



September 28, 2022

Daniel Nairn, AICP
Senior Planner / Land Use Planning
City of Bismarck
221 N 5th Street
Bismarck, ND 58506-5503

Subject: Recommendations from Blue Zones for Bismarck
Project Code: 4531 HLH 5141 31

Dear Mr. Nairn:

Blue Zones, LLC, is pleased to present the attached recommendations for the City of Bismarck to review. The Blue Zones team offers six topics for consideration:

- CODE TOPIC A: Upgrade Zoning for Bismarck's Near-Town Neighborhoods
- CODE TOPIC B: Upgrade Downtown Zoning to Enhance Bismarck's Premier Gathering Place
- CODE TOPIC C: Reduce Reliance on Arterial-Collector Status in Zoning Regulations
- CODE TOPIC D: Stop Requiring Oversized Parking Lots in Bismarck
- CODE TOPIC E: Update Bismarck's Zoning to Support Compact Walkable Mixed-Use
- CODE TOPIC F: Update Bismarck's Street Connectivity Standards

Thank you for the opportunity to provide technical assistance. For further information on this final phase of work, please contact Bill Spikowski, Mary Madden and Sarah Bowman.

Sincerely,

A handwritten signature in black ink, appearing to read "Lynn Richards".

LYNN RICHARDS
SVP Policy and Implementation | lynn@bluezones.com | 703-597-6291

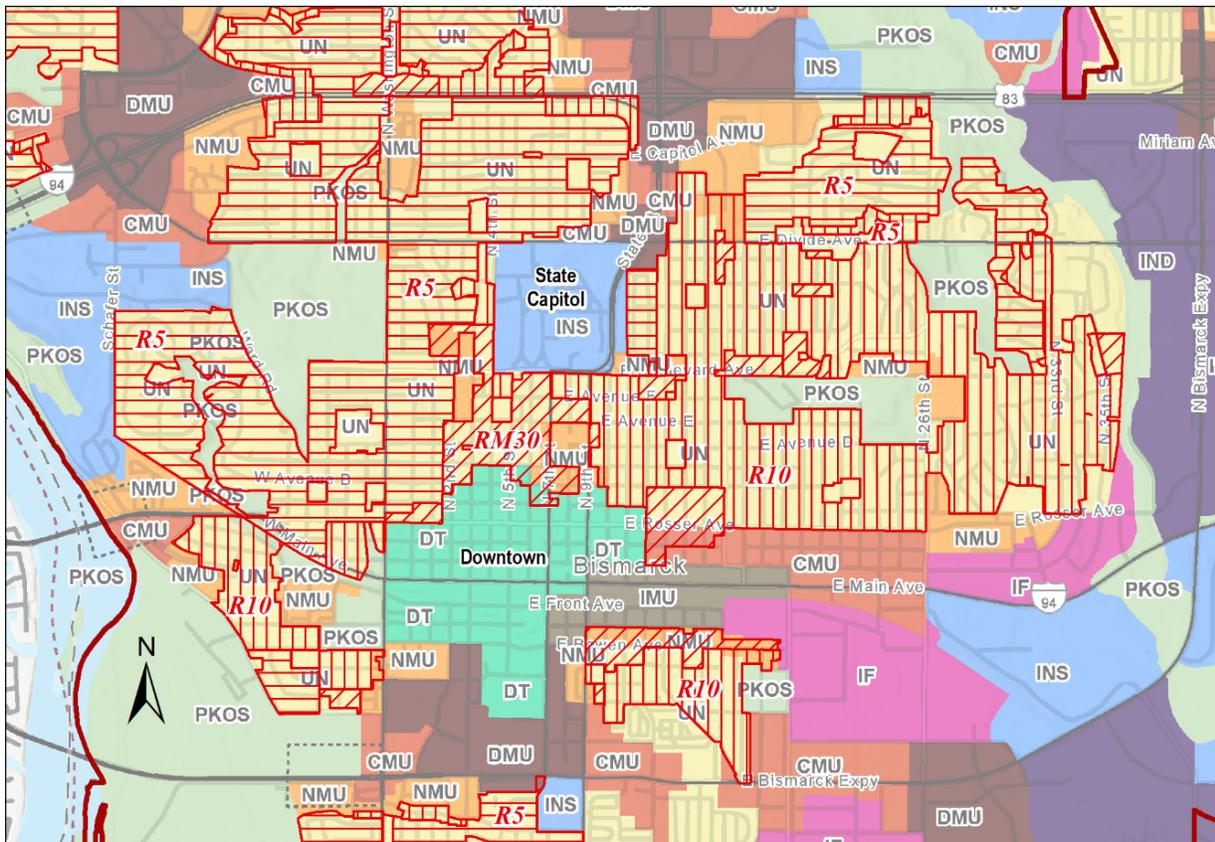
CODE TOPIC A: UPGRADE ZONING FOR BISMARCK’S NEAR-TOWN NEIGHBORHOODS
Background:

Neighborhoods near downtown are typically very desirable places to live, with concentrations of varied older homes and strong social ties that result from several generations of prior residents. Near-town neighborhoods are usually the most walkable and bikeable in any city, with many stores and services within walking distance and others available with public transportation.

The new Comprehensive Plan for Bismarck identifies a large portion of the city as “Urban Neighborhood (UN),” which is shown in pale yellow on the near-town map below. These areas have mostly residential zoning, which is shown with red hatching. Three zoning districts apply to most of this area:

- **R5 - Residential District** (horizontal hatching; northwest, south, and far northeast of downtown)
- **R10 - Residential District** (vertical hatching; northeast, southeast, and southwest of downtown)
- **RM30 – Residential District** (diagonal hatching; immediately north of downtown)

The following pages discuss how Bismarck’s near-town neighborhoods can be improved through a major upgrade to these zoning categories, which are quite obsolete and have been applied unevenly.



Current and Past Code Provisions in Bismarck:

Three residential zoning districts have been assigned to most “Urban Neighborhood” land in the neighborhoods near downtown: R5, R10, and RM30. Important differences and similarities between these zoning districts are summarized here:

	<u>R5</u>	<u>R10</u>	<u>RM(3 to 30)</u>
<u>PERMITTED USES:</u> (also, accessory dwelling by special permit)	Single family	Single family Two family	Multifamily Row / town house (limited area: single/two family)
<u>MAXIMUM DENSITY:</u> (families per acre)	5 per acre	10 per acre	3 to 30 per acre (cap set in district name)
<u>MINIMUM LOT AREA:</u> (old lots: 5,000 sq. ft.)	7,000 square feet	7,000 square feet (split two family: 3,500)	7,000 square feet
<u>MINIMUM LOT WIDTH:</u> (50 ft. for old lots)	40' / 60'	40' / 60'	60'
<u>MAX. LOT COVERAGE:</u>	30%	40%	50%
<u>MIN. SIDE SETBACK:</u> (different at corners)	6'	6'	10' (except row/town houses)
<u>MAX. BUILDING HEIGHT:</u>	40' / 50'	40' / 50'	60'

In this area, the outer boundary of the R10 district has existed since the advent of zoning in Bismarck in 1924, although the district names and regulations have varied. The boundary of the combined R5 and RM30 districts was also established in 1924; the RM30 portion was separated out in 1936.

Other than the 1936 change, the zoning in this area has changed surprisingly little despite almost 100 years of physical, social, and demographic changes in Bismarck. Some individual parcels have been rezoned during that period, for instance to allow an apartment building on consolidated lots; but no comprehensive analysis has been conducted to ensure that Bismarck’s zoning regulations reflect today’s physical and demographic conditions, and more importantly, take into account the future needs of the city and region.

It is worth noting that despite the significant differences in density, other regulations in these districts make them more alike than different. For instance, the maximum building heights are quite similar; the minimum lot sizes are quite similar; and even the maximum lot coverage (the percentage of a lot that can be covered by buildings and parking spaces) doesn’t vary that much between these districts. These similarities presumably recognize the fact that most of this area was subdivided prior to World War II; the lots that were created are very similar in size and shape; the block pattern is very similar; alleys were provided on most blocks; etc.

This is an opportune moment to examine the differences between these zoning districts to determine if they still bear a logical relationship to the various near-town neighborhoods to which they have been assigned — and thus could be retained as-is — or whether they should be adjusted or replaced to be fair and reasonable.

Along with that examination, several other shortcomings of these districts should be addressed:

- There are too few standards in the code that would maintain the physical character of these neighborhoods, which consist of moderately sized homes of widely varied styles on individual lots:
 - For instance, existing lots in RM30 are now allowed to be combined and then used to construct large buildings surrounded by parking lots, which would be at odds with the physical character of these neighborhoods.
 - In all of these districts, there is no simple requirement that each new house must have a door and windows facing the street. Other cities are finding that new single-family homes can be quite out-of-place in their older neighborhoods, for instance due to blank front walls, or to facades that consist mostly of garage doors.
- The format of the current code makes it very difficult to understand the differences and similarities between zoning districts — the standards are presented in a pages-long lists for each district, rather than as charts that would allow comparisons.
- The zoning map itself is no longer available as a paper map. For savvy computer users, the on-line zoning map makes finding the current zoning on a lot very easy; yet the on-line format is too rigid to allow users to understand the general distribution of zoning across Bismarck, for instance where exactly each district has been applied.

Suggested Improvements:

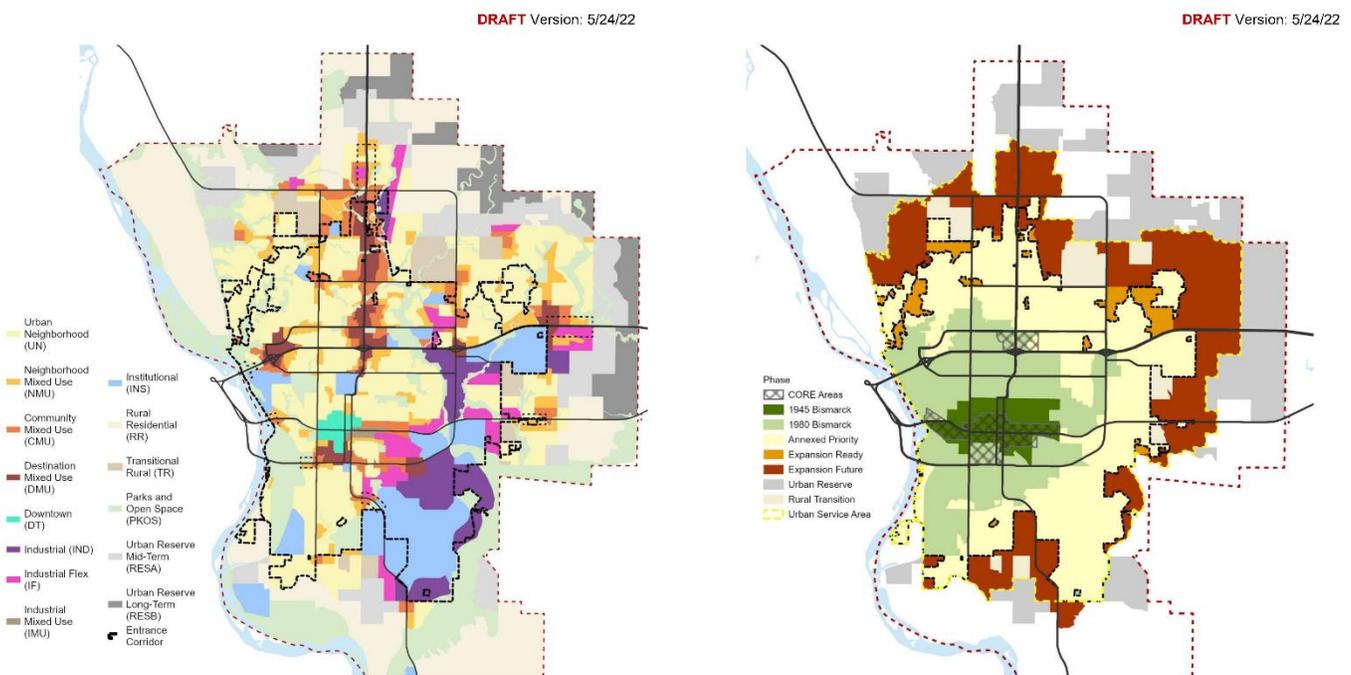
Although the neighborhoods in the map on Page 1 are fairly similar in character, that is not true for all neighborhoods that are designated as “Urban Neighborhood (UN)” in the Comprehensive Plan.

Newer neighborhoods have a somewhat different character, reflecting the automobile-oriented period when those neighborhoods were created. After World War II, neighborhoods began to be created without alleys, thus moving all access by vehicles to the front of each lot rather than the rear. Sidewalks separated from the street were sometimes not provided, and new subdivisions often had less interconnectivity with adjoining neighborhoods — layouts that favored driving and made walking and bicycling more difficult.

To illustrate this spatially, consider the two maps below:

- The left map is the proposed “Future Land Use Plan” for Bismarck, with the “Urban Neighborhood (UN)” portion (the residential neighborhoods) depicted in pale yellow.
- The right map is the proposed “Growth Phasing Plan.” Pale yellow on the map to the right indicates land that has been annexed and either has been developed or is suitable for development. Land that was subdivided earliest, e.g. before World War II, is shown in dark green; land that was subdivided up to about 1980 is shown in lighter green. (Land shown in orange is not yet annexed but is considered suitable for development once utilities are expanded; land shown in brown is not easily served with infrastructure, but may become suitable by 2045.)

The Growth Phasing Plan provides a quick glance at the sequence of development in Bismarck, past and future.



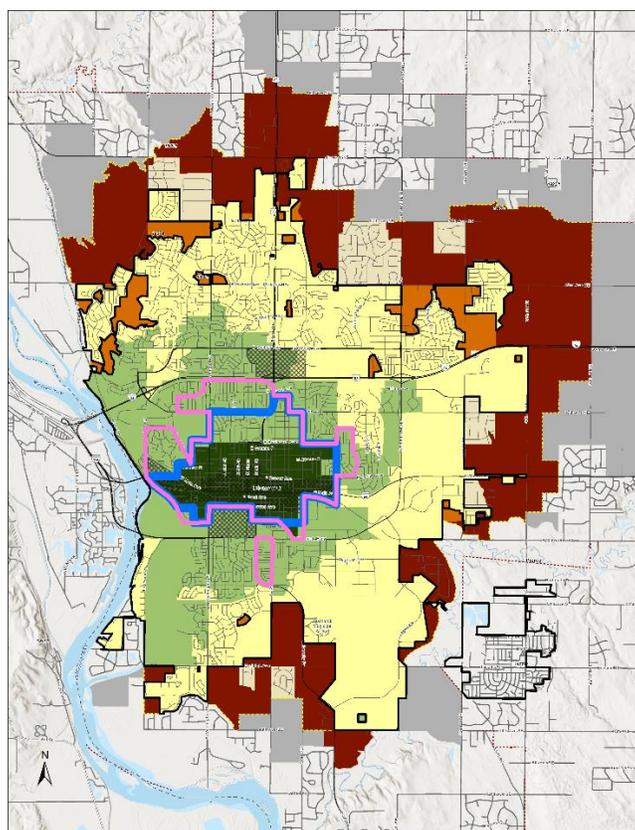
Land that was developed in the past 50 years is generally fairly consistent with current zoning regulations, given how little those regulations have changed over that period.

Current regulations do need various improvements, as discussed in other recommendations in this series, but much more problematic are those neighborhoods that were developed under one set of rules (or no zoning rules at all) but which later came to be regulated the same way as neighborhoods built under the current rules.

Bismarck’s zoning code contains numerous attempts to ameliorate this situation, such as specific exceptions based on certain dates and also more general rules for “nonconforming” uses and structures. Still, it would be better to eliminate inappropriate regulations than to provide elaborate workarounds to soften their most harmful effects.

For older neighborhoods, the best approach would be to replace the hodge-podge of current zoning districts with a new set of regulations which are carefully crafted for the physical conditions found in those neighborhoods and which implement the forwarding-thinking actions set forth in Bismarck’s new Comprehensive Plan.

The exact area that should be included in these new regulations would have to be determined. It should probably be larger than the 1945 area on the Growth Phasing Plan, but not as large as the 1980 area. The map below shows two other possible areas superimposed on the Growth Phasing Plan, based on when most land within had been subdivided: by 1950 (outlined in blue) and by 1970 (outlined in pink).



Once the optimal portion of “Urban Neighborhood” (UN) has been identified, new zoning regulations would be drafted for that area. This following land would be excluded, as discussed in Recommendation B in this series:

- All of Downtown
- The Medical Facility area immediately northeast of Downtown
- The Industrial Mixed Use area immediately southeast of Downtown

This new zoning would be a form-based zoning district that would replace R5, R10, and RM30 zoning in this area. It would probably also replace RT and PUD zoning in this area, but not non-residential zoning such as P (Public) or CA/CG (Commercial).

Most form-based zoning districts include a map called a “regulating plan.” A regulating plan allows the district to be customized to existing and planned conditions that occur on smaller areas, similar to overlays in conventional zoning. For instance, the regulating plan (or sub-districts within the new zoning district) might identify areas like these:

- Blocks where a second dwelling could be created inside in an existing home, as was allowed in Bismarck’s original 1924 zoning even in areas now zoned R5. (Or alternately, blocks where this would NOT be permitted, if permitted everywhere else in the new district.)
- Parcels that have obtained special zoning rights in the past, such as a prior PUD approval or other zoning approval to build a large apartment complex.
- Blocks without alleys, where vehicular access must be from the street, which complicates the placement of garages.
- Blocks with concentrations of older buildings with historic character, where architectural regulations could be stricter to maintain that character. Examples might include the Cathedral Area and/or the Highland Acres historic districts.
- Areas where the addition of compatible new housing would be encouraged, such as lower-intensity “missing middle” housing:



Benefit of Suggested Improvements:

This new zoning district would replace zoning districts that aren't matched well to conditions in older neighborhoods. It would also implement Bismarck's new Comprehensive Plan and would provide clear and predictable regulations for Bismarck's future.

CODE TOPIC B: UPGRADE DOWNTOWN ZONING TO ENHANCE BISMARCK’S PREMIER GATHERING PLACE
Background:

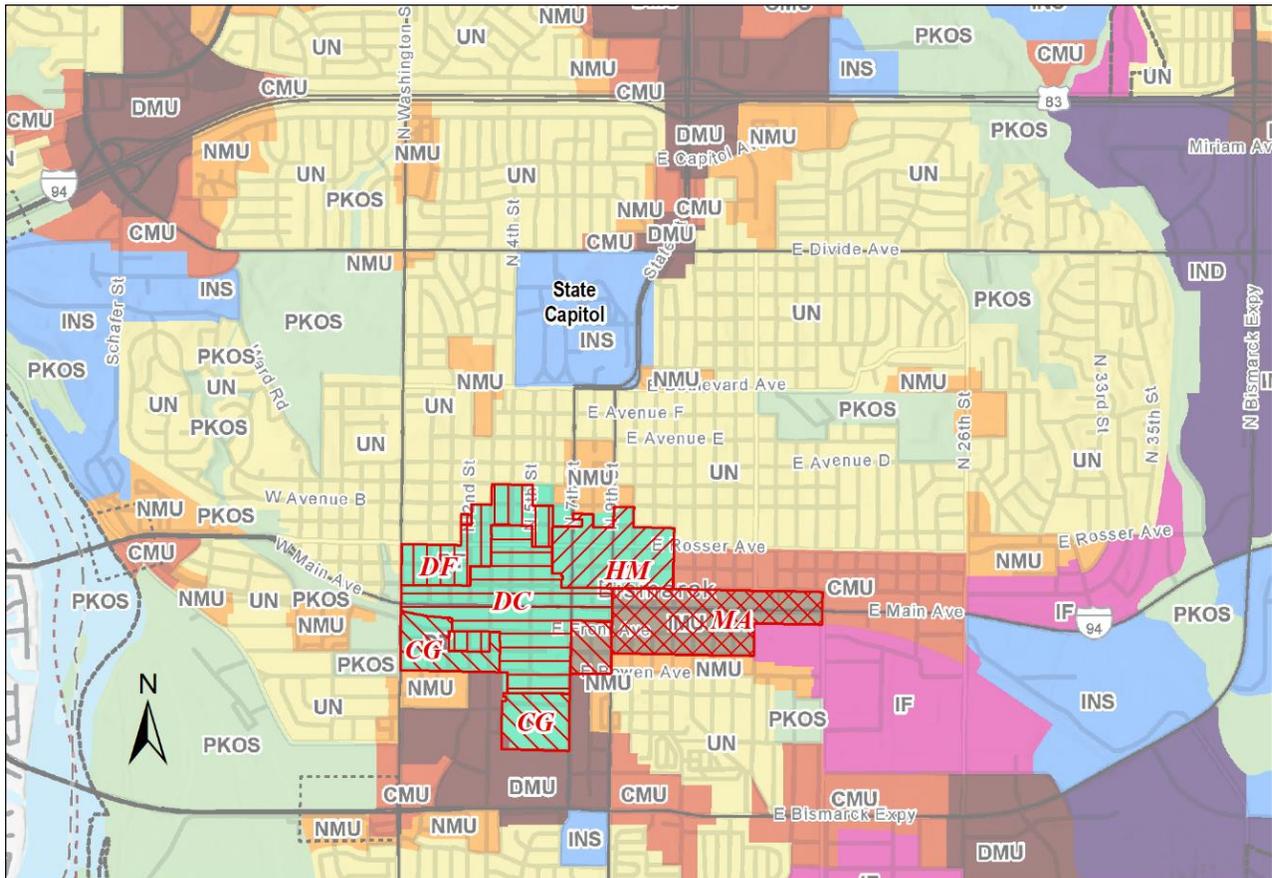
Downtown is the living heart of most cities — the home of many public and civic functions, the visual focus of surrounding neighborhoods, and a concentration of the city’s historic buildings. Successful downtowns contain the most sought-after locations for shopping, entertainment, and public gatherings.

The most recent plan for Bismarck’s downtown was completed in 2013, implemented through design and streetscape guidelines and two zoning districts (DC-Downtown Core and DF-Downtown Fringe).

The new Comprehensive Plan for Bismarck identifies a larger area for downtown Bismarck, shown in teal on the map below, and a related “Industrial Mixed Use” area shown in medium brown. These larger areas incorporate the existing DC and DF zoning, but also include three older zoning districts:

- **HM - Medical Facility District** (northeast of downtown)
- **CG - Commercial District** (to the south and southwest of downtown)
- **MA - Industrial District** (to the east of downtown)

The following pages discuss how Bismarck’s downtown can be further strengthened by implementing Bismarck’s new Comprehensive Plan through changes to the city’s zoning regulations.



Current Code Provisions in Bismarck:

Five zoning districts have been assigned to most land in or near “Downtown” on the Future Land Use Plan of Bismarck’s new Comprehensive Plan. Several important differences and similarities between these zoning districts are summarized here:

	<u>DC</u>	<u>DF</u>	<u>HM</u>	<u>CG</u>	<u>MA</u>
<u>PERMITTED USES:</u>	retail; office service residential	retail; office service residential	retail health/medical residential	retail wholesale multifamily	retail wholesale light industrial
<u>MAXIMUM DENSITY:</u>	none	none	[vague]	42 per acre	none
<u>MINIMUM LOT AREA:</u>	7,000 sq. ft. (old lots: 5,000)	7,000 sq. ft. (old lots: 5,000)	7,000 sq. ft. (old lots: 5,000)	7,000 sq. ft. (old lots: 5,000)	10,000 sq. ft.
<u>MINIMUM LOT WIDTH:</u>	25’	60’	60’	60’	60’
<u>MAX. LOT COVERAGE:</u>	100%	100%	50%/75%/100%	75%/80%	80%
<u>MAX. BUILDING HEIGHT:</u>	130’	75’	50’	130’	75’

The HM zoning district is for medical facilities. It is included in this discussion because the land currently zoned HM has been included as part of “Downtown” on the new Future Land Use Plan. This land is north of E. Broadway Avenue between N. 6th and N. 12th Streets.

The CG zoning district is for heavy commercial uses. It is included in this discussion because two small areas with CG zoning have been included as part of “Downtown” on the new Future Land Use Plan. One area is the north half of the Kirkwood Mall. The other has small lots and small buildings, lying immediately north of Bowen Avenue between S. Washington and S. 3rd Street.

The MA zoning district is for light industrial uses. It is included in this discussion because an area of MA zoning is being designated as “Industrial Mixed Use” on the new Future Land Use Plan. It may be advisable to include this area in new zoning for downtown area. This area is bounded by E. Broadway Avenue on the north; N 9th Street on the west; E. Sweet Avenue on the south; and S. 16th Street and Airport Road on the east.

Suggested Improvements:

The first decision would be to identify the optimal area where upgraded downtown zoning regulations would apply. It could be the entirety of “Downtown” on the new Future Land Use Plan; or it could be expanded to include “Industrial Mixed Use” on the new Future Land Use Plan; or it could include less than the full “Downtown” designation.

Once the area has been identified, new zoning regulations would be drafted for that area. The new regulations would be a new downtown form-based zoning district that could replace the existing DC, DF, HM, and CG zoning (and optionally MA zoning in “Industrial Mixed Use”).

The new form-based district might differ from current zoning in the follow ways:

- The existing boundaries of DC and DF zoning would be adjusted in accordance with the new delineation of Downtown on the new Future Land Use Plan.
- The new downtown zoning district would probably be expanded to include all land in the new delineation of Downtown, and potentially all land in “Industrial Mixed Use.”
- The new downtown zoning district could identify sub-districts to provide slightly differing regulations within its perimeter.
- Graphics would be used wherever possible to convey the intent of code provisions.
- Specific development standards would change, such as:
 - Expanding the “no on-site parking required” area beyond where it currently applies in DC and DF (currently only in the downtown parking district,¹ although this is contradicted by other wording in Title 14²)
 - Requiring on-site loading areas only for the largest sites
 - Eliminating minimum lot areas
 - Allowing pedestrian-scale signs to extend over sidewalks
- An expedited review process could be provided for proposals that meet all the new regulations, with a second process to consider requests for partial waivers of design standards.
- The current methods for specifying allowable uses could be streamlined and coordinated at least with new zoning for older near-town neighborhoods, if not the entire city.
- Design standards would be included for improvements within public rights-of-way, as is currently required in the DC and DF districts only.
- Most standards for new and rehabilitated buildings would be converted from generalized “design guidelines” to more objective “design standards,” such as:
 - Specifying a “build-to zone” on each lot within which new building facades must be located (replacing minimum front setbacks)
 - Establishing percentages of transparent windows and doors on building facades, with higher percentages required in the core of downtown
 - Placing parking to the side or rear of buildings instead of adjacent to sidewalks

¹ Title 14, Section 14-03-10.6.f, 14-04-21.1.5 and 14.04-21.2.5, DC and DF districts respectively

² Title 14, Section 14-03-10.6.f, 14-03-10.3.c, Off-Street Parking and Loading (Reductions and Exemptions)

Most form-based zoning districts include a map called a “regulating plan.” A regulating plan allows the district to be customized to existing and planned conditions that occur on smaller areas, similar to overlays in conventional zoning. For instance, the regulating plan might identify areas like these:

- Important blocks where ground-floor spaces should be occupied by active uses.
- Blocks with concentrations of older buildings with historic character, where architectural regulations could be stricter to maintain that character. This could be some or all downtown blocks with buildings listed on the National Register of Historic Places.
- Parcels that have obtained special zoning rights in the past, such as prior PUD or other zoning approvals that might exceed certain standards in the new zoning district.
- Blocks without alleys, where vehicular access must be from the street, which complicates the placement of parking.
- Proposed features such as an enhanced pedestrian entrance to the Kirkwood Mall along 5th St.
- The hierarchy of public streets (currently included in Downtown Streetscape Standards), supplemented by concepts for future street improvements such as switching to two-way travel or changing lane and/or sidewalk widths.
- A future trail that could connect downtown with the riverfront trail system.
- Areas with distinctly different character, for instance land currently zoned MA.
- Areas where the addition of compatible new housing would be encouraged, such as “missing middle” housing³:



Benefit of Suggested Improvements:

Upgraded downtown regulations could replace three zoning districts that aren’t matched well to conditions on the edge of downtown and would upgrade the two existing downtown zoning districts. These changes would help implement Bismarck’s new Comprehensive Plan and would provide clear and predictable regulations for the future of downtown Bismarck.

³ Valuable information about Missing Middle housing is provided by Opticos Design, Inc at: <https://missingmiddlehousing.com/>

CODE TOPIC C: *REDUCE RELIANCE ON ARTERIAL-COLLECTOR STATUS IN ZONING REGULATIONS***Background:**

Most zoning regulations in Title 14 are based on a property’s zoning district (R5, R10, CG, MA, etc.).

Other zoning regulations in Bismarck are based on different factors, including:

- Geographic-specific overlays, which apply to some properties in addition to their zoning district. Examples include floodplain regulations⁴ and airport noise regulations.⁵
- Special provisions within a zoning district, such as single-family homes being allowed in RM zoning only in a specifically delineated area.⁶
- Some provisions vary based on when a lot was originally created, such as lots that were platted prior to 1953,⁷ or structures that were permitted prior to 1997 or 2007.⁸
- Many development regulations apply identically in every zoning district. Building codes are an example; they are based on each building’s proposed occupancy type, regardless of the site’s zoning district.

Variations based on these factors are found in the zoning regulations of most communities. Such variations are often critical in carrying out the multi-faceted purposes of zoning regulations, which must strike a balance between encouraging certain types of development, protecting buildings from perils such as flooding, and recognizing the effects of prior regulations on property rights.

Bismarck’s Title 14 regulations contain another broad set of variations that are typically used only for special purposes (such as reserving right-of-way for future roads at the time tracts of land are first being subdivided). These variations are discussed in detail below.

Current Code Provisions in Bismarck:

Bismarck’s current zoning and subdivision regulations contain many provisions that vary depending on whether a given property abuts a road that has been designated as either an “arterial” or a “collector.”

These regulations can be problematic because the same regulations are applied to parcels of land along a wide high-speed arterial road on the outskirts of Bismarck as to other parcels along the same arterial when it bisects an urban neighborhood or business district, or even when it runs through downtown — just because all of these parcels abut a road that has been given a single “arterial” designation.

⁴ Title 14, Section 14-04-19, Floodplain District

⁵ Title 14, Section 14-04-20, Airport Noise Overlay District

⁶ Title 14, Section 14-04-07-2-g, permitted uses in the RM Residential District

⁷ Title 14, Section 14-04-07-4, minimum lot area in the RM Residential District

⁸ Title 14, Section 14-04-07-9, rear setbacks in the RM Residential District

This same absence of distinction between different segments of arterials has impacts beyond city zoning regulations. For instance, an arterial road should be designed and managed differently depending on the surrounding physical context. Without a system to determine the context, it is difficult for city engineers to specify road design features that are context-sensitive, with the result that walking and bicycling often becomes more difficult (and less safe) in urban areas where it would be most practical and desirable.

These groups of provisions in current Bismarck codes are affected by arterial or collector status:

- **Location of specific uses** — such as filling stations being allowed to abut one arterial or collector (but not two).⁹
- **On-street parking spaces** — adjacent on-street parking spaces can be counted toward required off-street parking, except for spaces on arterials and collectors.¹⁰
- **Parking lot regulations** — such as waiving landscaping requirements for industrial parking lots that are not located along an arterial or collector.¹¹
- **Sign regulations** — such as limiting the size of electronic signs based on arterial/collector status¹² and limiting off-premise advertising signs to locations along arterials.¹³
- **Front setbacks on pre-1979 residential lots** — older lots have their minimum front setbacks based on existing setbacks on nearby “reference lots,” which cannot be across an arterial or a collector.¹⁴ (This rule applies in most residential districts and in some commercial and industrial districts.)
- **Permitted uses in certain zoning districts** — such as the RT district limiting the location of drive-in/drive-through facilities for banks to parcels along arterials only.¹⁵
- **Locational criteria for certain zoning districts** — such as the intention for the CA commercial district to be used only if “served by arterial or collector streets.”¹⁶
- **Egress regulations** — such as limiting the spacing between ingress/egress points of convenience stores based on arterial/collector/local status.¹⁷
- **Subdivision street design standards** — such as minimizing on-street parking on collector roads;¹⁸ requiring the continuation and appropriate projection of existing arterials and collectors when platting new subdivisions;¹⁹ and for establishing right-

⁹ Title 14, Section 14-03-08-4-e-5, filling stations as special uses in CA, CG, or MA districts

¹⁰ Title 14, Section 14-03.10-6-c, roadway functional class for on-street parking spaces

¹¹ Title 14, Section 14-03-11-8-e, parking lot landscaping in MA and MB districts

¹² Title 14, Section 14-03.1-08-3-d-iii, electronic sign area limited by functional class (in commercial zoning district standards)

¹³ Title 14, Section 14-03.1-08-4-d, roadway functional class for off-premise signs (in commercial zoning district standards)

¹⁴ See, for example, Section 14-04-03-7-a-4 (for the R5 residential district)

¹⁵ Title 14, Section 14-04-08-2, special uses in the RT residential district

¹⁶ Title 14, Section 14-04-10-1, general description for the RT residential district

¹⁷ Title 14, Section 14-04-21.4-11-f, ingress and egress for convenience stores and gas stations (in use standards)

¹⁸ Title 14, Section 14-09-03, definition of “collector” (in subdivision regulations)

¹⁹ Title 14, Section 14-09-05-1-b, street and alley design standards (in subdivision regulations)

of-way widths for future arterials and collectors and prohibiting on-street parking on arterials and parkways.²⁰

- **Subdivision lot design** — allowing double-frontage (reverse frontage) lots only on arterials.²¹
- **Subdivision variances** — forbidding subdivision variances and waivers from having the effect of reducing the traffic capacity of any arterial or collector.²²

Suggested Improvements:

It may be reasonable to base some or even many of the regulations described above on whether a given property abuts an arterial or a collector road.

For such regulations, the first issue for Bismarck officials is to determine if there is a more nuanced way to accomplish the regulation’s purpose. For instance, it seems intuitive that larger signs should be allowed along arterial roads, which typically are designed for faster travel — larger and taller signs help drivers to find specific businesses. However, major arterials often pass through the center of cities, such as East Main Avenue in downtown Bismarck. At those locations, vehicular traffic moves more slowly, and more people are walking or bicycling. Sign standards that make sense for a high-speed arterial would have little relevance along East Main Avenue, despite its arterial designation.

When it definitely makes sense to base a regulation solely on arterial and collector status, regardless of physical context, the remaining issue is how to determine which map should be used to identify arterials and collectors.

At present, Title 14 contains various relevant definitions:

“Street-Collector: *Roadway which provides traffic movements between local roads and arterial roads and also provides direct access to abutting property. Collectors are often only two-lane roads but should be planned and designed to minimize on-street parking and direct driveway access.”*²³

“Street-Minor Arterial: *Roadway which provides through traffic movements between areas and links collectors with other arterials. Minor arterials usually have two to four lanes and may be divided or undivided roads, preferably with little or no parking, and limited access. The locations of roadways classified as minor arterials shall be as designated on the most recent edition of the North Dakota Department of Transportation functional classification map.”*²⁴

“Street-Principal Arterial: *Roadway which provides for rapid movements of relatively large traffic volumes between large land areas, major traffic generators and other arterials.*

²⁰ Title 14, Section 14-09-05-1-k, future right-of-way and roadway widths (in subdivision regulations); see similar standards for land outside city limits but within Bismarck’s extraterritorial area in Section 14-09-05-1-l

²¹ Title 14, Section 14-09-05-1-u-4-e, double-frontage lot standards (in subdivision regulations)

²² Title 14, Section 14-09-08-1-b, variance standards (in subdivision regulations)

²³ Title 14, Section 14-02-03, Definitions

²⁴ *Ibid.*

Principal arterials should have controlled access and are usually multi-lane roads with no parking. The locations of roadways classified as principal arterials shall be as designated on the most recent edition of the North Dakota Department of Transportation functional classification map.”²⁵

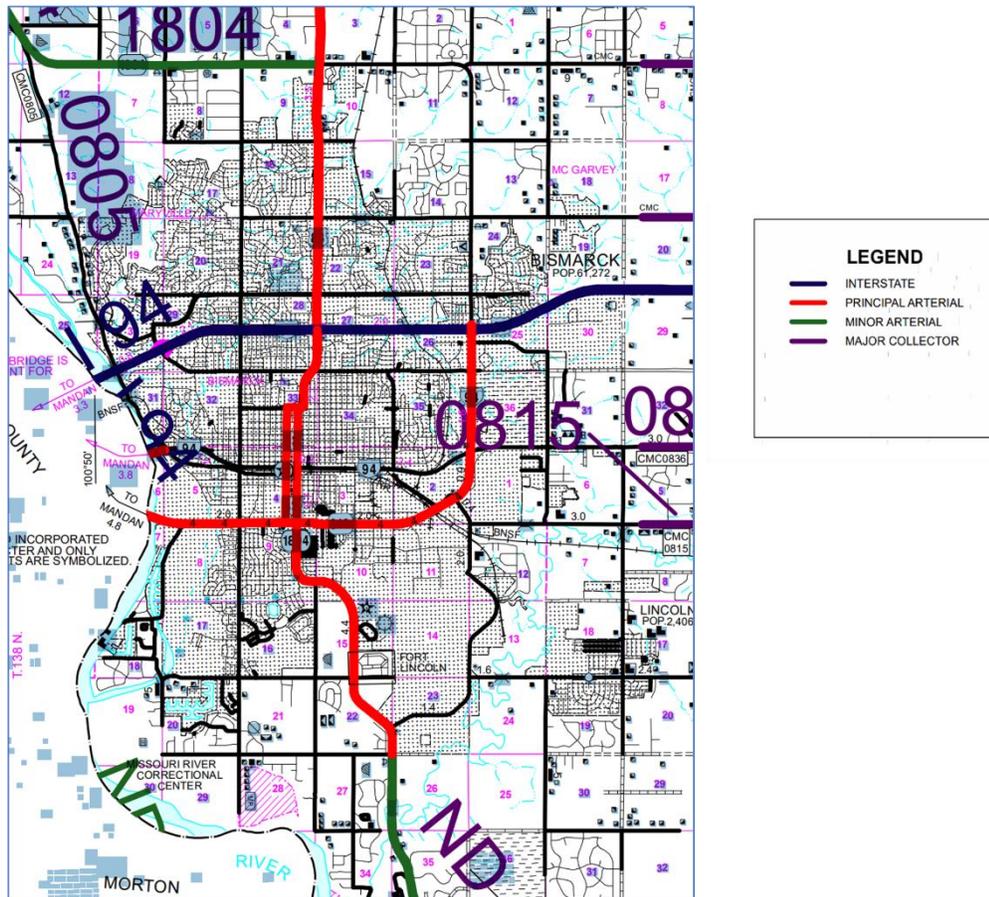
***“Collector:** Roadway which provides traffic movements between local roads and arterial roads and also provides direct access to abutting property. Collectors are often only two-lane roads but should be planned and designed to minimize on-street parking and direct driveway access. The locations of roadways classified as collectors shall be as designated on the most recent edition of the North Dakota Department of Transportation functional classification map.”²⁶*

²⁵ *Ibid.*

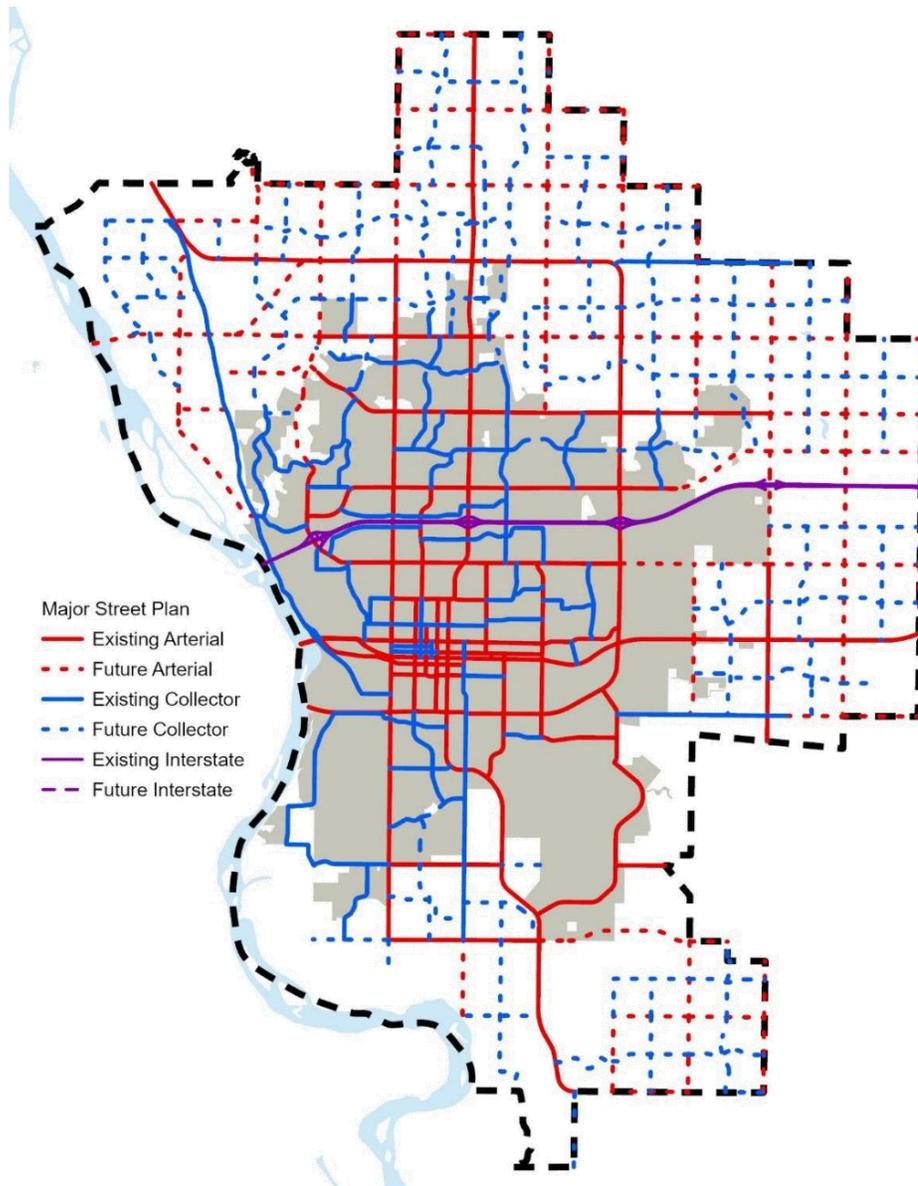
²⁶ *Title 14, Section 14-09-03, Definitions (in subdivision regulations)*

Three of these definitions specifically defer to the “most recent edition of the North Dakota Department of Transportation functional classification map.” This wording is admirably clear; the Bismarck portion of the latest available version of this map is reproduced below. However, reliance on this particular map poses various problems:

- When such maps are being prepared by a state DOT, no thought is given to how these classifications might be used by others in the future (such as Bismarck’s use in zoning and subdivision regulations).
- State DOTs are guided on such matters by federal agencies, which change their terminology and criteria over time. Each decennial census can also cause changes by modifying the urban/rural boundary (and thus some classification criteria).
- State DOTs are responsible for the state highway system, typically viewing travel patterns in the broadest possible terms — primarily focusing on major roads that allow through travel. When such roads enter cities and begin to serve additional civic functions, the federal classification scheme should change — but at least currently, it does not.



Another map showing the functional classification of arterials and collectors is presented as a proposed “Major Street Plan” in the June 2022 draft of *Together 2045*, the new comprehensive plan for Bismarck. This map defines a future network of arterials and collectors around Bismarck as well as within city limits, an important achievement. However, for zoning regulatory purposes, it suffers from the same shortcomings as the state DOT and MPO maps on the same subject. The latest draft of the Major Street Plan map is reproduced below.

DRAFT Version: 5/24/22

Assuming that Bismarck chooses to continue relying on road classifications for at least some zoning regulations, there are various approaches the city could follow so that these regulations would be based on a map or classification system that is better suited to this purpose.

It is tempting to continue using an existing map that shows arterials and collectors, since this approach is already in wide use for engineering purposes, and these maps have an aura of technical sophistication. However, these maps are continually being updated for purposes unrelated to zoning, and Bismarck is in a weak position to influence that updating, given that the North Dakota DOT and the MPO both are constrained by federal guidelines. Another and greater drawback to this approach is that the basic arterial/collector classification scheme is extremely insensitive to the character of neighborhoods that these roads pass through, yet for zoning purposes, that character is of paramount importance.

If these maps are to remain in use for zoning regulatory purposes, the Bismarck zoning code would need some method to effectively override some aspects of the standard classification scheme for local zoning purposes. Two fairly crude but potentially useful approaches might be:

- To identify specific portions of Bismarck with more urban characteristics, and modifying the effect of the arterial/collector designations within that area.
- To create a new map of arterials and collectors, for instance based on the North Dakota FDOT or local MPO map, but breaking each class into at least two parts. For instance, portions of some collectors would be designated as “urban collectors,” which would allow some collector regulations to be modified only for “urban collectors.” (This type of change would require modifications to the current arterial and collector definitions in Title 14, which assume that on-street parking is antithetical to the very concept of arterials and collectors.)

A second advantage of either approach would be to quickly identify areas or specific roadways which the state and city should treat differently when they operate, maintain, and rehabilitate that roadway. It is increasingly common for state and city engineers to wish to design roads and streets according to physical context; they are able to do so much more easily when there is an official map that designates context (typically a combination of existing physical context and planned changes to that context, for instance through new development regulations or other actions that will adjust the context over time).

Either of these approaches would be better than continuing to rely on standard functional classification maps. Either might be sufficient for zoning regulatory purposes; however, neither would be nearly as effective as setting up a more sophisticated system to identify the physical contexts through which Bismarck’s major streets run. A more sophisticated system would also be much better suited to guiding future transportation investments that would help Bismarck evolve into a better city for people who cannot drive and for those who choose to drive less in the future.

Communities around the country are experimenting with complex systems to reconcile the engineering profession’s paradigm of arterials and collectors with the planning profession’s concerns over revitalization, housing, and walkability. These systems have one or more goals:

- To determine exactly where suburban and rural highway designs should be replaced by designs for urban boulevards, avenues, and streets.
- To determine where development regulations should change — essentially separating suburban and rural areas from areas that are (or are intended to become) more compact and urban in character.

Several examples are provided here to illustrate a variety of approaches.

A city-wide example comes from Fayetteville, Arkansas:

- The city of Fayetteville adopted a Master Street Plan that includes a map showing the location of existing and proposed future streets.²⁷
- In outlying areas, the map in the Master Street Plan identifies major through streets using local terminology. For instance, there are “neighborhood links” which might otherwise be called collectors; and two types of “regional links” which might otherwise be called arterials.
- For Fayetteville’s more urban areas, the map in the Master Street Plan identifies nearly every existing street as “urban center,” regardless of the fact that some of these streets become “neighborhood links” or “regional links” when they extend beyond the urban area. (The plan also includes “residential link streets” for streets within neighborhoods; and “alternative residential link streets” that can be applied in unique development circumstances such as infill or redevelopment in existing historic areas, new or existing development that is alley loaded, or areas with steep topography.)
- The distinction between “urban” streets and all others is applied in several ways:
 - The Master Street Plan contains detailed cross-section drawings for various street types, including several types that are to be used specifically on the designated “Downtown/Urban” streets.
 - Fayetteville assigns different zoning districts to most land where urban streets have been designated (primarily “Downtown Core” and “Downtown Fringe,” as in Bismarck, plus “Main Street Center”). Urban street standards are applied through these zoning districts, without inadvertently applying them to outlying suburban or rural areas.

²⁷ This system has evolved since its initial inclusion in 2011 into Fayetteville’s comprehensive plan; for details, see: <https://www.fayetteville-ar.gov/1217/Master-Street-Plan>

A statewide example comes from the Florida Department of Transportation (Florida DOT):

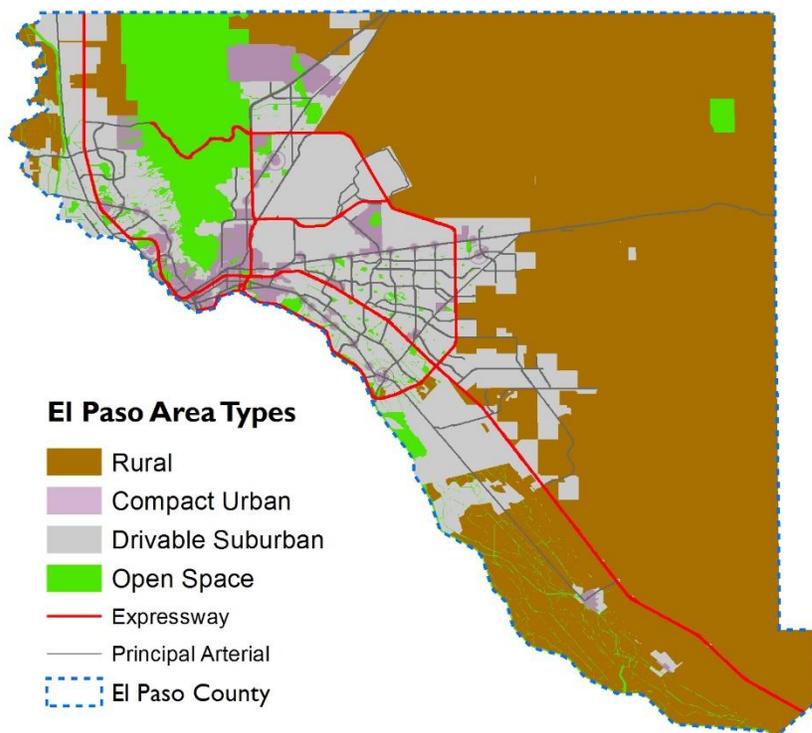
- Florida DOT has developed a complete context classification system for state roads across Florida.²⁸ A similar method could be applied for city and county roads as well.
- Because FDOT has no control over land use, its system begins with a technical evaluation of the existing physical context around state roads, primarily general characteristics of existing land uses and development patterns plus roadway connectivity. This analysis provides cues as to the people and vehicles most likely to use that road.
- Preliminary context classifications have already been identified for all state roads; these are later refined by more detailed analyses on a project-by-project basis.
- These technical analyses can be supplemented by an evaluation of potential “future context,” often based on plans and codes by local governments that may change the context over time.
- Florida’s context classification system is broadly illustrated in this diagram:



²⁸ Extensive material on Florida’s system is available from the “Resources” tab at <http://www.flcompletestreets.com/>

A combined city-county example comes from El Paso, Texas:

- The city of El Paso’s Thoroughfare Plan provides pre-approved street types, along with detailed maps showing existing and future streets across the entire county of El Paso.
- Instead of mapping context classifications after-the-fact, as in Florida, the contexts were based on the city’s Future Land Use Map, which had just been updated with new categories with that exact purpose in mind.²⁹ For example, most Future Land Use Map categories were grouped as either “compact urban,” “drivable suburban,” or “rural.”
- These broad groups allowed El Paso’s Thoroughfare Plan to continue using the mandatory-in-Texas arterial/collector classification scheme, but adjusting it for physical context (compact urban, drivable suburban, or rural).



Systems like these are complex and almost certainly beyond what could be contained within Bismarck’s zoning regulations. But if created properly and adopted through a Comprehensive Plan amendment or a freestanding Major Street Plan, much of its application could be through zoning regulations.

²⁹ See <https://www.spikowski.com/details/ElPaso.html>

Benefit of Suggested Improvements:

These improvements could serve multiple purposes:

- Improving the zoning and subdivision codes by no longer relying on arterial/collector status whenever another method would be more suitable.
- Clarifying which map(s) of arterials and collectors will best serve Bismarck’s purpose when arterial/collector status remains a regulatory requirement.
- Beginning to identify the physical context of each of Bismarck’s major streets so that these streets can, over time, be made more walkable and bikeable and better serve the neighborhoods through which they flow.
- Ensuring that the administration of Bismarck’s zoning and subdivision codes will follow the exact requirements stated in those codes.

CODE TOPIC D: STOP REQUIRING OVERSIZED PARKING LOTS IN BISMARCK
Current Code Provisions in Bismarck:

Bismarck’s zoning ordinance contains very precise minimum parking requirements for new development, for expansion of existing buildings, and for changes in the use of existing buildings. A fixed number of parking spaces must be provided on the same site or within 400 feet.

An excerpt of Bismarck’s off-street parking requirements is presented here:³⁰

Use	Required Number of Off-Street Parking Spaces
Residential Uses:	
Single-family	2 spaces for each dwelling unit
Two-family	2 spaces for each dwelling unit
Accessory dwelling unit	1 space for each dwelling unit
Multi-family	1 space for each efficiency unit or one-bedroom unit; 2 spaces for each two-bedroom unit or larger
Commercial Uses:	
Hotels and motels	1 space for each guest room
Office buildings	1 space for each 360 square feet <i>[of floor area]</i>
Medical clinics	1 space for each 300 square feet
Retail sales and service	1 space for each 300 square feet
Multi-tenant shopping center	1 space for each 300 square feet
Full service restaurant	1 space for each 75 square feet of dining area, plus 1 space per employee
Bar, tavern or lounge	1 space for each 60 square feet, plus 1 space per employee on the largest shift

Suggested Improvements:

The Bismarck zoning ordinance explains its requirements for off-street parking spaces with this wording:

“Purpose. The provisions of this section are intended to provide accessible, attractive, secure and well-maintained off-street parking and loading areas with the appropriate number of spaces in proportion to the needs of proposed and future uses and to prevent overflow parking into adjacent properties. The provisions of this section are also intended to help protect the public health, safety and general welfare by:

³⁰ Title 14, Section 14-03-10.6.f, Off-Street Parking and Loading (Calculation of Required Parking)

- a. *Helping to avoid and mitigate traffic congestion;*
- b. *Encouraging multi-modal transportation options and enhanced pedestrian safety; and*
- c. *Providing flexible methods for responding to the transportation and access demands of various land uses.*³¹

The three supplemental purposes (a, b, and c above) are actually contradicted by many of Bismarck’s parking requirements. The mandatory provision of free parking spaces encourages people to drive to each destination, actually adding to traffic congestion, and discouraging “multi-modal transportation options and enhanced pedestrian safety.” Also, although some adjustments are allowed at the discretion of the Zoning Administrator,³² overall these regulations are the antithesis of flexible.

At least in theory, parking requirements such as these are based on observations of typical parking demands for various uses of land. The most common source of such data at the national level is the “Parking Generation Manual” from the Institute of Transportation Engineers (ITE). These sources invariably report that multifamily requires fewer parking spaces per dwelling unit than single-family. Bismarck should lower the multi-family parking requirement to be considerably lower than for single-family, even for multifamily units with two or more bedrooms.

Only a few distinctions in parking requirements are based on where a business or residence is located:

- Properties located within the DC (Downtown Core), DF (Downtown Fringe), and HM (Health Medical) zoning districts are not subject to these parking requirements.³³ (However, this exemption seems to be contradicted within the DC and DF districts, where this exemption is limited to only the “downtown parking district,” which does not include all land in the DC and DF districts.³⁴)
- Where on-street (parallel) parking spaces are available directly adjacent to a parcel, they may be counted as if they were off-street spaces. However, this allowance is not permitted if the on-street space is on a street designated as an arterial or collector.³⁵

A critical distinction should be added to the parking requirements in this code: the distinction between car-dependent suburban areas where most trips require the use of a vehicle, and downtown and near-town neighborhoods where destinations such as shopping, services, and parks are much closer and where sidewalks and public transportation make walking and bicycling more practical. (See related discussions in [Code Topics A, B, and E.](#))

Ideally, near-town neighborhoods would be delineated on a separate map in the zoning ordinance that would define a central area that was developed before car ownership became a norm. Within this area, the minimum parking requirements would be reduced by a fixed percentage, if not eliminated entirely.

³¹ Title 14, Section 14-03-10.6.f, 14-03-10.1, *Off-Street Parking and Loading (Purpose)*

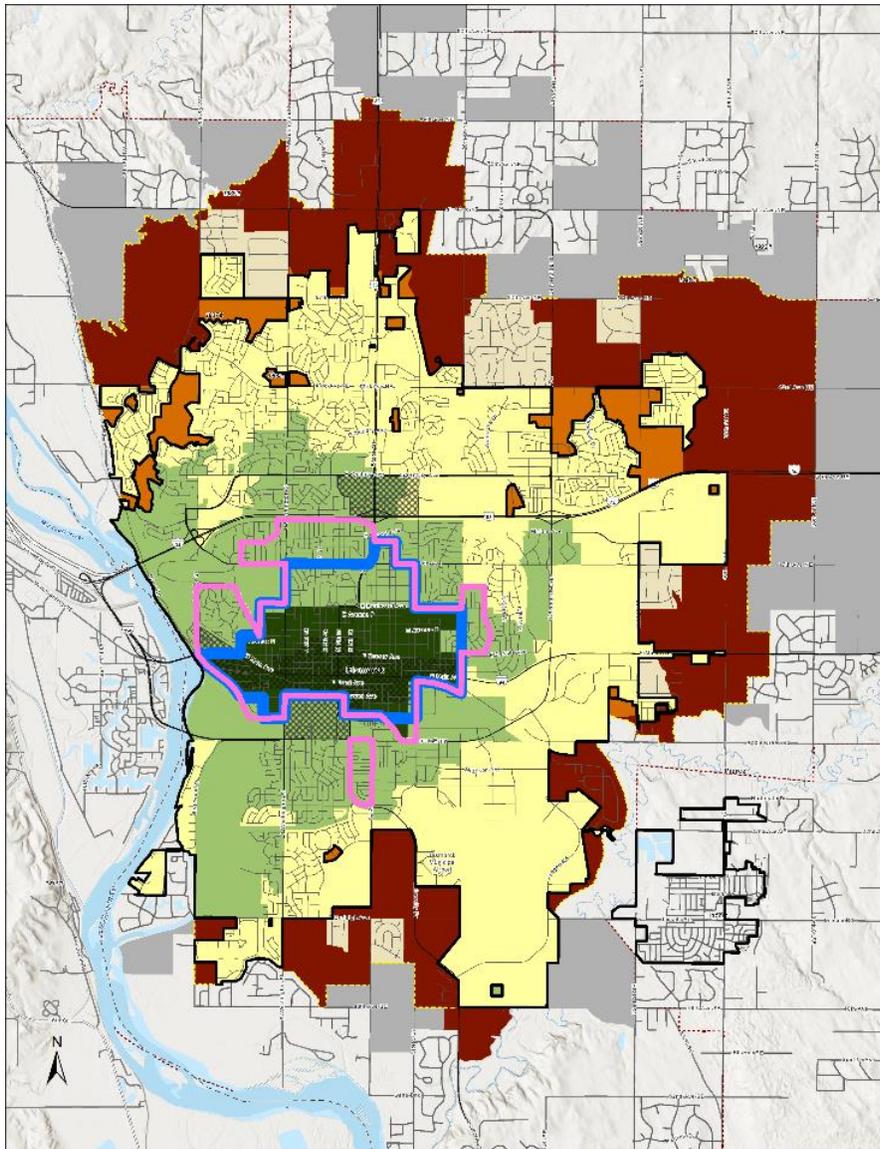
³² Title 14, Section 14-03-10.6.f, 14-03-10.10, *Off-Street Parking and Loading (Administrative Approval of Parking and Stacking Alternatives)*

³³ Title 14, Section 14-03-10.6.f, 14-03-10.3.c, *Off-Street Parking and Loading (Reductions and Exemptions)*

³⁴ Title 14, Section 14-03-10.6.f, 14-04-21.1.5 and 14.04-21.2.5, *DC and DF districts respectively*

³⁵ Title 14, Section 14-03-10.6.f, 14-03-10.6.c, *Off-Street Parking and Loading (Calculation of Required Parking)*

The exact area for the revised parking regulations would have to be determined. It could be based on the proposed “Growth Phasing Plan” in *Together 2045*, Bismarck’s new comprehensive plan; land that was subdivided earliest, e.g. before 1945, is shown there in dark green; land that was subdivided up to about 1980 is shown in lighter green. Or the area could be larger than the 1945 area but not as large as the 1980 area; the map below shows two other possible areas superimposed on the Growth Phasing Plan, based on when most land within had been subdivided: by 1950 (outlined in blue) and by 1970 (outlined in pink).



Benefit of Suggested Improvements:

In recent years, municipalities across the country have begun accepting that parking minimums have been a poor planning tool, both in accurately predicting parking demand and in successfully producing great places. In most cases, lenders and tenants will demand a minimum number of parking spaces, which will be provided regardless of municipal regulations. Municipalities should focus much more on where that parking is located (and how it is designed), than on how much parking should be required on every site.

Various side-effects of parking lots in Bismarck are addressed in each section of ***Together 2045***. Current regulations that force parking lots to be too large will directly impede several goals and objectives in the Shape, Connect, Inhabit, Grow, and Thrive sections of ***Together 2045***.

Especially within Bismarck’s downtown and near-town neighborhoods, minimum parking requirements can be eliminated entirely, or at least reduced substantially.

- The design, location, management, and quantity of parking can support or detract from the walkability of an area. An oversupply of seemingly “free” parking induces private automobile use and discourages or undermines public and active transportation options. By moving away from required on-site parking on every site toward shared parking, Bismarck can create more “park once” environments, where people can undertake multiple activities on foot without returning to their car.
- The effect of excessive parking requirements on housing affordability is easily overlooked. Especially in areas that have public transportation and are walkable to school, jobs, and other daily needs, the cost of each unneeded parking space inflates the cost of housing. (The cost of each parking space in a surface parking lot has been estimated at up to \$10,000.) Because the cost of parking is folded into the rental or sales price, households without cars (or with one car rather than two) are forced to pay for parking that they do not need and will not use. In addition, overly high parking requirements can block new housing options that fit seamlessly into existing neighborhoods, such as accessory dwellings, small infill buildings, and conversions of large houses into more than one residence.
- Unnecessary or inappropriate on-site parking requirements can limit the infill and redevelopment potential of existing parcels. Changes to parking requirements may open up existing underutilized parking lots as future redevelopment sites.
- Oversized parking lots increase the area of impervious surfaces in the city, contributing to both stormwater run-off and the urban heat island effect. Reducing paved areas can contribute to the management of both issues.

Two excellent resources on parking are the recent book *Parking and the City*, edited by Donald Shoup and published by the American Planning Association, and *Parking Spaces/Community Places* by the U.S. EPA, available at: <https://www.epa.gov/smartgrowth/parking-spacescommunity-places>.

Another resource is a recent look at the actual effects after the City of Buffalo (NY) stopped requiring development projects to provide a fixed number of parking spaces. A summary is available at the first link; the full study can be accessed from the second link:

<https://theconversation.com/parking-reform-could-reenergize-downtowns-heres-what-happened-when-buffalo-changed-its-zoning-rules-159683>

Minus Minimums – Development Response to the Removal of Minimum Parking Requirements in Buffalo (NY):

https://www.researchgate.net/publication/315954507_Repealing_minimum_parking_requirements_in_Buffalo_new_directions_for_land_use_and_development

CODE TOPIC E: UPDATE BISMARCK’S ZONING TO SUPPORT COMPACT WALKABLE MIXED-USE
Background:

The Bismarck Comprehensive Plan, **Together 2045**, identifies three types of mixed-use areas on its proposed Future Land Use Plan (in addition to Downtown):

- **Neighborhood Mixed Use (NMU)**
- **Community Mixed Use (CMU)**
- **Destination Mixed Use (DMU)**

These mixed-use designations are generally located along wider busier streets and immediately surrounded by residential areas, or at the intersections (or interchanges) of larger corridors or highways.

The purpose of these designations is to guide future growth at different scales and intensities. While all three designations are intended to accommodate a broad range of uses — including residential, commercial, institutional, and natural -- each type is further described by the proportion of land expected in general use categories, a range of residential densities, the intended service/market area for businesses, the desired degree of walkability, and the expected level of impervious surfaces.

Together 2045 also describes the expected physical character of each mixed-use designation, including general building arrangements and orientation, the character of the streets and public spaces, and transitions to adjacent areas.

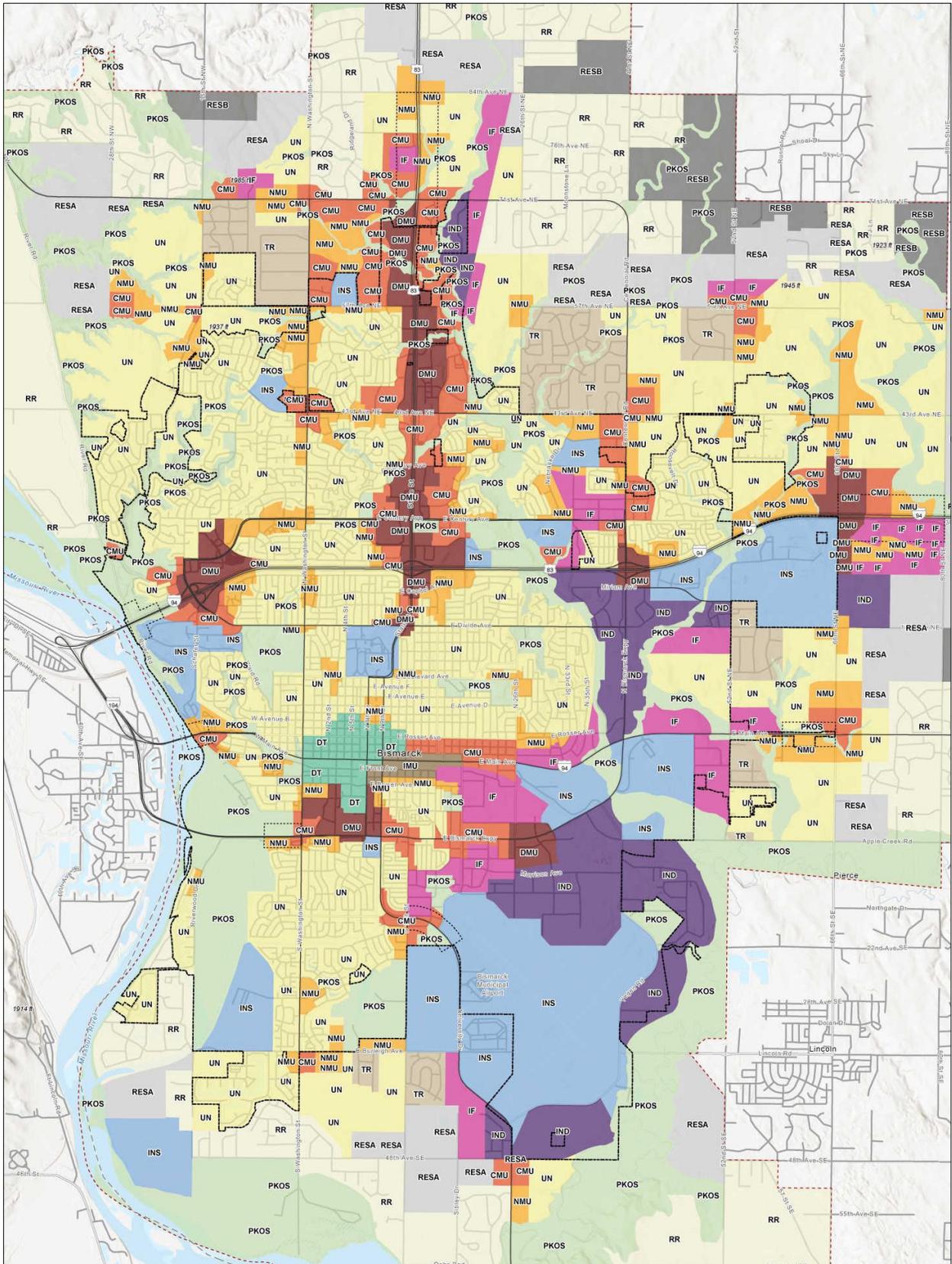
The new Future Land Use Plan is a supplement to, not a replacement for, Bismarck’s zoning map. Land in these mixed-use areas has generally been assigned commercial zoning by current zoning regulations.

Zoning defines today’s rights and obligations for the use of land in each zoning district. The Future Land Use Plan is more general, indicating the anticipated or desired pattern of development through the year 2045. The Future Land Use Plan is implemented through future decisions on rezonings and subdivisions, by investment decisions by the private sector, and through the installation of infrastructure by the public sector.

The next page shows a portion of the proposed Future Land Use Plan for Bismarck and its extraterritorial area, with designations indicated as shown on this legend:

Legend

- | | |
|--|--|
|  Urban Neighborhood (UN) |  Institutional (INS) |
|  Neighborhood Mixed Use (NMU) |  Rural Residential (RR) |
|  Community Mixed Use (CMU) |  Transitional Rural (TR) |
|  Destination Mixed Use (DMU) |  Parks and Open Space (PKOS) |
|  Downtown (DT) |  Urban Reserve Mid-Term (RESA) |
|  Industrial (IND) |  Urban Reserve Long-Term (RESB) |
|  Industrial Flex (IF) |  Entrance Corridor |
|  Industrial Mixed Use (IMU) | |



Current Code Provisions in Bismarck:

The Bismarck zoning ordinance currently provides two commercial zoning districts: CA and CG (in addition to two additional mixed-use zoning districts for downtown Bismarck).

CA and CG are differentiated initially by whether businesses in each would primarily serve the surrounding neighborhood (CA) or would serve the broader city and regional market (CG).

Another differentiation is by level of intensity — whether or not each district allows “heavy” commercial and retail uses. Bismarck’s zoning ordinance describes groups of similar uses for this purpose:

- **Retail Group A** – sale of relatively small merchandise
- **Retail Group B** – sale of merchandise that may require a truck to deliver
- **Service Group A** – food service; personal service; repair of small equipment
- **Service Group B** – services with potential off-site impacts, such as vehicle repairs

CA zoning only allows Retail Group A and Service Group A; CG zoning also allows Retail Group B and Service Group B. Each district also allows certain specific uses, such as residential uses, motels, schools, and churches.³⁶

Each district has certain development standards, primarily limited to minimum lot area and width; maximum lot coverage; minimum front, rear, and side yard setbacks; and maximum building height. The maximum lot coverage varies within the district between residential and commercial uses, from 50% to 80%. For residential uses, the side and rear yard setbacks increase in 10-foot increments for each additional story above two stories; for commercial uses, the side and rear setbacks increase in the same manner when adjacent to an R5, R10, or RM zoning district.

Both districts permit a wide range of residential uses, but generally refer back to the RM district for any additional development standards.³⁷ Unless a building includes ground floor residential units, it is considered a commercial use for calculating the lot coverage. Accessory buildings and surface parking lots are also included in the lot coverage measurement for both residential and commercial uses.³⁸

It is impossible to predict the resulting built form when development regulations depend primarily on fairly crude standards such setbacks and lot coverage:

- The front yard requirements are a permissive minimum; the building may be located anywhere on the lot behind the required front setback (and forward of any rear setback). When a landowner chooses to construct a new building toward the rear of a lot, the opportunity is lost for the building to define the pedestrian or public realm. In addition, the

³⁶ Descriptions of each district and complete lists of permitted uses are provided in Bismarck’s zoning ordinance:

See Section 14-04-10. CA Commercial District: 1. General description, and 2. Uses permitted; and Section 14-04-12. CG Commercial District: 1. General description and 2. Uses permitted

³⁷ There are no specific density caps for residential uses except for multifamily high rises, which are permitted in CG and the district does include more specific standards including maximum density, maximum lot coverage, and minimum yard areas. See Section 14-04-12. CG Commercial District. 11. Dwelling regulations – high rise.

³⁸ Bismarck Zoning Ordinance Section 14-04-10. CA Commercial District. 5. Lot coverage; and Section 14-04-12. CG Commercial District. 5. Lot coverage

current standards appear to permit parking in the front yard area – only the primary building is prohibited forward of the front setback.³⁹ This is the opposite of regulations that would promote walkability.

- The direct connection between building heights and side and rear setbacks can have unintended consequences on the overall character of an area. As buildings get taller, under the current regulations they will get further apart due to increased side and rear yard requirements. Increased space between buildings increases walking distances and detracts from the pedestrian environment.
- As lot sizes increase, the permitted building footprint can increase proportionally, as long as the minimum setbacks and maximum coverage are maintained. In a redevelopment context, this can encourage teardowns and lot consolidation in order to achieve the maximum development allowed by the height and coverage limitations, regardless of the character and development pattern of the surrounding area. (Off-street parking requirements, as discussed in [Code Topic D](#), can have a similar effect.)
- Beyond building height and placement, there are few standards in either the CA or CG districts for the building itself—the building may be oriented in any direction, have a continuous street frontage without break (or no street frontage), or have no windows and doors on the front façade, thus presenting a blank wall to the street.

Suggested Improvements:

By designating three scales of mixed use areas on the Future Land Use Plan, **Together 2045** effectively acknowledges that there should be several distinctions between these areas beyond the zoning standards currently provided in the two current commercial zones (CA and CG). **Together 2045** identifies several specific characteristics, such as walkability and multi-modal transportation, design of streets and other public spaces to provide community gathering spaces, and buildings engaging the street. While some of these may be outside the realm of the zoning ordinance, there should be zoning standards in place to address as many as possible.

The CA and CG districts deserve significant improvements; however, they are fundamentally auto-oriented commercial districts that permit a broad mix of uses and serve significant economic purposes within Bismarck today. If either district were converted from its existing purpose into a walkable mixed-use zoning district, it could harm many businesses that were developed under current rules and, because of their locations, will continue to serve an auto-oriented clientele.

A more promising approach would be to create a new mixed-use zoning district for neighborhood business districts (or neighborhood ‘Main Streets’). The new district could implement many of the **Together 2045** goals for Shape, Grow, Connect, and Thrive in the **NMU (Neighborhood Mixed Use)** areas if used to rezone certain areas from CA or CG to the new zoning district – areas where the long-term goal should be conversion of businesses accessible only by car to mixed-use development (which would include neighborhood-serving businesses). An expanded mixed-use district (or a second district) might be useful for **CMU (Community Mixed Use)** areas.

³⁹ *Ibid.* Section 14-02-03. Definitions: Building Line

This type of zoning district should be assigned by city officials to land where conversion toward walkability is desirable and feasible during the next 25 years. It could also be assigned on request from landowners. Ideally, the district should be thought of holistically (and conceived of as a geographic location when being mapped, rather than individual lots) for defined areas along appropriate corridors.

This new district could include the following characteristics:

- **Permit mixed uses “by right”** (not requiring discretionary approvals)
- **Include standards requiring new buildings to be oriented toward the sidewalk and street**, typically providing:
 - A build-to line or zone at or near the back of the sidewalk, where the fronts of new buildings should be located
 - A minimum percentage of windows and frequent doors on the front of the building
 - Increased percentages for lot coverage (and no side setbacks) to create more of a pedestrian-oriented “main street” environment, similar to but less intense than downtown
 - Limit ground floor retail requirements, if any, to a very small area
- **But do not:**
 - Require the façade plane to step forward and backward at prescribed distances
 - Require “four-sided” architecture (where the side and rear of a building must be as attractive as the front façade)
- **Establish maximum standards for size and scale of buildings**, rather than percentages tied to lot size or regulations based on use:
 - In addition to height limits, building footprint caps should be included to reinforce human scale and walkability. (With the exception of civic and/or institutional uses such as schools, hospitals, museums, etc., other uses desired/targeted for a neighborhood business or Main Street district should have maximum footprint sizes in the code.) Individual building frontages should also have a maximum length.
 - Such size and scale standards could be tiered between the core and edge of the district in order to better transition to adjacent solely residential neighborhoods
 - Site standards within the district should be consistent, regardless of land use, with the understanding that well designed and constructed buildings can and will change uses overtime. (If a use truly needs to be buffered within a mixed-use district, that may be an indication that it is inappropriate for a neighborhood business district.)
- **Strive to provide/create a “park once” environment** – so that even if people arrive by private automobile, they can walk and undertake several activities without returning to their car:
 - Provide on-street (shared public) parking
 - Prohibit parking between the front of building and curb (parking lots should be located at the rear or to the side of buildings)

- Permit and/or encourage sharing of private parking spaces
- Do not require private parking spaces on every site
- **Ensure that new standards support pedestrians and social gathering:**
 - Provide generously wide sidewalks in these areas
 - Emphasize street trees rather than landscaping on individual sites
 - Permit sidewalk encroachments, such as outdoor dining, where space permits
 - Permit awnings and pedestrian-oriented signs to extend over the right-of-way
 - Include sign standards similar to those for the Downtown zoning district; incentivize the removal of fixed pole and monument signs where they exist
 - Prohibit or discourage new curb cuts; incentivize curb-cut consolidation

A new mixed-use zoning district could be calibrated to address either or both the **Neighborhood** and **Community Mixed Use** areas, for both infill redevelopment and/or new greenfield context, if desired.⁴⁰

A neighborhood business or Main Street district could be a component of a form-based zoning district (see related discussion in [Code Topic A](#)). Ideally though it should also be usable in a standalone fashion along new or aging commercial corridors within areas designated on the Future Land Use Plan as potential mixed use areas, especially areas that are ripest for redevelopment.

⁴⁰ A “Destination Mixed Use” (DMU) area that is ready for complete redevelopment or transformation would likely require an additional set of subdivision-related standards to create a new internal street and block network, smaller parcels, new street frontages, and pedestrian and public spaces.

Benefit of Suggested Improvements:

Enhanced standards for mixed-use areas, whether infill redevelopment or new development, would contribute to place-making by physically and visually indicating that pedestrians are a priority, with many benefits including the following:

- **Bringing buildings closer to the public sidewalk (and to each other):**
 - Would increase walkability by reducing separation distances
 - Would remove the need for a redundant sidewalk (one along the street and another along the building façade), thereby reducing impervious surface and development cost
 - Would slow vehicles by narrowing the perceived roadway width
- **Providing more frequent doors and larger windows along the sidewalk** would activate the sidewalk due to people entering and exiting businesses and would increase pedestrian interest with things to look at inside shopfronts (and visible sidewalk activity invites more people to walk)
- **Requiring pedestrian passageways within long block frontages** would provide pedestrian connectivity in locations where the street network is otherwise designed for automobile traffic (and provide pedestrian access to mid-block parking areas)

In addition, by enabling more compact development, Bismarck officials would:

- Make better use of existing infrastructure
- Provide more opportunity to “grow up rather than out” as advocated in ***Together 2045***
- Reduce the amount of impervious service created by requiring large parking lots on every parcel
- Establish more mixed-use locations to serve as potential transit hubs, with housing, employment, services, and entertainment in close proximity to one another and accessible by transportation modes beyond just private cars

These two books by planner Jeff Speck are excellent resources on the benefits of walkability:

- *Walkable City Rules: 101 Steps to Making Better Places*, Island Press, 2018
- *Walkable City: How Downtown Can Save America, One Step at a Time*, North Point Press, 2012

CODE TOPIC F: *UPDATE BISMARCK’S STREET CONNECTIVITY STANDARDS*

Background:

The new Bismarck comprehensive plan, ***Together 2045***, identifies the connectivity of Bismarck streets as a priority, with an entire section entitled *Connect: Transportation and Utilities*. Many people understand that street connectivity plays a direct health and safety role in the delivery of public services such as police, fire, and emergency medical services. ***Together 2045*** clearly recognizes that connectivity also enables or inhibits efficient transit and other active transportation modes.

Transportation-related goals in *Connect: Transportation and Utilities* include:

- Balancing the needs of motorists, transit riders, pedestrians, and cyclists
- Reducing traffic fatalities and serious injuries to motorists and non-motorists
- Enhancing multimodal connections
- Designing local streets to discourage through traffic, limit speeds, and reduce impervious surface
- Encouraging a highly connected network of streets and pathways to allow multiple route options and create a fine-grained pattern of streets
- Ensuring at least two direct and reliable means of access to all new development
- Ensuring the shared-use trail network is also interconnected
- Limiting cul-de-sacs to areas where pre-existing constraints prevent access by any other means
- Avoiding the vacation of existing rights-of-way that provide any transportation function

Bismarck’s street design and connectivity requirements are located in Chapter 14-09, the subdivision regulations within Bismarck’s zoning ordinance.

Current Code Provisions in Bismarck:

Bismarck’s subdivision regulations have the following purpose:

“...to provide for the proper arrangement of streets in relation to other existing and planned streets, and to the master plan of the City of Bismarck; ...to provide for traffic, for utilities, for access of fire-fighting apparatus; ...[and] to provide for and improve the public health, safety and general welfare of the City of Bismarck...”⁴¹

The current regulations provide numerous street design and connectivity standards that address street classifications, right-of-way widths, intersections, traffic flow, and responsibility for constructing sidewalks.

⁴¹ Title 14, Section 14-09-02. Purpose of Subdivision Regulations; Approval of Plats

When viewed without considering a specific development context, most of these regulations sound practical and are oriented toward smooth traffic flow and public safety (primarily access for emergency vehicles).

Viewed another way, these regulations are clearly suburban in nature, seeming to mandate modern inward-focused residential subdivisions where vehicles are given priority. The regulations do not contain even the option for a developer to create a traditional Bismarck compact walkable neighborhood. Since an important goal of *Together 2045* is to encourage such neighborhoods again, these regulations need to be updated.

This update is an opportunity to make other improvements to the subdivision regulations. The current regulations have some gaps and internal conflicts, and some excessive flexibility that may undermine the stated intent of the design standards and actually induce, rather than slow, vehicular speeds (and actually discourage multi-modal transportation options).

Here are some of the potentially problematic street standards in the current regulations: (underlining added for emphasis)

- “Local streets shall be so laid out that their use by through traffic is discouraged.”⁴²
- “Where a subdivision abuts or contains an existing or proposed arterial street, the planning commission shall limit access to the arterial street and may require reverse frontage of lots with a screen planting contained in a non-access reservation along the rear property lines, deep lots with rear services alleys, or other treatment that it deems advisable to limit such access and to give adequate protection to residential properties and to afford separation of through and local traffic.”⁴³
- “Street jogs should be avoided.”⁴⁴
- Right-of-way and roadway widths – *[table excerpt]*⁴⁵

Functional Classification	Right-of-Way (in feet)	Roadway Width (in feet)
Local Commercial	80	48
Local Residential Option A	66	38
Local Residential Option B	60	32
Local Residential Option C (parking one side)	54	26

⁴² Section 14-09-05. Design Standards. 1. Streets and alleys, c.

⁴³ *Ibid*, d.

⁴⁴ *Ibid*, g.

⁴⁵ *Ibid*, k. Right of way and roadway widths within the corporate limits

- “The use of cul-de-sac streets shall be limited in order to promote a well-connected street network that provides for safe, direct and convenient access by vehicles, bicycles, and pedestrians. Cul-de-sac streets may be permitted in instances where there is no reasonable opportunity to provide for future connections to adjoining streets, including natural barriers such as topography or water features, man-made barriers such as railroad tracks, or to discourage through traffic between incompatible land uses.⁴⁶
 - **Length.** The maximum overall length of a cul-de-sac shall be seven hundred-fifty (750) feet.
 - **Multi-use Paths.** Access easements may be required to provide current and/or future access connections from the turnaround terminus area [of a cul-de-sac] to other streets, schools, neighborhood activity centers, or open space areas. Such access easements shall be included in a maintenance agreement with either a neighborhood association or governmental entities, subject to review and approval by the City and recorded as part of the subdivision plat approval process.”⁴⁷
- “Alleys shall be avoided in residential districts but may be required in commercial and industrial districts.”⁴⁸
- “Block lengths should usually not exceed one thousand three hundred twenty (1,320) feet nor be less than three hundred (300) feet, measured from street center line to street center line.”⁴⁹

In addition to the suggested improvements to the subdivision regulations provided further below to implement **Together 2045**, the following subdivision issues should be considered at the same time:

- Title 14 does not define “through traffic.” **Together 2045** calls for increased street connectivity, but today’s subdivision standards don’t clearly require, and potentially even discourage, optimal street connectivity.
- The subdivision regulations are also silent on creating/providing locations for future connections to subdivisions that will be developed later on adjoining tracts.
- Prohibiting/discouraging alleys in residential neighborhoods limits the use of rear garages and creates the need for curb cuts for each private driveway. Every extra driveway is a potential point of conflict between vehicles and pedestrians on the sidewalk.
- The standards for limiting vehicular access to/from arterials through the use of reverse frontage lots, screen plantings for non-access reservations, separating local and through traffic, and other tools for “protecting residential properties” can actually have the effect of limiting connectivity between neighborhoods and the adjacent commercial and mixed use areas, by forcing all access to be made by automobile via circuitous street connections.

⁴⁶ *Ibid, n. Cul-de-sacs*

⁴⁷ *Ibid, n. Cul-de-sacs, 1. Length, and 4. Multi-use Paths*

⁴⁸ *Ibid, q.*

⁴⁹ *Section 14-09-05. Design Standards. 3. Blocks*

- Permitting maximum block lengths of 1,320 feet (this is ¼ mile, the proverbial 5-minute walking distance for an adult) discourages walking as a mode of active transportation. Long straight streets without intersections also induce automobile speeds. The absence of maximum block perimeters can also undermine the creation of an interconnected street network.
- The term “street jog” is not defined in Title 14:
 - One type of jog is a street intersection where through traffic must turn left-then-right (or right-then-left). Intersection jogs can be used strategically in new neighborhoods to slow vehicular traffic; they discourage cut-through trips without damaging the connectivity of the street network. Occasional intersection jogs may avoid any future need to retrofit streets through traffic calming.
 - Another type of jog is a small offset in a travel lane (completely within the right-of-way); this type of jog can be an important traffic-calming tool for slowing speeding vehicles, especially helpful for existing streets that are overly wide or where blocks are extremely long without interruption.
 - Bismarck’s subdivision regulations should not categorically preclude street jogs in new neighborhoods.
- Many of the roadway (pavement) widths for local streets appear overly wide, particularly as there is no breakdown as to how the pavement will be distributed between users (e.g. travel lanes for vehicles; sidewalks; street trees; utility lines; snow storage; etc.). Excessively wide streets, in addition to inducing vehicular speeds and making walking and biking more dangerous, add to the cost of street maintenance and contribute to impervious surface area and stormwater runoff.

Suggested Improvements:

- Establish a preferred standard pavement width for residential streets of 32 feet or less, unless there is a compelling public benefit to building a wider roadway in a specific circumstance. Overly wide streets frequently require retrofitting to slow traffic using tools such as chicanes or speed tables/bumps; streets should be built correctly from the beginning.
- Reduce the maximum block length for both new local commercial and residential streets and adopt a new maximum block perimeter, considering Bismarck’s historic neighborhood street and block patterns as potential models. Short blocks provide greater connectivity for all modes of transportation and reduce vehicular speeds, improving safety for all users.
- Permit the use of alleys in new residential developments.

- Clarify ordinance terminology such as “through traffic” and “street jogs,” as well as the intent of specific standards, to:
 - ensure the city’s ability to achieve comprehensive plan goals related to increasing connectivity, increasing safety for all users, and reducing speeds; and
 - avoid variance requests that clearly undermine the intent of the requirement (such as the use of cul-de-sacs in new subdivisions to prevent through traffic, despite Bismarck’s stated goal of increased connectivity).
- Establish standards to require pedestrian and bicycle connectivity in locations where automobile connections cannot be made or are not desired.
- Adopt standards requiring “stub-outs” in new subdivisions to provide connectivity to adjacent future development areas.
- Adopt a policy against street and other right-of-way vacations. (Once a point of connection is gone, it is virtually impossible to get it back.)

Benefit of Suggested Improvements:

- Limiting block lengths would create a more fine-grained network of streets, thereby increasing pedestrian and bicycle connectivity and providing more points of access for vehicular traffic. Shorter blocks would also reduce vehicular speeds, making streets safer for active modes of transportation.
- Improving pedestrian connectivity would increase the feasibility of public transit, as transit users are pedestrians at one or both ends of their trip.
- Increasing street connectivity would provide multiple points of access to development areas within Bismarck, thereby dispersing traffic and improving the response time for emergency vehicles.
- Narrowing street widths would reduce vehicular speeds, making streets safer for all users, and would reduce the amount of pavement, decreasing construction and maintenance costs. Narrower widths and permitting street “jogs” would also eliminate the need for traffic calming measures in the future.
- Requiring pedestrian and bicycle connections would reduce automobile traffic and provide customers for adjacent neighborhood main street districts in a compact walkable format, reducing the need for excessive surface parking lots in neighborhood centers and/or transit hubs.