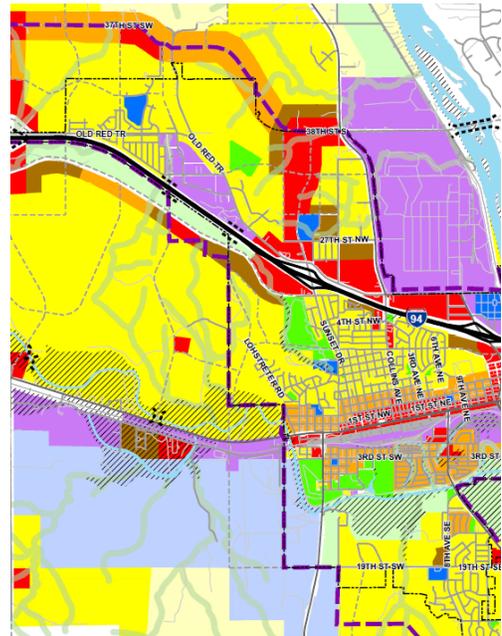


Mandan Land Use & Transportation Plan



February 2015
Prepared for the City of Mandan by



Acknowledgements

We gratefully acknowledge the following who have given of their time and talents to help the City of Mandan create this Land Use & Transportation Plan:

- **Planning Advisory Committee (PAC)**

Dr. Mike Bitz, *Superintendent, Mandan Public Schools*
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Shauna Laber, *City Commissioner*
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Dee Taylor, *Morton County Resident*
Arlyn Van Beek, *Mayor*
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- **City Staff**

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- **Planning and Zoning Commission**

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Robert Kelly, *Commissioner*

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- **City Commission**

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City Commissioner Michael Braun

City Commissioner Shauna Laber

City Commissioner Dennis Rohr

City Commissioner Sandy Tibke

- **Stantec, Planning Consultants, St. Paul, MN**

Phil Carlson, *AICP, Senior Planner*



Planning and Zoning Commission

Agenda Documentation

MEETING DATE: April 27, 2015
PRESENTER: Robert Decker, Principal Planner
SUBJECT: Conduct a public hearing to seek citizen input prior to considering adoption of a Comprehensive Plan

The City has completed development of a Comprehensive Plan in conformance with the requirements of North Dakota Century Code Section 40-48-08. The document is a plan for the physical development of the city and of those lands outside the city boundary which bear a relation to the planning of the city.

Stantec was contracted to conduct the surveys and studies required to develop the plan. An extensive public input process was conducted. The draft plan has been presented at various public meetings.

This is the final step before adoption. Citizen input is encouraged.

Once the plan is adopted, there will be a formal update process to insure that the plan is kept current and reflects actual development.

RECOMMENDED ACTION:

Open public hearing
Close public hearing
Consider adoption of resolution

RESOLUTION ADOPTING A COMPREHENSIVE PLAN FOR THE DEVELOPMENT OF THE CITY OF MANDAN, NORTH DAKOTA

BE IT RESOLVED BY the Planning and Zoning Commission of the City of Mandan, North Dakota, as follows:

WHEREAS, North Dakota Century Code Section 40-48-08 requires that the planning commission make and adopt a master plan for the physical development of the municipality and of any land outside its boundaries which, in the commission's judgment, bears a relation to the planning of the municipality; and

WHEREAS, North Dakota Century Code Section 40-48-09 requires that the planning commission make careful and comprehensive surveys and studies of present conditions and future growth of the municipality with due regard to its relation to neighboring territory; and

WHEREAS, North Dakota Century Code Section 40-48-10 requires that before adopting the master plan or any part of it or any substantial amendment thereof, the planning commission hold at least one public hearing thereon; and

WHEREAS, Stantec was contracted to assist the city in the development of a plan as required by N.D.C.C.; and

WHEREAS, Stantec conducted the surveys and studies required to develop the plan; and

WHEREAS, Stantec scheduled and conducted numerous public input meetings to discuss the plan; and

WHEREAS, City staff worked closely with Stantec to prepare the plan.

NOW THEREFORE BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF MANDAN, NORTH DAKOTA, THAT:

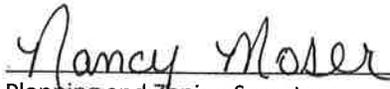
1. The Comprehensive Plan is hereby adopted; and
2. The Comprehensive Plan shall be presented to the City Commission for approval as required by North Dakota Century Code Section 40-48-11; and
3. Upon approval by the City Commission, staff is instructed to publish and distribute the plan; and
4. Staff is instructed to report back to the Planning and Zoning Commission at least annually regarding implementation of the plan.

Dated this 27th day of April, 2015



President, Planning and Zoning Commission

Attest:



Planning and Zoning Secretary

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Acknowledgements



Introduction

The City of Mandan began the process of updating its land use and transportation plans in early 2013. A Planning Advisory Committee (PAC) was appointed to work with consultants from Stantec and to oversee the process, review information and make recommendations to the Planning and Zoning Commission and City Commission on the plans. All final decisions rest with the City Commission.

A community or comprehensive plan fulfills at last three roles. It is a:

- Long-range vision, guide and design for the community's future
- Guide for elected officials to use when making decisions
- Legal foundation for rules and regulations adopted by the community – zoning ordinance, subdivision regulations, etc.

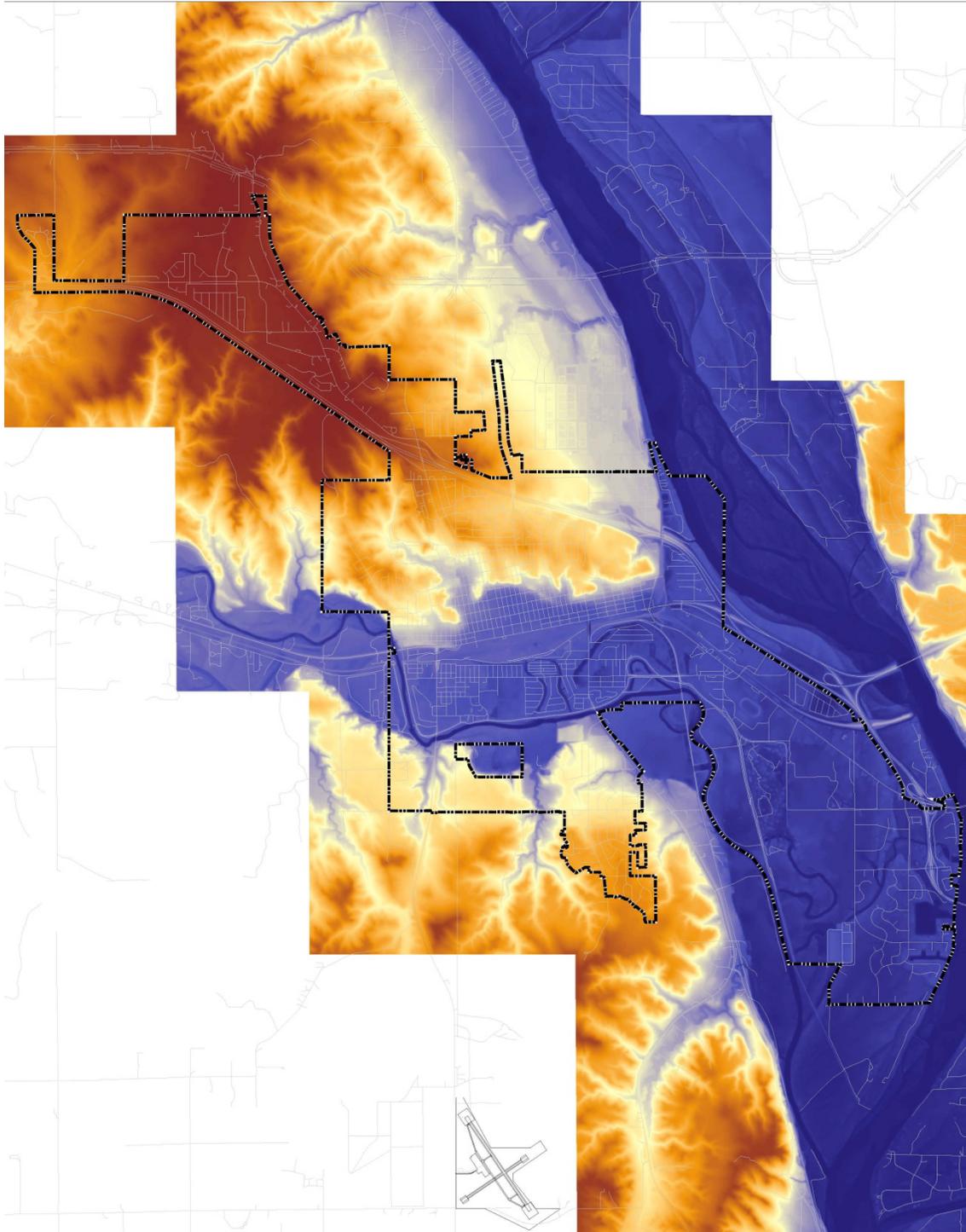
Issues Discussion

The Planning Advisory Committee for the Mandan Land Use & Transportation Plan held its first meeting on February 11, 2013. The PAC was asked to discuss the key things affecting Mandan in an exercise to prioritize the main issues they see Mandan facing. All issues are summarized in the Appendix.

In this exercise, called a SWOT analysis (for strengths, weaknesses, opportunities, threats) strengths are the things in the community you like, that add value, or you are proud of that exist today; weaknesses are things you don't like, detract from the community, that you are ashamed of; opportunities are good things that could happen but haven't happened yet; threats are bad things that could happen but haven't happened yet.

Geography

Mandan sits at the confluence of the Missouri River and the Heart River. The map below shows the lay of the land in layers – the darker blue lowest, lighter colors from yellow to brown are higher. The current city limits is the black dashed line. The map clearly shows the lower river corridors and higher areas in the south and northwest parts of Mandan.



Community Comments on Key Topics

Comments from the community meeting in April 2013 on six key topics:

Managing Growth & Development

1. I thought I was at edge of city – area behind couldn't/wouldn't develop (N edge of the city on Highland Rd)
2. In talks – Residential development (vacant land SW of Sunset/I-94)
3. Potential lot split (property SW of Sunset/I-94 interchange)
4. New development coming (SE of 19th St SW and 10th Ave SW)
5. Multi-family project denied (N side of 19th St SW, W of Canyon Rd)
6. Possible new development coming (W/SW of Fort Lincoln School)
7. Would be good to have density near school (Fort Lincoln School)

Traffic & Transportation

8. Intersection of 1806 and 43rd St NW
9. Bridge across Missouri River at 38th St NE
10. Extend 37th St NW E from Old Red Trail to 1806
11. Extend Sunset Dr N from 27th St NW to extension of 37th St NW
12. Underpass/overpass of I-94 at 33rd Ave NW/37th St NW
13. Extend Boundary Rd NW W and S to connect with extension of Lohstreter Rd
14. Old Red Trail – Collins to River Dr – 4 lanes
15. Extend Division St NE E to Mandan Ave
16. Pedestrian safety (43rd St NW at 34th & 37th Aves NW)
17. Pedestrian safety, speed concerns (37th St NW at 33rd-34th Aves)
18. Potential I-94 interchange (I-94 at 56th Ave NW)
19. Traffic lights (Sunset Dr at I-94 ramps)
20. Signage for stopping (Sunset Dr at 14th St NW)
21. Sight issues (Collins & Division)
22. Parking, sight issues (1st St NE, 3rd-4th Aves NW)
23. Solution to encourage trucks to take another route besides Main Street (W Main St near 15th Ave SW)
24. Increased traffic issues (19th St SW)
25. Traffic flow Fort McKeen Rd/1806 & 19th St SE)
26. Do something to increase flow of traffic – speed/volume/flow (Mandan Ave near Tesoro refinery)
27. Make McKenzie Dr SE go through (across Heart River). Need to move traffic from 1806. Density of housing is increasing. Get the traffic where it needs to go along Bismarck Expressway. Also better access from Bismarck and others to Mandan airport.

Parks, Trails & Open Space

28. Park (N of city limits on W of Highland Rd)
29. Park (NW of Old Red Trail & 37th St NW)
30. Trail (E edge of Sunset Park with Lohstreter Rd)
31. Rec level disc golf (S of Sunset Park)
32. Boat ramp (N of I-94 near Missouri Dr NE)
33. Trail connecting Missouri River Dr NE, Memorial Hwy, 19th St SE)
34. Walking/biking bridge to cross into Mandan & Bismarck (I-94)
35. Existing bike crossings (Memorial Hwy & Bismarck Expressway)
36. Low Area (N side of 3rd St SE)
37. Park land search area (S of 19th St S)
38. Golf Course, indoor tennis court, rec center (S edge of city)

Mandan's Character & Identity

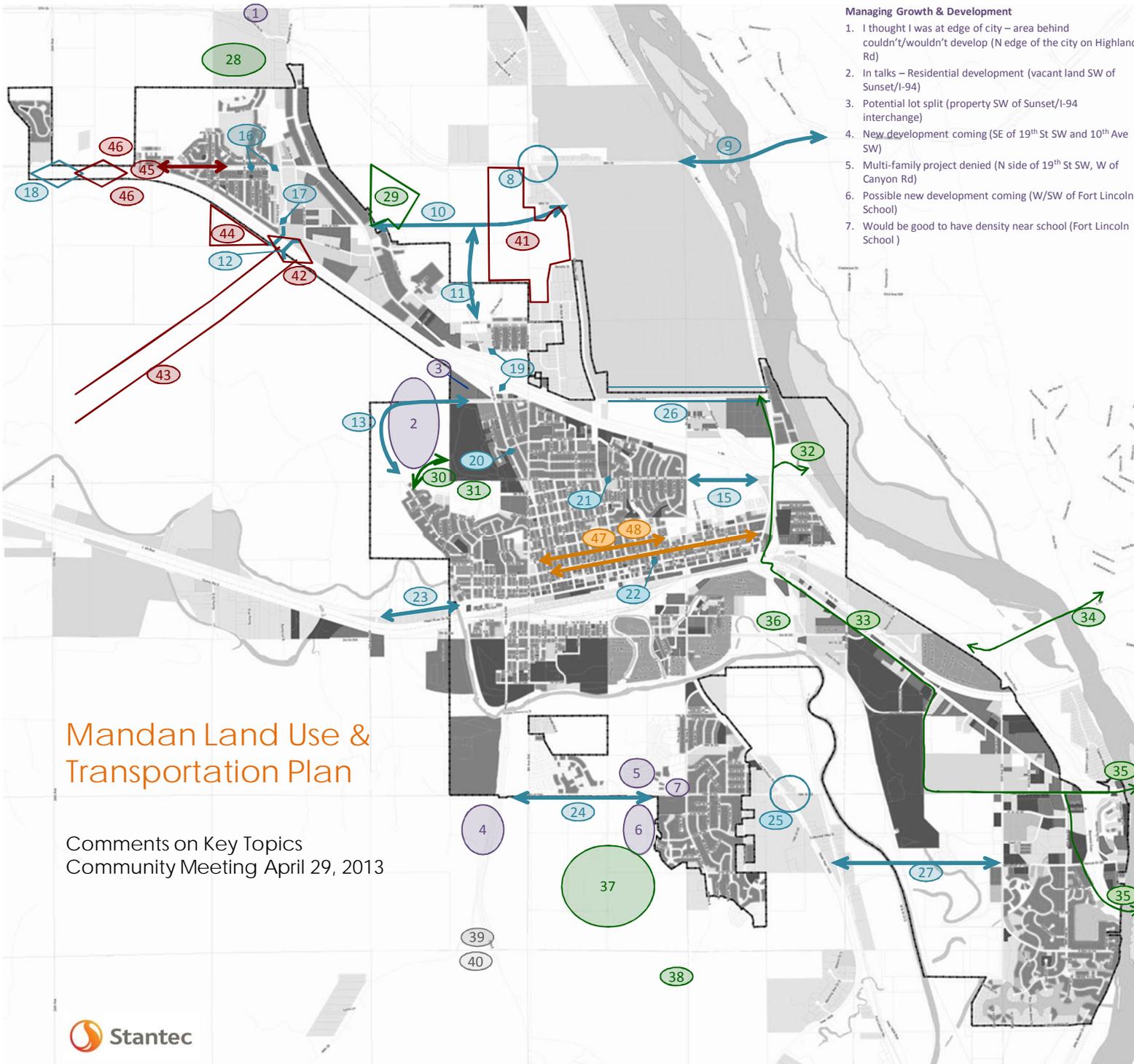
39. Character – aesthetically appealing, clean (no location)
40. Identity – not a party town, known for its bars (no location)

Land Use & Access on I-94

41. All new zoning should be heavy or light industrial as a buffer from potential dangers of gas plant – explosion/leak (W of refinery)
42. Interstate ramp for large truck traffic (S of I-94 at 33rd)
43. Intersecting by-way to take truck traffic to/from old Hwy 10 (S of I-94 at 33rd)
44. Light or Heavy Industrial (S of I-94 W side at 33rd)
45. Redo road to concrete on 43rd St NW to handle truck traffic or have load restrictions if this interchange becomes a reality (N of I-94 near 43rd St NW/47th Ave NW)
46. Future interchange – retail (I-94 near 52nd Ave NW)

Maintaining Infrastructure

47. Repair 2nd and 3rd Streets
48. Make or enforce parking along narrow roadways



Managing Growth & Development

1. I thought I was at edge of city – area behind couldn't/wouldn't develop (N edge of the city on Highland Rd)
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47. Repair 2nd and 3rd Streets
48. Make or enforce parking along narrow roadways

Mandan Land Use & Transportation Plan

Comments on Key Topics
Community Meeting April 29, 2013

City of Mandan Land Use & Transportation Plan Goals and Policies

CHAPTER 2

Goals and policies are the heart of any planning process, communicating where the community wants to go and what it wants to look like, feel like, and be like.

The following draft goals and policies were developed from input received from community meetings and the Planning Advisory Committee (PAC), plus a number of previous planning studies. Many ideas and comments were shared during these meetings which have been condensed into these selected goals and policies.

At the start of the planning process in Mandan several key planning themes emerged from the discussion and comments:

- *Managing growth and development*
- *Traffic and transportation*
- *Community character and identity*
- *Parks, trails and open space*
- *Land use and access on I-94*
- *Maintaining infrastructure*

Each of the goals is linked to one or more of these key planning themes.

Goals are broad statements, while policies are more specific actions that can be taken to achieve the goals. These goals and policies form the policy direction for the Comprehensive Plan chapters, guide land use decisions for the future land use plan, and serve as the basis for implementation steps anticipated in the Comprehensive Plan.

Goal 1: Promote a well-planned community balancing land uses and expansion of services.

Key planning themes:

Managing growth and development, community character and identity, maintaining infrastructure

Rationale: A carefully created comprehensive plan will ensure the community's ability to grow in a rational and responsible manner that promotes efficient investment in present and future infrastructure.

Policies:

1. Create a land use plan that defines the types and locations of residential, commercial, industrial and public uses required to meet the community's projected needs, and zone property consistent with the land use plan.
2. Identify growth areas and maintain a development staging plan, within the city limits and in the two-mile extraterritorial jurisdiction, to manage growth and guide the orderly and cost effective provision of infrastructure at a rate consistent with anticipated growth.
3. Require efficient use of the land with compact urban development standards in both new development and redevelopment.
4. Identify, prioritize and protect sensitive natural features, such as the rivers, streams, wetlands, natural open space and local parks, as development proceeds.
5. Provide for commercial and industrial land uses at locations where adequate municipal services are available with access to major roadways.
6. Create neighborhood commercial areas which provide goods and services for the neighborhood.
7. Create and enforce building, site design and signage standards to insure high quality development that enhances Mandan's identity and character.
8. Create landscaping and buffering standards between higher and lower intensity users.
9. Utilize the City's Capital Improvement program and explore funding mechanisms and options to maintain current municipal infrastructure and support extension of municipal infrastructure.
10. Identify areas for expanded commercial and industrial growth along the I-94 corridor with good access that serve market demand and respect neighboring land uses.

Goal 2: Provide a variety of housing types, densities and choices to meet the life cycle housing needs of residents.

Key planning themes:

Managing growth and development, maintaining infrastructure

Rationale: A variety of residential densities supports a range in housing styles for home ownership and rental in attached and detached formats and increases opportunity for meeting life-cycle housing needs.

Policies:

1. Maintain a balance, through land use, in the types and densities of housing units available throughout the community.
2. Promote revitalization of downtown to provide increased housing choice in areas and on sites that are appropriate and feasible.
3. Assess the need for additional workforce and affordable senior housing needs in the community.
4. Create incentives for the development of affordable entry-level housing.
5. Promote the improvement of the existing housing stock, and encourage the rehabilitation or redevelopment of substandard housing.

Goal 3: Support, enhance and expand existing businesses and promote new businesses to Mandan.

Key planning theme:

Managing growth and development

Rationale: Existing local businesses understand the issues and advantages to Mandan and larger Mandan/Bismarck Metropolitan location and most job creation occurs from existing businesses. By working closely with the local business community, the City will be able to understand and respond to changes in the market place quickly and effectively.

Policies:

1. Continue promoting new businesses to help fill niches including diverse retail and restaurants to enhance choices within the City.
2. Continue to promote the City business assistance and incentive programs to bring new businesses to Mandan or support improving, maintaining and expanding existing businesses.
3. Work with local business organizations to recruit workers for local businesses.

Goal 4: Coordinate transportation with land use planning.

*Key planning theme:
Traffic and transportation*

Rationale: The transportation system and land use are closely linked. Each has a direct impact on the other.

Policies:

1. Implement transportation improvements according to existing and future studies, such as the *MPO Long Range Transportation Plan*, the *North Mandan Sub-Area Study*, and the *Mandan Memorial Highway Corridor Plan*.
2. Require traffic impact studies for development that will affect collector or arterial roadways.
3. Continue creating a positive image along the city's corridors and gateways through building, site design, and signage standards and the development of gateway features.
4. Identify areas for expanded commercial and industrial growth along the I-94 corridor with good access that serve market demand and are compatible with neighboring land uses.

Goal 5: Provide safe and functional roadways that serve automobiles, trucks, transit, bicycles and pedestrians.

*Key planning theme:
Traffic and transportation*

Rationale: A well-planned roadway system manages traffic to minimize neighborhood impacts and speed on local streets, while serving businesses and providing connections for biking and walking.

Policies:

1. Integrate pedestrian and bicycle trails into the design of roadway facilities that provide links to key destinations such as existing neighborhoods, parks, commercial areas, cultural and historic resources, and public uses.
2. Maintain a truck route system to serve industrial uses and minimize impact on other parts of the roadway system.
3. Use traffic management technology to improve the operations and pedestrian safety of the roadway system.
4. Design and install appropriate traffic calming features to minimize speeds and discourage through traffic from intruding on residential areas.

Goal 6: Promote redevelopment of existing corridors and downtown to enhance Mandan's character and identity.

Key planning themes:

Traffic and transportation, community character and identity, maintaining infrastructure

Rationale: Mandan's corridors and downtown are important commercial districts that provide unique settings and opportunities to enhance business and the community's identity.

Policies:

1. Study and inventory land uses within key corridors including Memorial Highway, Main Street, and others to determine appropriate land uses and redevelopment sites that support and expand the economic vitality of the corridors.
2. Continue revitalization of downtown Mandan as an important historical and community gathering place.
3. Create and enforce building, site design and signage standards to insure high quality development that enhances Mandan's identity and character.
4. Design and construct a streetscaping plan for Memorial Highway and other key corridors.

Goal 7: Ensure that the City's aesthetic character for residents, visitors and business patrons is enhanced through high quality development and infrastructure and the visual attractiveness of key corridors.

Key planning themes:

Community Character and Identity, maintaining infrastructure

Rationale: Physical character and identity affects quality of life and business success. At entrances and key corridors in Mandan, it is important to create an attractive setting.

Policies:

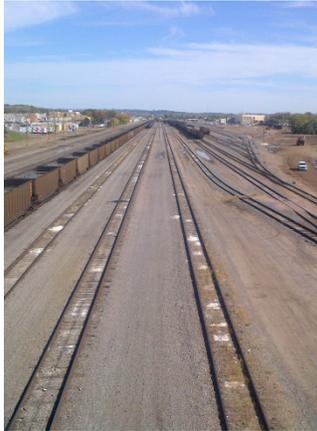
1. Establish a community image theme steeped in Mandan's heritage with participation of residents, business owners and property owners.
2. Develop a plan to keep the City's gateways attractive by maintaining and enhancing signage, landscaping, or other features at key City entrances.
3. Include improved signage in beautification efforts to direct residents and visitors to activity areas, landmarks, and downtown.
4. Use incentives to encourage business owners to use and increase landscaping and other design aesthetics to beautify their buildings, entrances and parking lots.

Goal 8: Continue to work with Mandan Parks & Recreation to provide for the park, recreation, trail, and open space needs of the Mandan community.

Key planning theme: Park, trails and open space

Rationale: Mandan Parks & Recreation prepared a recent Strategic Plan with its own goals and objectives, many of which are related to details of internal functioning, but many others relate to the physical development and function of the city. The goals which might have an impact on the larger city comprehensive plan have been modified in the policies suggested below:

1. Develop a master plan to meet current and future park, trail, and open space needs:
 - a. Define current and future needs for passive and active parks, trails and open spaces to provide a full range of recreational opportunities comparable to similar communities
 - b. Determine current and future athletic facility space needs
 - c. Determine the need for additional or improved maintenance facilities
 - d. Promote the development of riverfront recreational opportunities
 - e. Determine the feasibility of constructing a public boat ramp
 - f. Determine the feasibility of constructing a second sheet of indoor ice
 - g. Continue to provide regionally unique facilities, such as Raging Rivers and public golf courses
 - h. Explore the potential for jointly developing specialty recreational facilities with Bismarck
2. Provide a variety of recreation programs for a wide range of age groups
 - a. Maintain a high satisfaction rating
 - b. Coordinate with the school district for facilities and programs
3. Work with the City of Mandan, the YMCA, and others to develop a new recreation center adjacent to Raging Rivers
4. Develop a comprehensive trail system master plan
 - a. Prepare a capital improvement plan for trail construction and maintenance
 - b. Extend Sunset Trail to Lohstreter Development
 - c. Develop a special assessment district to overlay portions of the trail system
 - d. Determine the feasibility of a trail crossing over the Missouri River in northern Mandan
 - e. Coordinate construction and maintenance of trails with the City of Mandan
5. Acquire sufficient park and open space to meet to meet current and future needs.
 - a. Define acquisition search areas based on the master plan
 - b. Future park needs in north Mandan
 - c. Future park needs in southeast Mandan
6. Establish a sound fiscal policy and sustainable funding sources for park, trail, and open space development, operation, and maintenance
 - a. Implement a green space ordinance/sales tax/other as a dedicated funding source
 - b. Establish revenue/financial performance standards for various types of Park District facilities
 - c. Prepare and regularly update a capital improvement plan



Introduction

This Land Use chapter details how land in Mandan is currently used and how it is planned for future development. Among the top issues in Mandan mentioned in early discussion on the Comprehensive Plan were:

- **Managing growth and development**
- **Land use and access on I-94**

Within the list of specific issues (strengths, weaknesses, opportunities, threats) were the following related to land use – not necessarily in order of priority:

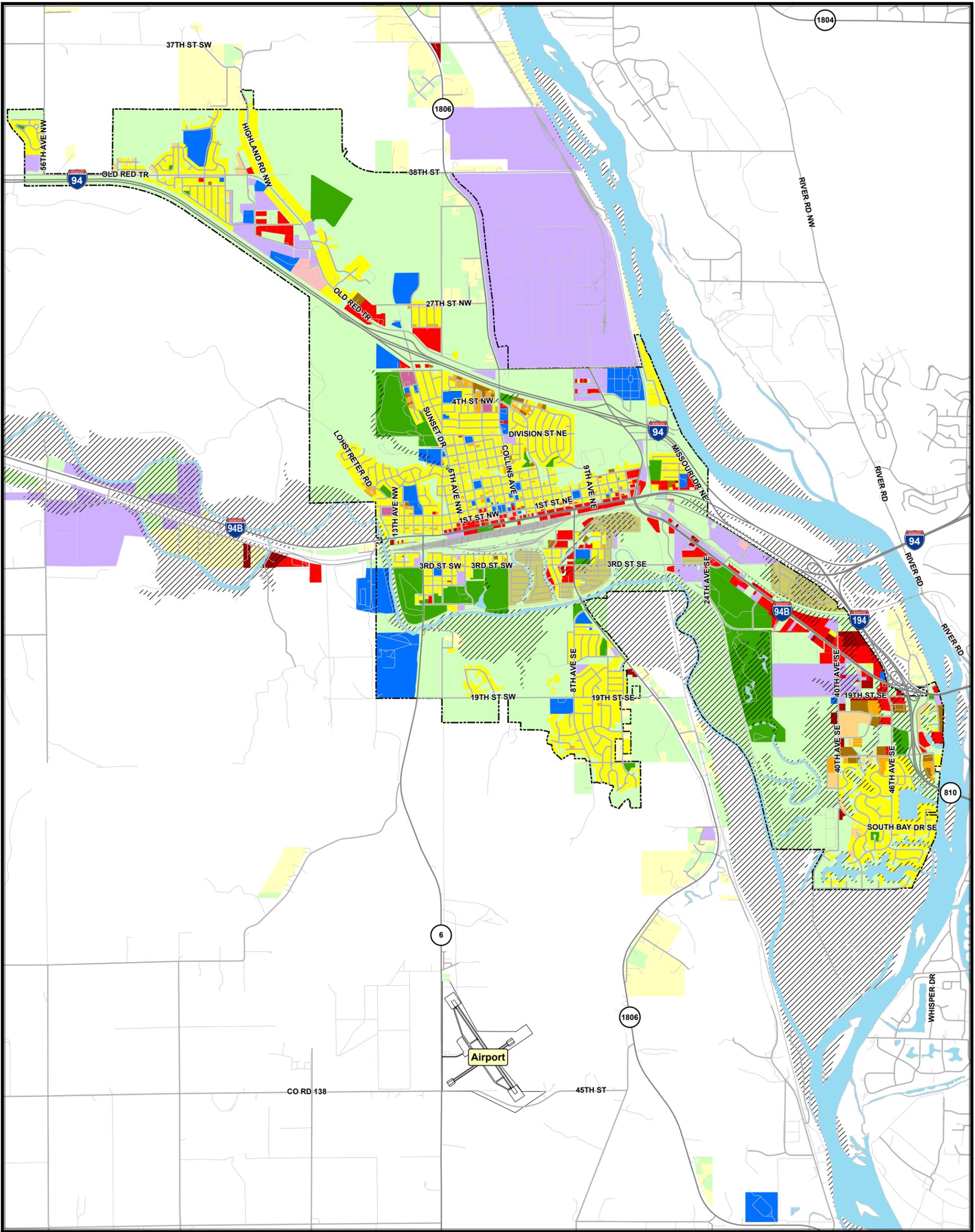
- Not being prepared for growth (*threat*)
- Additional retail and residential development (*opportunity*)
- New industrial land (*opportunity*)
- Allowing the wrong type of development as this growth occurs (*threat*)
- A revitalized downtown (*opportunity*)
- The lack of retail and restaurants, closely tied to the lack of commercial-industrial tax base (*weakness*)
- Lack of available land for industrial growth (*threat*)

Existing Land Use

All properties in the city have been classified as to their existing land use – how the land is being used today, not what it is planned or zoned. Existing land use is summarized in the table below and illustrated on the attached map. The existing Zoning Map is attached following that.

The numbers in the table (far right column) show that over half of the total area within the current city limits is agricultural, vacant or right-of-way. Within just the occupied, or developed, land about half of the developed part of the city is residential uses of various kinds. Of the residential land, almost all is single family (39.7% compared to 12.1.% combined for the other residential land uses). About 10% of the occupied is commercial and 12% industrial uses.

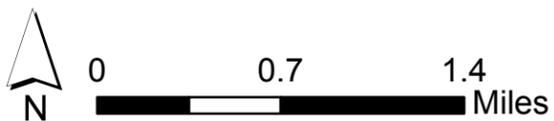
| Existing Land Use | Acres | % of Occupied Land | % of Total City |
|--------------------------------------|-----------------|--------------------|-----------------|
| Rural Residential | 7.51 | 0.2% | 0.1% |
| Single Family Residential | 1,271.27 | 39.7% | 16.6% |
| Two Family Residential | 58.36 | 1.8% | 0.8% |
| Medium Density Residential | 59.12 | 1.8% | 0.8% |
| High Density Residential | 57.61 | 1.8% | 0.8% |
| Manufactured Homes | 213.54 | 6.7% | 2.8% |
| Mixed Use - Commercial & Residential | 41.88 | 1.3% | 0.5% |
| Commercial | 257.63 | 8.0% | 3.4% |
| Office | 29.60 | 0.9% | 0.4% |
| Industrial | 372.25 | 11.6% | 4.9% |
| Social Institutional | 312.13 | 9.7% | 4.1% |
| Health Care, Medical | 15.80 | 0.5% | 0.2% |
| Parks Recreational | 507.11 | 15.8% | 6.6% |
| Subtotal Occupied Land | 3,203.81 | 100.0% | 41.8% |
| Open Water | 219.83 | | 2.9% |
| Ag, Vacant and ROW | 4,244.02 | | 55.3% |
| Total City | 7,667.66 | | 100.0% |



Existing Land Use

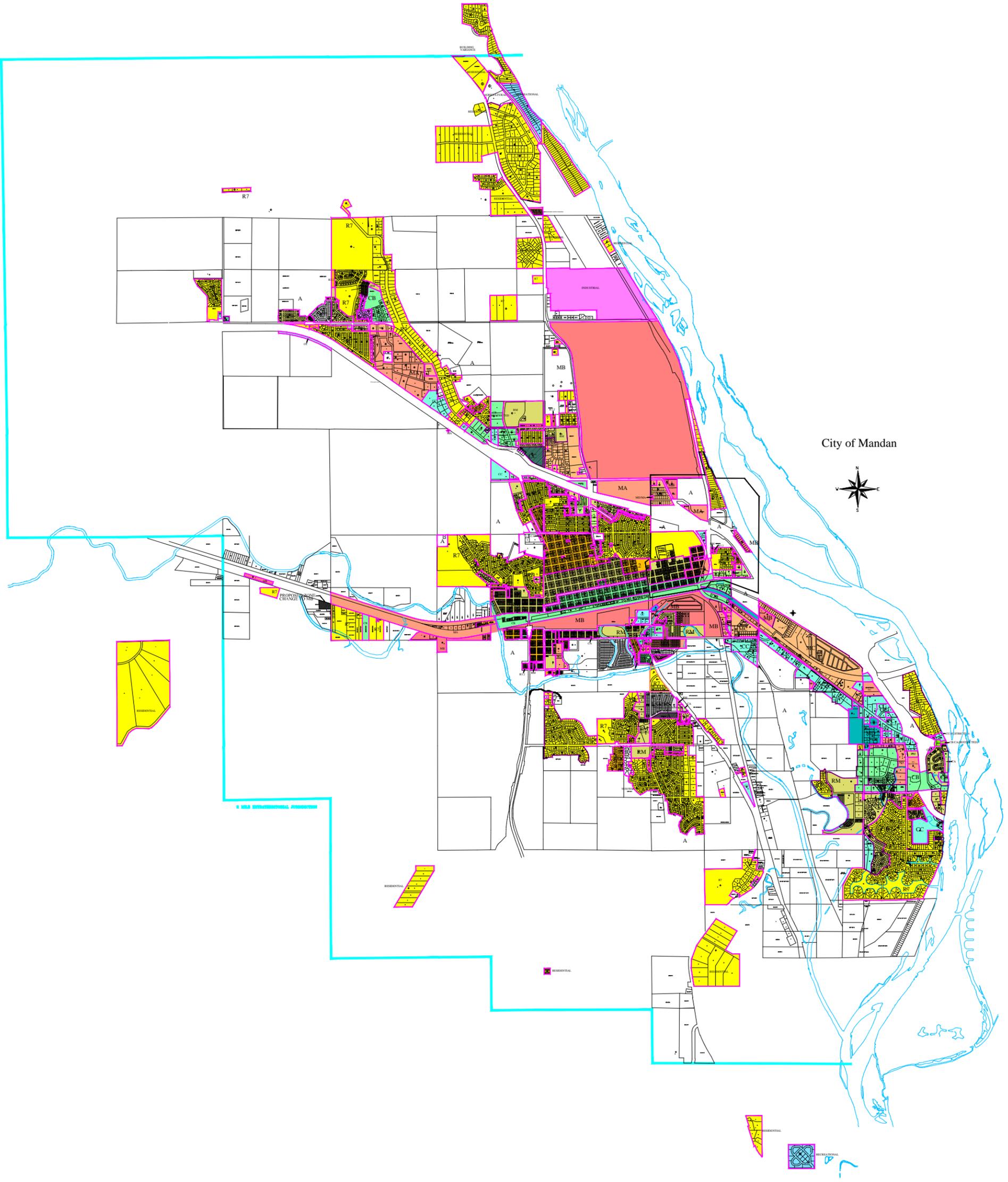
City of Mandan, North Dakota

- | | |
|--------------------------------------|----------------------|
| City Limit | Commercial |
| Rural Residential | Office |
| Single Family Residential | Health Care, Medical |
| Two Family Residential | Industrial |
| Medium Density Residential | Social Institutional |
| High Density Residential | Parks Recreational |
| Manufactured Homes | Ag-Vacant |
| Mixed Use - Commercial & Residential | Open Water |
| | 100-Year Floodplain |



October 21, 2014





City of Mandan



1000 RESIDENTIAL, FUTURE

RESIDENTIAL

RESIDENTIAL

RESIDENTIAL

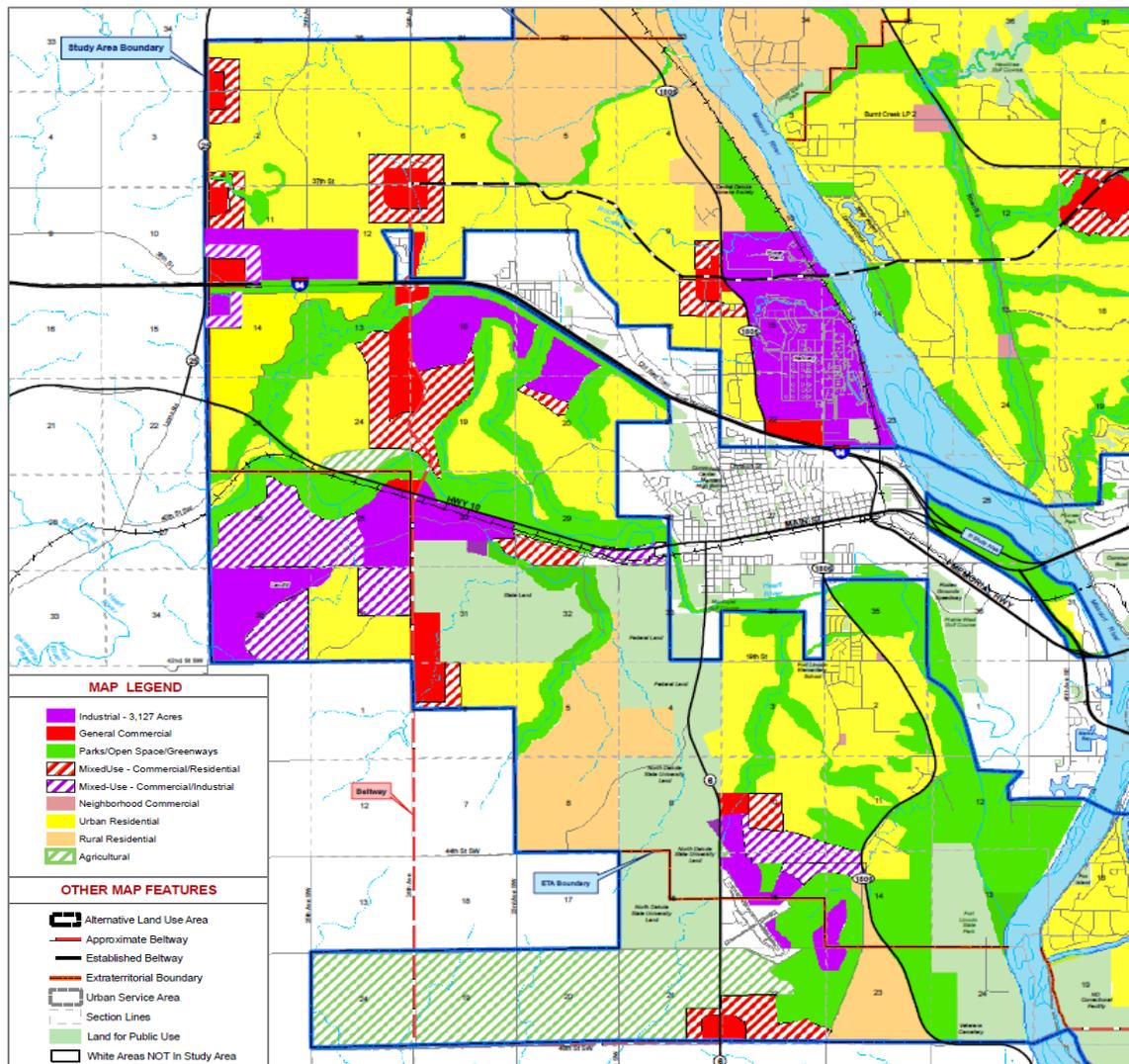
RECREATIONAL

Context: Bismarck-Mandan Regional Land Use Plan

In 2007 the Bismarck-Mandan Metropolitan Planning Organization (MPO), along with consultants Ulteig, prepared the *Bismarck-Mandan Regional Future Land Use Plan*, a future land use plan for the metropolitan area. The study is used by local jurisdictions and is the framework that many essential plans and studies are built upon. Specific objectives of the Regional Future Land Use Plan are to:

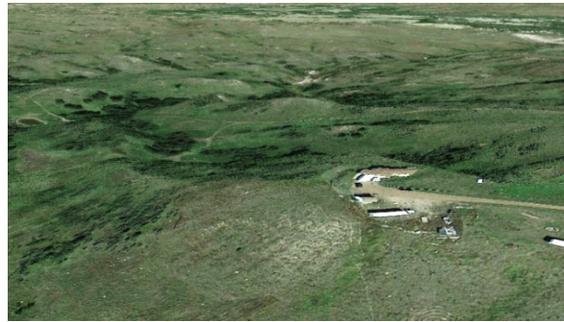
- Establish the general pattern of land uses in the study area surrounding the Cities of Bismarck and Mandan.
- Provide official land use plans for local officials to use in guiding land development in the study area.
- Provide a basis for assumptions by other planning studies about future land development in the study area.

Mandan-Morton County Approved Plan from *Bismarck-Mandan Regional Land Use Plan*



There are several key ideas in the Regional Land Use Plan as it applies to Mandan:

- First, the plan notes the future Beltway, a ring road around the metropolitan area, crossing the river into Mandan north of the Tesoro oil refinery (dashed black line on the map), continuing west along 38th Street NW to 56th Avenue NW, then south to cross I-94 (red dashed line), becoming 24th Avenue SW, continuing south to 46th Street, then east to cross the river south of the Mandan airport and Fort Abraham Lincoln State Park. The Beltway is likely far off in the future.
- Second, the plan shows significant new Industrial land in several areas: to the west on either side of I-94, to the southwest in growth areas along and outside the future Beltway, and to the south, on the north side of the Mandan airport. This recognizes that Mandan is running out of industrial land with few places to locate it near the current city limits.
- Third, the plan identifies future greenways, taking into account the topography of the area and the many ravines and coulees that characterize the area. Protecting these features, both for stormwater management and for their value as park and open space, is a vital part of the plan.
- Fourth, large areas north, south and southwest of Mandan are recognized as long-term rural residential areas that will likely not be served with urban services for a long time, if ever.
- Fifth and finally, commercial nodes (red and red striped areas) are shown at intervals of one to three miles in the surrounding region to serve as focal points for community-scale and neighborhood services as the area grows.



Mandan's plan follows the spirit if not the exact letter of the MPO Regional Land Use Plan, incorporating many of these key ideas, as will be more fully outlined in the Future Land Use Plan.

Demographics

Mandan's 2012 population is estimated at almost 19,000. The city has experienced modest growth in the last 20 years, after losing population from 1980 to 1990. Mandan is growing at a faster rate than Morton County and the State of North Dakota, but not as fast as Bismarck, the Bismarck-Mandan metro area, or the U.S. as a whole.

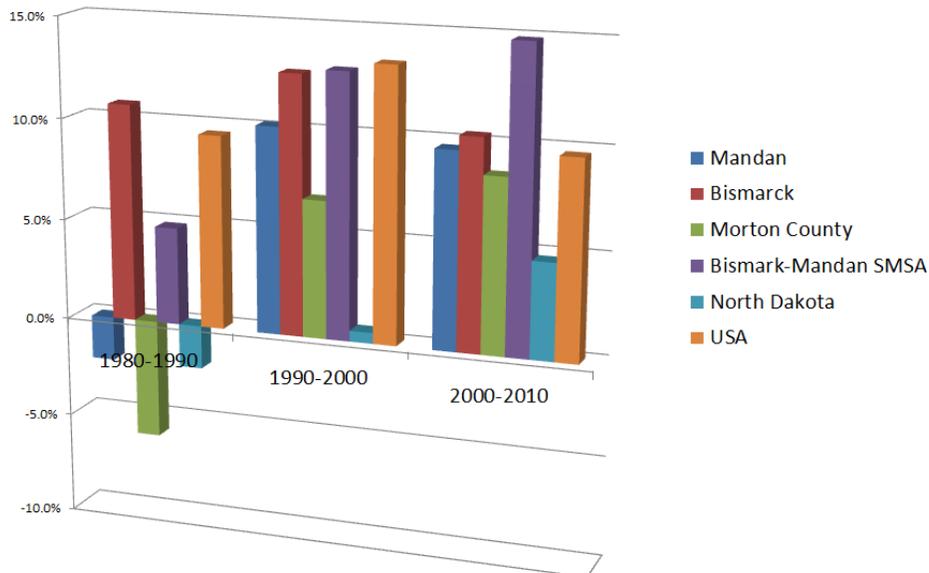
During the 1980s Mandan, Morton County and North Dakota both lost population, but both have been gaining population in the decades since. Between 2000 and 2010 the Bismarck-Mandan metropolitan area showed more growth than Bismarck, Mandan or Morton. One can conclude that the most significant growth happened in suburban Bismarck.

POPULATION - SELECTED JURISDICTIONS

| | 1980 | 1990 | 2000 | 2010 | 2012 Population Est. |
|----------------------|-------------|-------------|-------------|-------------|----------------------|
| Mandan | 15,513 | 15,177 | 16,718 | 18,331 | 18,978 |
| Bismarck | 44,485 | 49,256 | 55,532 | 61,272 | 64,751 |
| Morton County | 25,177 | 23,700 | 25,303 | 27,471 | 28,101 |
| Bismarck-Mandan SMSA | 79,988 | 83,831 | 94,719 | 108,779 | 110,879 |
| North Dakota | 652,717 | 638,800 | 642,200 | 672,591 | 699,628 |
| USA | 226,545,805 | 248,109,873 | 281,421,906 | 308,745,538 | 313,914,040 |

Source: US Census

Percent Population Change 1980-2010



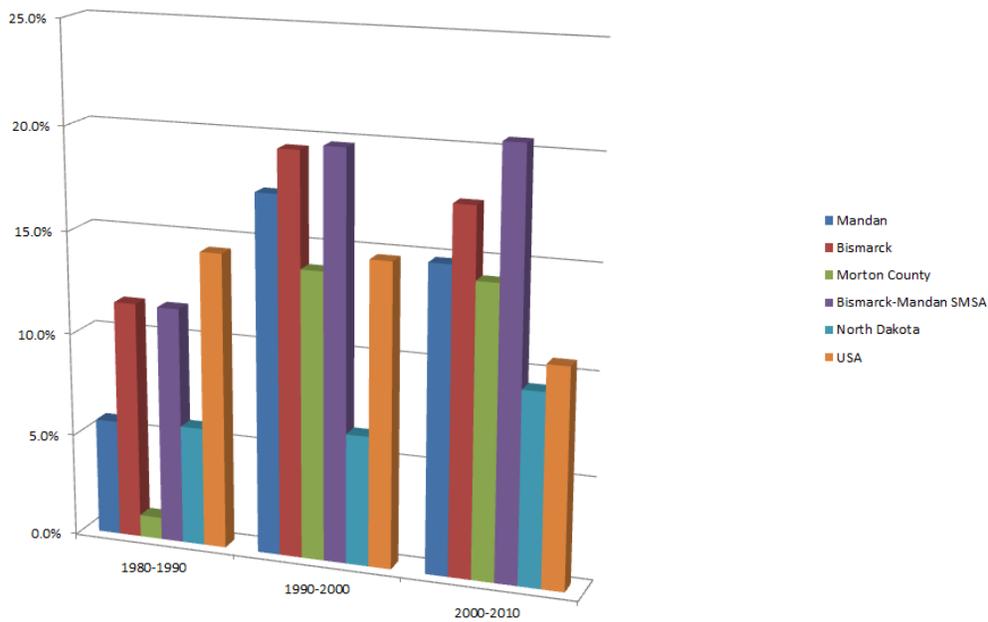
In terms of the number of households, Mandan is also in the middle of the pack compared to the other jurisdictions. Mandan had about 7,600 households in the 2010 Census, almost half again larger than 1980. The number of households in Mandan grew by only about 300 in the 1980s, but by about 1,000 households in both the 1990s and 2000s.

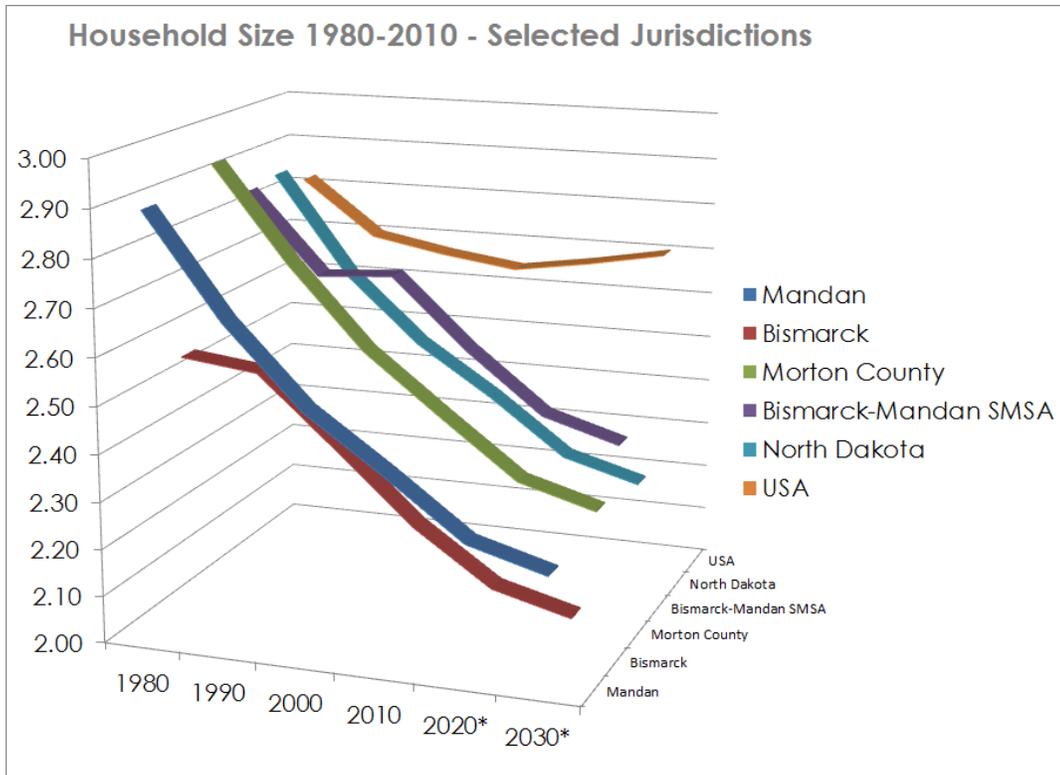
HOUSEHOLDS - SELECTED JURISDICTIONS

| | 1980 | 1990 | 2000 | 2010 |
|----------------------|------------|------------|-------------|-------------|
| Mandan | 5,359 | 5,662 | 6,647 | 7,632 |
| Bismarck | 17,390 | 19,403 | 23,185 | 27,263 |
| Morton County | 8,585 | 8,677 | 9,889 | 11,289 |
| Bismarck-Mandan SMSA | 28,120 | 31,361 | 37,559 | 45,265 |
| North Dakota | 228,565 | 241,802 | 257,125 | 281,192 |
| USA | 80,389,673 | 91,947,410 | 105,480,101 | 116,716,292 |

Source: US Census

Percent Change in Number of Households 1980-2010





Household size, or persons per household, is declining almost everywhere in the U.S. Mandan, Bismarck, and North Dakota are no exceptions. Mandan's household size is declining at about the same rate as Morton County and North Dakota as a whole, but Bismarck's household size has been lower for several decades. The Bismarck-Mandan metro area and the U.S. as a whole have a higher average household size than Mandan.

The U.S. household size average, according to research based on U.S. Census projections, is expected to stabilize and even rise slightly by 2030. We assume here that the decline in household size in Mandan, Bismarck and North Dakota will continue to decline but that the decline will slow, partially reflecting the national trend. In the previous three decades household size has declined about 5% per decade. The table and graph below assume that the decline will be at the same rate of 5% 2010-2020, but only a 2% decline for the decade 2020-2030. If population projections stay the same a significant change in persons per household would have an effect on number of households.

PERSONS PER HOUSEHOLD (HOUSEHOLD SIZE)

| | 1980 | 1990 | 2000 | 2010 | 2020* | 2030* |
|----------------------|------|------|------|------|-------|-------|
| Mandan | 2.89 | 2.68 | 2.52 | 2.40 | 2.28 | 2.24 |
| Bismarck | 2.56 | 2.54 | 2.40 | 2.25 | 2.14 | 2.09 |
| Morton County | 2.93 | 2.73 | 2.56 | 2.43 | 2.31 | 2.27 |
| Bismarck-Mandan SMSA | 2.84 | 2.67 | 2.68 | 2.54 | 2.41 | 2.36 |
| North Dakota | 2.86 | 2.64 | 2.50 | 2.39 | 2.27 | 2.23 |
| USA | 2.82 | 2.70 | 2.67 | 2.65 | 2.67 | 2.70 |

* USA estimates by Arthur C. Nelson, Univ. of Utah; other estimates by Stantec

Morton County-Wide Housing Study

The Morton County-Wide Housing Study, prepared by Hannah-Keelan Associates and completed in 2013, provides a housing profile analysis for Morton County. According to the study, the most critical housing issues in Morton County are to promote the development of housing:

- *For the local workforce and young professionals,*
- *affordable to all salary income levels, and*
- *At a pace that will equal the demand of a rapidly growing region.*

Other priority housing needs in the county include housing opportunities and options for the elderly, first time homebuyers and middle-income persons and families.

With respect to Mandan, the study identified the following community concerns regarding housing:

- *High cost of rental units.* Increasing demand from retirees and workforce employees moving from western North Dakota's oil field communities to Mandan and Bismark in search of affordable housing is resulting in increased rental rates in the Mandan/Bismarck metro area.
- *High home sale prices.* A single family house listed for less than \$100,000 is rarely found on the market in Mandan; the average sale price for a single family house with 1,200 to 1,300 square feet is \$240,000 to \$250,000. Between 2011 and 2012, the average advertised price of a single family dwelling increased from \$166,030 to \$194,934, an increase of 17 percent.
- *High cost of vacant lot prices for new housing.* Between 2011 and 2012, the average advertised price of a vacant lot increased from \$34,749 to \$61,477, an increase of 77 percent.
- *Low housing inventory.* The adjusted housing vacancy rate is an estimated 1.6 percent in Mandan. Houses frequently sell by word of mouth before being listed for sale. Apartment rentals are frequently completed over the phone, without future tenants even seeing the unit, out of fear that it would be rented to someone else before they could "walk-through".
- *Shortage of senior housing.* Currently, several elderly rental housing programs in the County are experiencing occupancy rates of 90 percent or greater, with most programs maintaining waiting lists.

The housing study found that 1,242 new housing units are needed in Mandan in the next five years, which is reasonably consistent with the average of about 255 units/year estimated by Stantec over the next 17 years. The Stantec estimate however goes on to suggest that there will be faster housing growth in the next few years, perhaps 1,600 units in the next five years, slowing in later years. Both figures are estimates.

The table from the study on the following page identifies proposed housing types by specific population groups with the given Area Median Income for Mandan by 2018. A total of 214 units for elderly populations should be developed, including 105 owner and

108 rental units. An estimated 634 owner and 362 rental units should be developed for families, along with 16 owner and 16 rental units for special populations. An estimated 889 housing units, consisting of 565 owner and 324 rental units should be built for the workforce population in Mandan.

**TABLE 5.6A
HOUSING EXPECTATIONS – SPECIFIC POPULATION GROUPS
MANDAN, NORTH DAKOTA
2018**

| OWNER UNITS | HOUSEHOLD AREA MEDIAN INCOME (AMI) | | | | | Totals | Workforce Sector 45%+ AMI |
|-------------------------------------|-------------------------------------------|-----------------|--------------|------------|------------|---------------|------------------------------------------|
| | 61%-80% | 81%-125% | 126%+ | | | | |
| Elderly (55+) | 18 | 52 | 36 | | | 106 | 20 |
| Family | 38 | 244 | 352 | | | 634 | 550 |
| Special Populations ¹ | <u>10</u> | <u>4</u> | <u>2</u> | | | <u>16</u> | <u>0</u> |
| Subtotals | 66 | 300 | 390 | | | 756 | 565 |
| RENTAL UNITS | 0%-30% | 31%-60% | | | | | |
| Elderly (55+) | 10 | 24 | 36 | 22 | 16 | 108 | 16 |
| Family | 14 | 18 | 80 | 146 | 44 | 362 | 306 |
| Special Populations ¹ | <u>6</u> | <u>4</u> | <u>4</u> | <u>2</u> | <u>0</u> | <u>16</u> | <u>2</u> |
| Subtotals | 30 | 106 | 120 | 170 | 60 | 486 | 324 |
| TOTALS | 30 | 106 | 186 | 470 | 450 | 1,242 | 889 |

* Includes Lease-to-Own units.
¹ Any person with a special housing need due to a cognitive and/or mobility disability.
Source: Hanna:Keelan Associates, P.C., 2013.

The table on the next page identifies proposed housing types by price product with the given Area Median Income (AMI) for the City of Mandan by 2018. The most needed type of owner-occupied housing will be units with three or more bedrooms, for households at or above 126 percent AMI with an average affordable purchase price of \$240,000. Two- and three-bedroom rental units, with an average affordable monthly rent at \$910 are also needed in Mandan. Three+-bedroom units at an average purchase price of \$131,900 and an estimated average monthly rent cost of \$650 are the most needed housing types for workforce households in Mandan.

**TABLE 5.6B
PROPOSED HOUSING TYPES BY PRICE PRODUCT
MANDAN, NORTH DAKOTA
2023**

| <u>PRICE – PURCHASE COST (Area Median Income)</u> | | | | | |
|---------------------------------------------------|-------------------|-------------------|--------------------|---------------|----------------------------------|
| Owner | (61%-80%) | (81%-125%) | (126%+) | | Work Force (45%+ AMI) |
| Units** | \$138,500* | \$196,200* | \$240,000*+ | Totals | \$131,900* |
| 2 Bedroom | 20 | 42 | 26 | 88 | 40 |
| 3+ Bedroom | 46 | 258 | 364 | 668 | 525 |
| TOTALS | 66 | 300 | 390 | 756 | 565 |

| <u>PRICE – PURCHASE COST (Area Median Income)</u> | | | | | | | |
|---------------------------------------------------|----------------|----------------|----------------|----------------|------------------|---------------|----------------------------------|
| Rental | (0%-30%) | (31%-60%) | (61%-80%) | (81%-125%) | (126%+) | | Work Force (45%+ AMI) |
| Units** | \$435** | \$680** | \$720** | \$910** | \$965***+ | Totals | \$650** |
| 2 Bedroom | 16 | 38 | 54 | 58 | 24 | 190 | 58 |
| 3+ Bedroom | 14 | 68 | 66 | 112 | 36 | 296 | 266 |
| TOTALS | 30 | 106 | 120 | 170 | 60 | 486 | 324 |

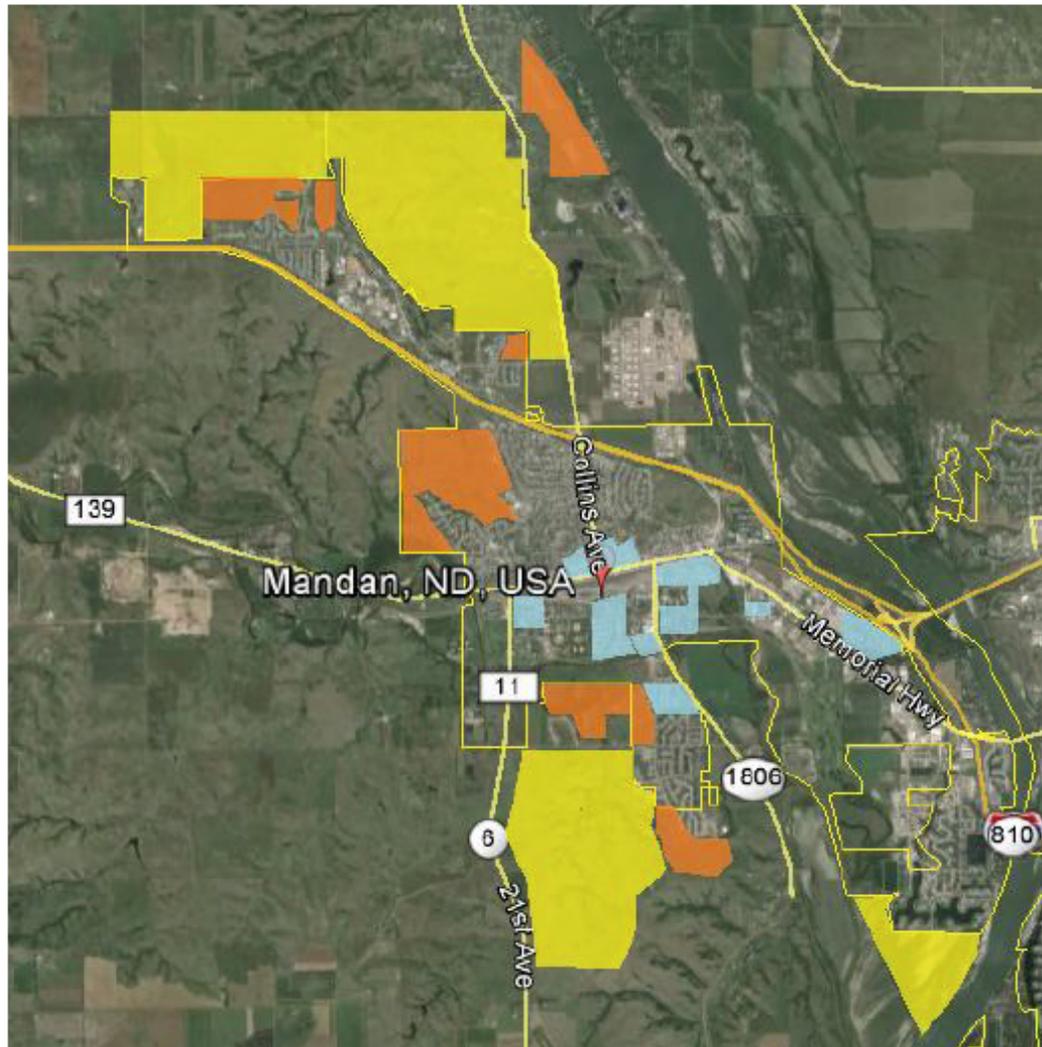
*Average Affordable Purchase Price.

**Average Affordable Monthly Rent.

Source: Hanna:Keelan Associates, P.C., 2013.

The housing study also identified growth areas for future housing in Mandan. In downtown Mandan, growth is expected through demolition or infill development. Specifically, the plan recommends rehabilitation of second story units in commercial buildings and construction of new multifamily housing projects on under-utilized lots. New development is expected on vacant land to the north, south and west of town is available for new construction. Mandan's steep topography limits the potential for housing in some areas, causing new development to be dispersed around the outskirts of town. Approximately 440 acres of land are required to accommodate this development.

**HOUSING DEVELOPMENT &
REHABILITATION AREAS
MANDAN, NORTH DAKOTA**



- LEGEND**
- FUTURE GROWTH AREAS
 - INFILL OF VACANT LAND
 - HOUSING REHABILITATION OR POTENTIAL DEMOLITION

**HANNA:KEELAN ASSOCIATES, P.C.
COMMUNITY PLANNING & RESEARCH**

Future Population and Household Projections

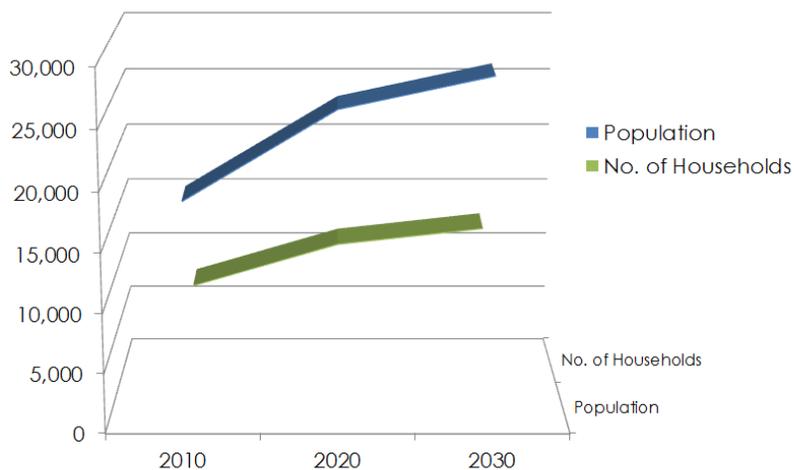
The Bismarck-Mandan MPO estimates that the region's population will grow 3.5% per year through 2020 and 1.0% per year 2020 to 2030. Household size will also likely continue to shrink, but at a slower rate by 2030. Applying these projections to Mandan yields a 2020 population of just under 26,000 and a 2030 population of just over 28,500. These figures are summarized in the table and graph below, showing that there will be an anticipated 5,100 new households in Mandan by 2030, about 3,700 households 2010-2020 and about 1,400 households 2020-2030. This is a significant increase, given the previous two decades growth of only about 1,000 households per decade. But considering the residential growth the City has experienced in the last two years these numbers are not unexpected, as will be seen in the discussion of building permit activity on the next page.

MANDAN POPULATION & HOUSEHOLD PROJECTIONS

| | 2010 | 2020 | 2030 |
|-------------------|--------|--------|--------|
| Population | 18,331 | 25,858 | 28,563 |
| HH size | 2.40 | 2.28 | 2.24 |
| No. of Households | 7,632 | 11,341 | 12,751 |
| Add'l HHs | | 3,709 | 5,120 |

Source: MPO, Stantec

Mandan - Projected Population and Households 2010-2030



Housing activity in Mandan was modest for from 2004 through 2011, then it picked up substantially in the last four years – 126 units in 2010, almost doubling to 236 units in 2011, more than doubling to 483 units in 2012, and increasing to a whopping 642 units in 2013. This boom will likely continue for several years, responding to the oil business in western North Dakota, but will not likely continue for many years at that pace as the growth of employment in the oil patch slows. We anticipate for planning purposes that it will slow to more normal rates by 2020 and continue in similar fashion through 2030.

Mandan Housing Activity

Mandan Building Permit Activity 2004-2013:

- 160-240 residential units/year
2004-2011
- 126 residential units – 2010
- 236 residential units – 2011
- 483 residential units – 2012
- 642 residential units – 2013

Projected 5,100 units in 20 years =
255 units/year average

- 17 years: 2014-2030 @ 255 un/yr =
4,335 units;
- Possible scenario:
 - 400 un/yr 2014-2015
 - 300 un/yr 2016-2020
 - 225 un/yr 2021-2025
 - 175 un/yr 2026-2030

Source: Building permit data: City of Mandan;
Projections: Stantec



The density of residential development will play a large role in determining future land needs in Mandan. Obviously, higher density development will need less land for the same number of new households; lower density development will require more land. Current residential density in Mandan is about 4.7 units per acre overall, for all residential development in the built-up part of the city.

MANDAN EXISTING RESIDENTIAL DENSITY

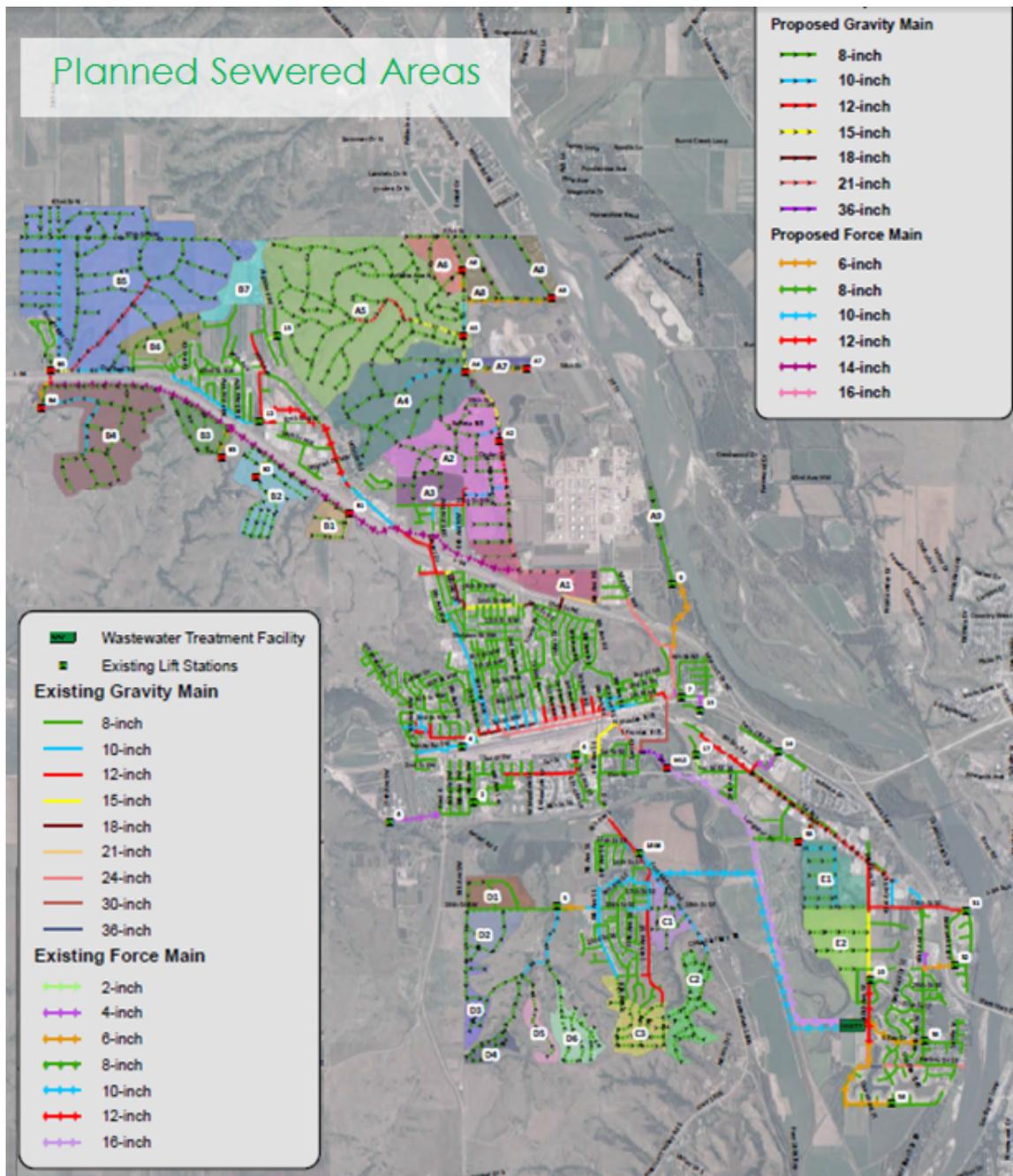
| (not including Rural Residential) | |
|-----------------------------------|---------|
| Land Use | Acres |
| Single Family Residential | 1,271.3 |
| 2-Family Residential | 58.4 |
| Medium Density Residential | 59.1 |
| High Density Residential | 57.6 |
| Manufactured Homes | 213.5 |
| Mixed Comm-Res (half of ac) | 21.0 |
| TOTAL | 1,680.9 |
| HH in City (2012 est.) | 7,974 |
| Avg Density (units/acre) | 4.74 |

Future residential land demand can be calculated by applying various densities to the new household number. The table below shows that if future housing is built at a very low average density of 1 unit per acre the amount of land needed would be over 5,100 acres – 8 square miles. If development happens close to the current density in the developed part of the city – 4 to 5 units per acre – then something over 1,000 acres would be needed.

MANDAN POPULATION & HOUSEHOLD PROJECTIONS

| | 2010 | 2020 | 2030 |
|---------------------|--------|--------|--------|
| Population | 18,331 | 25,858 | 28,563 |
| HH size | 2.40 | 2.28 | 2.24 |
| No. of Households | 7,632 | 11,341 | 12,751 |
| Add'l HHs | | 3,709 | 5,120 |
| Resid Gross Density | | 1 | 1 |
| Acres Resid | | 3,710 | 5,120 |
| Resid Gross Density | | 2 | 2 |
| Acres Resid | | 1,850 | 2,560 |
| Resid Gross Density | | 3 | 3 |
| Acres Resid | | 1,240 | 1,710 |
| Resid Gross Density | | 4 | 4 |
| Acres Resid | | 930 | 1,280 |
| Resid Gross Density | | 5 | 5 |
| Acres Resid | | 740 | 1,020 |

Source: MPO, Stantec



To accommodate future development with city sewer the City's engineering consultant has developed a plan for serving Mandan, and growth areas beyond the current city limits, in phases, illustrated on the map above. These service areas are illustrated on the map on the following page, divided into five sub-areas.

For purposes of this Plan the subareas are labelled:

- 1) Near North
 - North of I-94, west of Hwy 1806, south of 38th
- 2) Far North
 - North of future 38th/Beltway, west of 1806
- 3) Northwest
 - North of I-94, west of Highland Road/30th Ave NW, to 56th Ave NW
- 4) West
 - South of I-94, west of Sunset Drive, to 56th Ave NW
- 5) South
 - South of 19th St SW, west of Hwy 1806, east of 8th Ave SW



For each subarea a rough calculation was made of the amount of potential future development, especially residential units, based on the designations in the Land Use Plan. These calculations are summarized in the table on the page 29. In each subarea the approximate acres of future Low, Medium and High density residential land is tallied, with a density of 3, 6, and 15 units/acre applied, respectively. There is also a rough estimate of the square feet of commercial and industrial development possible. This is

based on rough acreage times a factor of about 20% coverage – 8,000 square feet of floor area per acre.

POTENTIAL FUTURE RESIDENTIAL DEVELOPMENT

(LDR, MDR, HDR = Low, Medium, High Density Residential)

| | Area 1 - Near North | | | | | | 100% | Assumed Growth by 2030 | |
|---------|---------------------|-------|-------|-----------|-----------|-----------|-----------|------------------------|-----------|
| | LDR | MDR | HDR | Comm | Indust | Total | Portion | Units/CI SF | |
| Acres | 320 | 80 | 120 | 290 | 0 | 810 | | | |
| Density | 3 | 8 | 15 | 8,000 | 8,000 | 6.5 | | | |
| Units | 960 | 640 | 1800 | | | 3,400 | 80% | 2,720 | |
| Comm SF | | | | 2,320,000 | | 2,320,000 | 80% | 1,900,000 | |
| Ind SF | | | | | 0 | - | 80% | 0 | |
| | Area 2 - Far North | | | | | | | | |
| | LDR | MDR | HDR | Comm | Indust | Total | | | |
| Acres | 460 | 70 | 80 | 40 | 0 | 650 | | | |
| Density | 3 | 6 | 15 | 8,000 | 8,000 | 4.9 | | | |
| Units | 1380 | 420 | 1200 | | | 3,000 | 0% | 0 | |
| Comm SF | | | | 320,000 | | 320,000 | 0% | 0 | |
| Ind SF | | | | | 0 | - | 0% | 0 | |
| | Area 3 - Northwest | | | | | | | | |
| | LDR | MDR | HDR | Comm | Indust | Total | | | |
| Acres | 170 | 90 | 20 | 120 | 310 | 710 | | | |
| Density | 3 | 6 | 15 | 8,000 | 8,000 | 4.8 | | | |
| Units | 510 | 540 | 300 | | | 1,350 | 50% | 675 | |
| Comm SF | | | | 960,000 | | 960,000 | 50% | 480,000 | |
| Ind SF | | | | | 2,480,000 | 2,480,000 | 50% | 1,240,000 | |
| | Area 4 - West | | | | | | | | |
| | LDR | MDR | HDR | Comm | Indust | Total | | | |
| Acres | 140 | 90 | 70 | 40 | 0 | 340 | | | |
| Density | 3 | 6 | 15 | 8,000 | 8,000 | 6.7 | | | |
| Units | 420 | 540 | 1050 | | | 2,010 | 20% | 402 | |
| Comm SF | | | | 320,000 | | 320,000 | 0% | 0 | |
| Ind SF | | | | | - | - | 0% | 0 | |
| | Area 5 - South | | | | | | | | |
| | LDR | MDR | HDR | Comm | Indust | Total | | | |
| Acres | 800 | 50 | 10 | 10 | 0 | 870 | | | |
| Density | 3 | 6 | 15 | 8,000 | 8,000 | 3.3 | | | |
| Units | 2400 | 300 | 150 | | | 2,850 | 50% | 1,425 | |
| Comm SF | | | | 80,000 | | 80,000 | 50% | 40,000 | |
| Ind SF | | | | | - | - | 50% | 0 | |
| | TOTAL | | | | | | | | |
| | LDR | MDR | HDR | Comm | Indust | Total | | | |
| TOTAL | Acres | 1,890 | 380 | 300 | 500 | 310 | 3,380 | | |
| AVERAGE | Density | 3 | 6 | 15 | | | 4.9 | | |
| TOTAL | Units | 5,670 | 2,440 | 4,500 | - | - | 12,610 | TOTAL | 5,222 |
| TOTAL | Comm SF | | | 4,000,000 | - | - | 4,000,000 | TOTAL | 2,420,000 |
| TOTAL | Ind SF | | | - | 2,480,000 | 2,480,000 | 2,480,000 | TOTAL | 1,240,000 |

As the numbers show, the total planned sewer areas could accommodate over two and a half times as much residential as is estimated to the year 2030 – 12,600 units vs. the 5,100 units of estimated demand. The city will not grow into the entire planned sewer areas by 2030, so a scenario was developed that would reasonably provide land for the

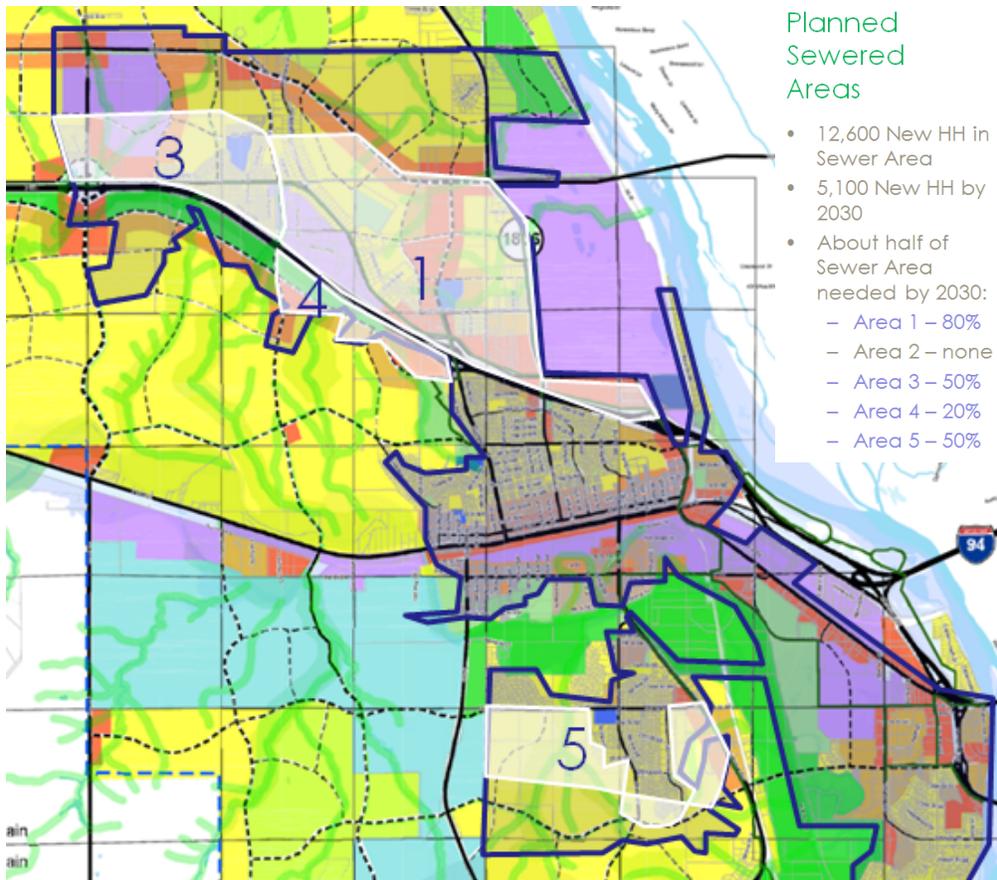
projected 5,500 new housing units. This future scenario is shown on the map on the following page and tabulated in the table below.

The assumptions for future development by 2030 are:

- Area 1 Near North – about 80% developed
- Area 2 Far North – not developed
- Area 3 – Northwest – about 50% developed
- Area 4 – West – about 20% developed
- Areas 5 – South – about 50% developed

POTENTIAL FUTURE RESIDENTIAL DEVELOPMENT

| | Area 1 - Near North | | | | | 100% | Assumed Growth by 2030 | |
|-------|---------------------|-------|-------|---|---|--------|------------------------|-------|
| Units | 960 | 640 | 1800 | | | 3,400 | 80% | 2,720 |
| | Area 2 - Far North | | | | | | | |
| Units | 1380 | 420 | 1200 | | | 3,000 | 0% | 0 |
| | Area 3 - Northwest | | | | | | | |
| Units | 510 | 540 | 300 | | | 1,350 | 50% | 675 |
| | Area 4 - West | | | | | | | |
| Units | 420 | 540 | 1050 | | | 2,010 | 20% | 402 |
| | Area 5 - South | | | | | | | |
| Units | 2400 | 300 | 150 | | | 2,850 | 50% | 1,425 |
| | TOTAL | | | | | | | |
| Units | 5,670 | 2,440 | 4,500 | - | - | 12,610 | TOTAL | 5,222 |

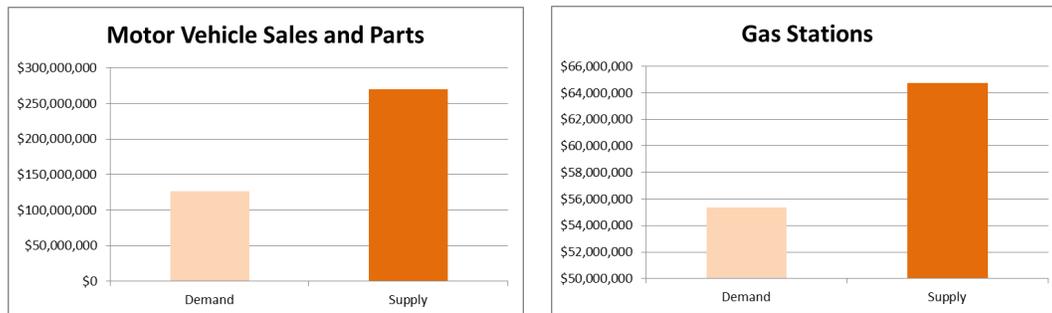


Commercial-Industrial Market

Commercial potential in the future sewered area of Mandan is estimated in the above tables at about 4 million square feet on 500 acres. Industrial development is estimated at about 2.5 million square feet on 300 acres. This is much more than will likely be needed by 2030, as calculated below.

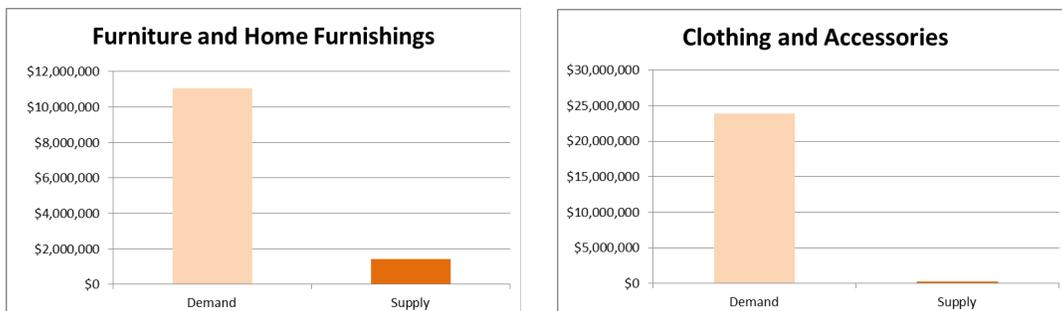
A 2014 Nielsen-Claritas study analyzed the supply and demand for various goods and services in Morton County. Examples from this analysis are excerpted below in graph form. In areas where Morton County's primary trade area has more retail sales than the populace would demand, the study calls this a "surplus," meaning customers are drawn into Morton County from other areas. The presence of a "surplus" does not necessarily mean that there is an oversupply of these types of retailers as it may also indicate that there is a critical mass of these types of businesses that draws significant customers from outside Morton County. For the two categories of goods and services illustrated below, Morton County has a surplus, meaning there are substantially higher retail sales in Morton County than the local market would predict.

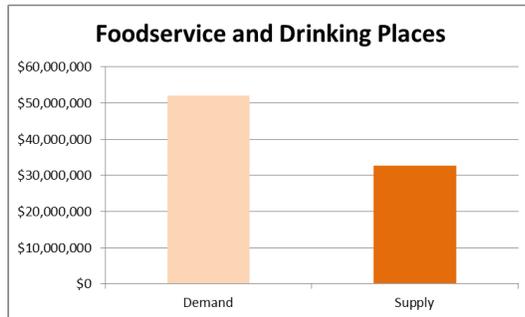
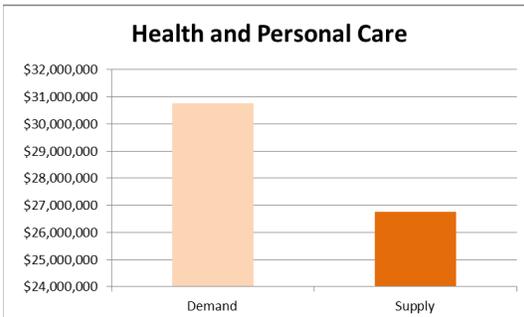
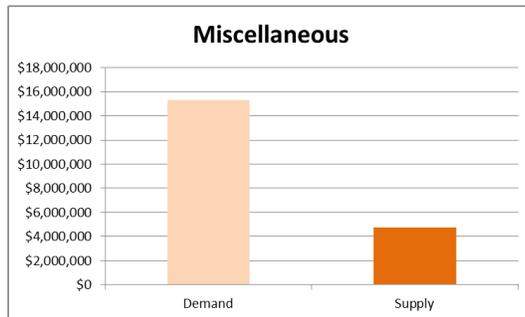
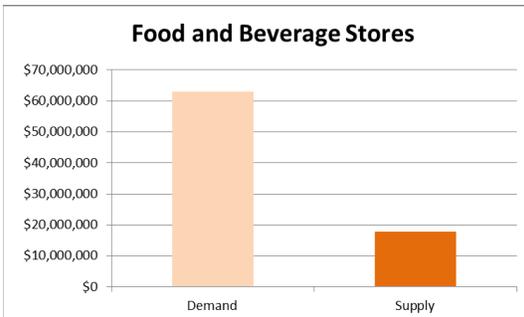
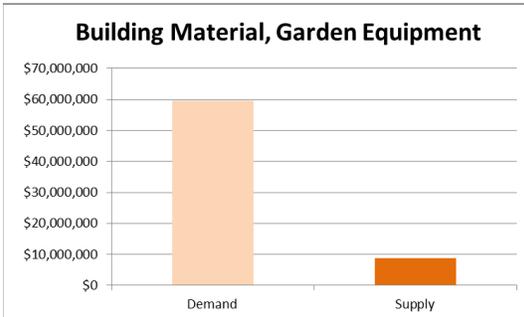
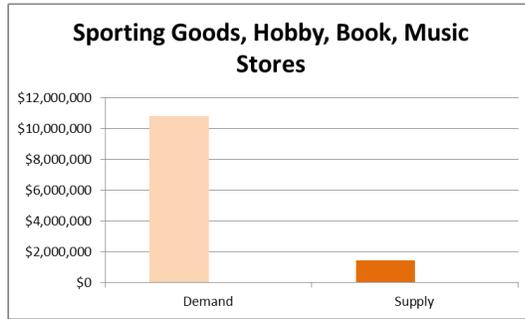
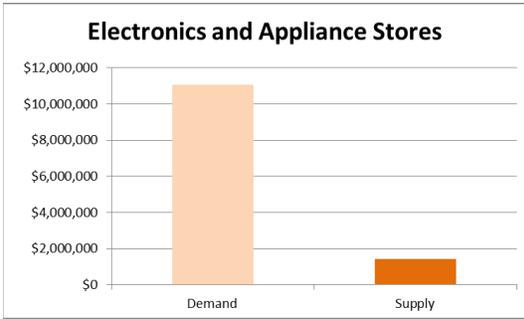
Retail Categories where there is a draw to Mandan, \$/year (Nielsen- Claritas, 2014)



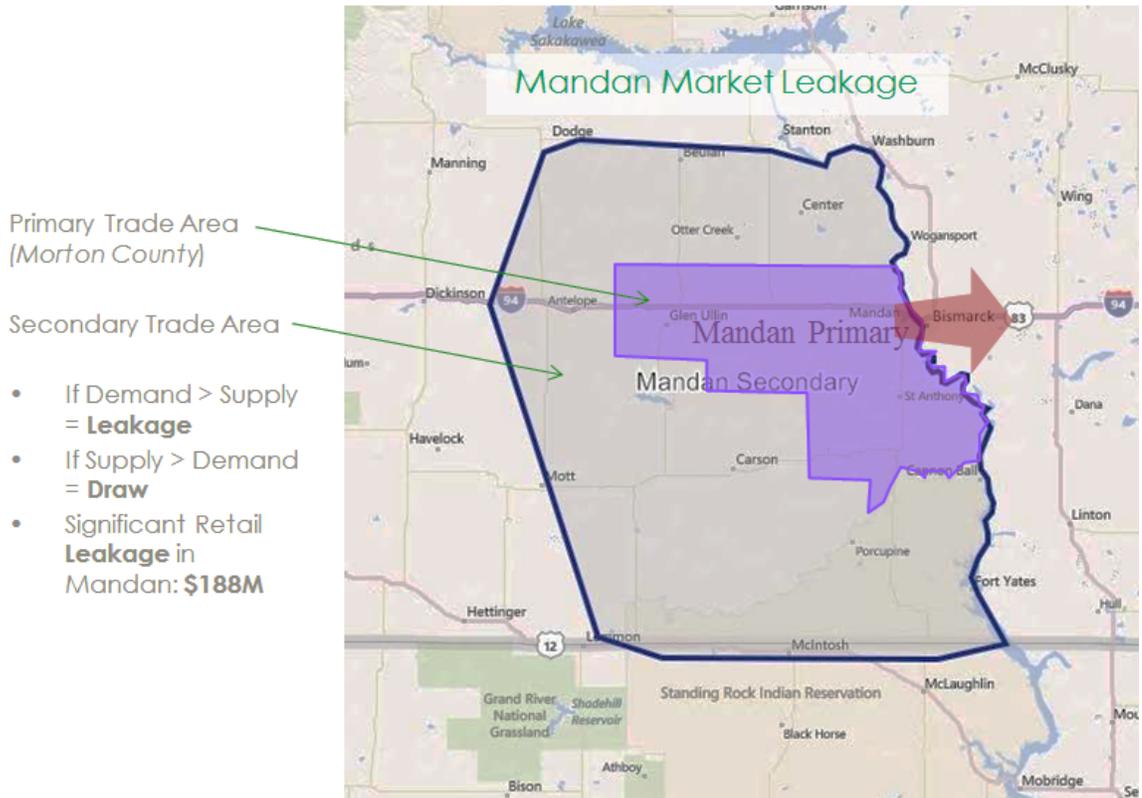
The other side of this equation is when demand is greater than supply – Mandan's populace has the income and demand to purchase certain goods and service, but there is not enough of these businesses in Mandan to meet the demand – this is called "leakage" because this spending is leaking to other trade areas where the businesses do exist. These, therefore, represent opportunities for Mandan to meet this demand. Ten of these categories are represented by the following graphs.

Retail Categories showing leakage from Mandan, \$/year (Nielsen- Claritas, 2014)





The map below illustrates Mandan's primary and secondary trade areas (Retail Attractions, 2012). The total dollar amount of retail leakage from the Mandan market is estimated to be \$87 million per year (Nielsen Claritas, 2014). The vast majority of this leakage is to businesses in Bismarck, as depicted by the red arrow. This is understandable, considering the larger variety and number of businesses in Bismarck compared to Mandan. Nevertheless the numbers represent an opportunity for Mandan to re-capture significant retail business in its marketplace.



Retail Demand

The amount of land needed for potential future retail demand can be roughly estimated from gaps and surpluses in existing retail offerings and the following assumptions:

- Retail businesses generate about \$250 per square foot in sales. This number can vary greatly among various types of businesses, but the calculations below will use this number for estimation purposes.
- Building coverage for typical retail development is about 8,000 square feet of floor area per acre.
- About 20% of household income is spent on retail goods and services, based on several studies. This varies among households and regions.
- Median household income in Mandan is about \$60,000, based on recent U.S. Census data.
- Mandan may be able to re-capture some but not all of the current retail leakage.
- Mandan will be able to capture most but not all of the new retail demand from the growth in households to the year 2030.

Mandan Market Re-Capture



These numbers and assumptions result in:

- Retail Leakage of \$87M per year:
 - $\$87,000,000 \div \$250/\text{sq ft Retail} = 348,000\pm \text{ sq ft Retail} = 44\pm \text{ acres}$
 - Mandan might re-capture some but not all of that leakage:
 - 1/3 to 1/2 of the 44 acres = 15-22 acres
 - New growth of 5,200 HH:
 - $\$60,000/\text{HH} \times 20\% \text{ retail spending} = \$12,000/\text{HH}$
 - $\$12,000/\text{HH} \times 5,200 \text{ HH} = \$62\text{M}\pm \div \$250/\text{sq ft Retail} = 250,000\pm \text{ sq ft Retail} = 31\pm \text{ acres}$
 - 60%-80% of that growth = 20-25 acres in Mandan
-
- Total Retail growth to 2030 (re-capture plus most of new growth):
 - **35-50 acres of new Retail**
-

Industrial Demand

The following industrial demand calculations assume that the future ratio of commercial and industrial acreage in Mandan will remain about the same as it is today. Therefore the amount of new industrial land demand will be based on the retail land demand calculated above.

MANDAN COMMERCIAL & INDUSTRIAL LAND

| Existing Land Use | Acres | % of Occupied Land | Total Acres | Total % |
|-------------------|---------------|--------------------|-------------|---------|
| Comm in Mixed Use | 21.00 | 0.7% | | |
| Commercial | 257.63 | 8.0% | 308.23 | 10% |
| Office | 29.60 | 0.9% | | |
| Industrial | 372.25 | 11.6% | 372.25 | 12% |
| Total | 680.48 | 21.2% | | |

The table above, a portion of the overall existing land use area numbers, shows that about 10% of Mandan's land is now occupied by commercial uses and about 12% by industrial land, or about 20% higher than the commercial land portion. A total of 35-50 acres of new commercial land by 2030 was estimated above; therefore we assume that new industrial demand will be about 20% higher than that, or 40-60 acres.

- Total Industrial growth to 2030:
 - **40-60 acres**

Potential development in the Growth Areas from the table on page 15 showed about 1.25 million square feet of industrial, or about 150 acres, more than the demand calculated above



Future Land Use Plan

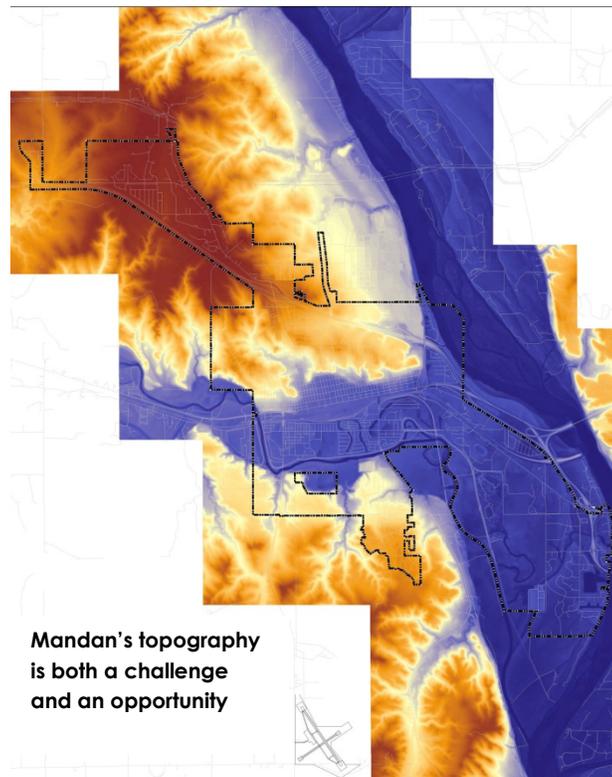
There are five key elements in Mandan's future land use plan that will shape development in the next twenty years and beyond:

- **Greenways** – recreation, environment, stormwater
- **Neighborhoods** – commercial nodes & parks
- **Downtown** – continue revitalization & housing
- **The Strip** – continue revitalization and beautification
- **New front door** on I-94

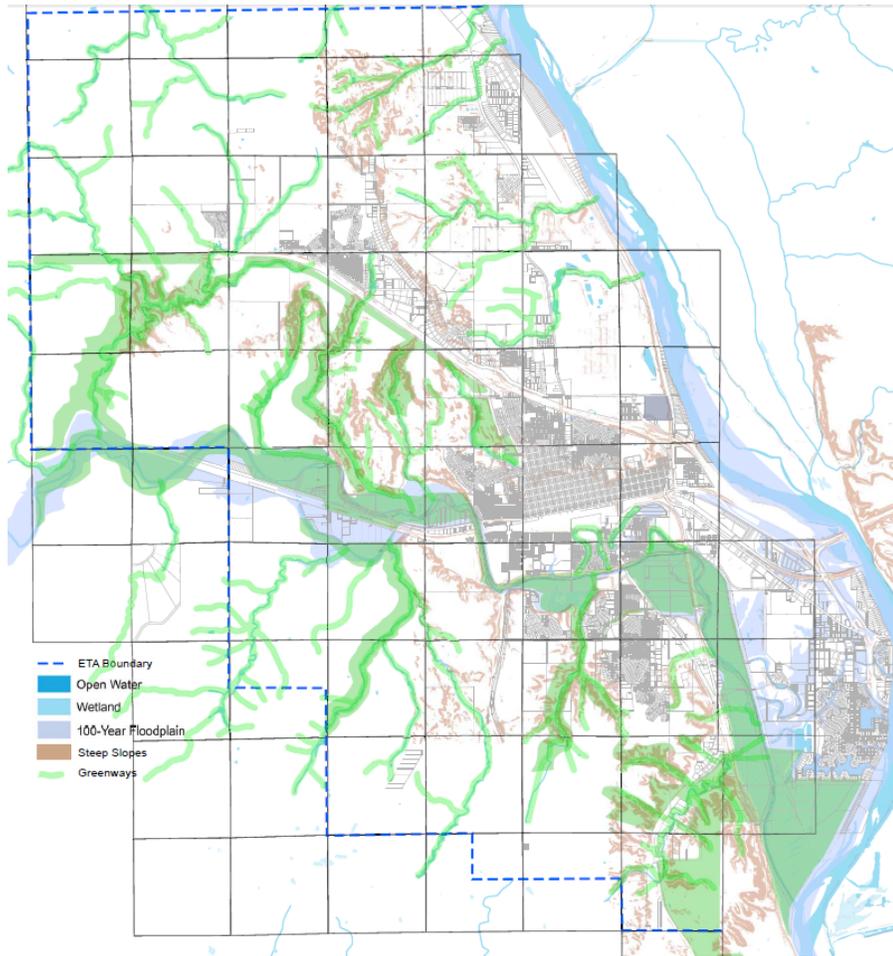
Greenways

Mandan's topography is both a challenge and an opportunity, as discussed in the Introduction to this plan. The changes in elevation, steep slopes, and numerous ravines and coulees are a challenge to develop easily and efficiently. But they provide the opportunity to shape future neighborhoods with amenity and character and they are important for stormwater management. Preserving and enhancing these corridors as greenways can be an important feature of the future plan.

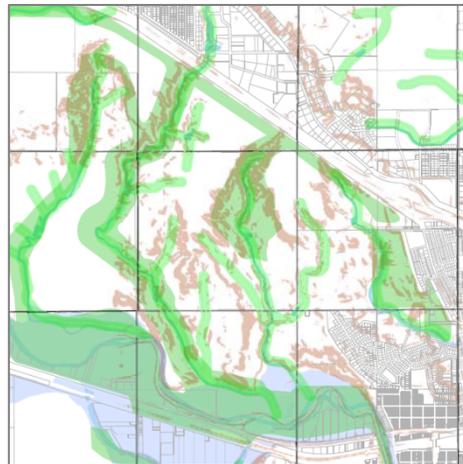
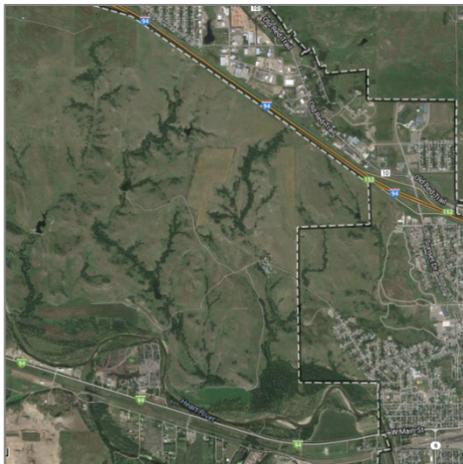
The map on the next page illustrates the major greenway corridors in Mandan and the surrounding area in the light lines. Steep slopes are shown in the light brown tone. Not surprisingly the greenways are mostly in areas of steeper slopes. These greenways connect to both the Missouri River and the Heart River, acting as drainage corridors and wildlife habitat. Not only can they provide amenity and recreation, but preserving them can reduce soil erosion and flood risk.



Greenway Corridors in Mandan and Surrounding Area



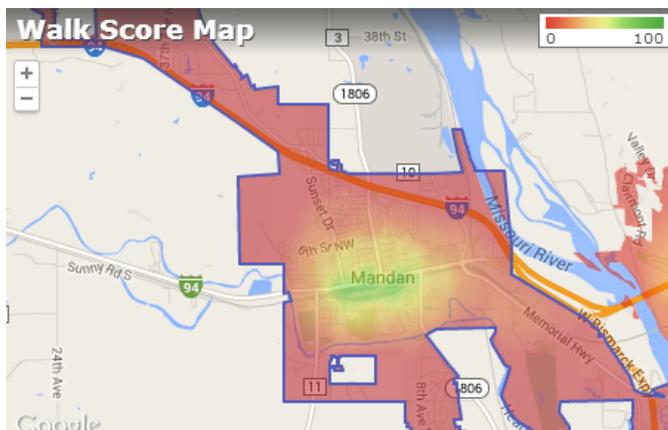
The aerial photo and map portion below show that often the only vegetation in some undeveloped areas is in the greenway corridors. Preserving the greenways can preserve trees and other vegetation.



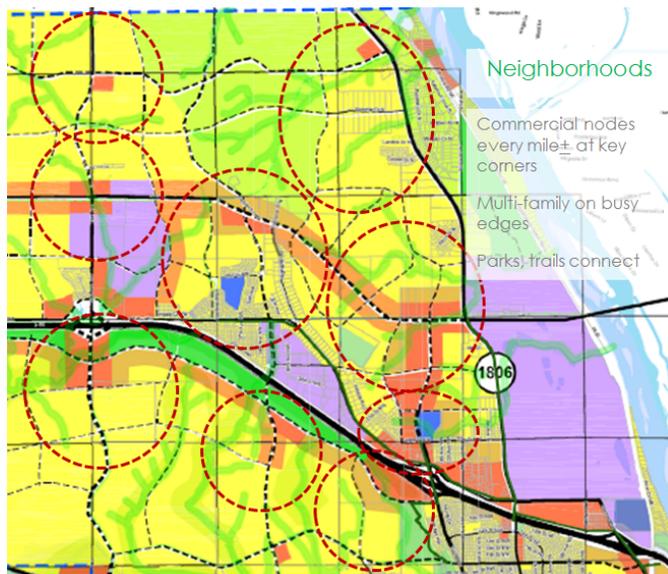
Neighborhoods

Creating and maintaining neighborhoods is one of the most important elements in quality of life in any city. Neighborhoods form in areas surrounding schools, parks and neighborhood commercial areas. They provide identity and security. They can also contribute to healthier living when it is easier to walk or bike to various destinations.

One way to identify walkable places is with a Walk Score – a web-based program that analyzes maps and data in an area and assigns a score indicating how “walkable” it is – how easy it is to accomplish many daily errands without a car: going to work, a grocery store, bank, library, school, etc. Higher Walk Score areas are green, lower Walk Score are shown in red; yellow in the middle. For Mandan the Walk Score map (below) indicates only downtown and its surrounding area are a walkable neighborhood.



Planning for future walkable neighborhoods in Mandan as the city grows might look like the map concept below – the red circles indicate areas about a mile across that are served by neighborhood commercial areas, park or open space, and where sidewalks and trails could be provided safely and efficiently.



Downtown

The success and survival of downtown Mandan is vital to the success of Mandan as a whole. Downtown is the heart of Mandan for business, government, school and many other activities. There have been many successes in revitalizing and redeveloping downtown which should continue. In recent decades, downtown commercial districts have suffered from the rise in auto-oriented businesses and concentrated retail hubs commonly found near highways.

Downtown Mandan is unique, and national trends favor dense, walkable neighborhoods as the location of choice for more and more young people forming households, and for older people wanting to be free of maintenance of large homes and yards.

Among the elements for success in downtown Mandan:

- Continued identification and redevelopment of key sites
- Park and open space - development of new spaces and continued enhancement and maintenance of existing spaces
- Adequate, convenient parking
- Additional concentrated housing of all types in or near downtown
- Beautification and renewal
- Connection by sidewalk/trail that is safe and convenient to other parts of the city
- Programmed activities for the public
- Organized, coordinated efforts by downtown businesses to attract customers

Current efforts led by City of Mandan Business Development staff, many of which are focused on downtown, have been successful and should be continued:

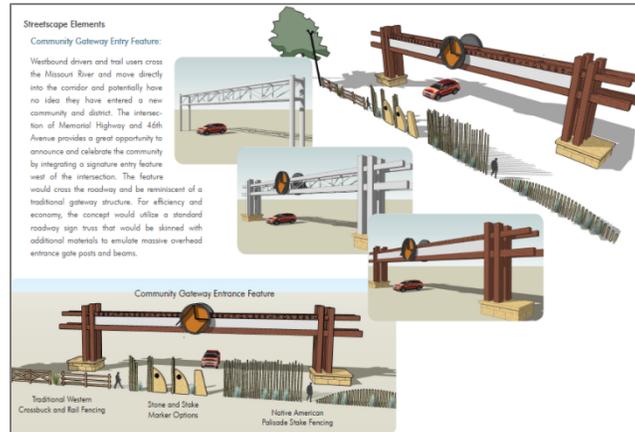
- Mandan Renaissance Zone redevelopment projects in a 28-block area along Main Street
- Revolving Loan Funds
- Storefront Improvement Program, providing matching funds for downtown improvements
- Remediation of underground diesel fuel spill begun in 2005 is near completion and may leave excess funds available for other downtown improvements
- Mandan Growth Fund for attracting and retaining businesses (city-wide)



- Retail and restaurant incentives (city-wide)
- Community Beautification Committee (city-wide)

The Strip

Memorial Highway, or the Strip, is a major feature of the community and a major gateway from Bismarck, and warrants continued attention to make Mandan a more successful and attractive community. The Strip has been studied numerous times with different focus, notably the 2010 *Mandan Memorial Highway Corridor Study (MPO, KLJ, RDG Planning & Design)*.



That study developed a master plan addressing a variety of issues including existing and future land use, traffic and safety improvements, drainage improvements, creating an identity or sense of place, pedestrian and bicycle accommodations and future roadway reconstruction alternatives. Key recommendations included:

- Scale, visual cues and street framework
- Landmarks, destinations and distinction
- Consistent quality
- Pedestrian and alternative transportation
- Utility considerations
- Community identification and Image

With continued retail and business development north of I-94 it becomes even more important for the Strip to be revitalized, redeveloped and made more attractive if it is to be an asset to the community. Efforts should continue to seek development on vacant land, redevelopment opportunities, funding for improvements to the roadway and streetscape.

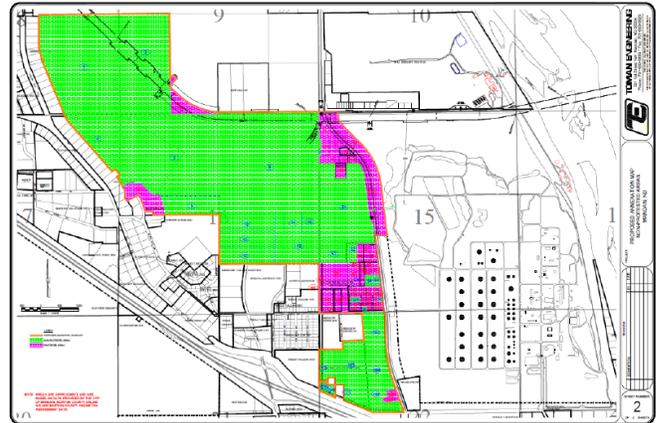


New Front Door on I-94

With the continued growth of Mandan to the north across I-94 new opportunities and challenges open up. A generation ago Main Street Mandan was the “front door” to the community, whether coming from the west or coming from the east on Memorial Highway from Bismarck. With the community mostly built out between Main Street and I-94 and roughly equal traffic numbers on Main Street/Memorial Highway as on I-94 in Mandan, the north access points to Mandan assume greater importance.

Mandan is growing north, both in areas that have been in the city for some time and in the recent annexation area of almost 900 acres.

With this new “front door” on I-94 – interchanges at Sunset Drive and Mandan Avenue, and potential future interchanges further west – comes the need to consider carefully what gets built and how: careful land use planning and zoning, design standards, attention to the public realm streetscape, and convenient connections for automobiles, pedestrians, and bicycles.



Future Land Use Map

The attached future Land Use Map illustrates how the community is planned to be developed in the next 20 years and more. The map illustrates how the land is guided for future development in various categories.

The map is a general guide and is intended to be implemented with zoning, which in some cases is different from how the land is currently used and how it is zoned. Some properties will need to be rezoned, so that the land use plan and zoning are not inconsistent.

Growth Areas and Staging

The Land Use map shows areas surrounding Mandan out to the two-mile extraterritorial area (ETA). The city will not grow into nearly all that land in the near future. The attached Growth Area Staging map on the page following the Future Land Use Plan illustrates generally how the city is expected to grow in four stages or phases over the next twenty years:

- Stage 1: 2014-2020
- Stage 2: 2020-2025
- Stage 3: 2025-2030
- Stage 4: 2030 and beyond

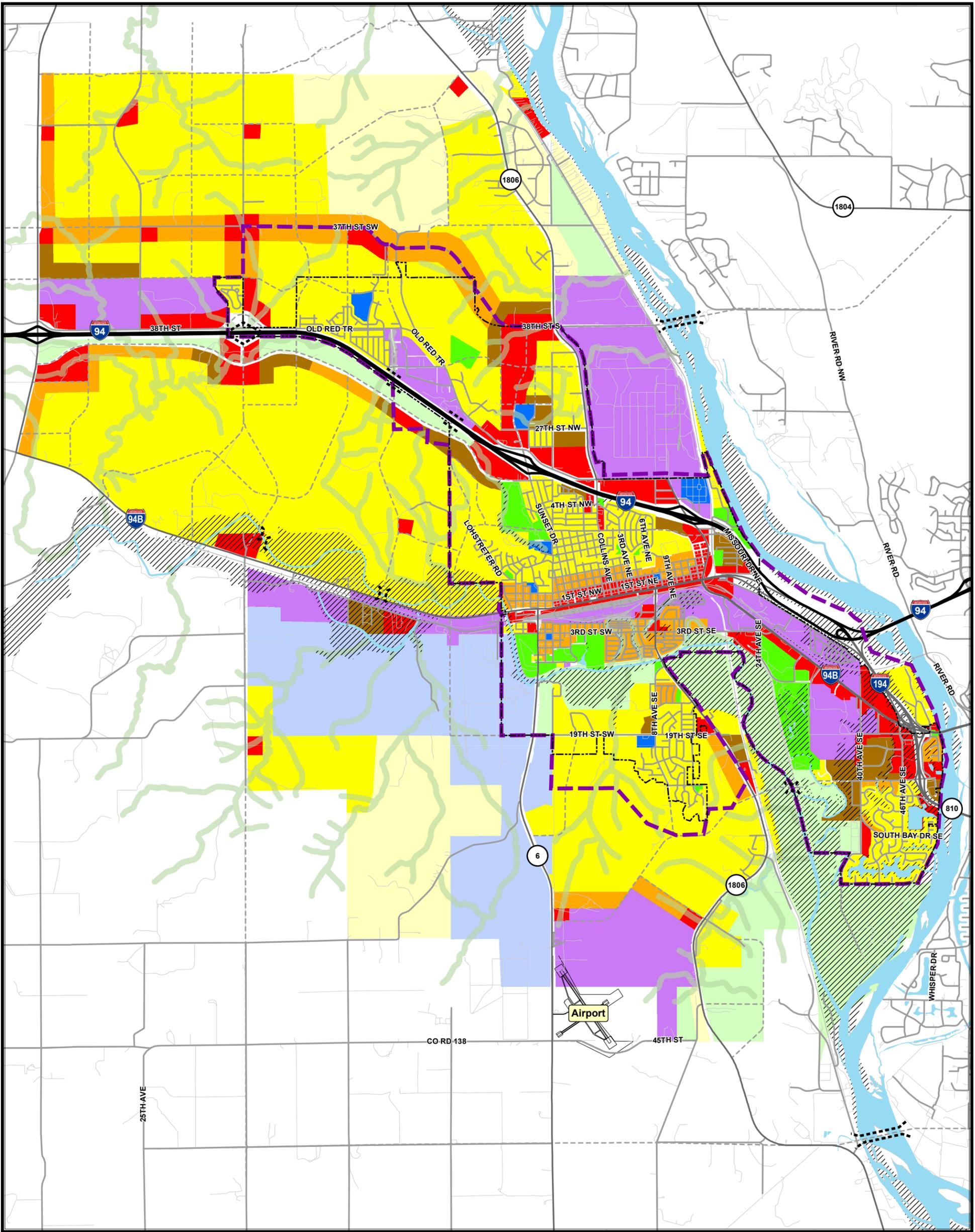
During the course of the preparing this Land Use Plan the City has annexed significant land on the northwest side of the City, and a modest amount south of 19th Street SW in the south part of the City. Mandan has therefore already grown its city limits into a large portion of the growth areas identified in this Plan.

It is the city's intent that development will be allowed and city services extended in Stage 1 areas as requested and as services can reasonably be provided and paid for per city policy.

Development in Stage 2 areas and provision of city services will only be allowed when the city determines that development in Stage 1 will reach a point of full development within two years.

Development in Stage 3 areas will follow when Stage 2 is nearly developed.

The staging is generalized and should be seen as a detailed plan. The city will review the Staging Areas periodically and make changes as needed, taking into account the advice and recommendation of the City Administrator, City Planner, City Engineer, City Public Works Director, Fire Chief and Police Chief.

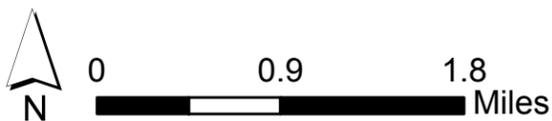


Planned Future Land Use

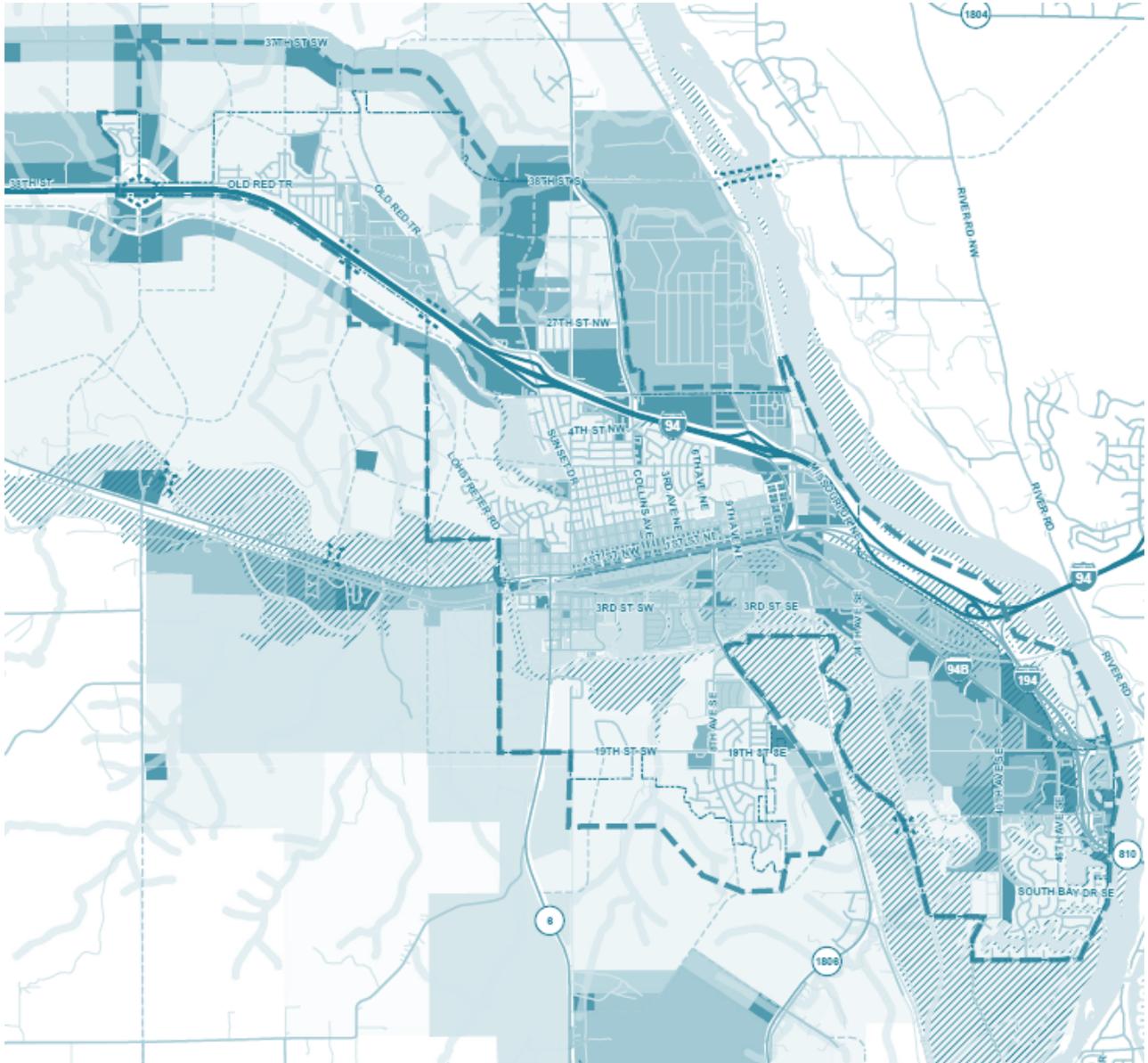
City of Mandan, North Dakota

- | | | | | | |
|-------|----------------------------|--|---------------------|--|----------------------|
| ----- | Future Roadway Alignment | | Public/Semi-Public | | 2030 Growth Boundary |
| | Rural Residential | | Public Land | | City Limit |
| | Low Density Residential | | Park | | Future Interchange |
| | Medium Density Residential | | Greenways | | Future Underpass |
| | High Density Residential | | Open Space | | Future Bridge |
| | Commercial | | Open Water | | |
| | Industrial | | 100-Year Floodplain | | |

October 21, 2014



Growth Area Staging Map





Introduction

This Transportation chapter lays out the overall transportation system in Mandan. Among the top issues in Mandan mentioned in early discussion on the Comprehensive Plan were these that relate to transportation:

- **Managing growth and development**
- **Traffic and transportation**
- **Land use and access on I-94**

Within the list of specific issues (strengths, weaknesses, opportunities, threats) were the following transportation-related items:

- Mandan's place as part of the larger Bismarck-Mandan metropolitan area (*strength*)
- Traffic (*weakness*)
- A new interchange providing more access to I-94 on the north side of the City (*opportunity*)
- Not being prepared for growth (*threat*)

Additional access to I-94 on the north side of Mandan is crucial to successful future development

Taken together these issues show a community that is growing, with transportation and traffic problems growing with it. With more development happening north of I-94, access to the interstate is of crucial importance to orderly development, and continued quality of life and ease of movement.

Transportation Goals

The entire set of goals for the Mandan Land Use & Transportation Plan is included in a separate section in this document. Three of the eight goals deal with transportation issues and are included here as well:

Goal 4: Coordinate transportation with land use planning.

*Key planning theme:
Traffic and transportation*

Rationale: The transportation system and land use are closely linked. Each has a direct impact on the other.

Policies:

1. Implement transportation improvements according to existing and future studies, such as the *MPO Long Range Transportation Plan*, the *North Mandan Sub-Area Study*, and the *Mandan Memorial Highway Corridor Plan*.
2. Require traffic impact studies for development that will affect collector or arterial roadways.
3. Continue creating a positive image along the city's corridors and gateways through building, site design, signage standards, and the development of gateway features.
4. Identify areas for expanded commercial and industrial growth along the I-94 corridor with good access that serve market demand and are compatible with neighboring land uses.



Goal 5: Provide safe and functional roadways that serve automobiles, trucks, transit, bicycles and pedestrians.

*Key planning theme:
Traffic and transportation*

Rationale: A well-planned roadway system manages traffic to minimize neighborhood impacts and speed on local streets, while serving businesses and providing connections for biking and walking.

Policies:

1. Integrate pedestrian and bicycle trails into the design of roadway facilities that provide links to key destinations such as existing neighborhoods, parks, commercial areas, cultural and historic resources, and public uses.



2. Maintain a truck route system to serve industrial uses and minimize impact on other parts of the roadway system.
3. Use traffic management technology to improve the operations and pedestrian safety of the roadway system.
4. Design and install appropriate traffic calming features to minimize speeds and discourage through traffic from intruding on residential areas.

Goal 6: Promote redevelopment of existing corridors and downtown to enhance Mandan's character and identity.

Key planning themes:

Traffic and transportation, community character and identity, maintaining infrastructure

Rationale: Mandan's corridors and downtown are important commercial districts that provide unique settings and opportunities to enhance business and the community's identity.



Policies:

1. Study and inventory land uses within key corridors including Memorial Highway, Main Street, Highway 1806 and others to determine appropriate land uses and redevelopment sites that support and expand the economic vitality of the corridors.
2. Continue revitalization of downtown Mandan as an important historical and community gathering place.
3. Strengthen and enforce building, site design and signage standards to insure high quality development that enhances Mandan's identity and character.
4. Implement a streetscaping plan for Memorial Highway, Sunset Drive, Collins Avenue, Mandan Avenue and other key corridors.

Context – Other Transportation Studies

Mandan's transportation system is part of the Bismarck-Mandan regional system serving the city and surrounding area. The Bismarck-Mandan MPO has studied the regional transportation system, and is updating regional plans as Mandan's own planning effort continues. The key conclusions and recommendations of these studies are incorporated into Mandan's plans. The original studies should be consulted for full analysis and details.

A number of comments related to transportation and traffic were made at a community meeting early in the process of preparing this plan. Those comments, along with a map, are included in the Introduction chapter.

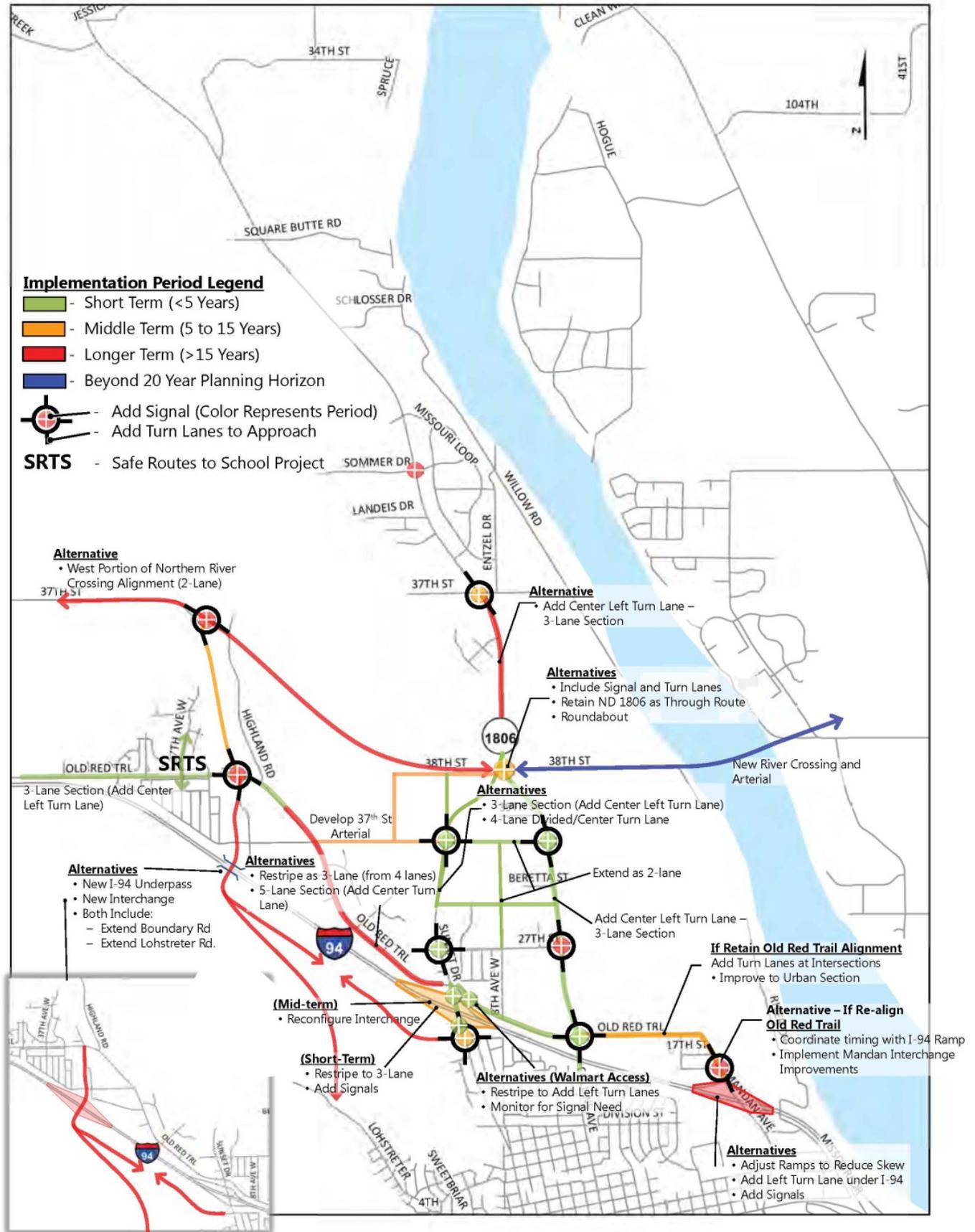
North Mandan Subarea Study (2013) – MPO, URS

The North Mandan Subarea Study was initiated by the Bismarck-Mandan MPO and the City of Mandan to identify transportation needs, both current and future, including congestion, safety, and connectivity within an area on the north side of Mandan. The study area included both the city and areas outside the city in Morton County. The study also evaluates walking, biking, bus and automobile travel in the north Mandan area. The study was prepared by consultants URS and completed in late 2013 and involved the area shown on the map to the right.

Recommendations include items identified as technically feasible improvements on the map on the next page. These include short-, middle- and long-term improvements to many roadways in the area, including Old Red Trail, Sunset Drive, Collins Avenue/1806, and 38th Street. Also noted are improvements to the I-94 interchanges at Sunset Drive and Mandan Avenue and a potential interchange or underpass at 30th Avenue NW connecting to extensions of Boundary Road and Lohstreter Road. These recommendations are included in Mandan's Transportation Plan.

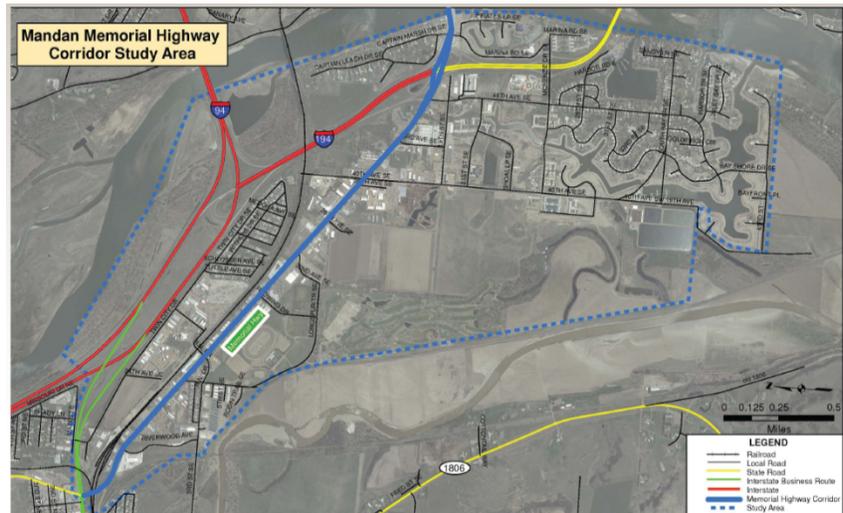


North Mandan Study Area (from North Mandan Subarea Study)



Mandan Memorial Highway Corridor Study (2010) – MPO, KLJ, RDG Planning & Design

The Memorial Highway Corridor Study developed a master plan addressing a variety of issues including existing and future land use, traffic and safety improvements, drainage improvements, creating an identity or sense of place, pedestrian and bicycle accommodations and future roadway reconstruction alternatives. Three major overlapping components of the study area environment include future land use, roadway improvement alternatives and streetscape/landscape improvements. Combining these three aspects into one plan provides the basis for developing a defined Memorial Highway identity composed of an economically healthy, efficient and visually appealing community.



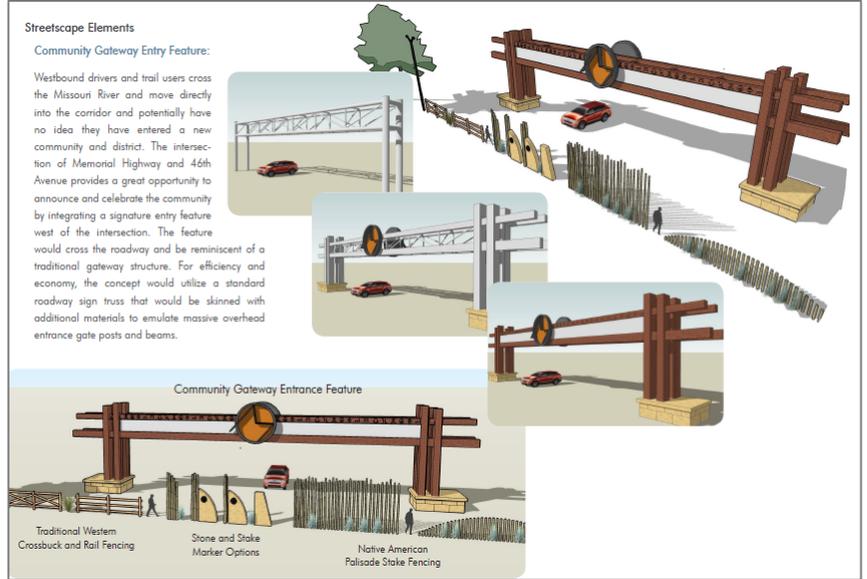
Study Area (from Mandan Memorial Highway Corridor Study, MPO/KLJ/RDG)

Key Findings and Recommendations:

- The study included a market analysis updating a previous Mandan market study with actual development trends since 2003. This analysis concluded there is currently not enough un-met demand to support bringing big-box retail stores into the area, but rather continue promoting a mix of commercial office, retail and industrial uses in appropriately zoned locations.
- Maintain a mix of land uses within the study area including residential, commercial and industrial with emphasis on transitions from one land use to another to minimize potential conflicts.
- Create a linear greenway park along the roadway as a transition between industrial and residential uses (i.e. around the Kist Livestock Auction).
- Expand recreational opportunities at Dacotah Centennial Park
- Develop an event center visible from Memorial Highway.
- Extend the Fort Lincoln Trolley and area trail system to the event center for improved visibility and access.
- Transportation Improvements:
 - Extension of Longspur Trail between 32nd and 40th Avenues.
 - Improvements to Memorial Highway include proposed reconstruction and lowering of the roadway to a 5-lane curb and gutter roadway. The study explores additional features this improvement could bring.

The study addresses the visual environment of this corridor which results in an interesting and challenging list of opportunities to make improvements and protect unique attributes within this corridor. The study addresses this with recommendations and streetscape plans focusing on:

- Scale, visual cues and street framework
- Landmarks, destinations and distinction
- Consistent Quality
- Pedestrian and Alternative Transportation
- Utility Considerations
- Community identification and Image



Streetscape Elements (from Mandan Memorial Highway Corridor Study, MPO/ KLJ/RDG)

The study also provides a comprehensive overview of the existing transportation system and its challenges related to traffic, capacity, crashes and pedestrian accommodations.

Proposed Improvements: 46th Avenue and Memorial Highway (from Mandan Memorial Highway Corridor Study, MPO/ KLJ/RDG)



A market study was prepared by URS in 2003 for the City of Mandan as a component of the Downtown Mandan and Memorial Highway Redevelopment Plan. That study provided an analysis of the regional market trends and Memorial Highway corridor strengths, weakness, opportunities and threats. The purpose of the 2008 update was to document development and market changes since 2002 and recommend revisions to the original study recommendations.

Update of URS SWOT Analysis

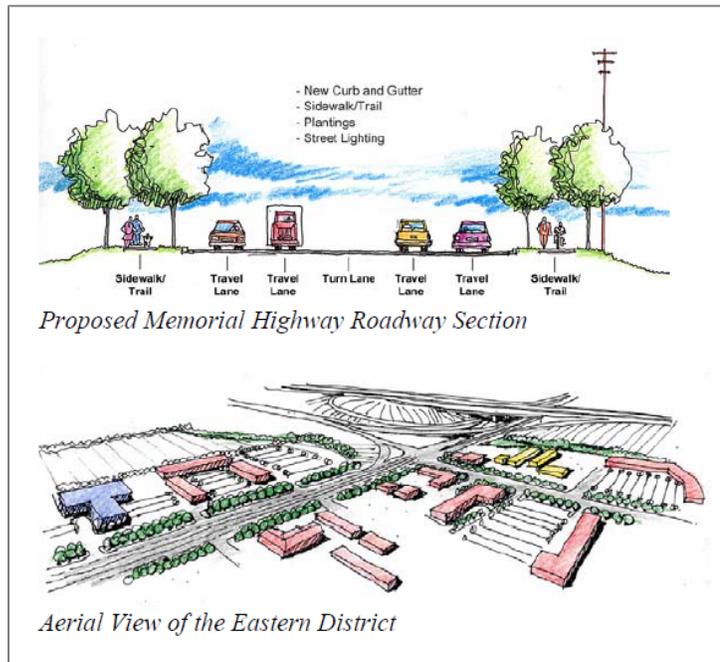
The URS Market Study included a strategic planning “strengths, weaknesses, opportunities and threats” (SWOT) analysis of the Strip. Review of that analysis revealed one major shift in perception – the Kist Livestock Auction operation was considered a “weakness” in the 2002 analysis whereas today Kist is viewed as a vital anchor. This one use has spun off numerous support and agriculture related businesses in the corridor. There is a need for buffering, particularly between Kist and the residential development to the south. However, on balance, Kist is now viewed as a strength.

The market study provides updated demographics in terms of residential activity, sales, price ranges and comparisons to Bismarck. The average number of permits issued annually for residential construction increased from 110 units a year between 1993 and 2002 to 192 per year between 2002 and 2009 (the numbers for 2012 and 2013 are two and three times that). Mandan accounted for 45 percent of the total single family homes built in the Mandan/Bismarck community while Mandan’s population accounts for only 23 percent.

This market study update provided a summary of developments since 2002. Most new uses have been in the categories of auto/RV related, office/government/service, restaurant/entertainment, and agriculture related. There has been very little general retail development originally projected in the 2003 Market Study, where big box was suggested. The update relied on a Claritas report, *RPM Opportunity Gap – Retail Stores 2008*, analyzing various retail categories to identify which have gaps and which have surpluses, and looked to existing businesses for opportunities to build on. It found that Mandan’s businesses attracted about \$41.5 million dollars into the community above sales generated by Mandan residents. The largest attraction of “outside dollars” is for Automotive and Other Motor Vehicle Dealers. There is \$6.9 million in business on the corridor out of a \$32 million demand for food and beverage stores in Mandan – people from Mandan are going outside for these purchases. Other gaps include clothing and clothing accessories, sporting goods, hobby, and book and music stores. These gaps in general retail are inadequate to support new big box stores this study points out there may be demand for small outlets of general retail.

Downtown Mandan and Memorial Highway Redevelopment Plan (2003) – URS

The Downtown Plan provides guidance to the future land use of downtown (Master Plan), develop strategy for economic activity (Market Study) and create a proactive implementation program. The Memorial Highway, also known as the Strip, an economic engine for the City of Mandan in recent years, still has large tracts of vacant land for future development. Development in recent years has been on an ad hoc basis with minimum land uses or aesthetics qualities. The purpose of the Memorial Highway (Strip) Plan is to provide a coordinated plan for future development, beautification program and implementation strategy. Memorial Highway (strip) is a major connector between the City of Mandan and the City of Bismarck. The strip is characterized by a mix of uses, which range from vehicle and manufactured home dealerships, farm implement retail, livestock sales, storage/warehouse space, light industrial, restaurants and entertainment uses, and other general retail. The strip is an essential economic center for the City of Mandan. In recent years, the strip has seen continued development, in spite of historical competition from nearby Bismarck retail and business centers.



Section and Aerial View (from Downtown Mandan and Memorial Highway Redevelopment Plan, URS)

Concept Master Plan

The recommended concept master plan for downtown Mandan envisions a multi-functional Public Square adjacent to the existing park on West Main Street. The Public Square will complement a new Civic Center. New uses in the downtown will include parking structures with commercial on ground level. In addition, the Bismarck State College and the Health Department are anticipated to have offices and classrooms in downtown.

Other mixed-use businesses are also envisioned in new buildings and in rehabbed old buildings. Medium density housing such as townhomes and apartments are anticipated to enter the downtown market area. Streetscape improvements along 1st Street and West Main Street are also planned.

For the Strip, the recommended Master Plan includes a corridor with three districts to take advantage of the individual site conditions. New uses in the Eastern District will include a

regional big-box retailer with some mixed-use commercial. In addition, select State Departments are anticipated to locate in this district. The Central District will accommodate existing business expansion or new auto/vehicular related dealerships. The Western District will be a district for light industrial activity and flex space to support downtown Mandan's business climate.

Streetscaping and place making elements are included within this plan for both downtown and the Strip.

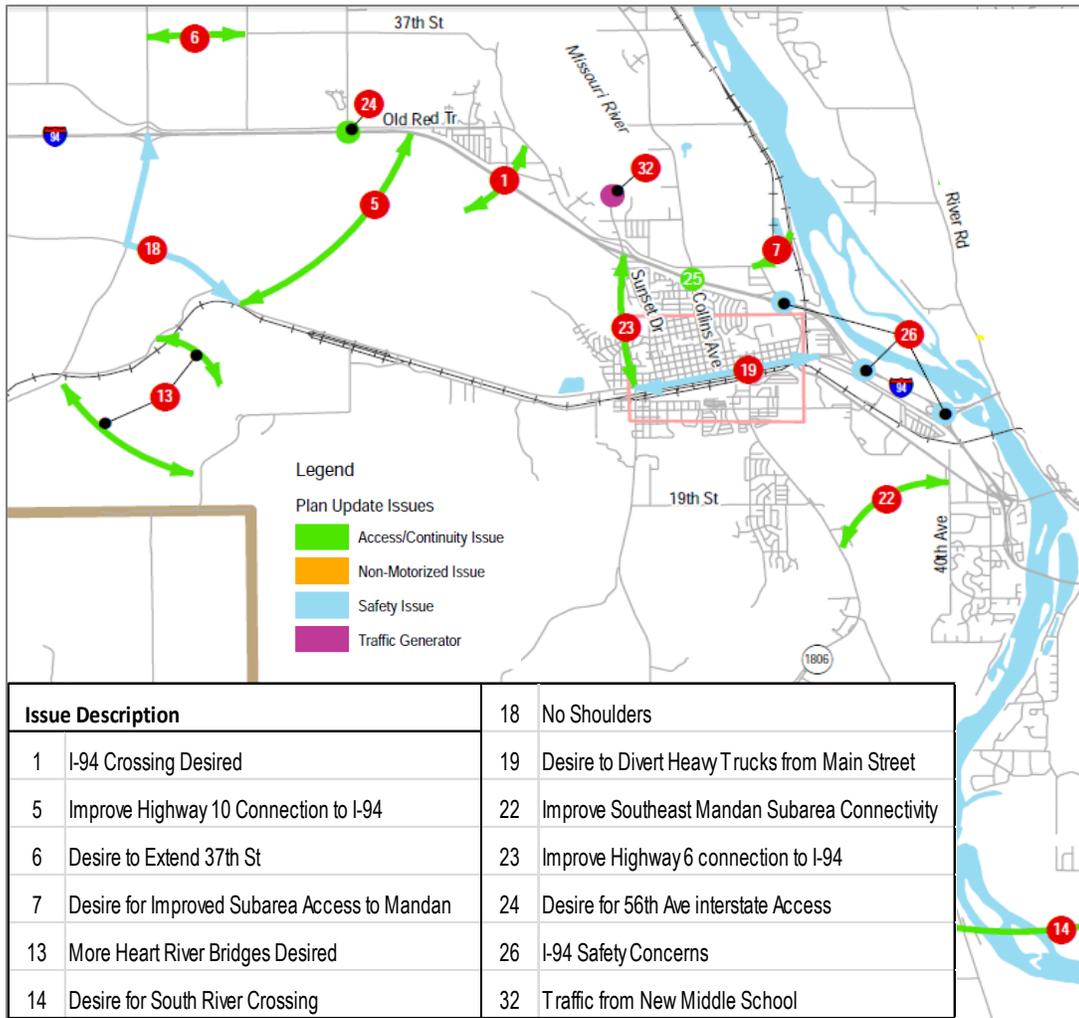


Master Plan (from Downtown Mandan and Memorial Highway Redevelopment Plan, URS)

Bismarck-Mandan Long Range Transportation Plan (2010) – MPO, URS

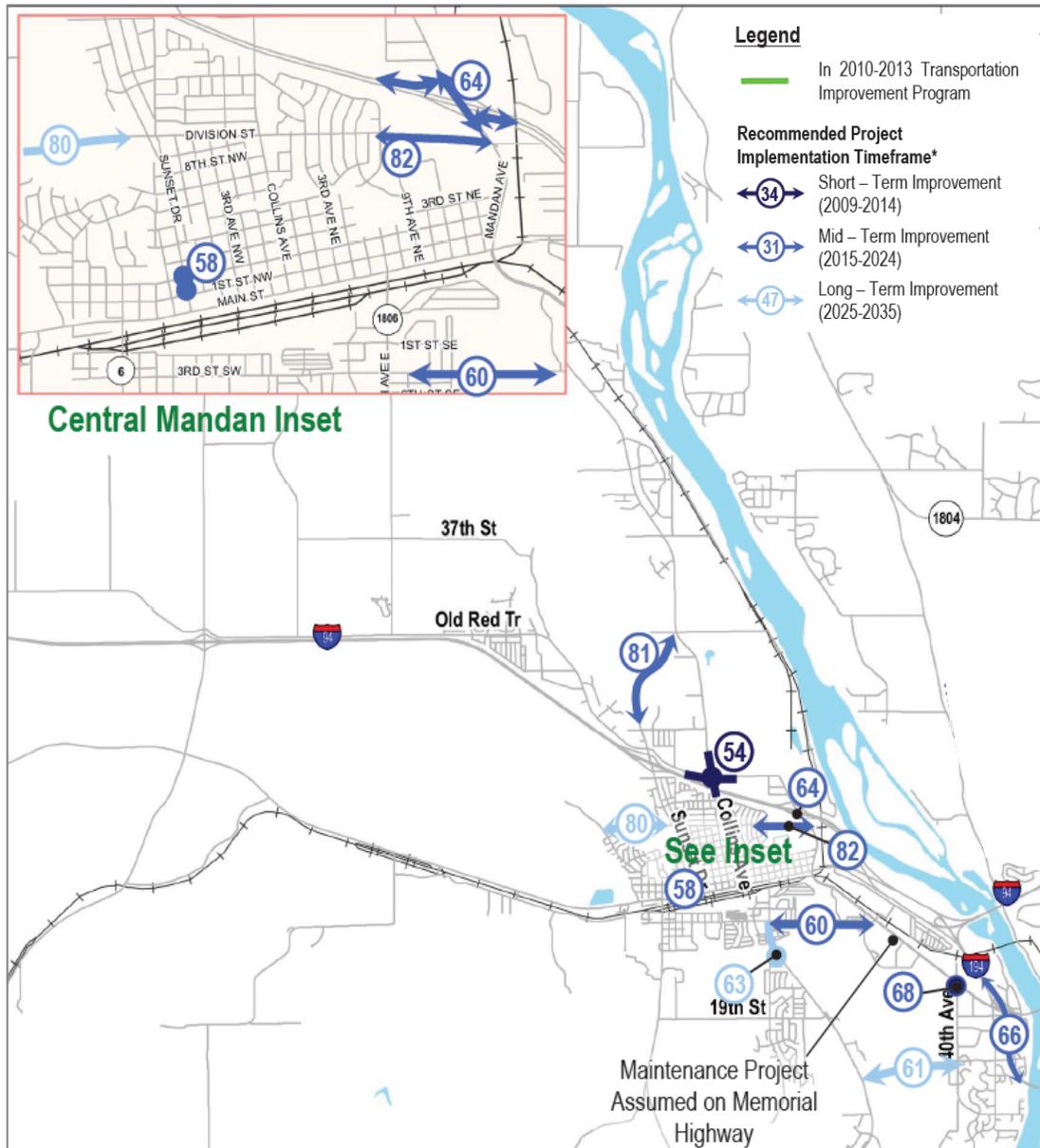
The Long Range Transportation Plan (LRTP) was prepared in 2010 by the MPO and consultants URS. It is being updated now as the *Envision 2040* study in 2014-2015 with the assistance of consultants HDR. The plan encompasses the entire Bismarck-Mandan region. The City of Mandan adopted the *2010-2035 Bismarck-Mandan Long Range Transportation Plan (LRTP)* in 2010. Key issues from the 2010 study are shown in the map below.

Public/Stakeholder Identified Transportation System Issues (from Bismarck-Mandan LRTP, MPO/URS)



Various modes in the transportation system – roadway, transit, bicycle, and pedestrian – were evaluated and a set of recommendations adopted. The LRTP has a long list of recommend projects – short-term, mid-term, and long-term – some of which show up in Mandan, as illustrated on the map below from the 2010 study and listed on the following page. The Transportation Improvement Program (TIP) projects will be updated when the current study is completed.

Recommended Roadway Implementation Phasing 2035 (from Bismarck-Mandan LRTP, MPO/URS)



L RTP Projects

Eleven projects are shown in Mandan on the L RTP map above. They are:

Short-Term:

- 54) Improve and signalize Collins Ave /Old Red Trail Intersection

Mid-Term:

- 58) Convert 4-way stops at 1st NW and 2nd NW to 2-way stops or signals
- 60) 3rd Street: Add turn lanes at key cross streets, signalize 3rd Street/Memorial Highway intersection by 2035
- 64) Improve Mandan Ave through I-94 Interchange and Lengthen I-94 onramps
- 66) I-194, Memorial Highway and McKenzie Drive interchanges: Add C/D road and ramp reconstructions to improve interchange spacing
- 68) 40th Avenue/Memorial Highway: Signalize and add turn lanes
- 81) Extend Sunset Drive to Highway 1806
- 82) Extend Division Street east to Mandan Avenue

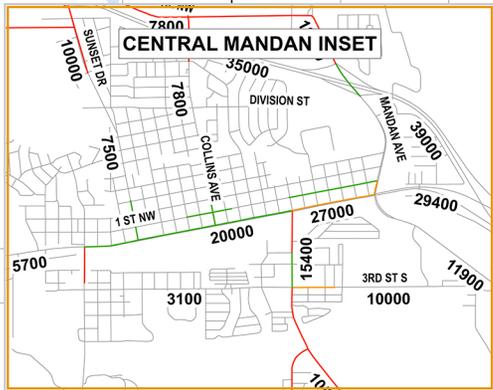
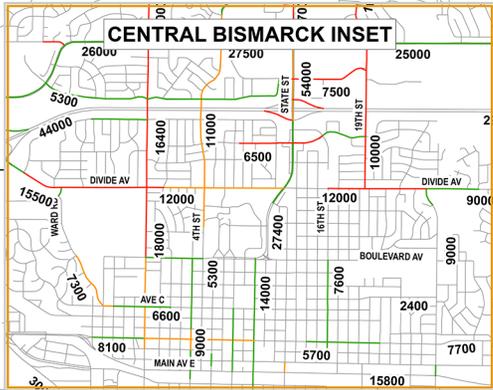
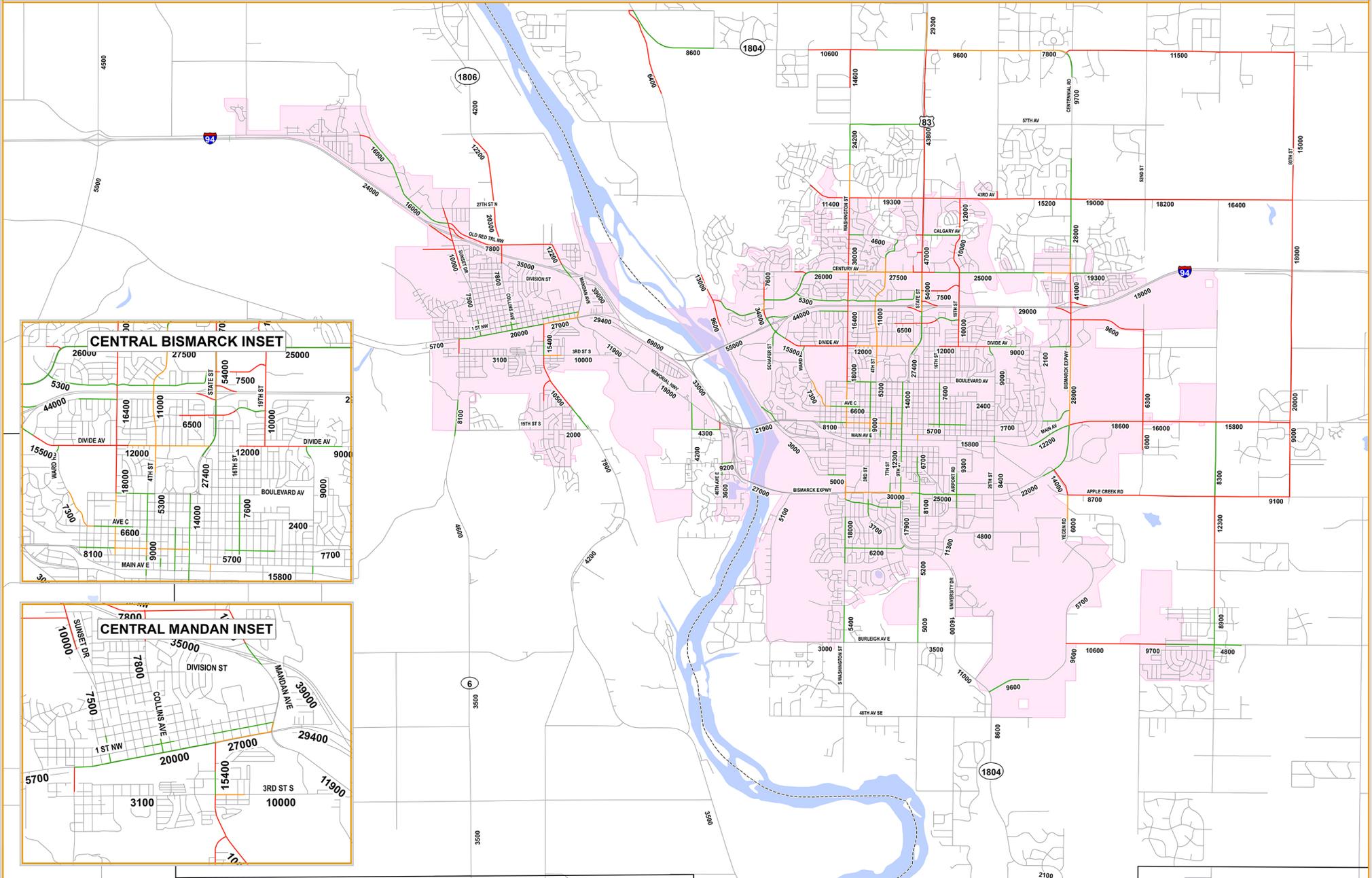
Long-Term:

- 61) Extend McKenzie Drive between 40th Ave SE and Highway 1806
- 63) Restripe Highway 1806 as 3-lane between Heart River to 3rd St SE
- 80) Extend Division Street west of Sunset Drive

Three maps from the preliminary work by HDR on the current study are attached showing existing traffic levels and level of service, the existing bike-pedestrian trail system, and roadway alternatives being considered. The traffic/LOS map shows the most serious congestion in Mandan is:

- Around the I-94/Sunset Drive interchange
- Along Main Street and its parallel companion street, 1st Street
- At 6th Avenue SE and Main Street
- On 3rd Street SE

The bike-pedestrian-trail map shows off-street bike trails on only a few key corridors in Mandan, but not a well-connected network serving large areas of the city. No on-street trails are shown in Mandan. The roadway alternatives map shows the proposed 38th Street river crossing to Bismarck, new north-south arterials south of I-94, and the McKenzie Drive crossing of the Heart River



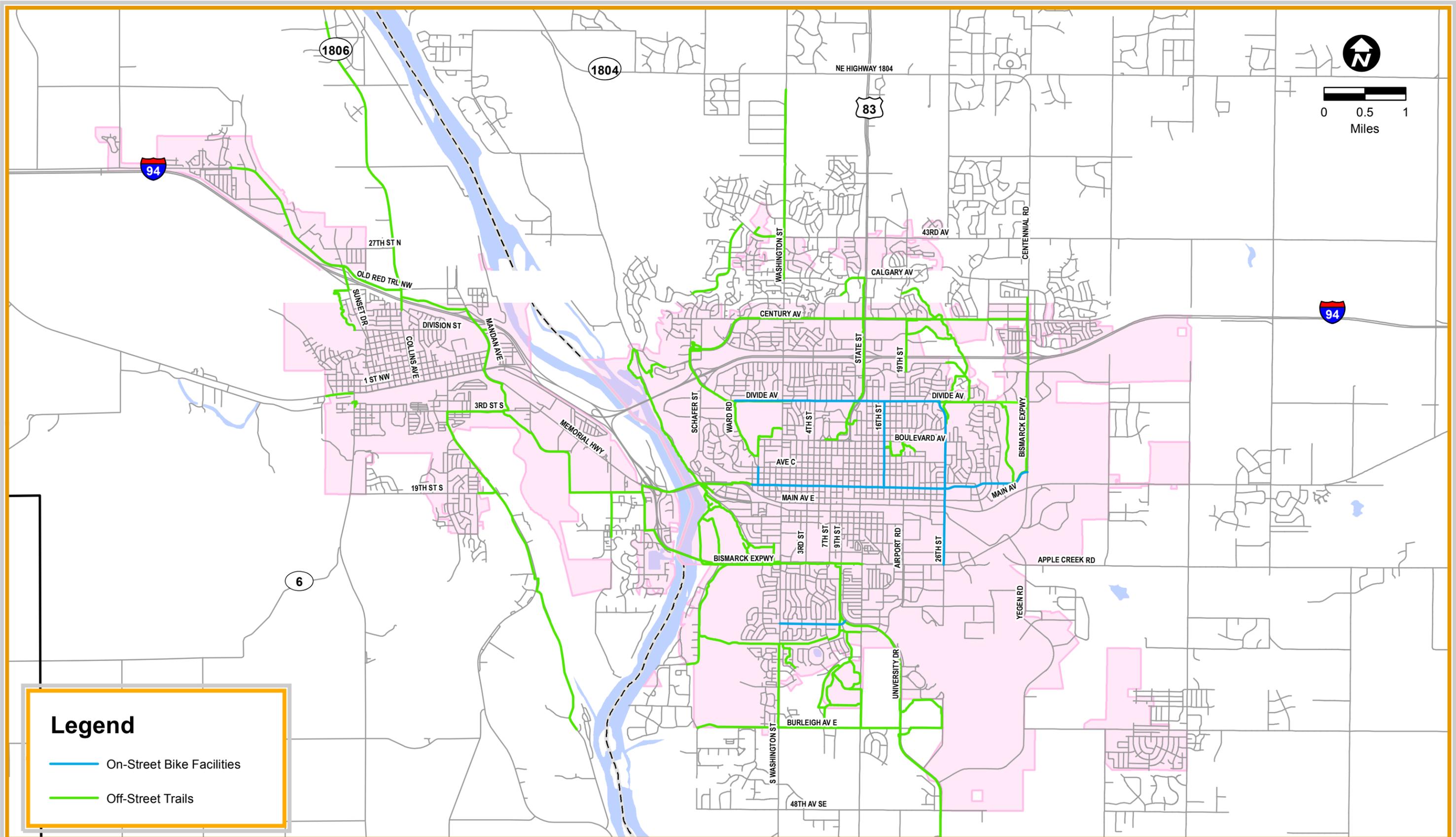
Legend

2040 Level of Service 1 MPO Boundary
 LOS D (Green line)
 LOS E (Yellow line)
 LOS F (Red line)
 City Limits (Pink shaded area)
 x,xxx - 2040 Daily Traffic Volume

1 Note: All other streets projected to operate at Level of Service "C" or better



Sources: Bismarck-Mandan MPO Count Shapefile, NDDOT Counts, HCM ARTPLAN, HDR
 Updated On: 9/15/2014



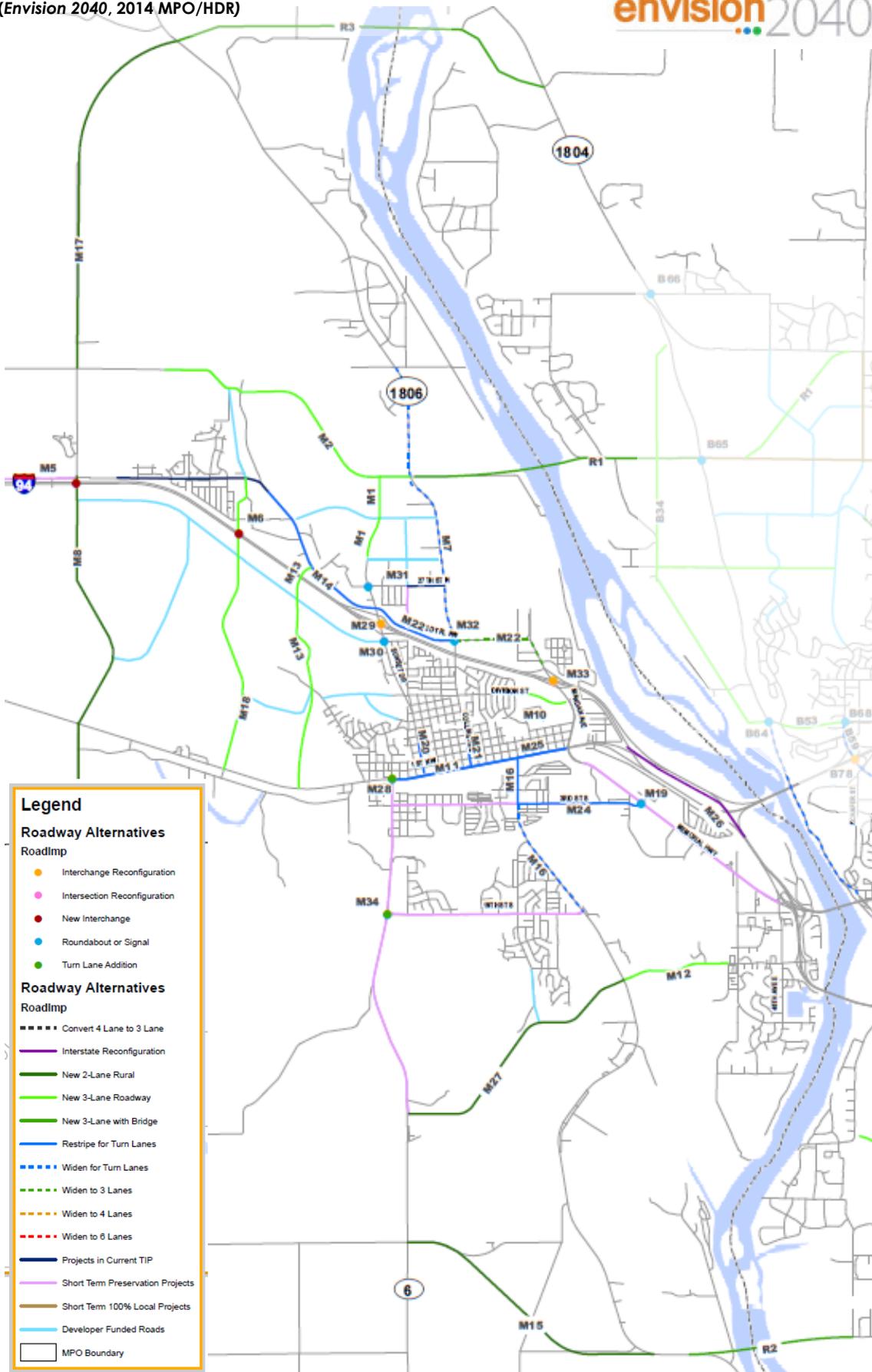
Legend

- On-Street Bike Facilities
- Off-Street Trails

Sources: Bismarck-Mandan MPO,
HDR

Current Bicycle and Pedestrian System

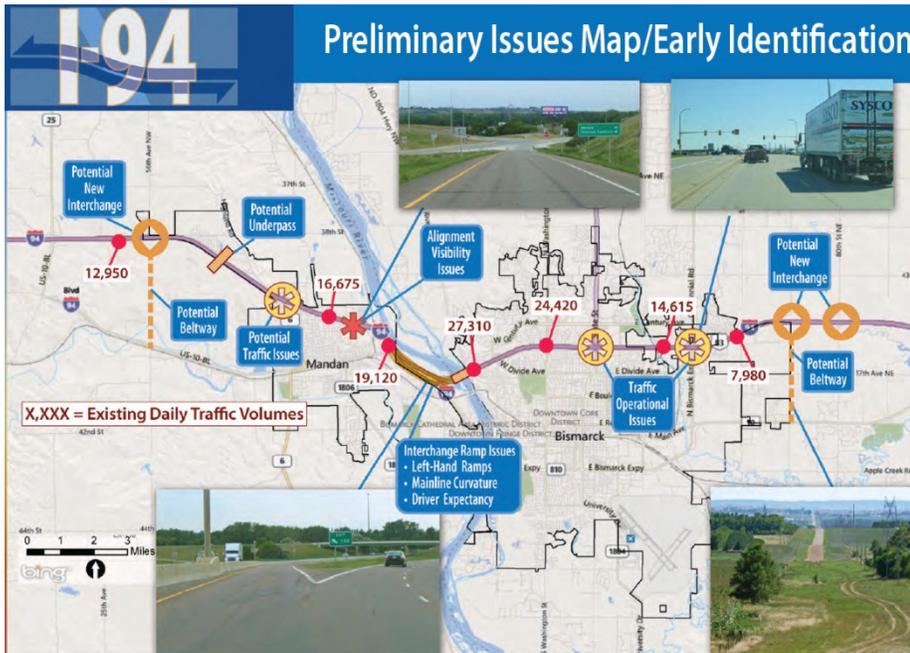
Figure: 6
Date: Dec 2013



I-94 Study (2014) – MPO, SRF

The I-94 Study is being conducted by the MPO and consultants SRF. The purpose of the study is to study and recommend improvements in the I-94 corridor in the Bismarck-Mandan area. A map of preliminary issues from the study is shown below.

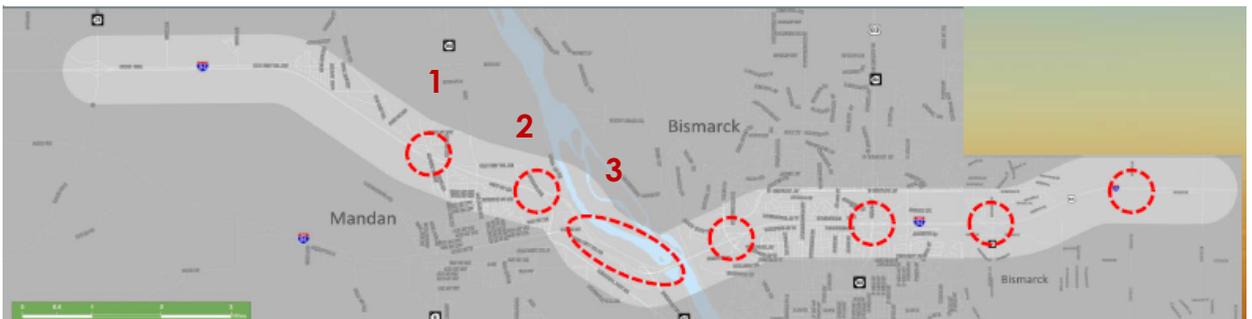
Preliminary Issues Map (I-94 Study, MPO/SRF)



The study will consider no-build and build alternatives for I-94 corridor improvements for seven mitigation areas, represented by the red dashed circles on the map below. Three of these are in Mandan:

1. Sunset Drive interchange area
2. Mandan Avenue interchange area
3. Main Street to Grant Marsh Bridge

Corridor Issues Summary Map (I-94 Study presentation, March 2014, MPO/SRF, Mandan numbering added)



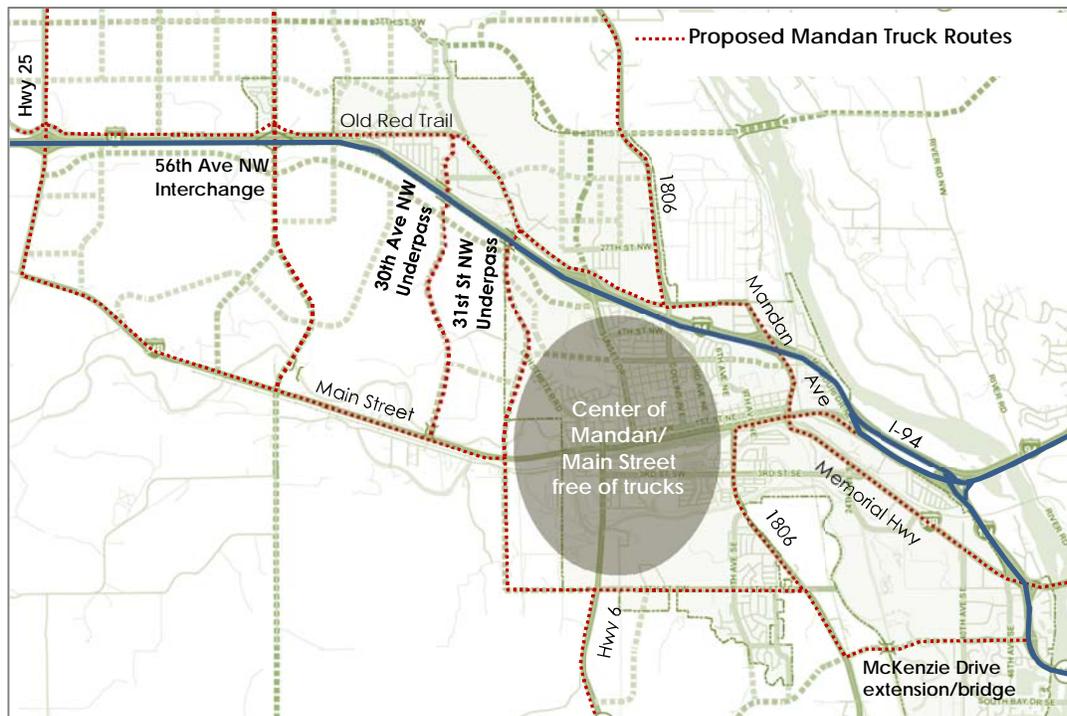
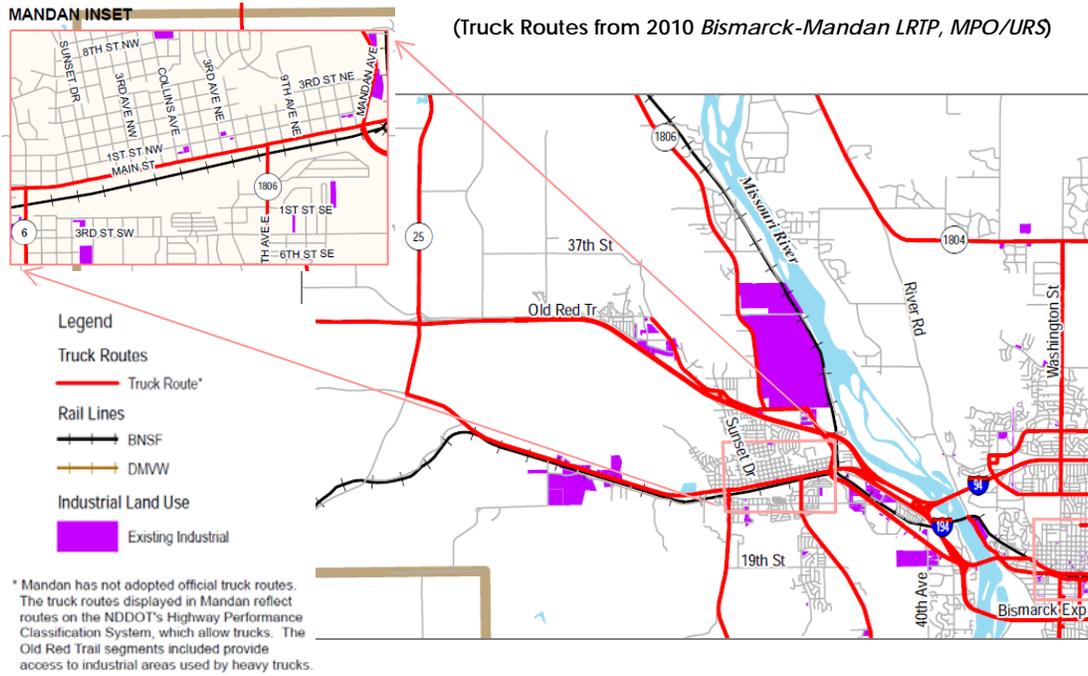
Transportation Plan – Functional Classification

The roadway system is divided into a hierarchy of functional classifications, illustrated on the attached map, as follows:

- Freeway:
 - Interstate 94
 - Interstate 194 (north of Memorial Highway interchange)
- Principal Arterial:
 - Main Street
 - Mandan Avenue
 - Old Red Trail (Mandan Avenue to Collins Avenue)
 - Collins Avenue/Highway 1806 (north of Old Red Trail)
 - Sunset Drive (Memorial Highway to Old Red Trail)
 - Fort McKeen Road/Highway 1806 (south of Memorial Highway)
 - 10th Avenue SW/Highway 6
 - Interstate 194/Highway 810/Bismarck Expressway (south of Memorial Highway interchange)
 - Interstate 94B/Memorial Highway (east of I-194 to the Missouri River)
- Minor Arterial:
 - Memorial Highway (I-194 to Main Street)
 - McKenzie Drive SE (west of I-194/Bismarck Expressway)
 - 3rd Street SW and SE (Memorial Highway to 10th Avenue SW)
 - 1st Street NW and NE (Mandan Avenue to 10th Street NW)
 - Collins Avenue (Main Street to Old Red Trail)
 - Division Street NW and NE
 - Old Red Trail (west of Sunset Drive to city limits)
- Collector:
 - 46th Avenue SE (north of McKenzie Drive)
 - 40th Avenue SE/South Bay Shore Drive SE (south of Memorial Highway)
 - 19th Street SE
 - 24th Avenue SE/Longspur Trail
 - 8th Avenue SE (south of Fort McKeen Road)
 - 9th Avenue/6th Avenue NE (Main Street to Division Street)
 - 3rd Avenue NE (Main Street to Division Street)
 - 14th Street NW and NE
 - 1st Street NW (10th Avenue to 13th Avenue NW)
 - 1st, 2nd, 3rd, and 4th Avenues NW (Main Street to 2nd Street NW)
 - 2nd Street NE (1st to 4th Avenues NW)
 - 13th Avenue NW/Lohstreter Road
 - Old Red Trail (Collins Avenue to Sunset Drive)
 - 27th Street NW (Collins Avenue to Sunset Drive)

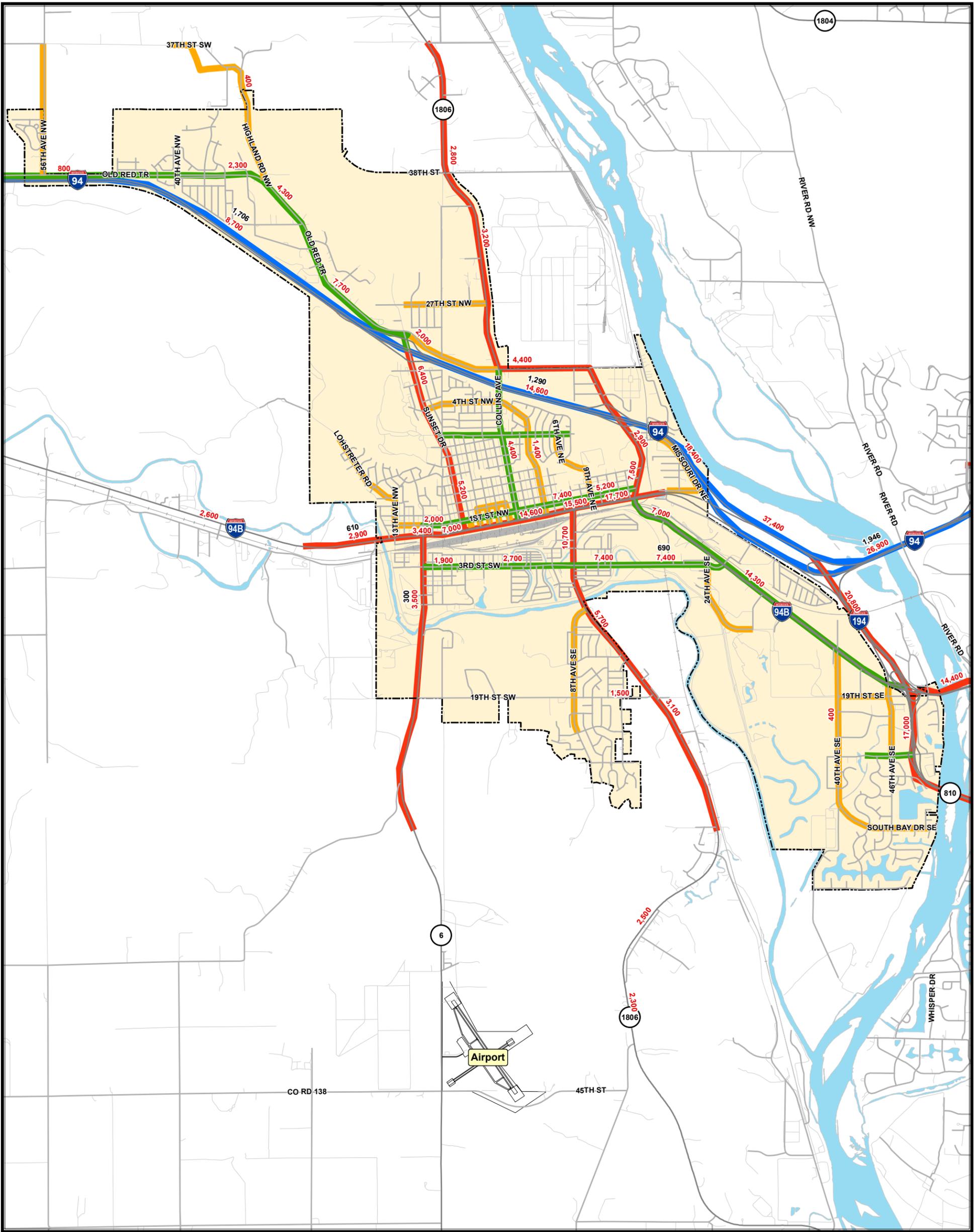
Truck Routes

Mandan does not have officially designated truck routes, but the MPO noted in the 2010 LRPT the NDDOT roads that allow trucks (map excerpt on next page). This Mandan Plan proposes truck routes serving industrial and commercial areas in the city, but would keep significant truck traffic out of the heart of Mandan. The proposed routes would rely on two new north-south routes on the west side of the city connecting Old Red Trail north of I-94 to Main Street on the south. These two routes are the future 32nd Avenue NW underpass/interchange and the future 31st Street NW underpass. The 32nd Avenue route would connect to Main Street about at the extension of Sunny Drive (Johnson's Auto & Truck Parts site); the 31st Street route would connect at about 24th Avenue.



Transportation Plan – Growth Areas

The transportation plan for growth areas outside Mandan is illustrated on the attached map. This follows closely the preliminary recommendations in the Fringe Area Road Plan for Mandan-Morton County.

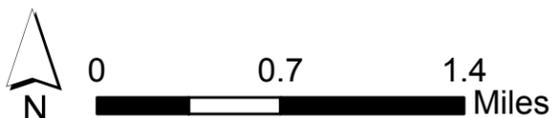


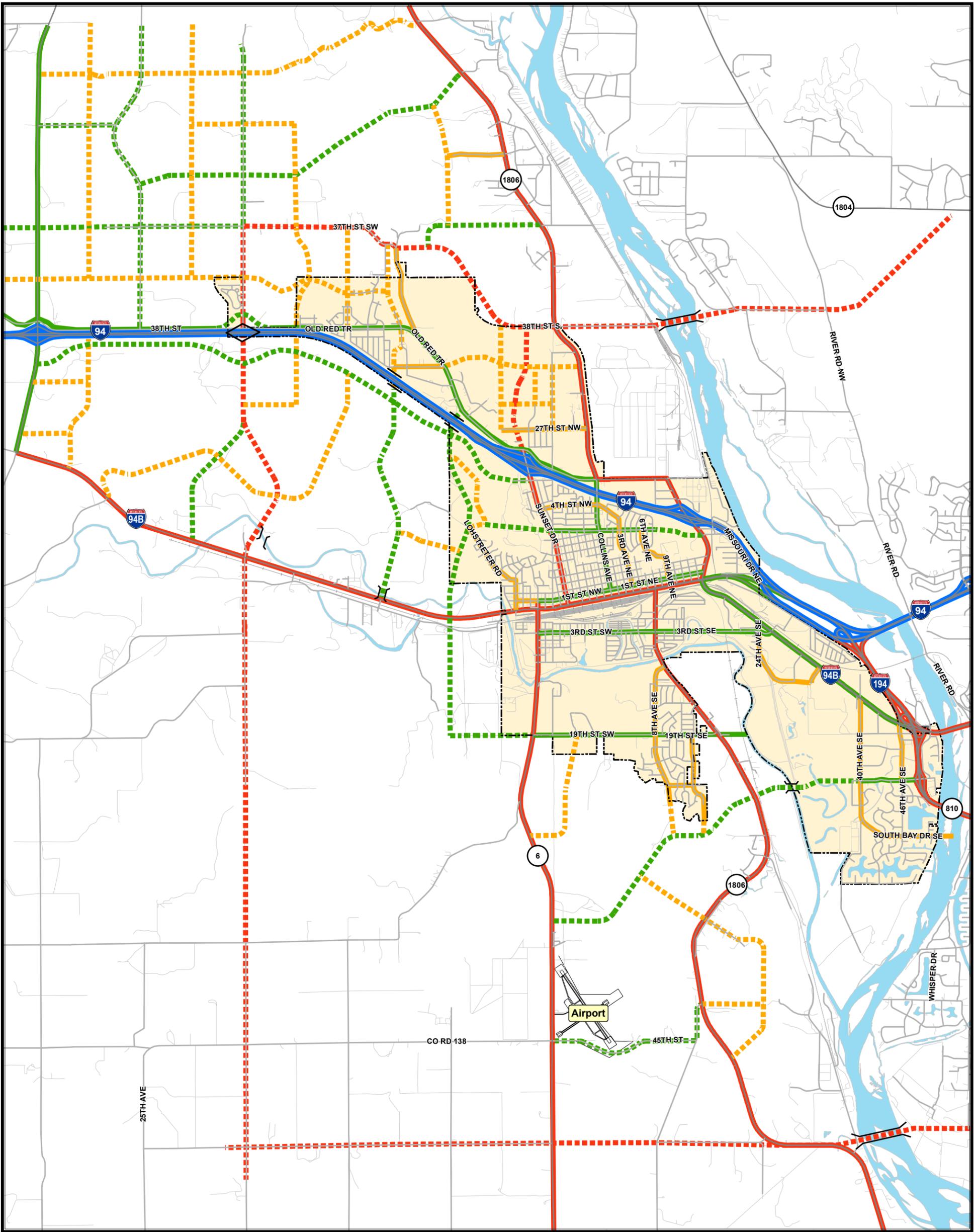
Existing Transportation Classification & Average Daily Traffic Volume

City of Mandan, North Dakota

- 1,200 2006 ADT
- 1,234 2006 Truck ADT (where available)
- Interstate
- Principal Arterial
- Minor Arterial
- Collector

October 21, 2014



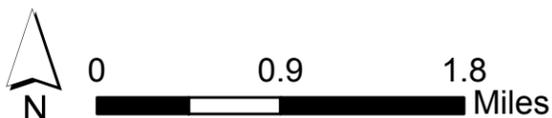


Future Transportation Classification

City of Mandan, North Dakota

- Existing Interstate
- Existing Principal Arterial
- - - Future Principal Arterial
- Existing Minor Arterial
- - - Future Minor Arterial
- Existing Collector
- - - Future Collector
- ◊ Future Interchange
- = Future Underpass
-) Future Bridge

October 21, 2014



Key Transportation Issues/Recommendations

The following are key transportation issues facing Mandan, based on other studies and community discussions. These issues are recommended as having the highest priority and will have significant impact on the transportation and development in Mandan.

A few key issues could have significant impact on the big picture

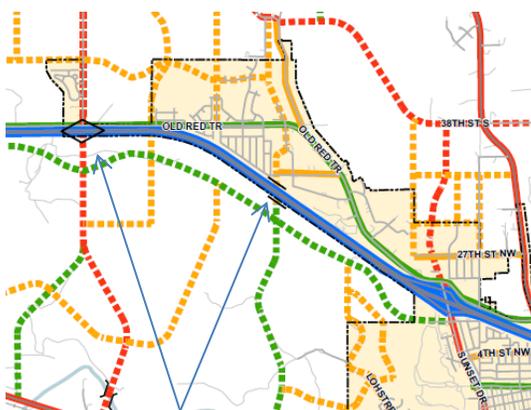
1. I-94 access in NW Mandan

Significant growth is occurring in the northwest part of the city north of I-94; more is anticipated. There is increasing need for another access to I-94 to serve the area. Development has also been proposed south of I-94, west of Sunset Park. Access into this area needs an extension of Boundary Road as a frontage road plus Lohstreter Road or Division Street, or some combination of these. Without an additional interchange or underpass these roads would be dead-ends, and traffic from new development will back up on Old Red Trail to the Sunset Drive interchange. With an interchange or underpass one or more of these roads could serve to relieve traffic on Old Red Trail and Sunset Drive on the north side I-94 and the I-94/Sunset Drive interchange. Three options have been discussed:

Suggested 30th Ave NW underpass/interchange (from North Mandan Subarea Study, MPO/SRF)



- New interchange at 56th Avenue NW by itself
- New interchange at 56th Avenue NW plus new interchange at 30th Avenue NW
- New interchange at 56th Avenue NW plus new underpass at 30th Avenue NW

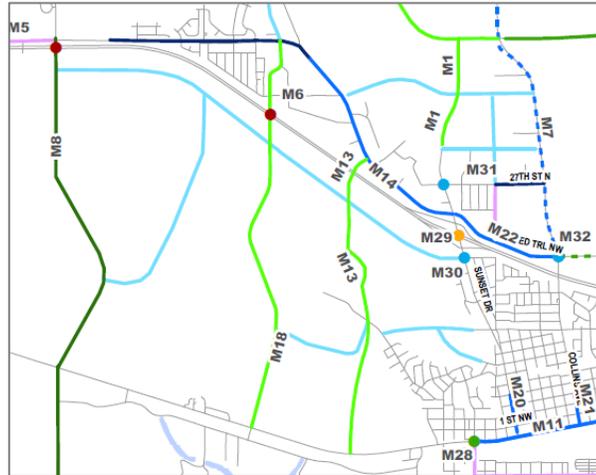


Potential new interchange at 56th Avenue NW plus I-94 underpass at 30th Avenue NW

2. 31st St NW Underpass

The LRTP being finalized in 2014 suggests an access under I-94 near 31st Street NW and Old Red Trail, shown on map excerpt to the right as "M13". This road would connect Old Red Trail on the north side of I-94 with new development on the south side, and ultimately connect south all the way to Main Street, providing an important through connection between north and south Mandan and also as a truck route.

Roadway Alternatives, excerpt (LRTP, MPO/HDR)



3. Sunset Drive Interchange Improvements

Other studies have analyzed the Sunset Drive interchange with I-94, noting its capacity and design issues, and its vital role in handling traffic on this key corridor and access point into Mandan. It is essential that this vital interchange be upgraded as soon as possible to keep pace with increased development and traffic on the north side of I-94. Among the alternative designs considered is a new single point interchange shown on the right.

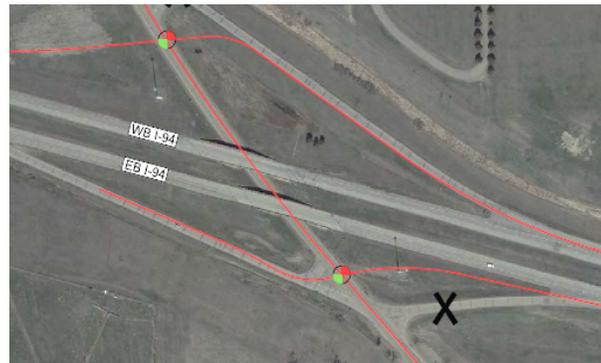
Sunset Drive interchange improvements (from North Mandan Subarea Study, MPO/SRF)



4. Mandan Avenue Interchange Improvements

The Mandan Avenue interchange was also analyzed and improvements were recommended to improve its safety and functioning. With increasing traffic to the Tesoro refinery and increased development north of I-94, the Mandan Avenue interchange also plays a vital role in handling traffic in the future.

Mandan Avenue interchange improvements (from North Mandan Subarea Study, MPO/SRF)



5. McKenzie Drive/Access to SE Mandan

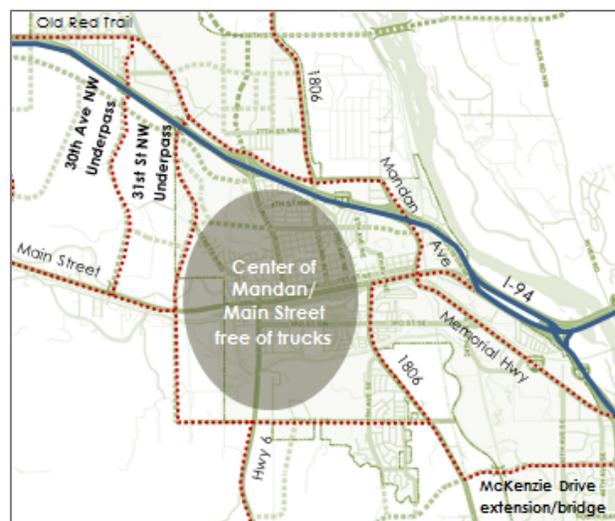
The 2010 LRTP noted as one of its long-term improvements the extension of McKenzie Drive across the Heart River to connect with Highway 1806/Fort McKeen Road in southeast Mandan. This would greatly improve the connectivity of existing development and new growth in SE Mandan on the west side of the river to places east. The closest crossing of the Heart River now is at 3rd Street SE, two miles north of this location. This connection would take traffic off of Highway 1806 and Main Street that otherwise would use those routes to go to destinations east and northeast in the region.

Aerial photo showing location of potential bridge connecting McKenzie Drive across the Heart River to Highway 1806



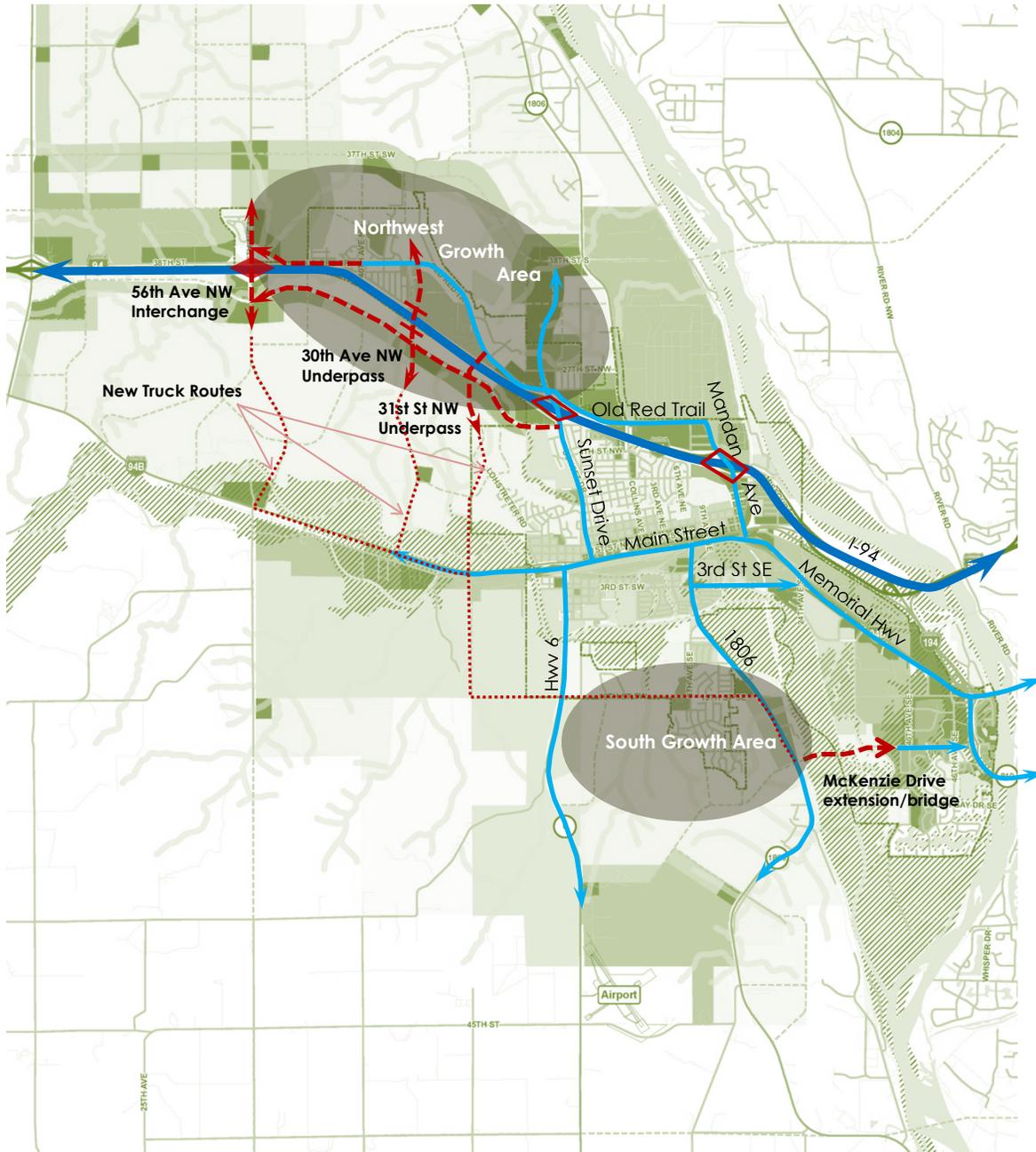
6. Truck Routes

As noted in the discussion of truck routes above, the extension of other key transportation improvement project will allow for the creation of a well-integrated truck route system in Mandan. The extension of the north-south routes under I-94 on the northwest side and the extension of McKenzie Drive across the Heart River on the southeast side will combine to keep significant truck traffic out of the heart of Mandan and Main Street.



Impact of Key Recommendations

Taken together these key projects will serve the highest growth areas anticipated in Mandan in the next twenty years or more, and would serve to alleviate traffic, especially truck traffic, from some of the most congested roadway segments and points in Mandan: Sunset Drive/I-94 interchange, Sunset Drive, Main Street/1st Street, and 3rd Street SE.



Bike & Pedestrian System

Bike and pedestrian trails are an important component of transportation and recreation in Mandan, as well as the land use component of creating livable, walkable, active neighborhoods. These links are discussed in the Parks & Trails chapter of this plan.

Mandan is served by CAT (Capital Area Transit), operated by Bis-Man Transit, with two regular fixed routes, M-1 and M-2, that serve Mandan. These are illustrated on the map below. Transit information is available online at www.bismantransit.com.

Existing route map from Bis-Man Transit website





Introduction

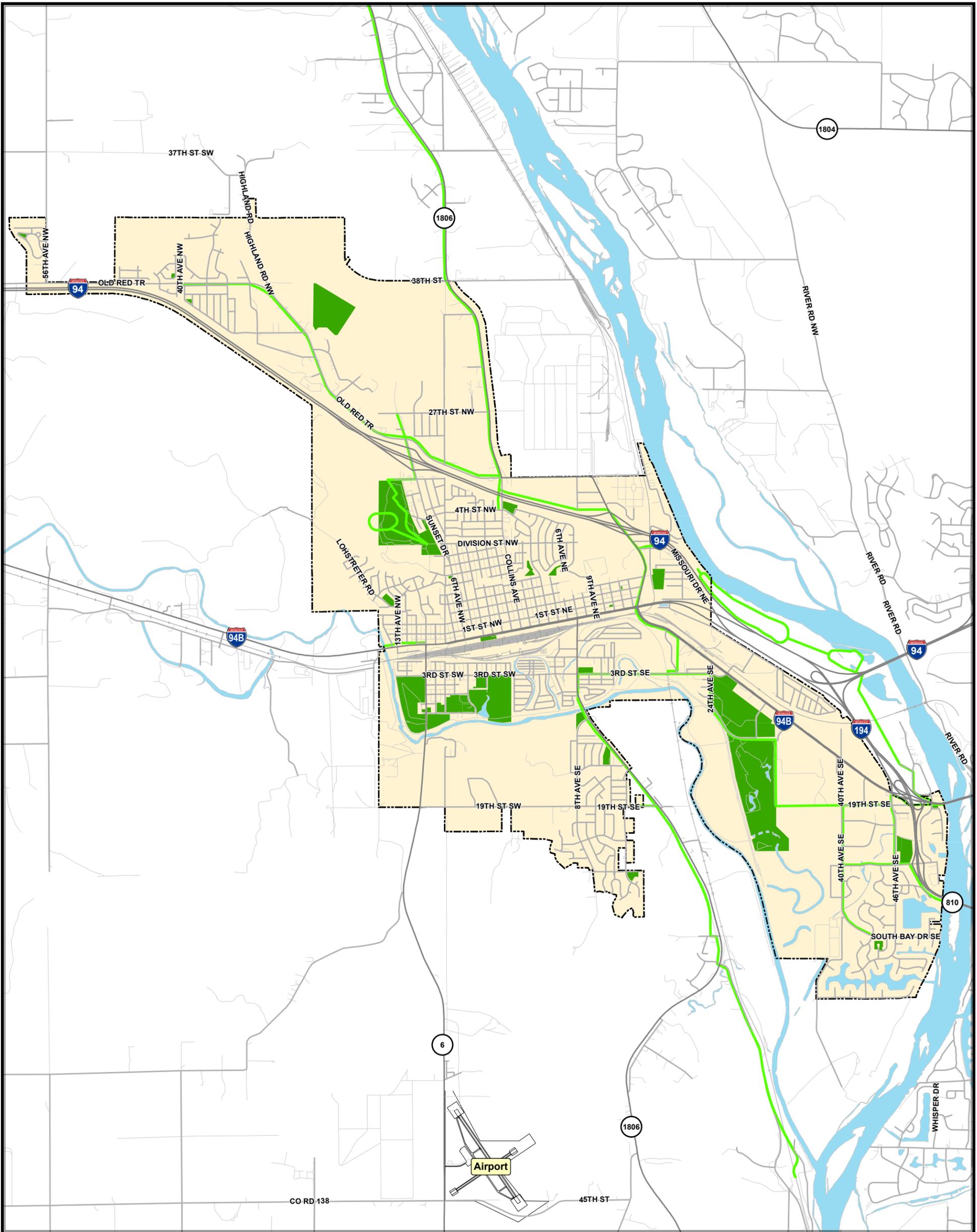
The mission of the Mandan Park District is “To provide recreational opportunities to all ages and abilities while improving the quality of life for the citizens of Mandan and its visitors.” The Park District is responsible for overseeing the planning, development, operation, and maintenance of the parks and recreational programs throughout the City of Mandan. In addition to the Park District facilities and programs, the City of Mandan owns and maintains sidewalk and trail facilities, opens spaces and several parks. Finally, the Mandan Public School District, through a Joint Powers Agreement with the Park District, provides additional active recreational facilities.

Recognizing the importance of creating a sustainable plan for parks, trails, open spaces, and recreational facilities and programs, the Park District and the City of Mandan commissioned the completion of this plan. The Park District prepares annual reports, and the Mandan Park District 2011-13 Strategic Plan has guided investment and provided direction for the Park District activities in recent years. This plan will build on that Strategic Plan by projecting needs out until 2030.

Mandan has seen relatively rapid growth in recent years, with development decisions being made on a regular basis. Establishing a plan for providing parks, trails, open spaces, and recreational opportunities, and for financing the long-term development, maintenance, and renovation of those civic resources, will assist the Park District in fulfilling its mission.

Inventory and Analysis

The existing park and trail system is illustrated on the map that follows, and an inventory of current facilities is detailed on table below. Additional detail on each park, including an aerial photograph with park boundary and features, is provided in the Appendix.



Existing Parks and Trails

City of Mandan, North Dakota



- Existing Trails
- Park Facilities
- Open Water
- City Limit

October 21, 2014



In addition to the Park District and City facilities, Fort Lincoln State Park provides an additional nearby recreational resource for the community.

Finally, the City of Bismarck, just across the Missouri River, provides an extension of the recreational opportunities in Mandan. Mandan and Bismarck provide complementary facilities tailored to the needs of their respective communities. Planning considerations for special facilities with a more regional draw, such as golf courses, aquatic centers, and other similar recreational amenities need to consider this broader metropolitan area context.

Park Classifications

The following classifications describe the different types/scale of recreational facilities that make up a comprehensive system able to meet the needs Mandan residents and visitors.

Mini-Park

Size: less than 1 acre. **Service Area:** 1/4 mile maximum

Use: Mini-Parks are usually located within neighborhoods and provide easily accessible recreation where major roads do not need to be crossed in order to reach the park. These parks are easily accessible for pedestrians, bicyclists, and possibly children going to the park without adults. Typical development features are often focused on facilities for children, such as playgrounds, and sometimes include passive activities for adults. Seating, picnicking, shade structures or trees, and grills are common amenities found in mini-parks. Examples: W.M. Bauknecht Park, Little Haven Park

Neighborhood Park

Size: 1 - 5 acres. **Service Area:** 1/4 to 1 mile radius

Use: Neighborhood Parks are conveniently located among residential areas surrounding the park. These parks serve as the recreational and social gathering focus of the neighborhood. They are easily accessible for pedestrians or bicyclists. Typical development features include playgrounds, ball fields, tennis courts, play fields, picnic areas, and paths. Examples: Borden Park, KC Park

Hybrid Park

Size: 5-15 acres. **Service Area:** 1/2 mile to 1 mile service area

The intention of a hybrid park is to create a larger amount of open space and offer a more diverse array of activities within a neighborhood setting. This also limits the amount of maintenance of multiple small parks. Typical development features include playgrounds, ball fields, playing courts, park buildings, paths, and specialized facilities. Examples: None Currently

City-School Parks

Size: 15-50 acres. Service Area: Neighborhoods to City-wide

Use: Joint development of City- School parks allows for shared uses and benefits a wider section of the public. While schools use the facilities during daytime weekday hours, sports associations and the public may use the facilities during evenings and weekends utilizing the park to its full potential. Typical uses included playgrounds, play areas, numerous athletic fields and courts, paths, and spectator seating.

Community Park

Size: over 15 acres. **Service Area:** 1 mile to 3 mile radius

Use: Community Parks serve a larger geographical area and offer more specialized facilities. Often these types of parks are typically built around a specialized purpose or natural feature such as a set of ball fields that are appropriate for tournament play. These parks typically offer passive and active recreational opportunities for the entire community. Development features may include large recreational spaces, playgrounds, picnics, multiple trails, nature study, athletic facilities, picnic shelters, restroom buildings. These parks often have lighting, on-site parking, and may be highly programmed. Examples: Dakota Centennial Park, Legion Memorial Softball Fields

Special Facilities

Size: variable. **Service Area:** Community wide

Use: Special facilities may be a separate park, or an area within a community park, that is devoted to a specific, and intensive use, such as a golf course, aquatic center, or indoor sports arena. These parks may require fees for use and so serve a different function than parks open for public use. Examples: Municipal Golf Course, Raging Rivers Water Park

Open Space

Size: Variable. **Service Area:** Community-wide

Use: Preservation of open space serves a variety of needs and functions. Open space preserves natural habitats, allows animal movement among a built environment, provides visual relief, connects humans to nature, and preserves significant natural resources.

Open space areas may include trails, picnic areas, or special use facilities such as fishing piers. Examples: Missouri River Nature Trail

The following table summarizes the different classifications of parks and open spaces. Given the unique characteristics of Special Facilities, they are not included in the summary table.

TABLE P.1: Park Classifications

| Park Classification | Data | | Characterisitcs | Advantages | Disadvantages |
|-----------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mini-Park | Size | less than 1 acre | 1. Located within residential settings 2. Accessible for pedestrians, bicycles and children w/out accompanment 3. Small scale amenities, often targeted at young children | 1. Accessible 2. Available 3. Requires less land | 1. Adds maintenance costs 2. More difficult to monitor |
| | Service Area | 1/4 mile max | | | |
| Examples include W.M. Bauknecht Park, Little Haven Park | Common Amenities | Playgrounds, Passive adult amenities Seating Picnic area Multi-purpose green space | | | |
| Neighborhood Park | Size | 1 - 5 acres | 1. Located within residential settings 2. Accessible for pedestrians, bicycles and children w/out accompanment 3. Social and recreational gathering focus of the neighborhood 4. Offer more more sports opportunities, possible programming | 1. Accessible 2. Available 3. Requires less land | 1. Adds maintenance costs 2. More difficult to monitor |
| | Service Area | 1/4- 1 mile | | | |
| Examples include Borden Park, KC Park | Common Amenities | Playgrounds Seating and picnicking Horseshoes/bocce Ball fields/Tennis/BB courts Park building Wading pool | | | |
| Hybrid Park | Size | 6 - 15 acres | 1. Typical near residential areas, but with arterial or collector road access 2. Accessible for pedestrians and bicycles 3. Draws in users outside of the immediate neighborhood 4. Usually has onsite park staff and a building with programming and facilities | 1. Specialized facilities 2. Consolidates maintenance 3. Serves more users | 1. More difficult to find space 2. May bring in unwanted traffic |
| | Service Area | 1/2- 1 mile | | | |
| No current examples | Common Amenities | Playgrounds Shelters, seating and picnicking Horseshoes/bocce Ball fields/Tennis/BB courts Ice rink Park building Indoor sports Off-street parking Wading pool | | | |
| City School Parks | Size | 6 - 15 acres | 1. Adjacent to a school 2. Supports recess, sports, and afterschool activities 3. Open to public at all times, although school use may dominate the park at certain hours | 1. Specialized facilities 2. Consolidates maintenance 3. Offers more amenities than typically found on school grounds | 1. May cause conflicts between neighborhood users and school users 2. May bring in unwanted traffic 3. Requires agreements for maintenance and improvements |
| | Service Area | varies | | | |
| No current examples | Common Amenities | Playgrounds Shelters, seating and picnicking Horseshoes/bocce Ball fields/Tennis/BB courts Ice rink Park building Indoor sports Off-street parking | | | |
| Community Park | Size | over 15 acres | 1. Adjacent to a school 2. Supports recess, sports, and afterschool activities 3. Open to public at all times, although school use may dominate the park at certain hours | 1. Specialized facilities 2. Consolidates maintenance 3. Supports Associations | 1. May bring in unwanted traffic 2. Requires large tracts of land |
| | Service Area | 1 - 3 mile radius | | | |
| Examples include Dakota Centennial Park, Legion Memorial Softball Fields | Common Amenities | Playgrounds Rental shelters Trails/nature areas Ice arena/Outdoor rink Park building Indoor sports Off-street parking Tournament ballfields/Sport courts Splash pad/Pool Specialized facilities | | | |
| Open Space | Size | varies | 1. Often land that is unsuitable for development or typical sports, such as steep slopes, environmentally sensitive areas, or shoreland 2. May be linear and mainly along trails or waterways | 1. Allows access to nature and passive activities 2. Offers access to public waterways 3. Environmental benefits | 1. May be difficult to integrate into urban fabric and developed areas |
| | Service Area | varies | | | |
| Examples include the Missouri River Nature Trail | Common Amenities | Trails Seating and picnicking Fishing Swimming Wayfinding and signage Naturalized or restored landscape Boardwalks or overlooks Small shelters Nature study or educational areas | | | |

Additional Community Input

Additional public comments received during the planning process regarding trails, facilities, and events are captured below:

Trails

- Provide trails through natural areas. Most current trails are along roads.
- Provide a trail connection from Sunset Park to the neighborhoods to the southwest.
- Bicycle riders can only cross the river in two places, and they are both in the southern part of the City. To bike from central or northern Mandan, where much of the population is, to Bismarck, is tough.
- Provide horseback riding trails.

Facilities

- Explore a tandem bike rental shop like the one going up in Bismarck this year.
- The low piece of land by 3rd Street South could be a potential park location.
- Search for parkland south of 19th Street SW.
- Provide a sledding hill.
- Build a boat ramp to provide public river access, behind Bonaza where car bodies are.
- Build a walking/bike bridge near the I-94 bridge to cross into Mandan and Bismarck.
- Provide fitness stations in parks or along trails—youth commission brought a resolution forward supporting them.
- Make neighborhood parks more used and vibrant.
- Preserve open space and work with existing coulees to make interesting views for residential areas.
- Build a new golf course.
- Build a new event center/rec center—need to determine where, and would need to be a City project. Needs highway access.
- Build an indoor soccer facility.
- Build an indoor tennis court.
- Build a second sheet of ice, or find a new location where two sheets of ice could be built together. Perhaps on the new 47 acre park.
- Build a skating rink on Main Street.

Events

- Provide 5K and 10K race events. Right now only Bismarck has them, and Mandan has an interesting landscape that could host these events.
- Hold a pond hockey tournament.

Peer Community Level of Service Comparisons

Stantec worked with the Park District to select three communities in order to benchmark Mandan's park, trail, and open space facilities and amenities against other communities whose level of service for parks and recreation were considered desirable. The National Recreation and Parks Association (NRPA) has also documented level of service standards that are based on the number of acres of parks provided in a community. The following communities are of comparable size to Mandan, either now or within the planning horizon of this plan. See Table P.2 for a summary of the peer comparisons.

Williston, ND

Park and Open Space acreage: 215.4

Trail (off-road, shared use path) mileage: 10

Notes: Williston is very similar in size to Mandan, and provides fewer overall park and trail resources based on population metrics.

Aberdeen, SD

Park and Open Space acreage: 640.80 (includes a 19.2 acre Arboretum)

Trail (off-road, shared use path) mileage: 21.68

Notes: Aberdeen does not have a separate open space acreage total, however there is a considerable amount of open space within the trail ROW that is usable, but generally not used. There is also a 40 acre natural area that they will be adding in the next year or two.

Aberdeen plans to add another 7 acres to their park system in 2014. Wylie Park (212 acres) is the signature community park with a zoo, rides, themed areas, rental areas, and a campground. The park itself is free and open to the public, although many of the amenities have fees to use or for reservations.

Dickinson, ND

Park and Open Space acreage: 1,538

Trail (off-road, shared use path) mileage: NA

Notes: Dickinson is similar in size to Mandan, and has substantially larger number of acres of parks per capita.

TABLE P.2: Peer Comparisons

| City | 2012 Population | Parks and Open Space Acreage | Parks Acreage/1000 Popn | Trail Mileage |
|---------------|-----------------|------------------------------|-------------------------|---------------|
| Mandan, ND | 18,978 | 453.94 | 23.92 | 22.77 |
| Dickinson, ND | 19,697 | 1538 | 78.08 | |
| Aberdeen, SD | 26,586 | 640.8 | 24.10 | 21.68 |
| Williston, ND | 18,532 | 215.4 | 11.62 | 10 |
| NRPA | NA | NA | 7.75-12 | NA |

Note: The 2012 Mandan acreage does not include the recently acquired 47 acres.

Goals

The overall Comprehensive Plan includes goals that address a number of issues. Goal 8, which has been introduced elsewhere in the plan, specifically addresses parks, trails, and open space. The following is a restatement of that goal:

Goal 8: Continue to work with Mandan Parks & Recreation to provide for the park, recreation, trail, and open space needs of the Mandan community.

The Mandan Park District prepared a 2011-2013 Strategic Plan with its own goals and objectives, many of which are related to details of internal functioning, but many others relate to the physical development and function of the city. The goals which might have an impact on the larger city comprehensive plan have been modified in the policies suggested below:

- 1. Develop a master plan to meet current and future park, trail, and open space needs:**
 - a. Define current and future needs for passive and active parks, trails and open spaces to provide a full range of recreational opportunities
 - b. Determine current and future athletic and event facility space needs
 - c. Determine the need for additional or improved maintenance facilities
 - d. Promote the development of riverfront recreational opportunities
 - e. Continue to provide regionally unique facilities, such as Raging Rivers and public golf courses
 - f. Explore the potential for jointly developing specialty recreational facilities with Bismarck
- 2. Provide a variety of recreation programs for a wide range of age groups**
 - a. Maintain a high satisfaction rating
 - b. Coordinate with the school district for facilities and programs by appointing Park Board of Commissioners members to a facility committee that would meet quarterly with School District representatives
- 3. Work with the City of Mandan, the YMCA, and others to develop a new recreation center adjacent to Raging Rivers**
- 4. Develop a comprehensive trail system master plan**
 - a. Prepare a capital improvement plan for trail construction and maintenance
 - b. Develop a special assessment district to overlay portions of the trail system
 - c. Continue to coordinate with discussions on a trail crossing over the Missouri River in northern Mandan
 - d. Coordinate construction and maintenance of trails with the City of Mandan
- 5. Acquire sufficient park and open space to meet current and future needs.**
 - a. Define acquisition search areas based on a prioritized master plan
 - b. Future park needs in north Mandan
 - c. Future park needs in southeast Mandan

6. Establish a sound fiscal policy and sustainable funding sources for park, trail, and open space development, operation, and maintenance

- a. Implement a green space ordinance/ other as a dedicated funding source or increase the current fee for building permits
- b. Establish revenue/financial performance standards for fee-based Park District facilities
- c. Prepare and regularly update a capital improvement plan

Needs Analysis

Sports Participation Trends

The Statistical Abstract of the United States Census published data on national participation rates by age group for a variety of different sporting and recreational activities. Due to the Census ceasing publication of the Statistical Abstract in 2012, the most recent data available is from 2009. However, when compared to previous year data from 1999 and 2004, long-term trends in sports participation rates become evident. Such trends can help identify where demand for certain park facilities may be growing and/or declining. The following table presents detailed data for the total population age 7 and older as well as several select age groups for comparison purposes.

TABLE P.3: National Sports Participation Rates 1999, 2004, and 2009

| Activity | Total Population Age 7+ | | | | Population Age 7-11 | | | | Population Age 25-34 | | | | Population Age 65+ | | | |
|------------------------|-------------------------|-------|-------|----------------|---------------------|-------|-------|----------------|----------------------|-------|-------|----------------|--------------------|-------|-------|----------------|
| | 1999 | 2004 | 2009 | Change '99-'09 | 1999 | 2004 | 2009 | Change '99-'09 | 1999 | 2004 | 2009 | Change '99-'09 | 1999 | 2004 | 2009 | Change '99-'09 |
| Archery (target) | 2.0% | 2.0% | 2.6% | 0.6% | 4.8% | 3.6% | 5.8% | 1.0% | 2.4% | 2.1% | 4.8% | 2.4% | 0.4% | 0.7% | 0.4% | 0.0% |
| Baseball | 6.7% | 6.1% | 4.3% | -2.4% | 24.1% | 22.1% | 20.0% | -4.1% | 5.1% | 4.9% | 1.9% | -3.2% | 0.8% | 1.9% | 0.8% | 0.1% |
| Basketball | 12.1% | 10.8% | 9.0% | -3.0% | 29.8% | 29.9% | 24.1% | -5.7% | 12.8% | 9.3% | 7.1% | -5.6% | 0.4% | 1.9% | 0.8% | 0.4% |
| Bicycle Riding | 17.3% | 15.6% | 14.1% | -3.2% | 49.7% | 46.8% | 34.2% | -15.5% | 16.2% | 15.3% | 13.4% | -2.9% | 4.1% | 5.2% | 5.1% | 1.0% |
| Exercise Walking | 32.9% | 32.8% | 34.6% | 1.6% | 18.6% | 18.9% | 18.0% | -0.6% | 36.7% | 38.9% | 40.1% | 3.3% | 37.1% | 31.3% | 33.0% | -4.1% |
| Football (tackle) | 3.5% | 3.2% | 3.3% | -0.3% | 7.6% | 6.9% | 8.4% | 0.8% | 2.4% | 2.0% | 1.2% | -1.1% | 0.3% | 1.0% | 0.6% | 0.3% |
| Golf | 11.0% | 9.5% | 8.3% | -2.7% | 5.2% | 5.2% | 6.4% | 1.2% | 13.9% | 11.9% | 10.3% | -3.6% | 7.9% | 6.8% | 6.1% | -1.8% |
| Hockey (ice) | 0.8% | 0.9% | 1.1% | 0.4% | 1.5% | 1.5% | 2.7% | 1.2% | 0.9% | 1.1% | 1.1% | 0.3% | 0.1% | 0.1% | 0.3% | 0.2% |
| In-Line Roller Skating | 9.8% | 4.5% | 2.9% | -6.9% | 44.2% | 16.9% | 10.5% | -33.7% | 7.8% | 3.7% | 2.3% | -5.6% | 0.5% | 0.7% | 0.2% | -0.4% |
| Running/Jogging | 9.1% | 9.5% | 11.9% | 2.8% | 9.6% | 9.8% | 13.4% | 3.9% | 12.4% | 14.7% | 20.8% | 8.4% | 1.4% | 1.4% | 1.4% | 0.0% |
| Skateboarding | 2.8% | 4.0% | 3.1% | 0.3% | 13.9% | 17.5% | 13.8% | -0.1% | 0.9% | 1.1% | 1.0% | 0.1% | 0.2% | 0.8% | 0.1% | -0.1% |
| Skiing (cross country) | 0.9% | 0.9% | 0.6% | -0.3% | 0.9% | 0.4% | 0.3% | -0.6% | 0.9% | 1.1% | 0.4% | -0.5% | 0.3% | 0.7% | 0.2% | 0.0% |
| Soccer | 5.4% | 5.1% | 5.0% | -0.4% | 28.1% | 27.5% | 25.8% | -2.3% | 3.8% | 3.0% | 3.1% | -0.8% | 0.1% | 0.6% | 0.3% | 0.2% |
| Softball | 6.0% | 4.8% | 4.4% | -1.6% | 12.3% | 12.3% | 9.2% | -3.2% | 8.4% | 5.0% | 5.6% | -2.8% | 0.4% | 0.8% | 0.4% | 0.0% |
| Swimming | 23.6% | 20.7% | 18.6% | -5.0% | 50.9% | 42.2% | 41.7% | -9.2% | 21.9% | 19.7% | 19.6% | -2.3% | 10.9% | 8.6% | 7.9% | -3.1% |
| Tennis | 4.5% | 3.7% | 4.0% | -0.4% | 5.7% | 4.8% | 7.3% | 1.6% | 5.4% | 3.9% | 5.5% | 0.1% | 0.8% | 1.0% | 0.7% | -0.1% |
| Volleyball | 4.8% | 4.2% | 4.0% | -0.8% | 5.3% | 5.8% | 6.7% | 1.4% | 6.5% | 4.8% | 4.4% | -2.1% | 0.2% | 0.1% | 0.4% | 0.3% |

Sources: United States Statistical Abstract; Stantec

According to Table P.2, participation rates have declined for many sports activities that have traditionally occurred in park areas and facilities. More importantly, these declines have occurred regardless of age group. This signifies an important change in how we use park and open space. The only activity, for example, that has substantially increased in participation for every group over the 10-year period between 1999 and 2009 was running/jogging.

Although traditional sporting activities associated with parks may be on a general downward decline, non-traditional activities appear to be increasing and, more importantly, the public has come to regard parks as having widespread benefit that goes well beyond physical activity. The American Planning Association prepared a series of briefing papers on how city parks can address urban challenges.

In recent years, the APA published a report on how city parks can improve public health. The report found that people highly value the time they spend in parks and believe parks and recreation will play a larger role in reducing the obesity problem in America. Americans also believe that parks and trees will help improve the environment, as changing climate is increasingly becoming a prevalent issue.

Continued research shows that people who recreate in parks and natural settings have less occurrence of stress, depression, and are more at peace with their surroundings. The APA report also shows that specific design considerations promote more use of parks

such as accessibility, proximity, adequate lighting, restrooms, and well maintained paths. These studies support the rising trend of the need to plan for and provide parks, open space, and trails in our communities.

The following table provides data on the Mandan participation rates in various activities based on participant information compiled from the Mandan Park District Annual Report 2012. Information on additional program and special event participation can be found in that report.

TABLE P.4: Mandan Participation Rates

| Activity | Mandan Participation Rate | | | |
|------------------------|---------------------------------|-------------------|-------|-------|
| | 2012 rate / population (18,978) | | | |
| | Total | Non-Park District | Youth | Adult |
| Archery (target) | 0.00% | | | |
| Baseball | 4.60% | 1.74% | 2.86% | NA |
| Basketball | 2.19% | NA | 0.89% | 1.30% |
| Bicycle Riding | 0.00% | | | |
| Exercise Walking | 0.00% | | | |
| Football (tackle) | 0.00% | | | |
| Golf | 0.36% | NA | 0.18% | 0.18% |
| Hockey (ice) | 1.00% | 1.00% | NA | NA |
| In-Line Roller Skating | 0.00% | | | |
| Kickball | 2.10% | NA | NA | 2.10% |
| Track & Field | 0.64% | NA | 0.64% | NA |
| Skateboarding | 0.00% | | | |
| Skiing (cross country) | 0.00% | | | |
| Soccer | 4.16% | 4.16% | NA | NA |
| Softball | 7.96% | 7.67% | 0.29% | NA |
| Swimming | 3.25% | NA | 3.25% | NA |
| Tennis | 0.48% | NA | 0.48% | NA |
| Volleyball | 3.81% | NA | 0.65% | 3.17% |
| Mandan 2012 Population | 18,978 | | | |

Note: Non-Park District baseball participation is special event baseball tournaments.

Park Demand Calculations

Demand for additional park land will be primarily driven by a growing population base in Mandan. As presented previously, Mandan's population is forecast to grow by over 10,000 by 2030. This will undoubtedly place significant pressure on the existing park system unless additional land and facilities can be developed to accommodate the need.

The table below shows the projected population and household growth for the City of Mandan and what this means in terms of new acres of parks and miles of trails per 1000 new residents. This table is based on 24 acres of parks per 1000 residents, which is close to

the current 23.92 acres per 1000. Trail miles were set at 1.8 miles per 1000 residents, which is the estimate of current level of trail facilities provided. Should the City or Park District desire to increase the level of service currently provided, additional facilities would be required. Using the current parks and recreation system level of service as a guide, the table indicates that an **additional 185 acres of parks and recreational space and 29 new miles of trails** will be required to meet the needs of Mandan's growing population by 2030.

TABLE P.5: Projected Growth and Overall Needs

| Mandan Park and Trail Growth Needs | 2010 | 2020 | 2030 |
|----------------------------------------------|-------------|-------------|-------------|
| Population | 18331 | 25858 | 28563 |
| Households | 7632 | 11341 | 13163 |
| New Households (cumulative) | | 3709 | 5531 |
| Parks and Recreational Acreage Required | 454 | 621 | 686 |
| Existing Developed Parks and Rec. Acres | | 454 | 454 |
| Recently Acquired Acreage | | 47 | 47 |
| New Parks and Rec. Acres (cumulative) | | 120 | 185 |
| Trail Miles Required | 23 | 47 | 51 |
| New Trail Miles (cumulative) | | 24 | 29 |

Given the amount of projected population growth, each park classification is anticipated to require significant amounts of additional acreage. The only exception is the existing golf course facilities. Due to declining levels of golf participation and the high capital costs to expand such facilities, it is assumed that the existing number of golf course facilities will remain the same despite population growth.

Parks, Trails, and Open Space Projected Needs

A well-planned parks, trails, and open space system supports an attractive and enjoyable community for residents and visitors. The following tables provide projections for the various types of park and recreational facilities needed, including active sports facilities, parks, trails, open spaces, and special facilities.

Active Sports Facilities

The following table projects the needs for active sports facilities for the planning horizon based on the projected population growth rate, assuming similar usage trends in the future. It is important to note that demand for these facilities is filled through a combination of Park District and School District facilities.

TABLE P.6: Projected Athletic Facility Needs

| Type of Facility | Total # of Existing Facilities in System | 2014 Facilities by Location used by associations | | Total # of 2030 Park Facilities in System | # of facilities to be added by 2030 | Approximate # of acres per facility including parking | Total # of additional acres |
|-------------------------------------|------------------------------------------|--------------------------------------------------|-----------------|-------------------------------------------|-------------------------------------|-------------------------------------------------------|-----------------------------|
| | | Park District | School District | | | | |
| Youth ballfields | 8 | 5 | 3 | 13 | 5 | 3 | 15 |
| Baseball fields (adult) | 1 | 1 | 0 | 2 | 1 | 4 | 4 |
| Softball fields (adult) | 8 | 8 | 0 | 13 | 5 | 4 | 20 |
| Football fields/ Ultimate | 1 | 0 | 1 | 2 | 1 | 5 | 5 |
| Soccer fields (regulation) | 3 | 3 | 0 | 5 | 2 | 4 | 8 |
| Soccer fields (micro) | 10 | 10 | 0 | 16 | 6 | 2 | 12 |
| Tennis courts- outdoor ¹ | 12 | 12 | 0 | 15 | 3 | 0.5 | 1.5 |
| Basketball courts (outdoor) | 5 | 5 | 0 | 8 | 3 | 0.25 | 0.75 |
| Volleyball courts | 4 | 4 | 0 | 7 | 3 | 0.25 | 0.75 |
| Hockey rinks (indoor) | 1 | 0 | 1 | 2 | 1 | 5 | 5 |
| Hockey rinks (outdoor) | 2 | 2 | 0 | 4 | 2 | 2 | 4 |
| Track (w/ football field) | 1 | 0 | 1 | 2 | 1 | 0 | 0 |
| TOTAL | | | | | | | 76 |

The total Park District acreage required to provide these additional facilities will depend on the extent to which the School District develops additional active sport facilities that can be used by area residents. For planning purposes, it is reasonable to estimate that two additional sports complexes, roughly 40 acres each in size, will be sufficient to meet the active sports facilities needs of the community through 2030. The acreage and capital costs required for these facilities are included in the overall projected needs for the system.

Parks

The following tables project the needs for parks for the planning horizon. Based on this table, Mandan should develop an additional 186 acres of park facilities by 2030.

TABLE P.7: Projected Park Land Needs

| Park Type | Existing Acres | 2012 Existing Level of Service (acres per 1,000 pop.) ¹ | NRPA standards [†] | 2030 Planned Level of Service (acres per 1,000 pop.) ² | Total acres needed by 2030 | Additional acres needed by 2030 ³ |
|---------------------------------------|----------------|--------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------|----------------------------|----------------------------------------------|
| Mini-Park | 1.8 | 0.09 | .25-.50 | 0.10 | 3 | 1 |
| Neighborhood Parks | 43.8 | 2.3 | 2.5-3.5 | 3.0 | 86 | 42 |
| Community Parks | 210.5 | 11.1 | 5.0-8.0 | 14.0 | 400 | 143 |
| Special Facilities (i.e. golf course) | 197.8 | 10.4 | N/A | 6.9 | 198 | 0 |
| Total Parks/Open Space | 453.9 | 23.9 | N/A | 24.0 | 687 | 186 |

¹ Based on 2012 estimated population of 18,978.

² Based on 2030 projected population of 28,600

³ Reduced to account for 47 acres already acquired.

[†] The National Recreation and Parks Association (NRPA) has defined a best practices standard of park acreage needed based on community
Source: Stantec

While this table does indicate that additional Mini-Park facilities should be constructed, many cities and park districts are moving away from providing additional Mini-Parks due to their high maintenance costs relative to the number of people served by them.

Trails

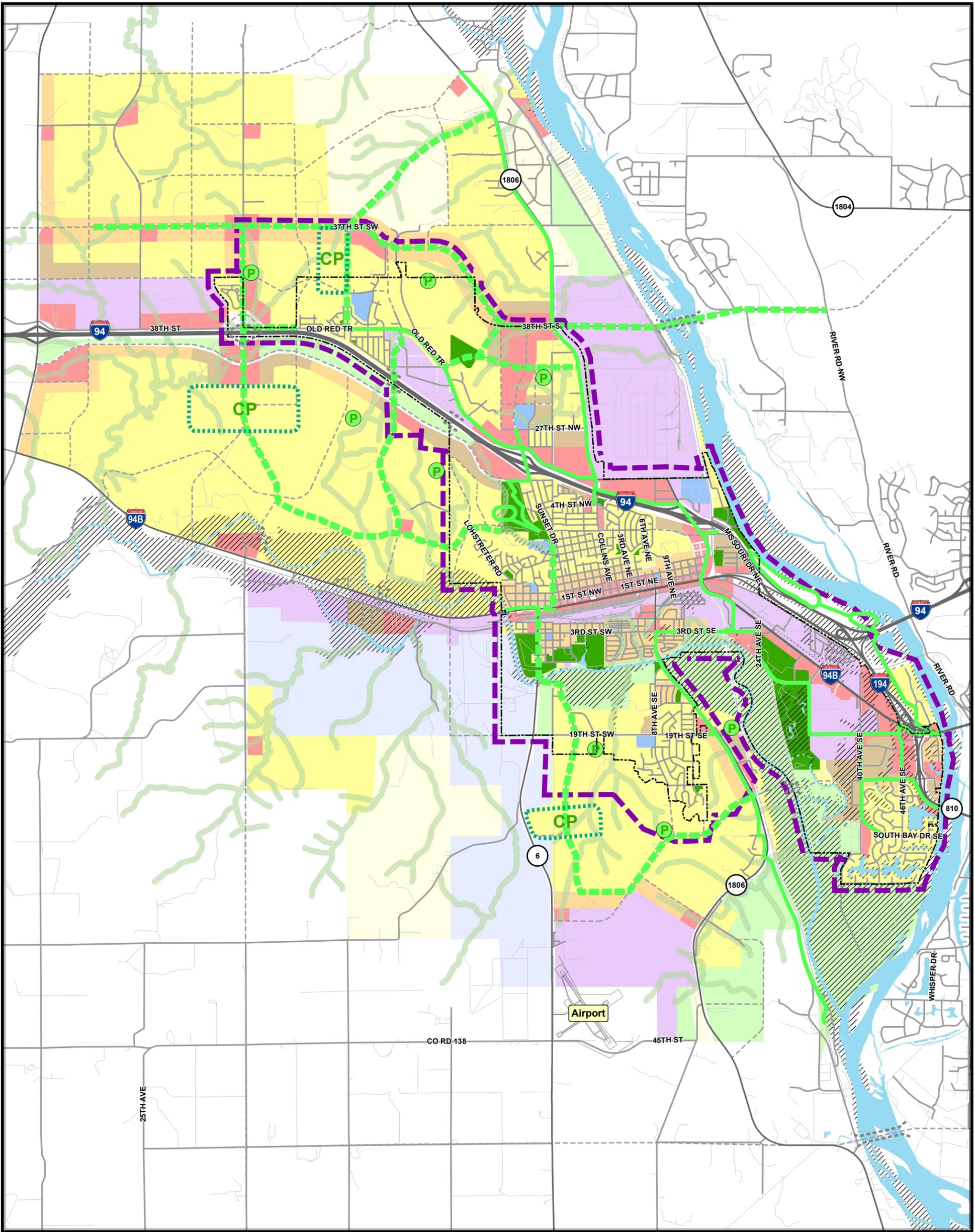
As shown in Table P.5 previously, Mandan is projected to need an additional 29 miles of trails within the planning horizon projected out to 2030. These trail miles will be most valuable when used to eliminate gaps in the existing bicycle and pedestrian network and to provide connections between population centers and recreational and natural resource areas. In addition to these trails, it is anticipated that new residential development would provide sidewalks within neighborhoods and linkages to the City-wide trail system. Some of the proposed trail alignments are diagrammatic, and are meant to convey the idea that connecting between certain locations would be beneficial, rather than to identify a particular alignment. The Planned Parks and Trails drawing shows approximately 21.5 miles of the total projected 29 miles of future trails needed. Additional trail locations would be identified as development occurs. The community also expressed a desire for a trail connection across the Missouri River from northern Mandan to northern Bismarck. Construction of this trail connection will require coordination among a number of local, regional, state, and federal entities.

Open Spaces

Given its topography and relationship to the Missouri River, Mandan has a number of ravines, waterways, and floodplain areas that lend themselves to dedication as preserved open spaces or greenway corridors. These open spaces provide water quality buffers, habitat corridors, trail routing opportunities, as well as separation between development areas to enhance views.

Special Facilities

Mandan has a number of existing special facilities, including high-quality golf courses, Raging Rivers Water Park, and the Dacotah Speedway. Given the level of activity, traffic, and noise that can be generated by special facilities, they typically need to be carefully sited relative to surrounding land uses. Likewise, as communities grow and develop, it may be desirable to relocate special facilities to accommodate that growth and encourage more density of development closer to the city center area or along major transportation routes.



Planned Parks and Trails

City of Mandan, North Dakota

- | | | | | | |
|--|-----------------------------------|--|----------------------------|--|----------------------|
| | Existing Trails | | Rural Residential | | 2030 Growth Boundary |
| | Future Trails | | Low Density Residential | | Future Interchange |
| | Existing Park | | Medium Density Residential | | Future Underpass |
| | Greenways | | High Density Residential | | Future Bridge |
| | Open Space | | Commercial | | |
| | Future Neighborhood Park Location | | Industrial | | |
| | Future Community Park Search Area | | Public/Semi-Public | | |
| | Future Roadway Alignment | | Public Land | | |
| | 100-Year Floodplain | | Open Water | | |

February 12, 2015



Funding Mechanisms

Improvements to the park and recreation system can be financed in several ways, including:

- Revenue generated by Park District programs
- City of Mandan general funds
- Park Dedication requirements for new development
- Dedicated parks and recreation sales tax
- Grants and other assistance programs

Park dedication is a commonly used method of setting aside both land and money required for development of park and recreation systems. If the City of Mandan and the Park District were to enact a park dedication requirement, the “sensitivity analysis” below shows how “sensitive” the park dedication formula percentage is to different goal numbers in terms of acres of parks per 1000 people, and also how sensitive the park dedication formula percentage is to different development densities in terms of dwelling units per acre. The less dense the development, the lower the percentage needs to be. The denser the development, the higher the percentage needs to be. For example, an 6.7% park land dedication would be required to meet a goal of 24 acres of parkland per 1000 people (similar level of service to what Mandan has now) at a relatively spread out 2 dwelling units per acre. If Mandan increased the projected dwelling units per acre to 4, then the sensitivity analysis shows that Mandan would need to double the park dedication formula to 13.3%.

TABLE P.8: Park Dedication Percentage Sensitivity Analysis

| The following table shows how much the percentage of park dedication required changes as population density and the acres of parkland per 1000 people changes. | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------|----------|----------|----------|----------|
| Park Dedication Percentage Sensitivity Analysis | | | | | | |
| | | Dwelling Units/Acre | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | 16 | -0.8% | -1.6% | -2.4% | -3.2% | -4.0% |
| | 20 | 1.3% | 2.5% | 3.8% | 5.1% | 6.4% |
| Park Acres/1000 People | 24 | 3.3% | 6.7% | 10.0% | 13.3% | 16.7% |
| | 28 | 5.4% | 10.8% | 16.2% | 21.6% | 27.0% |
| | 32 | 7.5% | 14.9% | 22.4% | 29.9% | 37.3% |

Introduction

A number of specific steps can be taken to implement the Mandan Comprehensive Plan which are tabulated in the following pages. These implementation steps are in addition to the goals, plans and policies in the Plan, but are more specific and action-oriented. The steps are organized around the three main elements of the Plan: Land Use, Transportation, and Parks & Trails.

The table of implementation steps refers to the City department that will most likely take the lead in being responsible for their implementation, as well as a general timeline for action, and the priority of the step.

There is also reference to the Goal the step is most closely linked to. The Goals are:

Goal 1: Promote a well-planned community balancing land uses and expansion of services.

Goal 2: Provide a variety of housing types, densities and choices to meet the life cycle housing needs of residents.

Goal 3: Support, enhance and expand existing businesses and promote new businesses to Mandan.

Goal 4: Coordinate transportation with land use planning.

Goal 5: Provide safe and functional roadways that serve automobiles, trucks, transit, bicycles and pedestrians.

Goal 6: Promote redevelopment of existing corridors and downtown to enhance Mandan's character and identity.

Goal 7: Ensure that the City's aesthetic character for residents, visitors and business patrons is enhanced through high quality development and infrastructure and the visual attractiveness of key corridors.

Goal 8: Continue to work with Mandan Parks & Recreation to provide for the park, recreation, trail, and open space needs of the Mandan community.

LAND USE

| <i>No.</i> | <i>Action Item</i> | <i>Who</i> | <i>When</i> | <i>Goal</i> |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------|-------------|
| L-1 | Create new zoning districts to correspond to new land use designations in the Land Use Plan. | Planning | 2015 | 1 |
| L-2 | Rezone all property in the City to be consistent with the Land Use Plan. | Planning | 2015-2016 | 1 |
| L-3 | Formalize policies for the extension of city sewer and water to allow efficient, orderly expansion of growth areas | Planning, Engineering | 2015 | 1 |
| L-4 | Conduct a study to develop policies and ordinances for the protection, preservation and management of rivers, streams, wetlands, steep slopes and other natural features during development | Planning, Engineering | 2015 | 1 |
| L-5 | Evaluate options such as PUDs and Conditional Uses to provide for neighborhood commercial and residential mixed use zoning that will create dense, mixed use, pedestrian-oriented neighborhood centers | Planning | 2015 | 1 |
| L-6 | Review zoning regulations and other tools to provide for building materials, site design, signage and landscaping standards consistent with high quality appearance in all commercial and mixed use areas. | Planning | 2015 | 1 |
| L-7 | Continue to evaluate the needs and response time for police, fire and emergency services in the growth areas of Mandan, with the goal of establishing a plan for whether or where new facilities are required. | Planning, Engineering, Police, Fire, Public Works | 2015-2016 | 1 |
| L-8 | Work with Morton County and other agencies and stakeholder to follow through on the recommended 5-Year Housing Action Plan from the 2013 Morton County Comprehensive Housing Study, specifically those activities that directly involve the City of Mandan. | Planning | 2015-2017 | 2 |
| L-9 | Participate in an annual Morton County Housing Summit | Planning | Annual | 2 |
| L-10 | City staff will review the comprehensive plan on an annual basis with the Planning and Zoning Commission to assess the status of plans, policies and implementation actions | Planning | Annual | 1 |

TRANSPORTATION

| No. | Action Item | Who | When | Goal |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|---------------|
| T-1 | Study the feasibility of extending Boundary Road west from Sunset Drive to serve future development and provide continuity in the roadway network. | Planning, Engineering | 2015-2016 | 4 |
| T-2 | Study the feasibility of extending Division Street west from Sunset Drive to serve future development and provide continuity in the roadway network. | Planning, Engineering | 2015-2016 | 4 |
| T-3 | Fund and construct access to I-94 in northwest Mandan connecting Old Red Trail to new roads south of I-94 at 31st Street NW and 32nd Avenue NW. | Planning, Engineering | 2015-2016 | 4 |
| T-4 | Work with the MPO and NDDOT to make needed improvements to the I-94/Mandan Avenue interchange. | Planning, Engineering | 2015-2018 | 4 |
| T-5 | Work with the MPO and NDDOT to make needed improvements to the I-94/Sunset Drive interchange. | Planning, Engineering | 2015-2018 | 4 |
| T-6 | Work with the MPO and NDDOT to study the feasibility of a new I-94 interchange at 56th Avenue NW to serve future development and provide continuity in the roadway network. | Planning, Engineering | 2020+ | 4 |
| T-7 | Work with the MPO to study the feasibility of a bridge access over the Heart River connecting McKenzie Drive to Highway 1806 in southeast Mandan. | Planning, Engineering | 2016 | 4 |
| T-8 | Work with the MPO to study truck routes into and around Mandan to serve industrial properties | Planning, Engineering | 2015-2016 | 4, 5 |
| T-9 | Prepare a detailed Downtown land use and transportation plan to address optimum function and redevelopment options. | Planning, Engineering | 2015-2016 | 1, 2, 4, 6 |
| T-10 | Work with the MPO to fund and construct improvements to Memorial Highway. | Planning, Engineering | 2015-2016 | 1, 2, 4, 5, 6 |
| T-11 | Work with the MPO and Morton County to fund and construct improvements to Sunset Drive. | Planning, Engineering | 2015-2016 | 1, 2, 4, 5, 6 |

PARKS & TRAILS

| No. | Action Item | Who | When | Goal |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------|------|
| P-1 | Remove existing park facilities and divest property or determine best use for Ventures and Little Haven Parks and redevelop according to that use. | Park District, City | 2015 | 8 |
| P-2 | Develop renovation master plans and detailed design documents for Roughrider and William M. Bauknecht Parks and implement improvements in the following year. | Park District | 2015, 2017 | 8 |
| P-3 | Prepare designs and implement improvements for Neighborhood Parks, Community Parks, and Special Facilities (golf courses, aquatics, action sports) as described in the 2015-2019 Parks Capital Improvement Plan | Park District | 2015-2019 | 8 |
| P-4 | Dacotah Centennial Park: Design and implement improvements (expand grandstand seating, pave parking, realign roadways, etc.) | Park District, City | Future | 8 |
| P-5 | Sunset Park: Add paved trail around perimeter (Coordinate with private development) | Park District, Private Developer | Future | 8 |
| P-6 | 47 Acre Park: Prepare Master Development Plan and implement improvements in 2019 or Future | Park District | 2017-2019, Future | 8 |
| P-7 | Longfellow Park: Pursue permitting and implementation of a public boat launch | Park District, City, State | | 8 |
| P-8 | Monitor current and future athletic facility space needs on an ongoing basis | Park District | Ongoing | 8 |
| P-9 | Study alternatives and pursue funding alternatives for the replacement of All Seasons Arena with a new two-sheet ice arena | Park District, City | 2015-2016 | 8 |
| P-10 | Acquire and develop approximately 185 acres of additional park land by 2030. | Park District, City | Ongoing | 8 |
| P-11 | Trail system: develop a comprehensive trail system master plan, construct approximately 30 miles of new trails by 2030, coordinate construction and maintenance of trails with the City of Mandan, prepare a capital improvement plan for trail construction and maintenance, and develop a special assessment district to overlay portions of the trail system | Park District, City | Ongoing | 8 |
| P-12 | Determine the need for additional or improved maintenance facilities | Park District | Ongoing | 8 |

PARKS & TRAILS, continued

| <i>No.</i> | <i>Action Item</i> | <i>Who</i> | <i>When</i> | <i>Goal</i> |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------|-------------|
| P-13 | Explore the potential for jointly developing specialty recreational facilities with Bismarck | Park District, City, Bismarck | | 8 |
| P-14 | Conduct regular surveys and adjust programming as needed to ensure that a variety of recreation programs is available for a wide range of age groups and to maintain a high satisfaction rating | Park District | Ongoing | 8 |
| P-15 | Coordinate with the school district for facilities and programs and mutually beneficial improvements | MPD and School District | Ongoing | 8 |
| P-16 | Work with the City of Mandan, the YMCA, and others to develop a new recreation center adjacent to Raging Rivers | Park District, City, YMCA | 2015-2016 | 8 |
| P-17 | Determine the feasibility of a trail crossing over the Missouri River in northern Mandan | Park District, City, City of Bismarck, MPO, State | Future | 8 |