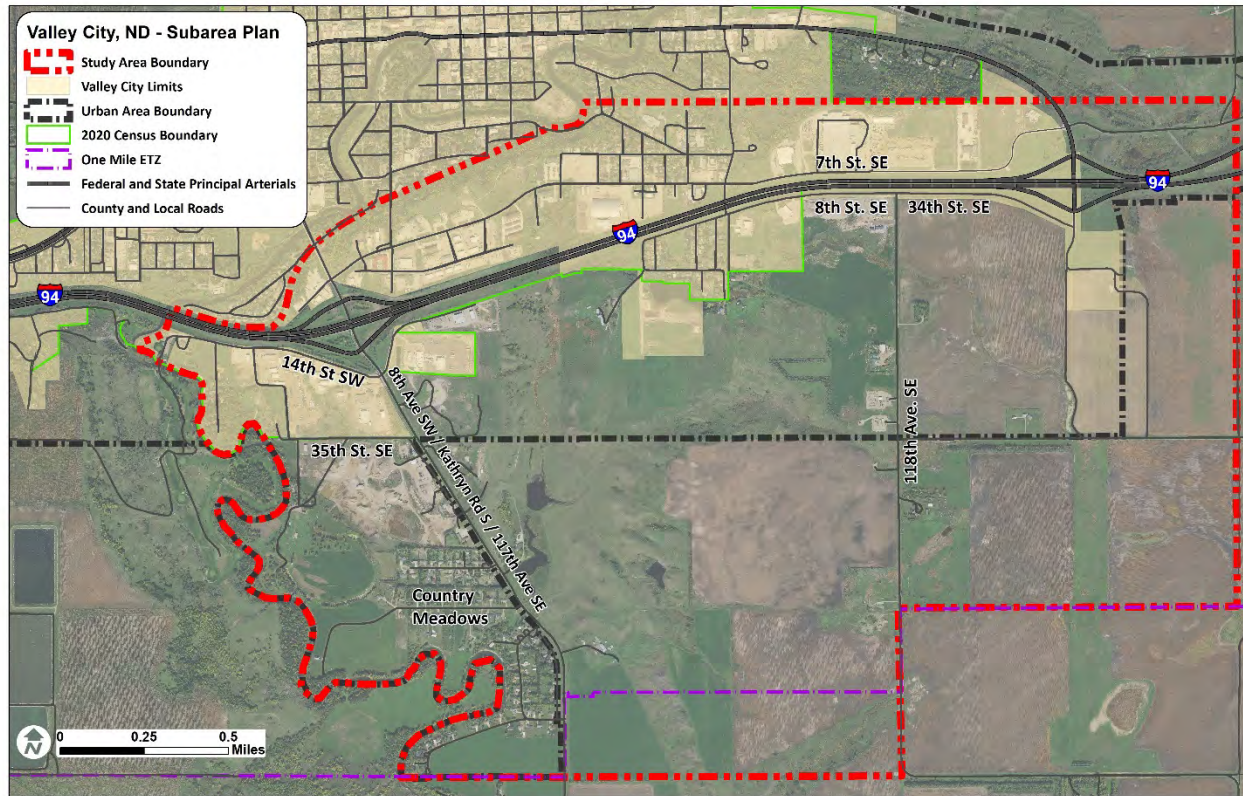
The following efforts will be undertaken to complete this task:

- » Developing a sub-area traffic model using Vistro.
- » Incorporating daily 24-hour turning movement counts (TMCs) for key intersections.
- » Balancing traffic volumes to address data imbalances.
- » Applying annual growth rates to project background future traffic volumes.
- » Incorporating Future Land Use (FLU) assumptions and trip generation calculations.
- » Assigning trip distribution based on prevailing traffic patterns, local knowledge, and engineering judgement.
- » Predicting future daily traffic volumes for the sub-area.

3. Study Area

The sub-area of the Transportation Plan for Valley City is shown in **Figure 1**.

Figure 1 – Study Area



Major Study Intersections

The following five intersections will serve as key intersections in the model, along with other roadways intersecting arterial and collector roads:

1. Exit 292 I-94 Eastbound ramp and 8th Ave SW
2. Exit 292 I-94 Westbound ramp and 8th Ave SW
3. 8th Ave SW and 14th St SW
4. Exit 294 I-94 Eastbound ramp and I-94 Business Route
5. Exit 294 I-94 Westbound ramp and I-94 Business Route

4. Model Development

StreetLight

StreetLight is a data analysis tool that uses data from connected vehicles to estimate the total number of trips throughout the selected zones. StreetLight data will be used to create Origin-Destination (O/D) data between each of the Traffic Analysis Zones (TAZs) to assign trip generation data throughout the roadway network within the study area.

TAZs are fundamental in travel demand modeling. They help with Trip Generation analysis, traffic flow modeling, and land use and development impact. StreetLight's TAZs are different from standard Census TAZs in several aspects and presented in **Table 1**:

Table 1 - Traffic Analysis Zones (TAZs) Comparison

Feature	StreetLight TAZs	Traditional Census TAZs
Definition	Data-driven, based on real-world trip patterns from mobile/GPS data	Predefined by Census Bureau or MPOs based on administrative and geographic boundaries
Flexibility	Dynamic and customizable to project needs	Static and may not align with actual travel behaviors
Trip Capture Method	Uses anonymized mobile, GPS, and connected vehicle data to define zones	Based on Census data, household surveys, and historical traffic models
Suitability for Modern Applications	Ideal for real-time congestion analysis, micro-mobility studies, and evolving land use	Better for long-term strategic planning but less responsive to emerging travel trends

Either StreetLight TAZ data or traditional Census TAZ data may be used for the analysis, with the selection determined through discussions with the PMT. Once each zone is defined, the data validation process will compare StreetLight's Average Annual Daily Traffic (AADT) with the latest roadway counts from NDDOT, adjusting as needed. Regional roadways will also be incorporated into the O/D data to differentiate between traffic entering, exiting, and passing through the study area.

Background Growth and **Trip Generation** estimates, based on anticipated land use development (as detailed later in this document), will be used to refine and customize future TAZ O-D matrices. Regional roadways will be assigned growth rates to account for incoming and outgoing traffic that is not captured within the TAZs.

Vistro

Vistro, a macrosimulation software, will be used to develop a sub-area road and traffic model that encompasses key intersections and other moderately used intersections within the study area. The local roads may be removed, leaving only intersections that are classified as Interstate, Collectors, or Arterials. Speed limits, lane configuration, intersection controls, and signal timing will be added to the model. An intersection numbering system will be developed for later use, helping to navigate the intersections. This model will not only focus on detailed capacity analysis but will also serve as a tool to develop and forecast future traffic volumes.

The process in Vistro begins with building the roadway network for the sub-area. Next, Turning Movement Counts (TMCs), also known as intersection-level traffic counts, will be input into the model. After that, TAZ centroids will be created within Vistro to represent expected developments within the TAZ. The TAZ data acquired from StreetLight will be integrated into the model which will distribute and assign trips, considering a combination of the shortest route, quickest route, and prevailing traffic patterns in the area.

5. Traffic Volumes

Base Year Traffic Volumes

The year 2025 will serve as the base year of model development. Daily turning movement counts (TMCs) are a critical component of travel demand modeling and traffic projections, offering detailed insights into vehicle movements at intersections. These counts capture the number of vehicles turning left, right, or proceeding straight during specific time intervals, providing granular data that is indispensable for various applications.

Source:

- » Exit 292 and Exit 294 Intersections:
TMCs will be sourced from the NDDOT Traffic Count interactive webpage.
- » 8th Ave SW and 14th St SW Intersection:
Data will be derived from previously completed studies, specifically:
 - o *I-94 Exit 292 Interchange Study* (2021)
 - o *Love's Travel Stop Traffic Impact Study* (2019)

For non-key intersections, 24-hour TMCs may be acquired from StreetLight or be assumed based on prevailing traffic patterns and engineering judgment to avoid project delays and additional costs.

Volume Balancing

TMCs will serve as input data for the Vistro traffic modeling software. Since the TMCs are collected at different times (potentially across different years), imbalances in traffic volumes between key intersections may exist. To address these inconsistencies, traffic volumes will be balanced to ensure a realistic and accurate representation of current traffic conditions.

The process involves adjusting mainline volumes, which will then be cross-referenced and validated against daily segment volumes reported on the North Dakota Department of Transportation (NDDOT) Traffic Count interactive webpage. This validation ensures consistency and accuracy in the traffic data, providing a reliable foundation for modeling and analysis.

Future Traffic Volumes

The year 2045 will serve as the basis for future conditions.

Background Growth

Background growth in traffic forecasting captures the anticipated increase in traffic volumes over time due to population growth, economic expansion, and societal trends. It represents the natural rise in travel demand as a region evolves, independent of specific projects or policies, and serves as a baseline for understanding future traffic patterns. This projection is essential for long-term transportation planning and infrastructure investment.

» **Application of Annual Growth Rate:**

An annual growth rate will be applied to the model to estimate background daily traffic volumes for the year 2045. Since detailed trip generation is provided throughout the study area, background growth will only be applied to regional roadways that provide incoming and outgoing traffic to the study area. This rate accounts for historical trends and future projections, ensuring the forecast reflects expected changes in travel demand. By incorporating this growth rate, planners can create a realistic baseline scenario that informs decision-making for future infrastructure needs.

» **Collaborative Agreement on Growth Rate:**

The growth rate will be finalized in collaboration with the Project Management Team (PMT) to ensure alignment with regional data, trends, and project goals. This collaborative approach guarantees that the rate is both accurate and reflective of stakeholder input, enhancing the reliability of the traffic forecast and supporting informed planning efforts

Trip Generation

Using the FLU plan to be developed as part of this project, trip generation estimates will be calculated for potential developments within the designated land use areas and TAZs. These estimates will be based on anticipated growth patterns, land use types, and trip generation rates derived from industry-standard source: Institute of Transportation Engineers - *(ITE) Trip Generation Manual, 11th Edition*. The resulting data will be used to refine future traffic projections, ensuring that the transportation model accurately reflects expected travel demand and network impacts associated with future development. Factors such as internal capture and pass-by trips may be factored in the model.

Trip Distribution

The estimation of site-generated traffic origins and destinations will be based on existing travel patterns and O/D patterns identified from the TAZs.

Example

- » For retail land use, an assumption could be made that 20% of the total parcel area may be allocated to future building gross square footage (GFA). For example, a 500,000 square foot (11.5-acre) lot could accommodate a 100,000-square-foot commercial retail development.
- » TAZs that are located along arterials, county roads, and local roads will be assigned various land uses that are most likely to develop within each area.
- » A 100,000 GFA commercial site along an arterial may consist of a mix of land uses, such as:
 - o Dollar Store – 40,000 GFA
 - o Donut/Coffee Shop (Drive-Thru Only) – 15,000 GFA
 - o Office Supply Store (e.g., Staples) – 15,000 GFA
 - o Copy/Print Store (e.g., FedEx Kinkos) – 15,000 GFA
 - o Small Office Building (e.g., Auto Insurance Office) – 10,000 GFA
 - o Hair Salon – 5,000 GFA
- » Daily trips generated by each land use will be calculated using the ITE Trip Generation Manual, 11th Edition. Example calculations for the assumed land uses are provided in **Table 2**. Assuming the application of global 20% Pass-by Trip and 10% internal capture factor, the net new trips expected to be generated will be calculated.

Table 2 - Example Trip Generation Calculation

Land Use	ITE Land Use Code	Size (KGFA)	Daily Trips (IN/OUT)
Dollar Store	815	40	1,077 IN / 1,078 OUT
Donut/Coffee Shop (Drive-Thru Only)	938	15	90 IN / 90 OUT
Office Supply Store (ex, Staples)	867	15	100 IN / 100 OUT
Copy/Print Store (ex, FedEx Kinkos)	920	15	300 IN / 300 OUT
Small Office Building (ex, Auto Insurance Office)	712	10	72 IN / 72 OUT
Hair Salon	918	5	35 IN / 36 OUT
Total	-	100K GFA	1,674 IN / 1,676 OUT
Total (after 20% pass-by trip and 10% internal capture factor)	-	100K GFA	1,172 IN / 1,174 OUT

- » The trip generation methodology may be used to scale commercial land uses across the sub-area.
- » A similar methodology for other land uses: Residential, Industrial, Mixed Uses, Institutional, etc. could be used across the sub-area.
- » The Vistro model will allocate trips from specific land uses to different destinations based on TAZ travel patterns.
- » Future land use-generated trips will be incorporated into background traffic growth projections.
- » The combined future traffic volumes will be used to estimate sub-area daily traffic and assess potential capacity and operational impacts.

This approach will ensure that projected traffic volumes reflect anticipated development patterns and realistic travel demand, supporting informed decision-making for future transportation infrastructure needs.

Appendix C: Concept Station Analysis



Concept I – Frontage Road Connection
along I-94



VALLEY CITY SUBAREA - VALLEY CITY, ND				
PRELIMINARY COST ESTIMATE				
ITEM DESCRIPTION	UNITS	UNIT BID PRICE	1 - FRONTAGE RD	
			ESTIMATED QUANTITY	ESTIMATED PRICE
BID ITEMS				
EXCAVATION (CUT)	CU YD	\$ 10.00	78564	\$ 785,640.00
EMBANKEMENT (FILL)	CU YD	\$ 10.00	69006	\$ 690,060.00
GEOGRID	SQ YD	\$ 6.00	15660	\$ 93,960.00
ROADWAY AGGREGATE	CU YD	\$ 40.00	8118	\$ 324,720.00
ROADWAY PAVEMENT	TON	\$ 125.00	4712	\$ 589,000.00
CURB & GUTTER	LIN FT	\$ 50.00		\$ -
BID ITEM SUBTOTAL				\$ 2,483,380.00
LUMP SUM ITEMS				
REMOVALS	%		5%	\$ 124,169.00
DRAINAGE	%		10%	\$ 248,338.00
EROSION CONTROL	%		4%	\$ 99,335.20
SIGNING	%		2%	\$ 49,667.60
STRIPING	%		2%	\$ 49,667.60
TRAFFIC CONTROL	%		3%	\$ 74,501.40
LUMP SUM SUBTOTAL				\$ 645,678.80
MOBILIZATION	%	10%		\$ 312,905.88
RISK & INFLATION	%	30%		\$ 1,032,589.40
PRELIMINARY TOTAL COST ESTIMATE			\$	4,474,554.08



Concept 2 – Connection from Residential Area to 118th Avenue



VALLEY CITY SUBAREA - VALLEY CITY, ND
PRELIMINARY COST ESTIMATE

ITEM DESCRIPTION	UNITS	UNIT BID PRICE	2 - DEVELOPMENT CONNECTION	
			ESTIMATED QUANTITY	ESTIMATED PRICE
<i>BID ITEMS</i>				
EXCAVATION (CUT)	CU YD	\$ 10.00	52156	\$ 521,560.00
EMBANKEMENT (FILL)	CU YD	\$ 10.00	25488	\$ 254,880.00
GEOGRID	SQ YD	\$ 6.00	20369	\$ 122,214.00
ROADWAY AGGREGATE	CU YD	\$ 40.00	10181	\$ 407,240.00
ROADWAY PAVEMENT	TON	\$ 125.00	5948	\$ 743,500.00
CURB & GUTTER	LIN FT	\$ 50.00	8323	\$ 416,150.00
<i>BID ITEM SUBTOTAL</i>				\$ 2,465,544.00
<i>LUMP SUM ITEMS</i>				
REMOVALS	%		5%	\$ 123,277.20
DRAINAGE	%		10%	\$ 246,554.40
EROSION CONTROL	%		4%	\$ 98,621.76
SIGNING	%		2%	\$ 49,310.88
STRIPING	%		2%	\$ 49,310.88
TRAFFIC CONTROL	%		3%	\$ 73,966.32
<i>LUMP SUM SUBTOTAL</i>				\$ 641,041.44
<i>MOBILIZATION</i>	%	10%		\$ 310,658.54
<i>RISK & INFLATION</i>	%	30%		\$ 1,025,173.19
PRELIMINARY TOTAL COST ESTIMATE			\$	4,442,417.17



Concept 3 – Extending 35th Street SE from Kathryn Road to 118th Avenue



VALLEY CITY SUBAREA - VALLEY CITY, ND				
PRELIMINARY COST ESTIMATE				
ITEM DESCRIPTION	UNITS	UNIT BID PRICE	3 - NORTHERN EAST/WEST CONNECTOR	
			ESTIMATED QUANTITY	ESTIMATED PRICE
BID ITEMS				
EXCAVATION (CUT)	CU YD	\$ 10.00	62209	\$ 622,090.00
EMBANKEMENT (FILL)	CU YD	\$ 10.00	92829	\$ 928,290.00
GEOGRID	SQ YD	\$ 6.00	35736	\$ 214,416.00
ROADWAY AGGREGATE	CU YD	\$ 40.00	17798	\$ 711,920.00
ROADWAY PAVEMENT	TON	\$ 125.00	10436	\$ 1,304,500.00
CURB & GUTTER	LIN FT	\$ 50.00	14510	\$ 725,500.00
BID ITEM SUBTOTAL				\$ 4,506,716.00
LUMP SUM ITEMS				
REMOVALS	%		5%	\$ 225,335.80
DRAINAGE	%		10%	\$ 450,671.60
BRIDGE	SQ FT	\$ 300.00	8800	\$ 2,640,000.00
EROSION CONTROL	%		4%	\$ 180,268.64
SIGNING	%		2%	\$ 90,134.32
STRIPING	%		2%	\$ 90,134.32
TRAFFIC CONTROL	%		3%	\$ 135,201.48
LUMP SUM SUBTOTAL				\$ 3,811,746.16
MOBILIZATION	%	10%		\$ 831,846.22
RISK & INFLATION	%	30%		\$ 2,745,092.51
PRELIMINARY TOTAL COST ESTIMATE			\$ 11,895,400.89	



Concept 4 – Connection from Residential Area to 118th Ave



VALLEY CITY SUBAREA - VALLEY CITY, ND				
PRELIMINARY COST ESTIMATE				
ITEM DESCRIPTION	UNITS	UNIT BID PRICE	4 - NORTHERN EAST/WEST CONNECTOR	
			ESTIMATED QUANTITY	ESTIMATED PRICE
BID ITEMS				
EXCAVATION (CUT)	CU YD	\$ 10.00	221275	\$ 2,212,750.00
EMBANKEMENT (FILL)	CU YD	\$ 10.00	12495	\$ 124,950.00
GEOGRID	SQ YD	\$ 6.00	26809	\$ 160,854.00
ROADWAY AGGREGATE	CU YD	\$ 40.00	13797	\$ 551,880.00
ROADWAY PAVEMENT	TON	\$ 125.00	8414	\$ 1,051,750.00
CURB & GUTTER	LIN FT	\$ 50.00		\$ -
BID ITEM SUBTOTAL				\$ 4,102,184.00
LUMP SUM ITEMS				
REMOVALS	%		5%	\$ 205,109.20
DRAINAGE	%		10%	\$ 410,218.40
EROSION CONTROL	%		4%	\$ 164,087.36
SIGNING	%		2%	\$ 82,043.68
STRIPING	%		2%	\$ 82,043.68
TRAFFIC CONTROL	%		3%	\$ 123,065.52
LUMP SUM SUBTOTAL				\$ 1,066,567.84
MOBILIZATION	%	10%		\$ 516,875.18
RISK & INFLATION	%	30%		\$ 1,705,688.11
PRELIMINARY TOTAL COST ESTIMATE			\$	7,391,315.13

