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### INTRODUCTION

Mobility and parking are key, interdependent elements that drive the region's transportation system. As Fargo and West Fargo undergo unprecedented growth, ensuring that visitors, employees, and residents can get to the places they need to go is key to supporting economic development and enhancing the region's overall quality-of-life. The purpose of this study is to analyze how parking plays a role in site development, how street networks can be best laid out to create efficiency in the transportation network, and how modifications to both access and parking regulations can achieve the goals of Metro COG, Fargo, and West Fargo.

### The key goals of this study are to:

- Develop guidelines that encourage safe traffic flow, as well as a comfortable walking and biking experience
- Develop access and roadway guidelines that complement land use form, as opposed to just functional classifications
- Reduce the need to build excess off-street parking
- Enable sustainable development patterns

Recommendations aim to improve the efficiency of the transportation network and its connection to land use, enhance mobility and access, and encourage sustainable development patterns. In a region like the greater Fargo area, particularly its growth areas, a balance needs to be struck that ensures compact, walkable neighborhoods and corridors that are not congested with traffic. This study discusses how establishing distinct Street Types that specifically correlate to the surrounding land uses will help create livable neighborhoods that enhance the urban environment and assist in long-term planning decisions. And how better development patterns, illustrated by the Development Prototypes, can support the overall transportation network through an intentional street framework and "Right-Sized" Parking footprint.

### **Study Review Committee**

This study was a collaborative process with a Study Review Committee (SRC) made up of Metro COG and staff from Fargo and West Fargo. The group was responsible for steering the study and providing feedback on critical project direction. At major milestones, the project team met to discuss and collaborate on key issues, potential solutions, and next steps. The names and affiliations of SRC members are listed below:

City of

Fargo-Moorhead **Metropolitan Council** of Governments

Michael Maddox, AICP

Senior Transportation

Planner



Tim Solberg, AICP Director of Planning and Zoning

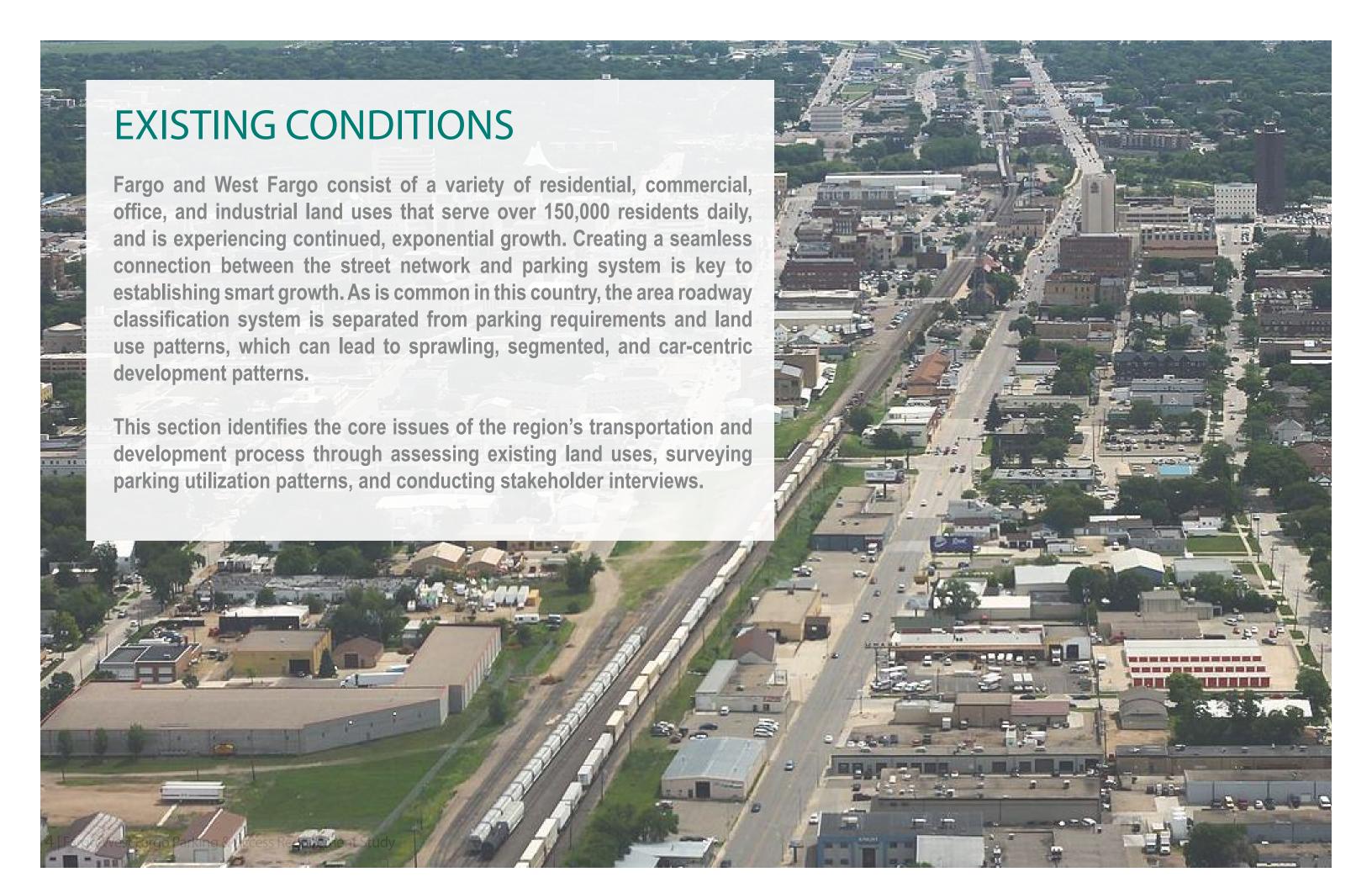
City of **West Fargo** Fargo



Aaron Nelson, AICP Planing Coordinator Jeremy Gordon. PE, PTEO Division Engineer -

**Transportation** 

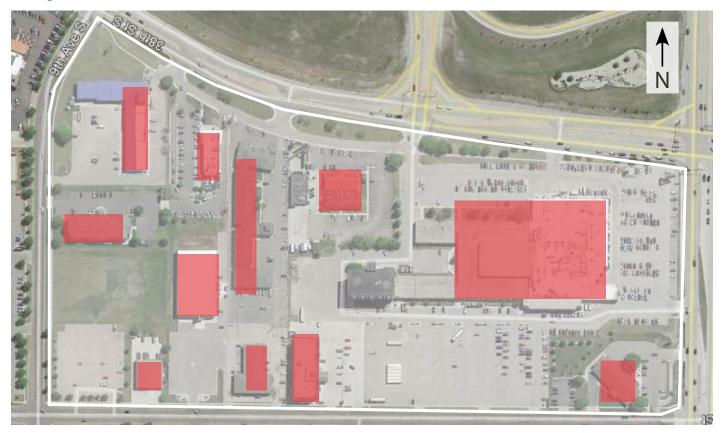
3 | Fargo-West Fargo Parking & Access Requirement Study



### Development pattern assessment

The region's land use patterns are a product of the existing zoning codes, regulations, and transportation policies currently in place. Assessing the site design elements in Fargo and West Fargo today provides valuable insights into which design tools and strategies should be used in shaping the future. Five primary issues were identified and are outlined below.

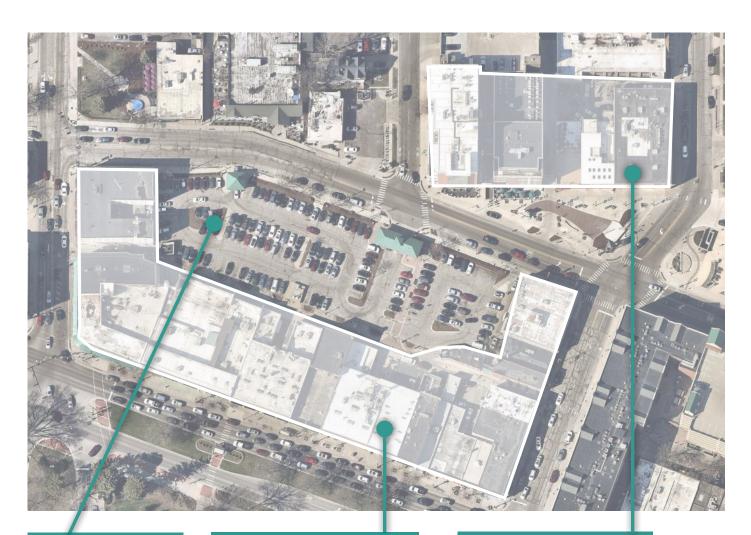
### **Separated land uses**



### **KEY ISSUES**

Within this single block in Fargo, there are 11 separate land uses, which are each surrounding by their own separate parking field. This type of development pattern segments land uses, encourages additional car trips, disconnects traffic flow and travel patterns, and discourages pedestrian traffic and cross shopping.

### **Best Practices**



Shared surface parking lots increase the efficiency of the parking pool and encourages walking

Businesses and retail services located adjacent to one another encourage cross shopping and discourage additional car trips.

Small block size and narrow streets encourage walking and provide opportunities for onstreet parking.

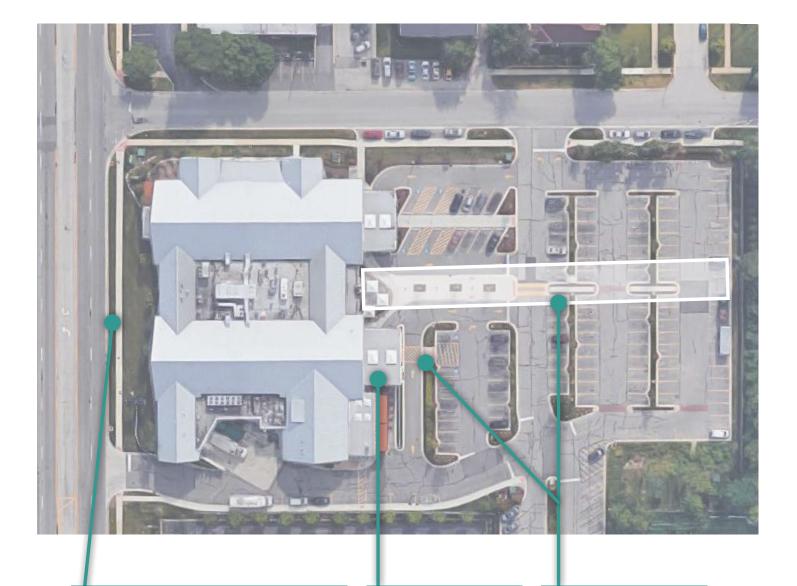
### Large number of curb cuts

### **KEY ISSUES**

This example examines a portion of 42nd Street South between 13th Avenue South and 15th Avenue South. The west side of the street has seven driveways (curb cuts) to access land uses, while the east side of the street has one driveway to access businesses. Many curb cuts along a single blockface creates an uncomfortable and unsafe pedestrian environment, encourages additional car trips if cross access is not provided, segments land uses, and interrupts traffic flow/circulation.



### **Best Practices**



Single access shared with neighboring use creates a more continuous pedestrian environment while improving traffic flow.

Buildings are oriented towards the arterial streets. Includes designated area for pick-up/dropoff and pedestrian walkway.

### Site design barriers between land uses



### **KEY ISSUES**

Osgood Plaza located on 40th Avenue South and 45th Street South offers a variety of services for the needs of adjacent residents; however, with entrances exclusively facing the parking toward the arterial, as well as a lack of pedestrian connections, the large building acts as a physical barrier and residents are forced to drive to access these services. This type of development pattern encourages additional car trips and discourages walking trips.

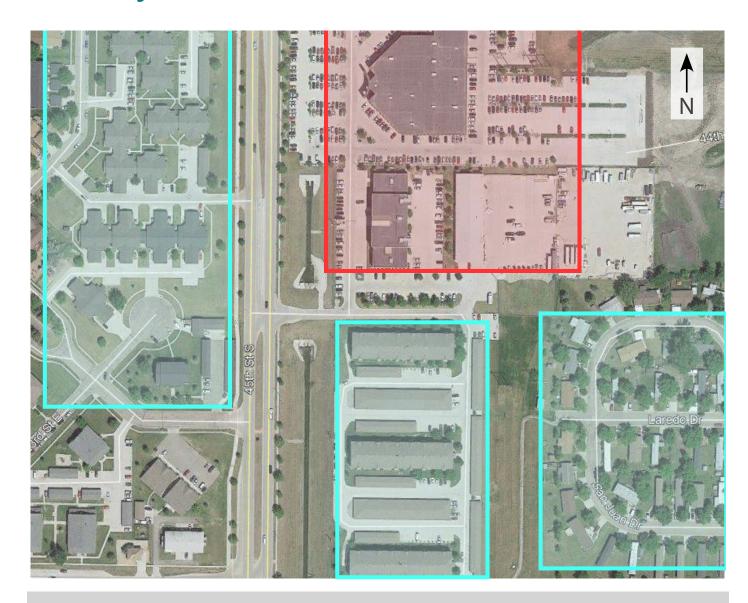
### **Best Practices**



On-street parking slows traffic, increases parking supply, and establishes safe pedestrian connections. Larger parking facilities are located on the outskirts of the development, with more active uses located in the central part of the development. This type of dense development encourages cross shopping.

Small blocks with narrow streets and landscaping create a more comfortable environment for pedestrians.

### Roadway barriers between land uses



The shopping/office plaza located along 45th Street South between Main Avenue and 9th Avenue South, like the previous example, offers services that benefit adjacent residents. However, none of these services are accessible due to limited pedestrian amenities, water detention infrastructure, and entrances exclusively facing the parking lot/arterial roadway. Self-contained and separated residential and commercial development patterns create oversized and car-centric land use patterns.

### **Separated Garages**



A series of residential developments on 9th Avenue South is shown that have single-story row garages (in red). This type of development increases the land dedicated to parking and disconnects

travel patterns. Stakeholder interviews and anecdotal evidence have informed us that these garages are often used for personal storage, as opposed to vehicle storage.



### **Best Practices**



Businesses and residential front narrow, low volume streets that are easy for pedestrians to cross.

Singular, shared parking facility can be used by customers, employees, and visitors during the day, and residents at night.

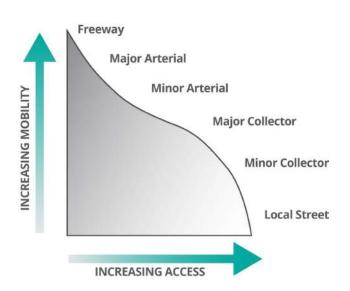
Integrating residential and commercial land uses creates a more dense, walkable environment, while using land more productively and encouraging shared parking.

### **Functional Classifications**

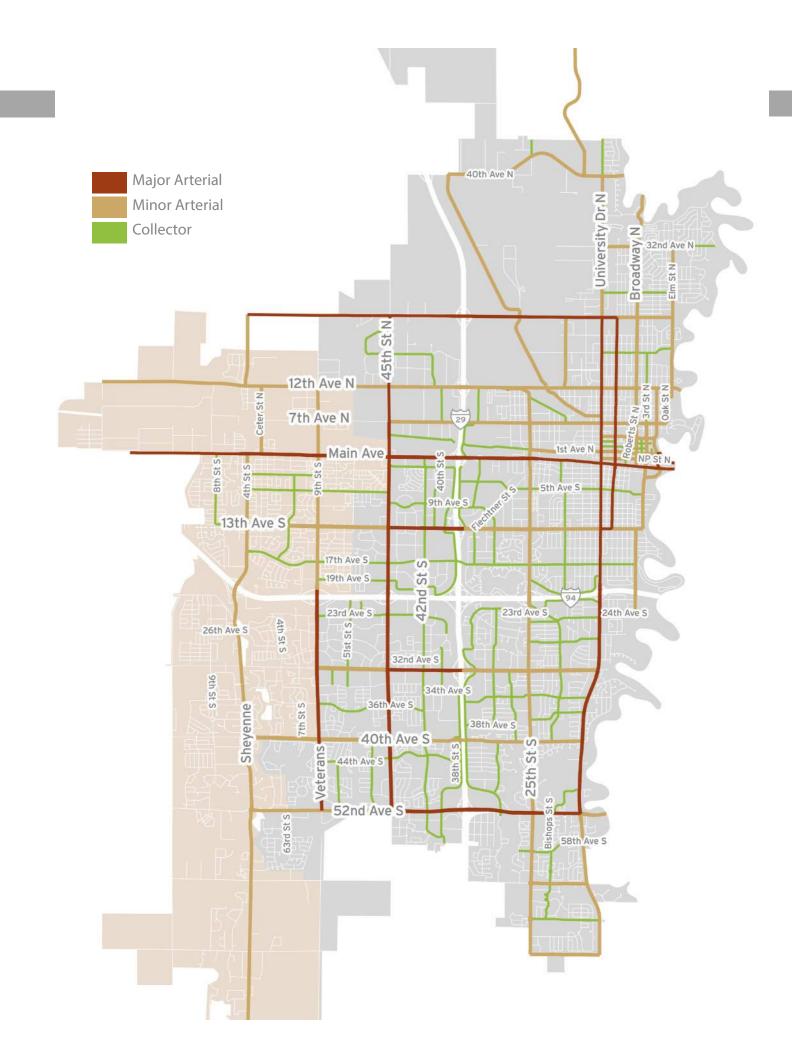
Streets across the United States are typically classified according to the Federal Highway Administration's (FHWA) functional classification system of arterial, collector, and local streets. The intended purpose of the functional classification system is to define a street's role in moving cars within a larger highway network, balancing the movement of vehicles with property access.

Why does a street's classification matter? Functional classifications dictate the way a street is designed, from the width of the lanes to the distance between traffic signals. The classifications also dictate how many access driveways are provided as policies are implemented that minimize/control the number of conflict points on a corridor. The design standards associated with the functional classification system are primarily focused on moving cars without delay. Prioritizing moving cars too quickly though, can create streets that are unsafe, disconnected, and inhospitable for people walking, biking, or waiting for the bus. It can also lead to designing roads that are bigger than they need to be, which means spending extra money on materials, construction, and maintenance.

The current network classifications in the greater Fargo and West Fargo area are no exception and follow a system generally consisting of the following hierarchy:



- Interstate serve the longest uninterrupted distances at high speeds with limited access opportunities
- Principle Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local serve short, localized trips and provide frequent access opportunities to adjacent properties



### Zoning & Variance Procedures

In recent years, Fargo and West Fargo have seen increased requests for variances, waivers, and reductions to the parking requirements prescribed by local zoning codes for both residential and commercial areas, indicating preferences towards lowering parking minimum requirements and increased flexibility. The following section of the report outlines existing policies and procedures surrounding parking requirements and variance requests.

### **Existing zoning code**

Parking minimum requirements for both Fargo and West Fargo were examined and compared to national standards. The table below outlines the minimum requirements in comparison to national standards for major land uses. While the single and multi-family households are aligned with—or slightly below—national standards, the minimum parking requirements in Fargo and West Fargo were higher than the national standard for all other land uses. Implementing minimum parking requirements that are greater than the demand for parking raises the cost of construction for developers, increases the distance that land uses can locate between one another, and expands the street and infrastructure system.

Parking Minimum Requirements for major land uses in Fargo, West Fargo, and National Standards

Landuse	City of Fargo	City of West Fargo	National Standard¹	Unit	% difference
Single family	2.00	2.00	2.00	Bedroom	0%
Multi-dwelling household	2.25	1.00	1.23	Dwelling Unit	45%
Office - medical	5.00	5.00	3.20	1,000 sqft	36%
Office - general	3.33	5.00	2.84	1,000 sqft	15%
Restaurant/bar/tavern/lounge	13.33	10.00	10.60	1,000 sqft	20%
Religious Institutions	0.40	0.33	0.20	Seat	50%

<sup>1.</sup> ITE (Institute of Transportation Engineers) Parking Generation Manual, 4th Edition

### Variance request procedures

**City of West Fargo.** The City of West Fargo allows incoming developments to share required off-street parking by two separate uses that have different peak hours of demand, provided that the total off-street parking is available between the two uses and that a long-term agreement whereby both uses are bound to maintain the facilities is present. The developer must demonstrate that the

required off-street parking is excessive and/or a lower parking demand is supported and approved by the City Commission by a majority.

**City of Fargo.** City of Fargo provides developers seeking to supply parking below the minimum parking requirement with two types of review/approval procedures for parking reductions: (1) an administrative review for small reductions in parking or (2) review by the Planning Commission for larger reductions. Parking reductions approved administratively are referred to as Alternative Access Plan (AAP), and reductions approved by the Planning Commission are referred to as Conditional Use Permits (CUP). The process in obtaining a CUP involves four key steps to complete prior to a Planning Commission hearing including submitting an application, scheduling a hearing, public notice, and staff review. The City of Fargo has received 19 CUP and AAP applications since 2015.



Key data points for each of these reduction permit types are summarized below:

### **Conditional Use Permit**

- 14 applications since 2015.
- The majority of applicants were pursuing shared parking agreements.
- The average reduction rate was 40%.
- The most common land uses submitting CUP applications were medical, religious institutions, and retail.

### **Alternative Access Plan**

- 5 applications since 2015.
- The majority of applicants were making a case for lower parking demand for their development.
- The average reduction rate was 18%.
- The most common land uses submitting AAP applications were medical, office, and residential land uses.

Furthermore, applicants pursuing a CUP or AAP may apply to use Transportation Demand Management (TDM) and/or shared parking strategies as tools in approving their request, as summarized below.

### **Transportation Demand Management**

May authorize a reduction in the number of required off-street parking spaces for developments that institute and commit to maintain a transportation management program. The applicant must submit a study that clearly indicates the types of transportation management activities and measures proposed.

- Posting and Distribution of Information.
- Transportation Coordinator. Disseminating information on ride-sharing and other transportation options.
- Off-Peak Work Hours. Allow employees to arrive at times other than the peak morning commute period.
- Preferential Parking. Specially marked spaces for each registered car pool and van pool.
- Financial Incentives. Financial incentives for employees commuting by car pool, van pool and transit may also reduce demand.

### **Shared Parking**

Developments or uses with different operating hours or peak business periods may share off-street parking spaces if approved as part of an Alternative Access and Parking Plan.

- Location. Unless shuttles are provided, parking must be located within 600 feet of entrances.
- Zoning Classification. Shared parking areas serving uses located in nonresidential zoning districts must be located in nonresidential zoning districts. Serving uses located in residential zoning districts may be located in residential or nonresidential zoning districts.
- Shared Parking Study. Study must address the size/type of the proposed development, the composition of tenants, turnover rate and anticipated peak for all uses.
- Agreement for Shared Parking. A shared parking plan will be enforced through written agreement among all owners of record.

### Parking Utilization Surveys

To better understand parking demand patterns in Fargo and West Fargo today, a parking inventory and utilization survey was completed on three major land use typologies: (1) multi-family residential, (2) commercial, and (3) mixed use. Separate sites that best represent each of these land uses were identified and surveyed during peak demand periods. The location of each of the surveyed sites are identified in the figure to the right; the names of each site, as well as the hours surveyed can be seen below.

A map of the selected sites can be seen in the correlating figure. The names of each site, as well as the hours surveyed can be seen below.

### **Multi-family Residential Typologies**

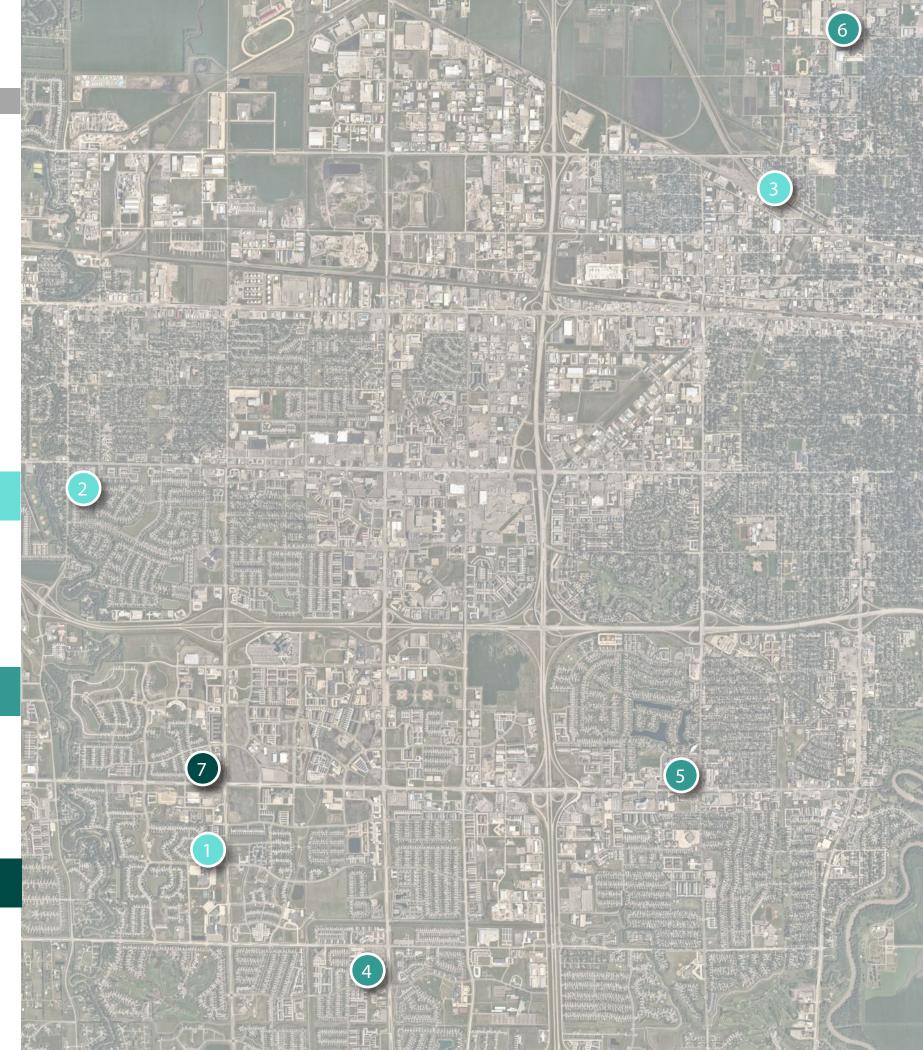
- 1 Shadow Ridge/Shadow Bay Apartments
- 2 Sheyenne Crossing's retirement center
- 3 NDSU student housing units

### **Commerical**

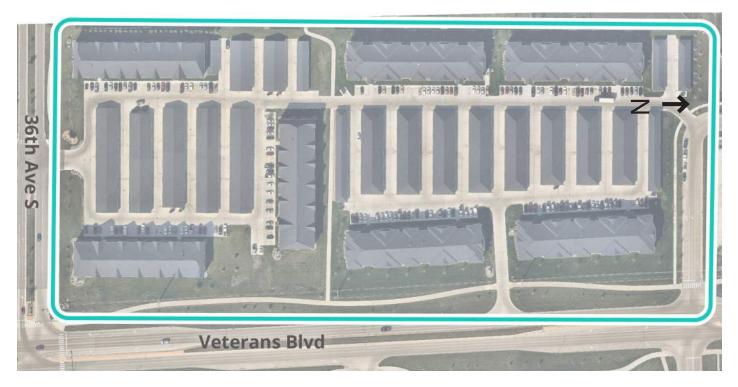
- 4 Osgood Plaza
- 5 1st International Plaza
- **6** Northport Plaza

### **Mixed use Typologies**

**7** Boulevard Square



# 1 Shadow Ridge/ Shadow Bay Multi-family apartments

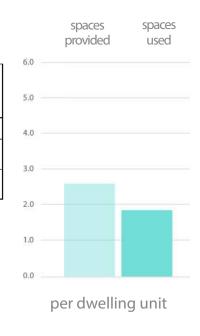


Shadow Ridge/ Shadow Bay is a 276-dwelling unit complex with a variety of apartment types ranging from studio to three-bedroom. While there are 188 outdoor parking spaces, there are also 516 enclosed garage spaces, which were unable to be examined as part of the utilization survey. These facilities were assumed as occupied since incoming vehicles were not able to access them.

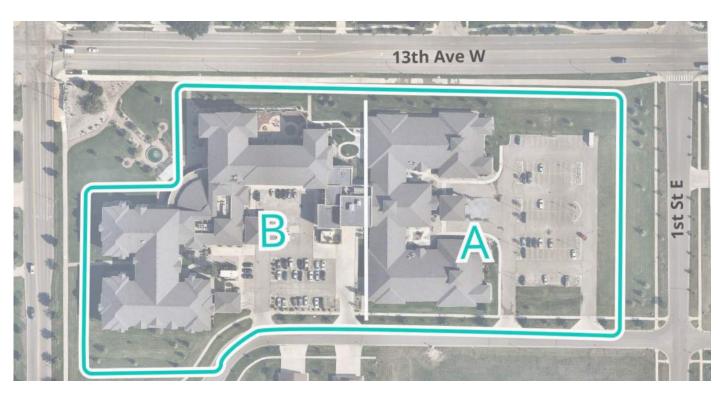
# 76% of examined spaces were filled

### Utilization survey results

Туре	Inventory	Demand
On-street	7	7
Surface lot	188	163
Garage spaces	516	-



## 2 Sheyenne Crossings Retirement community

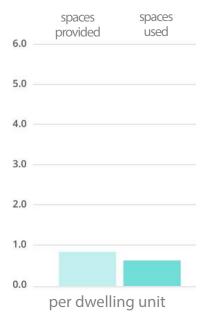


A retirement community that provides a full range of lifestyle and service options from independent living, assisted living, memory care, transitional care, home care, memory care and skilled nursing care. Sheyenne Crossings has 193 units with a total of 137 parking spaces for employees and residents.



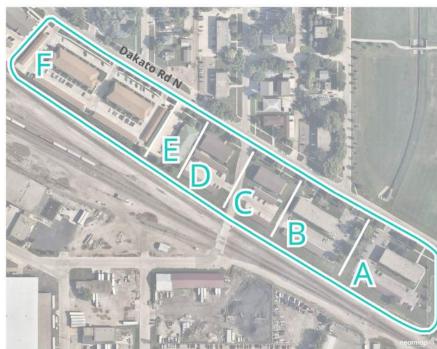
#### Utilization survey results

ID	Туре	Inventory	Demand
Α	Visitor parking	89	44
В	Employee parking	48	35
	Total	137	79



# 3 North Dakota State University, student housing





The 11 sites examined are representative of typical student housing developments in that they are mid- to high-rise apartment buildings that are ½- to 1-mile away from the NDSU campus. Similar to the Shadow Bay apartments, several of the examined sites have separated enclosed garages that could not be examined as part of the utilization survey. In addition to the demand in the off-street lot and garages, over 60 vehicles were parked along adjacent side streets, indicating that the demand for parking in this area is high.

ID	Туре	Inventory	Demand
	On-street	10	10
Α	Surface lot	69	39
	Garage	12	-
	On-street	10	10
В	Surface lot	61	42
	Garage	14	-
С	Surface lot	21	13
	Garage	17	
D	Surface lot	12	10
	Garage	12	
Е	Surface lot	18	13
_	Garage	14	
F	Surface lot	91	52
	Garage	63	

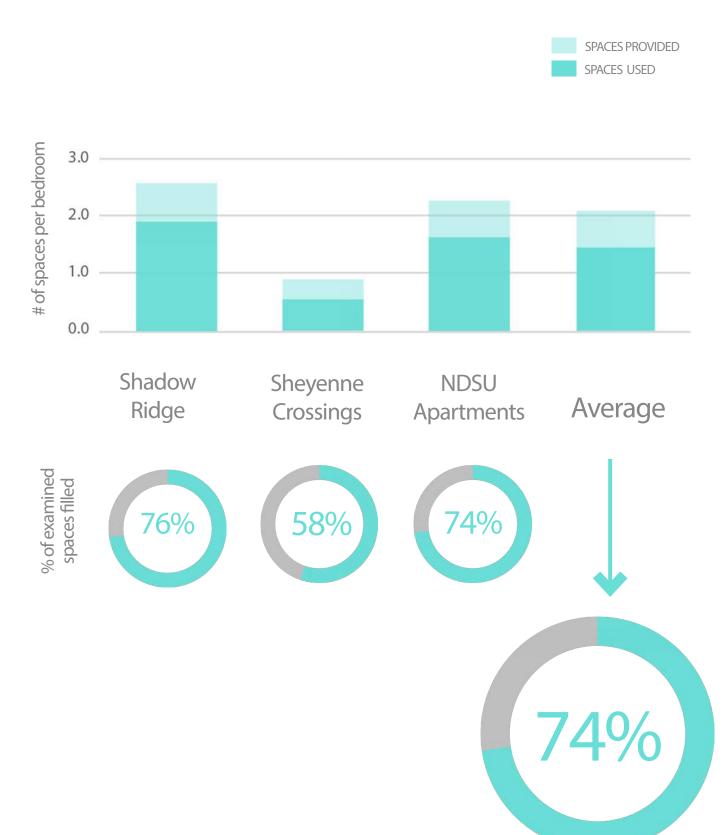
Utilization survey results

ID	Туре	Inventory	Demand
	7,1	,	
G	Surface lot	96	88
	Garage	66	
Н	Surface lot	124	121
- ' '	Garage	0	
1	Surface lot	117	74
	Garage	51	
J	Surface lot	48	47
J	Garage	37	
K	Surface lot	73	60
K	Garage	58	
	Total on-street	67	67
All	Surface lot	730	559
	Garage	344	-



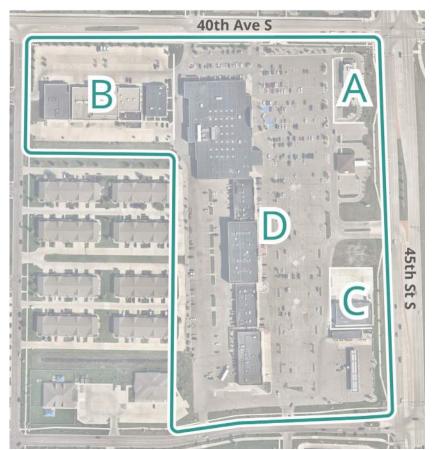
6.0 —	spaces provided	spaces used
5.0 —		
4.0 —		
3.0 —		
2.0 —		
1.0 —		
0.0	per dwelli	ng unit

### **Summary of Residential Land Uses**



### Osgood Plaza, **4151 45th Street**

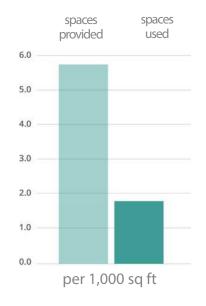
The shopping center is anchored by Hornbacher's and includes other personal services such as a Men's Hair Company, Nail Spa, Cherry Berry, Jimmy John's, and Bulldog Tap. Area A is a Dairy Queen, Area B includes an Essentia Health Day Clinic, Lil Bloomers, Chiropractor, and other restaurants. This site is surrounded by residential housing developments.

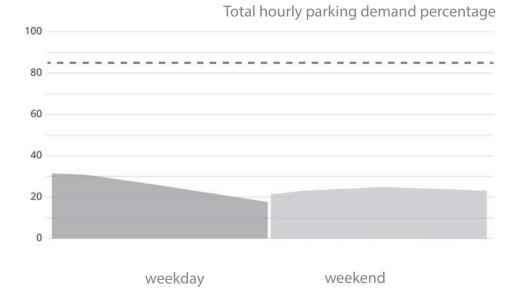


#### Utilization survey results

			Demand						
ID	Subsection	Inventory	ventory Weekday				Weekend		
			5pm	6pm	7pm	11am	12pm	1pm	
Α	Dairy Queen	12	3	2	4	4	9	2	
В	Western retail	240	75	31	19	16	14	12	
С	T+Mobile area	35	1	1	1	0	1	1	
D	Main lot	948	298	268	200	263	279	275	
	TOTAL	1,235	377	302	224	283	303	290	

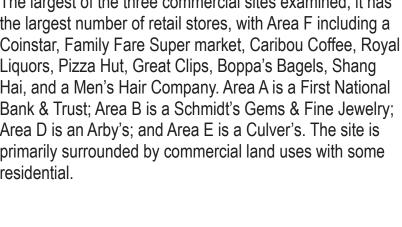






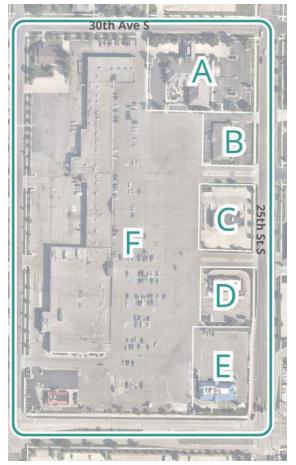
### 1st International Plaza, **3051 25th Street**

The largest of the three commercial sites examined, it has the largest number of retail stores, with Area F including a Coinstar, Family Fare Super market, Caribou Coffee, Royal Liquors, Pizza Hut, Great Clips, Boppa's Bagels, Shang Hai, and a Men's Hair Company. Area A is a First National Bank & Trust; Area B is a Schmidt's Gems & Fine Jewelry; Area D is an Arby's; and Area E is a Culver's. The site is primarily surrounded by commercial land uses with some residential.

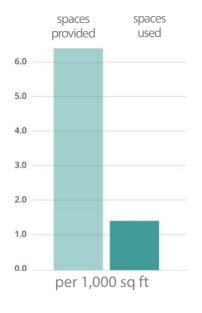


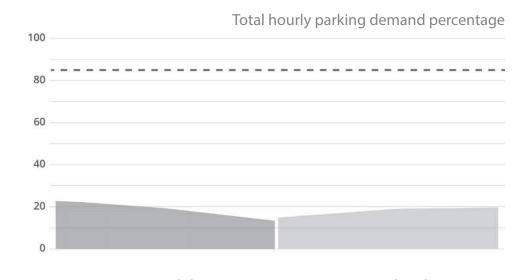
### Utilization survey results

			Demand						
ID	Subsection	Inventory	\	Neekda	y	\	Weekend		
			5pm	6pm	7pm	11am	12pm	1pm	
Α	First Int'l Bank	81	29	9	9	12	10	11	
В	Jewelry Store	30	11	4	3	3	3	4	
С	KFC	39	8	10	5	1	6	9	
D	Arby's	36	4	4	3	2	3	4	
Е	Culvers	56	12	14	11	6	11	13	
F	Main lot	711	149	143	98	132	151	145	
	TOTAL	953	213	184	129	156	184	186	





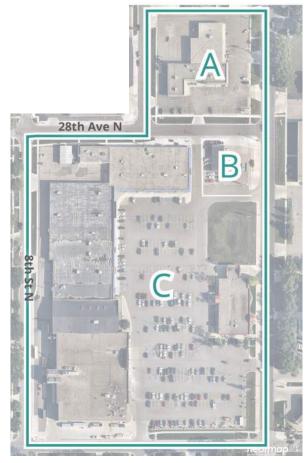




weekday weekend

### 6 Northport Plaza, 2602 Broadway North

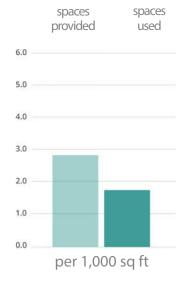
Considered to be one of the older retail developments in the region with several larger tenants in Area C including a Hornbacher's, Ace Hardware, Anytime Fitness, and Fargo Public Library. Area A consists of a Family Dollar and Dog Grooming facility; and Area B is a Tesero gas station. There is a combination of residential and retail uses surrounding the Northport Plaza.

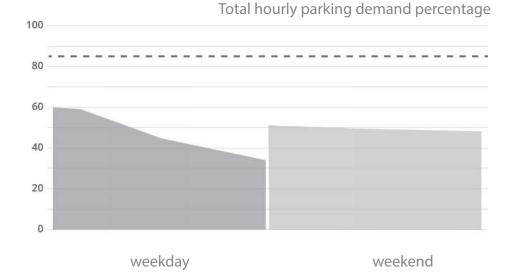


### Utilization survey results

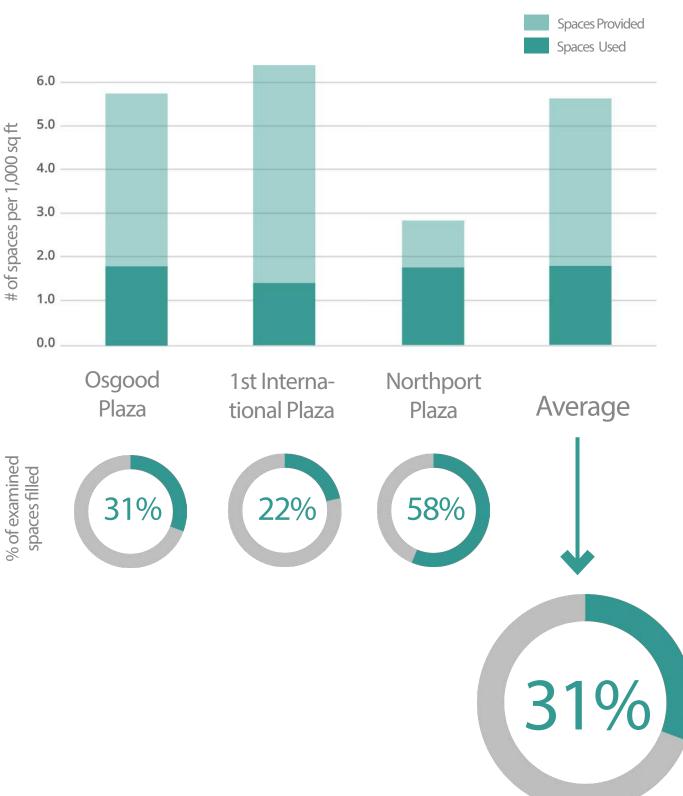
			Demand						
ID Suk	Subsection	Inventory	\	<b>Veekda</b>	y	Weekend			
			5pm	6pm	7pm	11am	12pm	1pm	
Α	Family dollar	52	27	14	13	14	15	12	
В	Gas station	13	12	11	6	15	15	15	
С	Main lot	366	213	167	136	188	181	180	
	TOTAL	431	252	192	155	217	211	207	





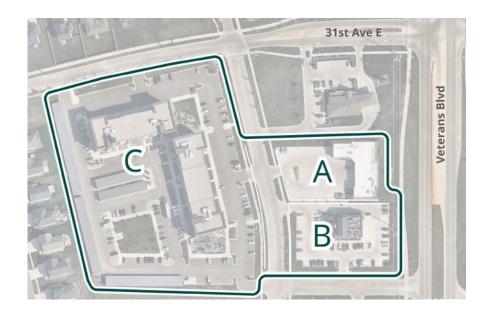


### **Summary of Commercial Land Uses**



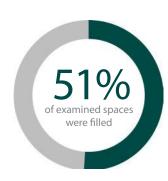
# 7 Boulevard Square, 745 31st Avenue East

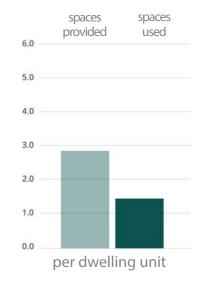
Boulevard Square was recently constructed and includes a variety of retail stores such as Spicy Pie, Flatland Brewery, Pub West, Summit Software, and TruelT, as well two stories of residential units above the commercial amenities. Area A consists of a Steep Me A Cup of Tea, Insurance Agent, and Glacial Peak Cryotherapy; and Area C consists of a Boulevard Pub.

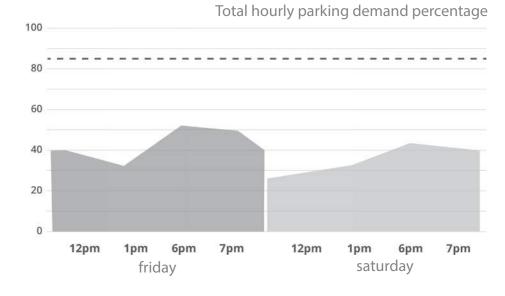


### Utilization survey results

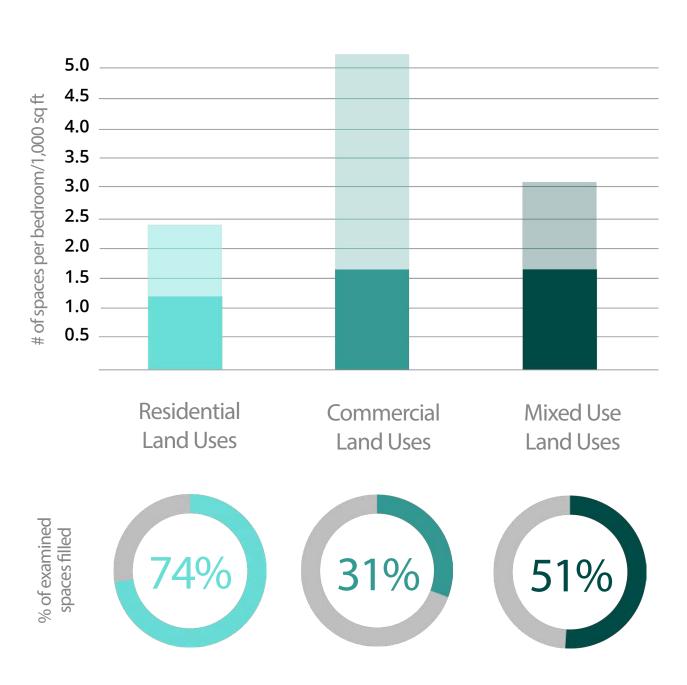
			Demand							
ID	Subsection	ection Inventory Fri			Friday			Satu	rday	
			12pm	1pm	6pm	7pm	12pm	1pm	6pm	7pm
Α	Steep me a cup	47	16	14	0	0	8	8	0	0
В	Boulevard Pub	75	26	22	50	54	14	27	47	45
С	Retail	285	119	98	159	146	97	100	129	120
	Structured garages	71								
	TOTAL	407	161	134	209	200	119	135	176	165







### **Summary of All Land Uses**



### Stakeholder Interviews

With the area's primary parking and access issues quantified, hearing from residents, employees, customers, and other day-to-day users provided us with a more complete picture. One-on-one interviews with developers, financial institutions, and non-profit organizations were conducted to understand the specific parking needs, challenges, and opportunities for alterations in the development process.

The key stakeholders identified for this process were determined by the SRC and consultant team. Those willing to be interviewed included:

- Homebuilders Association
- Greater Fargo/Moorhead Economic Development Corporation
- Goldmark Commercial Real Estate
- Kilbourne Group
- Investor Group
- Deitrick Construction
- Terry Welle Construction

"Whenever you want to do anything that is out of the norm, you have to spend a lot of time and money".

Overall, developers were interested in letting the market dictate development, allowing them to build more of what is selling and less of what is not. Six of the seven stakeholders interviewed were aware of options to alter minimum parking requirements but commented that the City is stringent on their minimum parking requirements, stating that they would be very unlikely to offer a variance. Those that were aware of the opportunity to reduce minimum parking requirements in Fargo through a CUP or AAP commented on the increased time and money spent on in filling out the application, preparing the proper documentation and studies, and presenting at the Planning Commission. Developers commented that they prioritize "following the path of least resistance" and are not likely to reduce the number of spaces supplied because it would take more time and cost more money. They are more likely to continue developing the same (or similar) projects since they have successfully done so in the past and feel more secure in the profitability. Several stakeholders stated interest in learning more about the procedures associated with reducing parking supply, shared parking, and other zoning regulations that could be applied to their developments in the future.

Some of the other key points stated by the stakeholders interviewed are outline below:

• The cost of building in the metro area has increased dramatically due to infrastructure costs associated with flood protection. This has led the majority of residential construction to occur in the surrounding neighborhoods. However, the majority of jobs (schools, hospitals, healthcare, etc) are still located—and being constructed—in Fargo, which leads to a large number of commuters between Fargo and the surrounding region. Residential housing stock in Fargo tends to be multi-family rental.

- Generally, the design of homes is a direct reaction to market preferences builders build homes that are selling. The goal is to find a balance between what the consumer is willing to pay for, what regulations allow, and what is affordable. One example stated that there was a push for neo-traditional development with alleyways and front porches but people do not want to walk to and from their car and wanted larger garages so that is what is built.
- Senior housing is a common housing development type but the parking requirement for this land use is much higher than the demand for parking. Many senior housing residents want a 2-bedroom unit for one resident. About 60 to 75% of residents do not have a car and none have 2 cars which leads to an oversupply of parking for these developments.
- There are several developments in which the developer spent a ton of money on parking that is just sitting there remaining unused. And reducing the volume of parking requires the developer to spend additional money and time to hire a firm to complete a parking study to justify it. When everything is purely by the book, the characteristics of the individual sites are neglected. The City should have guidelines to allow for substantiated parking reductions, why would they not allow developers to downscale to a level that is adequate? There are several developments in which they spent a ton of money on parking that is just sitting there remaining unused.
- Developers, builders and property management companies understand the preferences of the region, so the City should give these entities more flexibility and independence moving forward.

"There are several developments in which we spent a ton of money on parking that is just sitting there unused."

- Parking is an element for every business that considers locating in Fargo and West Fargo; it has never been the sole reason that a business or company has chosen not to locate in the Fargo, but it has been a contributing factor.
- Preferences in downtown and nodal areas is mixed use development, for which shared parking has become easier to get approval on. Residents living in these units understand that it is an urban environment and that walking is part of that experience. Office employees can be more challenging since the employees are more likely to be commuting from further and expect parking directly in front of the office.

### Issues & Opportunities

- ISSUE. Many of the streets in Fargo and West Fargo are designed to maximize traffic flow, with several lanes and high speeds. It negatively impacts walkability and creates safety issues for all users.
- OPPORTUNITY. Not all streets are used the same way, and their amenities need to reflect that. Different streets should accommodate different users based on the distinct characteristics and land use patterns.

- ISSUE. Fargo and West Fargo's non-vehicular networks are limited and disconnected from one another, preventing people who are walking, biking, or accessing transit from reaching their destination.
- OPPORTUNITY. Future development needs to be more compact and connected to give people more options when traveling in and around Fargo. Managing street intervals and driveways is a key factor in shaping development pattern.

- ISSUE. Developers are attuned to the distinct parking characteristic for different land uses, but are more likely to follow existing regulations than challenge parking minimum requirements as it would slow down the approval process.
- OPPORTUNITY. Giving developers the flexibility to provide less parking is a key aspect of satisfying market demand and increasing affordability.

- ISSUE. The amount of parking supplied vastly exceeds demand. All three of the land use types surveyed did not require the amount of parking that was supplied. Creating too much parking diminishes a neighborhood's vitality and walkability, creating sprawled development patterns, and leading to vehicle-dominated neighborhoods.
- OPPORTUNITY. When planned holistically, parking can accommodate residents, employees, and businesses, without detracting from the vitality of the public realm. Creating policies and regulations that accurately reflect the parking demand, costs, and economic characteristics of a particular location is essential in achieving a balanced parking supply overall.



### Streets for the Future

In a region like the greater Fargo area that needs to provide a broad range of infrastructure facilities to support its current footprint and upcoming developments, establishing distinct typologies that consider the residents of the region first will improve the efficiency of the transportation network and assist in long-term planning decisions. Streets of the future will be classified to better reflect how people use the street and the street's character, in addition to the street's role in the network. The typologies will align the way streets are designed with the surrounding land uses.

Seven Street Types were identified that encapsulate the variety of street functions needed to create a complete transportation network. The street typologies are designed to align with the existing and future land uses, as well as the more traditional corridor classifications. Thus, the street typologies follow a similar naming convention, combining the predominate land use with the scale (e.g., residential + neighborhood or mixed use + arterial).

The Street Types explained on the following pages will guide Fargo and West Fargo in designing streets and deciding what elements to include on certain streets, such as on-street parking, a landscaped median, or crosswalks. The street typologies will also help inform important policy decisions that impact all users if the streets, such as setting speed limits that are comfortable and safe and providing convenient access to housing and businesses.

The design and configuration of a street has a major impact on how safe and easy it is to cross the street for people walking, how efficient it is for cars, trucks and buses, and how comfortable it is to visit with friends or shop at local businesses. For each of the street types, guidelines detailed below will help decide which street elements (e.g., medians, on-street parking) should be included on which streets, the spacing and/or configuration of those elements, and other important factors such as speed limit.



Since street design should be informed by context, compatible land use types are important in determining street type.



Speed is a crucial factor in the number of traffic crashes that occur on streets and a major determinant of the severity of those crashes. Speed should be linked to access, context, users, and purpose.



Streets should have enough lanes to move people, within reasonable delay parameters, driving but also consider the impact on people crossing the street, how a wider a street can alter a community's character, and the added construction and maintenance costs of building larger streets.



On streets with multiple lanes of traffic moving in opposite directions, providing physical separation will improve safety, regulate access, and present an opportunity for landscaping and traffic calming benefits.



On-street parking is convenient for residents and visitors, leads to more efficient land use, and provides safety benefits for all street users; however, on streets with higher speeds and traffic volumes, on-street parking may not be appropriate.



Pedestrian Crossing

The appropriate type of pedestrian crossing depends on vehicle speeds and volumes along the street and should be tailored to the surrounding land uses.



spacing

Managing street intervals and driveways is a key factor in shaping development pattern. On streets with higher speeds and traffic volumes, increasing the distance between full access points or traffic signals improves traffic flow; however, controlled access must be balanced with a connected, walkable street network.

**Regional Arterial.** Act as a secondary alternative and direct connection to the Interstate system, serving large traffic volumes with highly controlled/limited interruptions.

**Commercial Arterial.** Act as gateways, connecting people from Fargo, West Fargo, and the wider region to the area's major destinations.

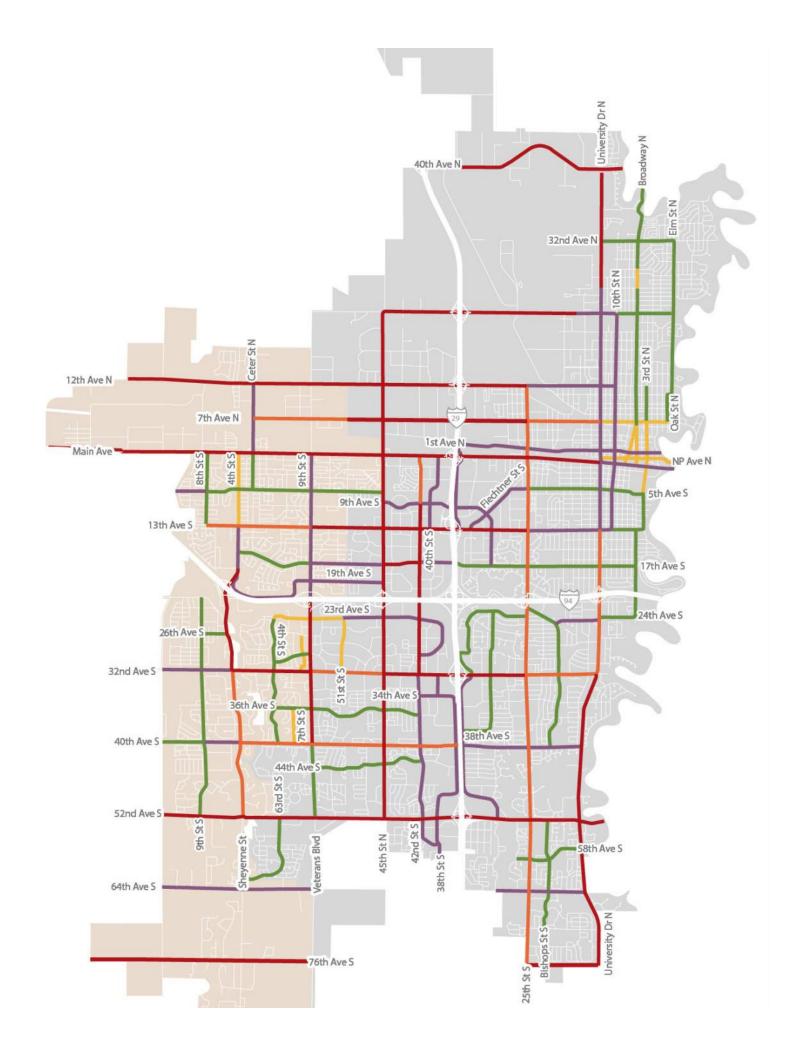
**Mixed Use Arterial.** Act as cross-town links and business corridors where people live, shop, dine, and work while supplying parking to support economic activity.

Mixed Use Collector. Connect residents from their neighborhoods to commercial nodes and corridors and are critical in enabling economic activity

**Residential Collector.** Connect neighborhoods and link residents with important facilities like libraries, schools and parks.

**Mixed Use Neighborhood.** Prioritize pedestrian safety and comfort over the mobility of cars.

Residential Neighborhood. Connect residents to each other and serve as shared space for neighbors to socialize and play.



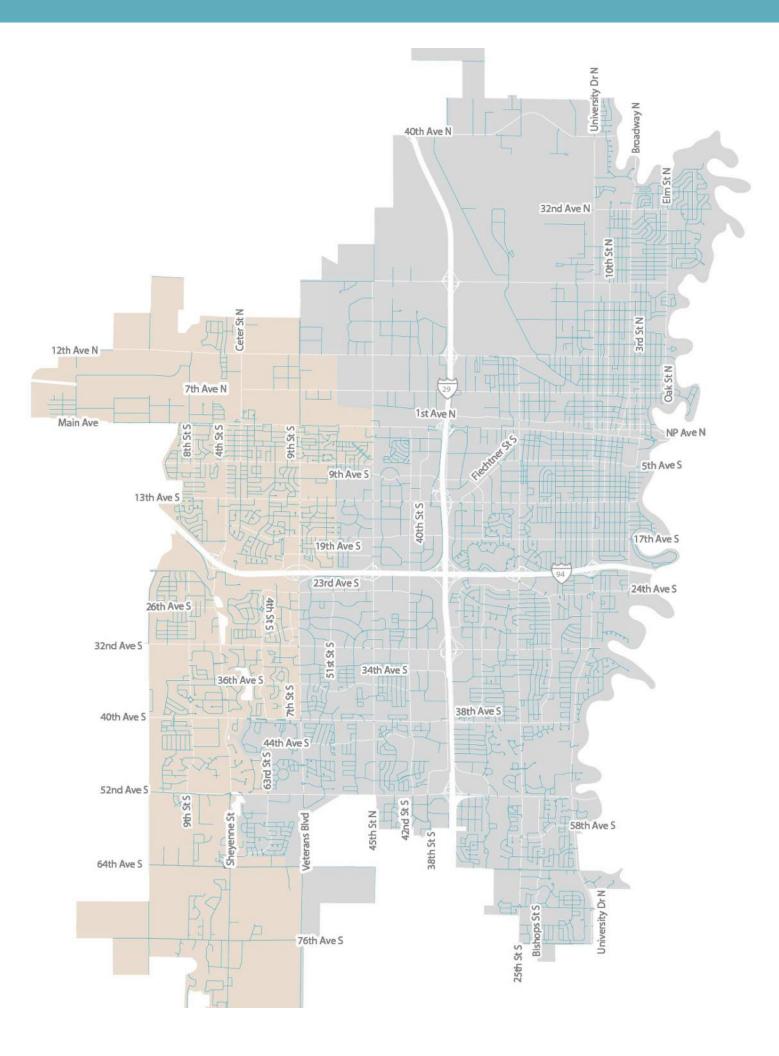
### RESIDENTIAL NEIGHBORHOOD

Residential Neighborhood streets are calm and connect residents to each other and nearby destinations, carrying low traffic volumes at low speeds. These streets serve as much as a place for neighbors to socialize and play as they do to move vehicles. Neighborhood residential streets are predominately fronted by single family houses or other low-density housing and access occurs at the property level. Direct property access is a functionality of this street type.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4	E TONA				/Å\
Low-density Residential, Civic	25 mph maximum	2 travel lanes	No median	On-street parking	Crosswalk

Access spacing	Traffic Signal:	Unsignalized Full Access:	Right-in/ Right-out:	Driveways:	
	N/A	Block-Level (300-400 feet)	N/A	30-50 feet	





### MIXED USE NEIGHBORHOOD

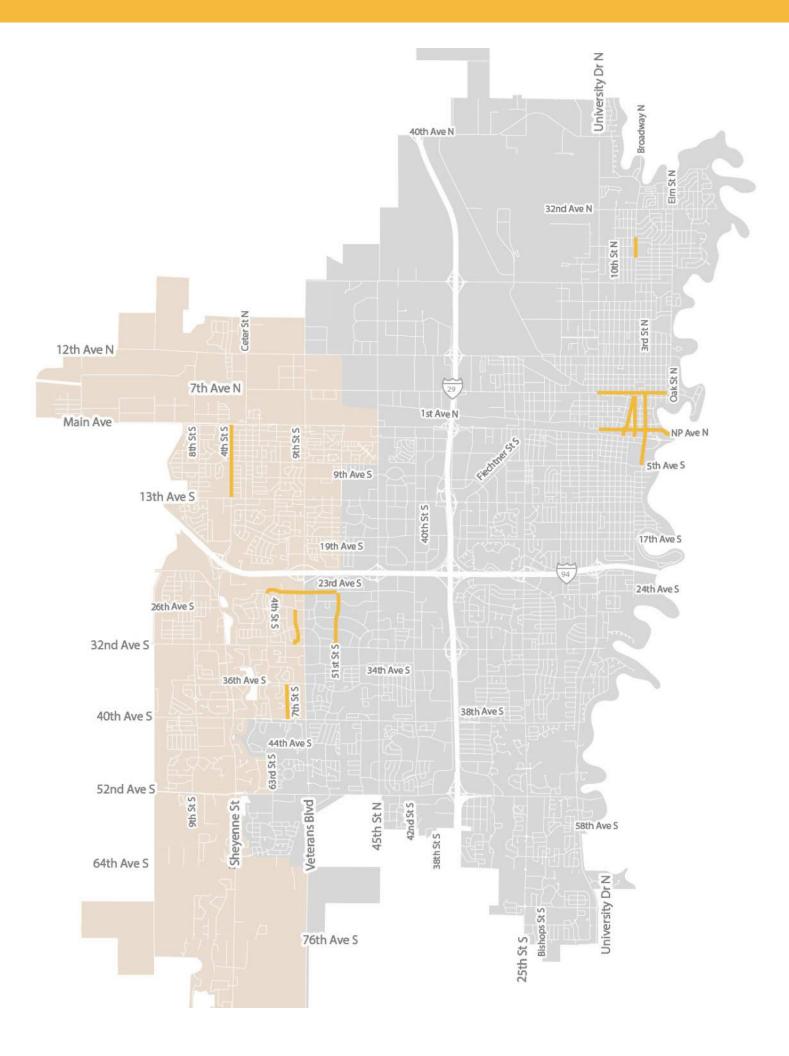
Mixed Use Neighborhood streets have a particular focus on prioritizing pedestrian safety and comfort over the mobility of cars. These streets are activity corridors that foster economic interaction and provide convenient parking opportunities to that effect. Mixed Use Neighborhood streets accommodate traffic at low speeds but limit access points to minimize pedestrian conflicts.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4	E TON				À.
Multi-family Residential, Ped-oriented	25 mph maximum	2 travel lanes	Boulevard	On-street parking	Crosswalk

Access spacing	Traffic Signal:	Unsignalized Full Access:	Right-in/ Right-out:	Driveways:
	600-800 feet	Block-Level (300-400 feet)	N/A	150-200 feet







### RESIDENTIAL COLLECTOR

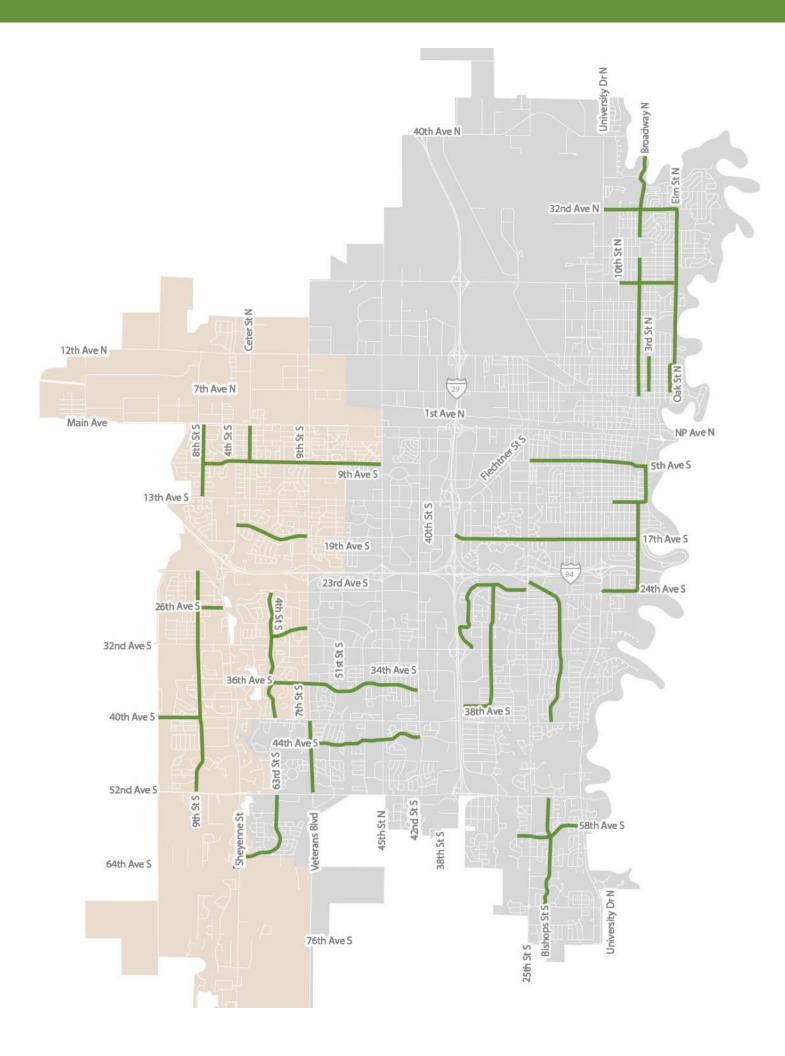
Residential Collector streets connect neighborhoods and link residents with important institutional and recreational facilities like libraries, schools, and parks. These streets act as important links in the network for people using all modes of travel. There are a variety of housing types along these corridors from single family homes to apartment buildings, as well as community facilities. While these streets carry a moderate level of vehicular traffic, Residential Collector streets should also support community uses and character. These streets function to funnel traffic to defined access points on the arterial system that are usually attenuated by a traffic signal, allowing for ease of access.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4	E. Sand				冰
Variety of Residential, Institutaional	25 mph maximum	2 travel lanes	Roundabout	On-street parking	Crosswalk

Access spacing	Traffic Signal:	Unsignalized Full Access:	Right-in/ Right-out:	Driveways:	
( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	N/A	Block-Level (300-400 feet)	N/A	50-100 feet	







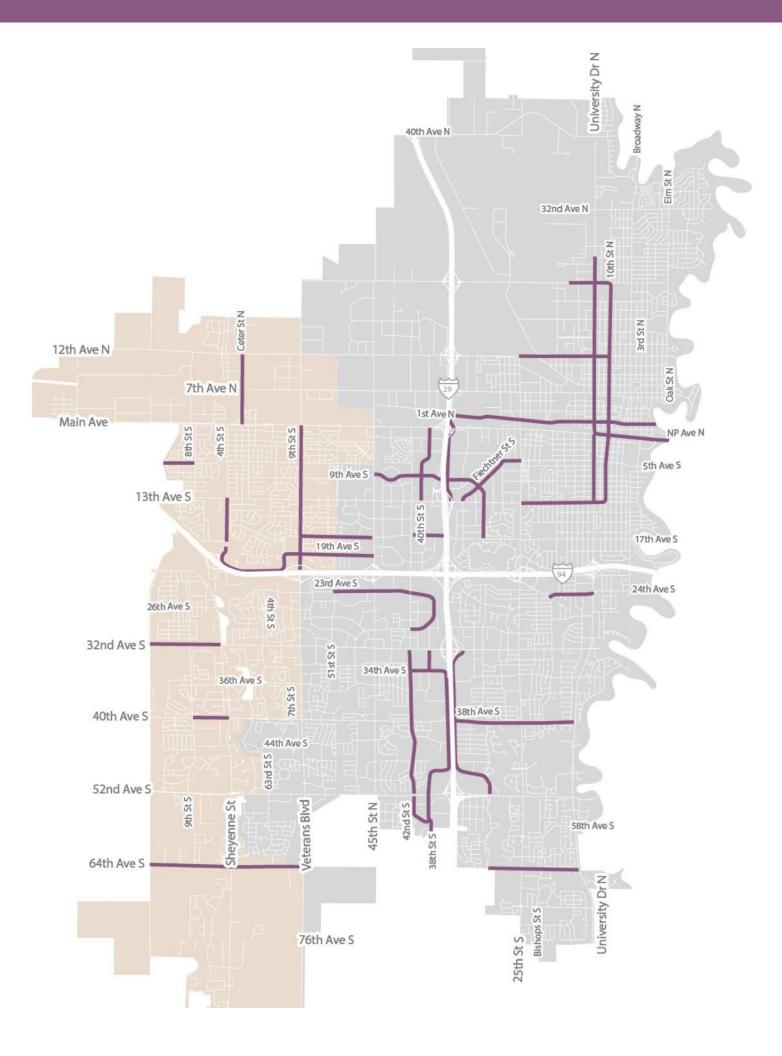
### MIXED USE COLLECTOR

Mixed Use Collector streets connect residents from their neighborhoods to commercial nodes and corridors and are critical in enabling economic activity. There is a mix of uses along these types of streets, including multi-family housing, employment centers, and businesses. Mixed Use Collector streets should accommodate a moderate level of vehicles, as well as buses, delivery trucks, and people walking for daily errands.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4	Errange .				冰
Low-density Residential, Civic	25-30 mph	3 travel lanes	Center turn lane	On-street parking	Median- protected

Access spacing	Traffic Signal:	Unsignalized Full Access:	Right-in/ Right-out:	Driveways:
	N/A	Block-Level (300-400 feet)	N/A	200 feet





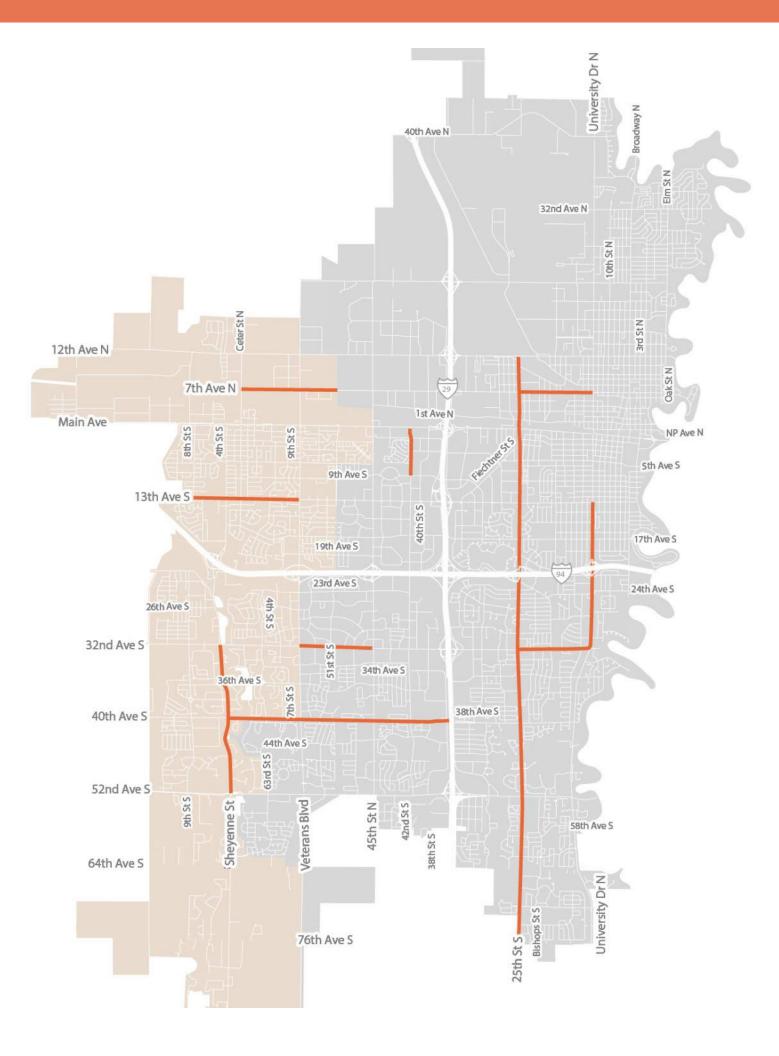
### MIXED USE ARTERIAL

Mixed Use Arterial streets are business corridors where people live, shop, dine, and work. Mixed Use Arterial streets provide cross-town links to employment and commercial centers. These types of streets carry a higher volume of cars while providing access to a walkable street network. On-street parking should be allowed on these types of streets to encourage economic activity, as well as calm traffic and create a pedestrian buffer.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4	E TON				杰
Commercial, Multi-family Residential, Industrial	30-35 mph	3-5 travel lanes	Landscaped median or center turn lane	On-street parking	Signal or median- protected crosswalk

Access spacing	Traffic Signal:	Unsignalized Full Access:	Right-in/ Right-out:	Driveways:
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	600-800 feet	Block-Level (300-400 feet)	200 feet	200 feet





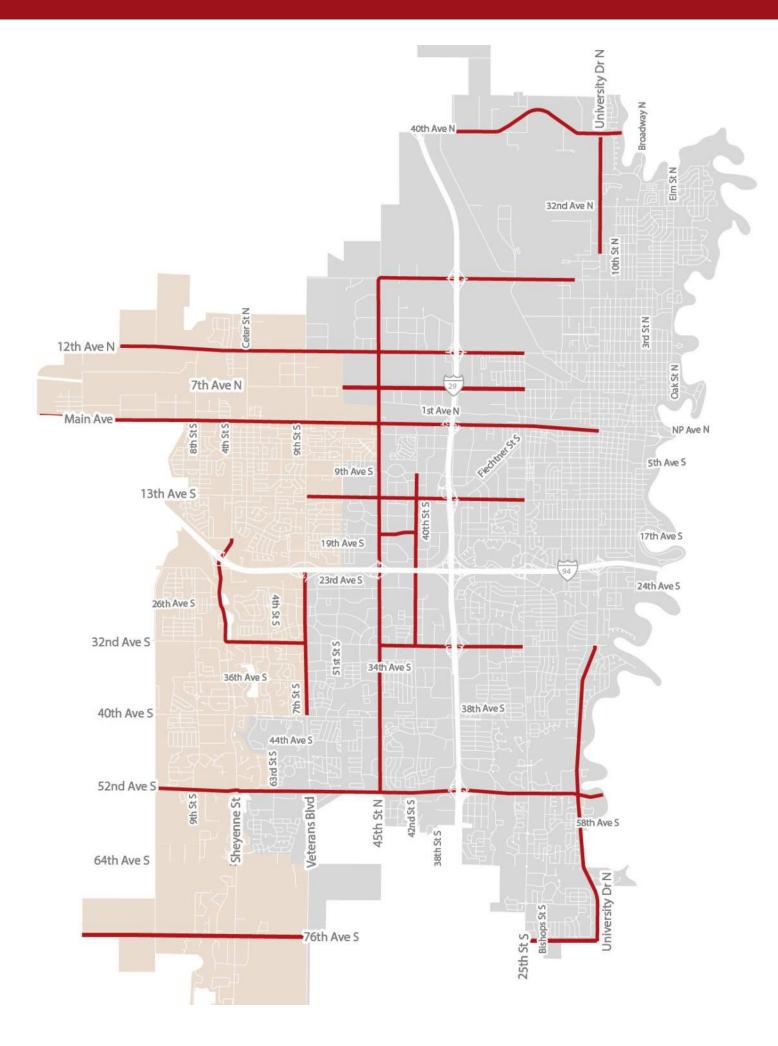
### **COMMERCIAL ARTERIAL**

Commercial Arterial streets act as gateways, connecting people from Fargo, West Fargo, and the wider region to the area's major destinations. Because these streets link everyone to important points of interest, it is critical that pedestrians have safe crossing opportunities. Access is more stringently managed on these types of streets, and on-street parking is generally not appropriate, so that a high volume of cars, trucks, and buses can travel efficiently.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4					杰
Commercial, multi-family	30-40 mph maximum	4-6 travel lanes	Landscaped medians	No on- street parking	Signalized crosswalks only

Access spacing	Traffic Signal:	Traffic Signal: Unsignalized Full Access:		Driveways:
4	1/4 mile	None	400 ft	None





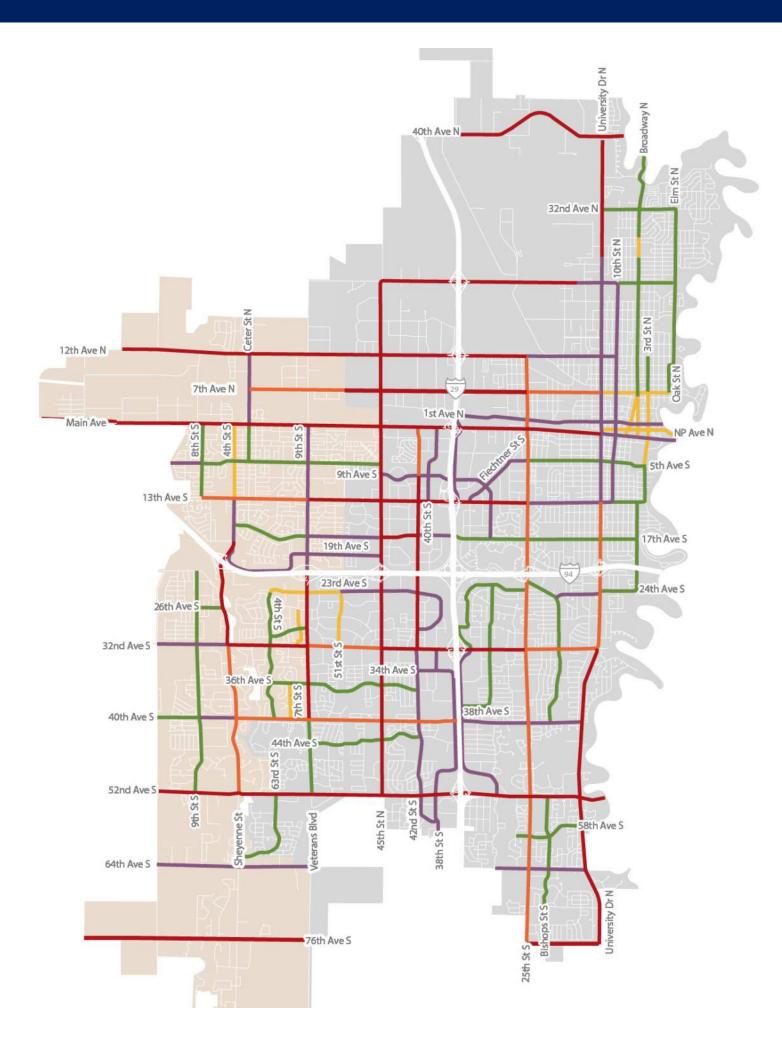
### REGIONAL ARTERIAL

Regional Arterial streets are intended to serve large traffic volumes with highly controlled interruptions and function as a secondary alternative and direct connection to the Interstate system. This type of street does not exist currently in the Fargo/West Fargo area and is intended to be used for future planning purposes.

Land Use	Speed Limit	Travel lanes	Other	Parking	Pedestrian Crossing
4			//11		流
Commercial, Industrial, Multi-family	45 mph maximum	4 travel lanes	Divided Roadways	No on-street parking	Grade- separated or signalized crosswalks

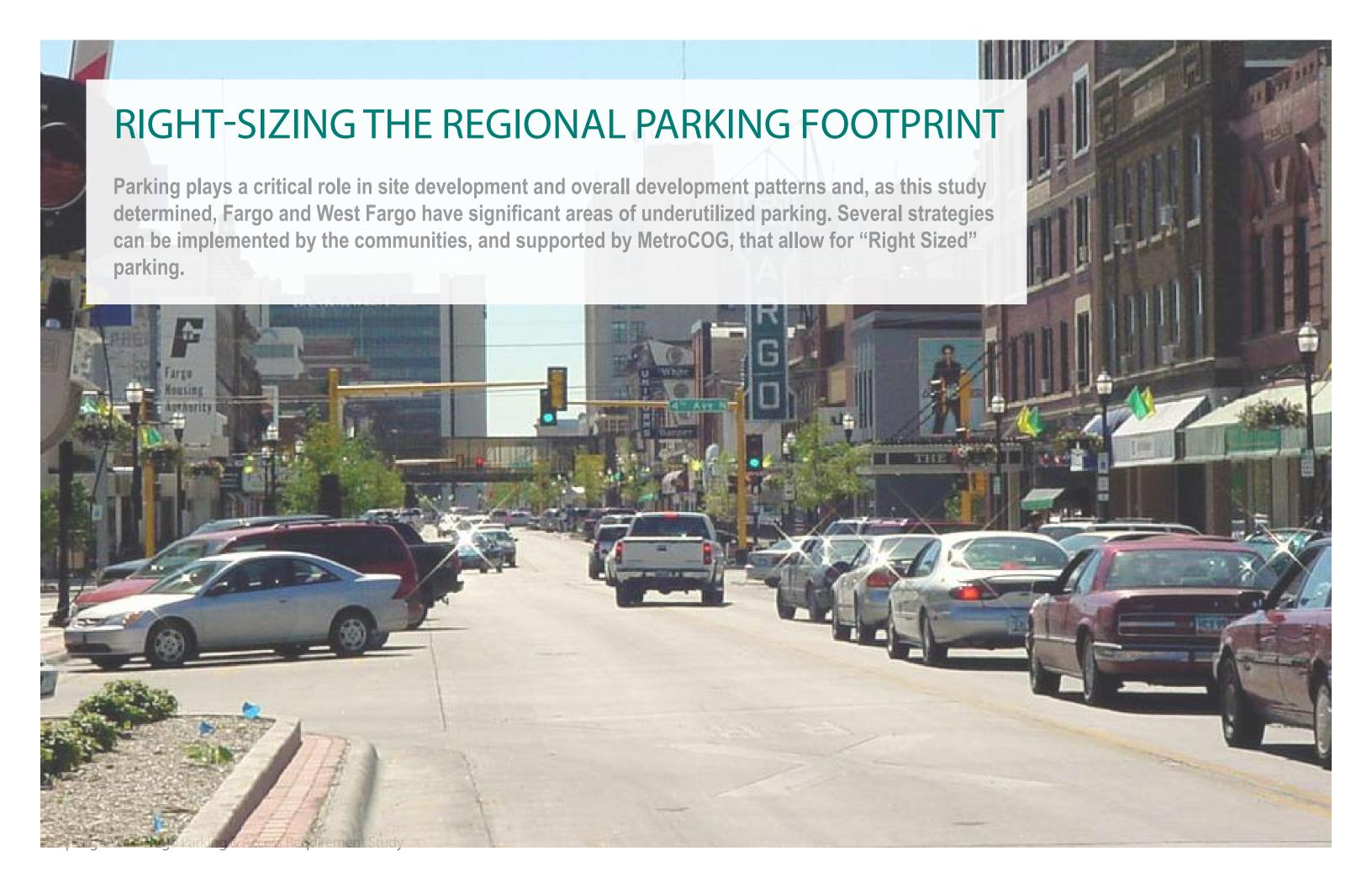
Access spacing	Traffic Signal:	Unsignalized Full Access:	Right-in/ Right-out:	Driveways:
	1/2 mile	None, frontage system	1/4 mile	None





Guidelines for each street type are summarized in the table.

				Тур.				Spacing				
Street Type	Functional Classification	Compatibility	Pedestrians	Median	Cross Section (lanes)	Speed (mph)	Parking	Grade Separation	Traffic Signal	Unsignalized Full Access	RIRO	Driveways
Regional Arterial	Primary Artery	-Commercial -Industrial -High-density residential	-Grade Separation -Signal	Yes	4	45	No	Interstate, other Regional Arterials, possibly Suburban Arterial	½-mile	None/fronta ge system	⅓-mile	none
Commercial Arterial	Primary Artery Minor Artery	-Commercial -Mixed Use -Multi-Family	-Signal	Yes	4-6	30-40	No	Interstate, possibly Regional Arterial	½-mile	None	400'	none
Mixed Use Arterial	Minor Artery	-Neighborhood Commercial -Mixed Use -Institutional	-Signal -Median Protected	Yes/No	3-5	30-35	Yes	Interstate	600-800'	300-400'	200'	Preferred on minor street
Mixed Use Collector	Major Collector	-Commercial -Mixed Use -Multi-Family	-Median Protected -Crosswalk	No	3	25-30	Yes	No	n/a	300-400'	n/a	200'
Residential Collector	Minor Collector	-Mixed Use -Residential	-Crosswalk	No	2	25	Yes	No	n/a	300-400'	n/a	50-100'
Mixed Use Neighborhood	Major/Minor Collector Local	-Pedestrian- Oriented Commercial -Mixed Use -Residential	-Highest Priority	No/Blvd	2	25	Yes	No	600-800'	300-400'	n/a	150-200'
Residential Neighborhood	Local	-Residential	-Crosswalk	No	2	25	Yes	No	n/a	300-400'	n/a	30-50'

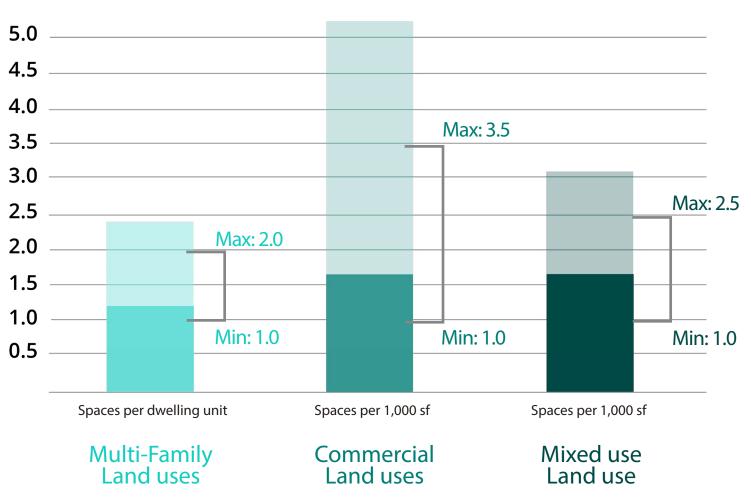


### MINIMUM AND MAXIMUM REQUIREMENTS

Excessive parking requirements make market-rate housing more expensive, reduce the amount of space for non-parking uses, increase impervious surface, and encourage people to drive more frequently. When minimum parking requirements are implemented, even those that do not drive share in the cost of parking through higher retail prices, higher rents, and other taxes. Deregulating off-street parking allows the market to determine parking supply levels, creates more walkable development patterns, and begins to level the playing field for all travel modes. Additionally, mobility services like Uber and Lyft, and - eventually - the widespread adoption of driverless vehicles, are likewise contributing to a trend toward needing less parking and more pick-up/drop-off space. Even if traffic volumes and driving mode split were to stay the same, the demand for parking will decline, making the implementation of parking maximums a powerful and necessary tool to prepare for emerging transportation trends.

**Recommendation.** It is recommended that the cities of Fargo and West Fargo adopt parking maximums in combination with minimum requirements to provide developers with the flexibility to provide parking over demand while preventing excessive parking from being constructed. The parking ranges shown below summarize potential minimum and maximum requirements for the land use typologies for which demand was determined. Each of the minimum requirements is set below the existing demand to ensure that enough parking is provided, but the maximums are set below the volume of parking that is currently provided to ensure that excess parking is not constructed.

### Proposed minimum and maximum parking requirements



### MINIMUM AND MAXIMUM REQUIREMENTS: CASE STUDIES

### Eliminate Parking Minimums. Fayetteville, AR



In 2015, Fayetteville eliminated all nonresidential parking requirements citywide. This was part of the City's "Smart Parking" approach in it's Master Plan, along with the adoption of shared parking standards. The impetus of this initiative came from the community's commercial real estate brokers who had growing frustrations filling vacant commercial spaces with new uses. After two years of this program being in place, the City's planning staff have found that businesses continue to provide the maximum amount of parking in more auto-oriented suburbs, while others, closer to the downtown core, have made use of the increased flexibility to fill spaces that were previously vacant.

### Various Parking Maximums.

Cities across the country are picking up on the negative impacts minimum parking requirements have on the livability of their communities. And in response, have eliminated minimum parking requirements, introduced overlays, or established parking maximums. Strong Towns, a nonprofit research organization, has mapped cities that have adopted these policies. The organization also documents low parking demand during Black Friday each year, to show that parking minimums are excessive, even during the day of the year that is associated with one of the highest parking volumes.





### **Transit Oriented Development. Minneapolis, MN**

The City of Minneapolis has instituted a series of Transit-Oriented Development (TOD) ordinances that allow for the elimination of off-street parking requirements in proximity to transit. These policies are distinguished between "high" and "moderate" frequency transit service: moderate frequency is defined as a 15-30 minute midday service, while high frequency is defined as midday service every 15 minutes or less. The ordinance allows for the elimination of off-street parking requirements for multi-family residential buildings located within 350 feet of a high frequency bus route or rail station. Depending on the size of the building, a 50 to 100 percent reduction is allowed within a TOD area,

1/4-mile around a high frequency bus route or, 1/2-mile from a rail station. The City also has an ordinance that allows for a 10 percent reduction of off-street parking requirements for multi-family residential buildings located within 350 feet of a moderate-frequency bus route or rail station.

Minneapolis has two light rail lines, one commuter rail line and over 100 bus routes that carry over 85 percent of the system's daily passengers.

Parking Spaces Required Pe	er Residential	Unit
	3-50 Units	>50 Units
Within 350 feet of a bus or rail transit stop with midday service headways of 15 minutes or less	No Parking Required	No Parking Required
Within one-quarter mile of a bus stop with midday service headways of 15 minutes or less, or within one-half mile of a rail transit stop with midday service headways of 15 minutes or less	No Parking Required	One Parking Space Per Two Units
Within 350 feet of a bus or rail transit stop with midday service headways between 15 and 30 minutes	10% Reduction from 1:1	10% Reduction from 1:1



### MINIMUM AND MAXIMUM REQUIREMENTS: NEXT STEPS

Task	Parties Involved	Level of Complexity (low, medium, high)	Priority (short, mid, long)
Conduct parking utilization surveys for other land uses in the region. The land use typologies used in this report were selected based on discussions held by the SRC. There are a number of other land uses throughout the region that should be accounted for when introducing new parking minimum or maximum requirements. And in order to ensure the requirement reflects the demand for these spaces, a parking utilization survey should be completed and used to guide zoning policies. These studies should monitor the utilization of at least three modes and capture what is understood to be the peak demand period by local users, as well as national parking publications.	City of Fargo, City of West Fargo, Metro COG	Low	Short-term
<b>Streamline land use type and categories.</b> These three categories include a variety of other land uses, with their own parking requirements. The City of Fargo has over 30 separate land uses defined in their parking code, while the City of West Fargo has over 45. Simplifying the code to be more flexible within broader categories would provide developers with more freedom to construct parking below the requirements. For example, the residential parking minimum of one (1) and maximum of two (2) should be enforced, and on-street parking can accommodate additional supply.	City of Fargo, City of West Fargo	High	Mid-term
Eliminate parking minimums in Transit Oriented Development (TOD) areas or in transit hubs. Many communities throughout the country have eliminated parking minimum requirements in proximity to transit. This has enabled the presence of dense, walkable environments while encouraging the use of transportation. Through eliminating parking requirements within a 1/2-mile radius of transit hubs or bus stations, the possibility of more dense development will become possible, which will further encourage the use and availability of transit when traveling to and from these areas.	City of Fargo, City of West Fargo, MATBUS, Bicycle bikeshare	Medium	Mid-term

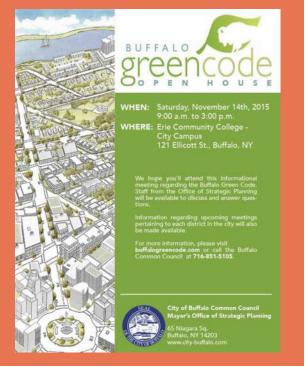
### **ALTERNATIVE TRANSPORTATION MODE INITIATIVES**

Supplemental to the proposed minimum and maximum parking requirements will be changing the procedures associated with requesting and receiving parking variances. Existing policies encourage developers to construct parking beyond their demand by requiring them to obtain a variance if they wish to provide parking below the existing minimum requirement.

It is recommended that this is reversed: if a development provides parking above the maximum range, a Transportation Demand Management (TDM) or shared parking analysis must be completed to justify that the project will generate the additional demand requested and demonstrate that the demand cannot be accommodated by shared parking initiatives or other transportation programs. And if a development wishes to provide parking below the minimum requirement, they make up for the cost through a payment-inlieu of parking, as discussed in the subsequent recommendation. The goal of these policy changes is to make it more difficult to provide parking that is not necessary.

### TDM requirements. Buffalo, NY

Buffalo New York became the first city in the United States to remove parking minimum requirements citywide. This alteration was part of the Buffalo Green Code, a Unified Development Ordinance that replaced standard land use-based code with form-based code. In addition to eliminating parking requirements, the code required certain buildings to prepare a TDM plan justifying that the project accommodates the travel demand it generates and specifying the tools that are used to accommodate that demand (bicycle parking, subsidized bus passes, alternative work schedules, etc.).



### SHIFT TDM Ordinance. San Francisco, CA

In combination with San Francisco's Transportation Sustainability Porgam, the City created SHIFT TDM Ordinance to reduce SOV trips and encourage the use of other modes. The program allows developers to choose an applicable combination of TDM measures that will work best for reducing vehicle trips associated with their project. TDM measures are comprised of a menu of different onsite TDM measures, each worth different point values based on the relative impact and effectiveness they will have on reducing vehicle trips. For example, providing showers for bike commuters is worth one point, while reducing on-site parking is worth up to 11 points. Each project is required to meet a minimum point threshold based on project size, characteristics, and location.

The program is part of the development application. Meaning, developers are required to select the measures they are planning to utilize before filing a development application which allows planning staff an opportunity to comment or recommend measures for a project prior to starting the development application process.

There is also an inspection prior to the before occupancy is certified, as well as ongoing monitoring requirements, and a program audit every three years. Enforcement is funded through program feesdevelopers must pay an initial fee of \$6,000 and an annual fee of \$1,000. Building applicable to SHIFT TDM include projects that exceed 10,000 square feet of non-residential development or over 10 residential projects.



### ALTERNATIVE TRANSPORTATION MODE INITIATIVES: NEXT STEPS

Task	Parties Involved	Level of Complexity (low, medium, high)	Priority (short, mid, long)
Require pedestrian amenities and landscaping to be included in surface lots. Existing parking lots in the Fargo region mostly consist of large swaths of asphalt, which creates an uncomfortable and unsafe experience for pedestrians. Including walkways to/from store entrances, landscaping, and lighting improves the pedestrian environment and encourages cross shopping.	City of Fargo zoning department, City of West Fargo zoning department, shopping center merchants	Low	Mid-term
Require and enforce Transportation Demand Management (TDM) for new developments. TDM strategies are key to shifting the demand for parking and beginning to shift modes to transit. While the Fargo region is dominated by car use, enforcing TDM measures will provide more people with more options when traveling, and begin to make driving an option as opposed to a necessity. TDM requirements for incoming developments might include, the presence of bicycle facilities, improved bus stops, pedestrian amenities, or discounted transit passes for employees. There are a wide array of TDM options, and this would work towards identifying an effective combination of strategies for each incoming development.	City of Fargo, City of West Fargo, major employers	High	Long-term
Allow development projects to include on-street parking to meet minimum parking requirements. On-street parking can increase the parking supply without increasing the parking footprint, while slowing traffic and creating a more pedestrian oriented roadway. We recommend that the Fargo region encourage the use of shared on-street parking, by allowing developments to count adjacent on-street spaces to meet their parking minimum, and that these spaces be shared with nearby buildings.	City of Fargo, City of West Fargo	Medium	Short-term

### FEE-IN-LIEU OF PARKING PROGRAM

Under a fee-in-lieu of parking program, a developer is given the choice to opt out of providing the minimum amount of parking required in substitution for a payment given to a governing entity. These funds can then be used towards alternative transportation initiatives, creating additional shared parking supply, or upgrading existing parking assets.

The rate of the in lieu fee varies from city to city. While some entities set fees-in-lieu on a case-by-case basis, most set a uniform rate for all incoming development. The majority of fee-in-lieu rates do not cover the full cost of providing a public parking space but aim to be high enough to pay for parking and low enough to attract development. Considering these factors, we recommend setting a uniform fee-in-lieu rate that is based on the cost to construct a surface parking lot in Fargo and West Fargo.

### Fee-in-lieu of Parking. Miami, FL

Miami's Coconut Grove allows developers to pay the City a flat rate or monthly payment in lieu of constructing the required amount of parking for a site. This money goes towards the City's public parking and other mobility efforts. Since the program was adopted, developers have opted out of approximately 1,000 spaces, generating approximately \$3 million in revenues. Funds from this program have been used to:

- Develop a 416-space garage with ground floor retail
- Fund a study for a downtown circulator shuttle
- Pursue landscaping improvements
- Install traffic control devices to improve parking and pedestrian access



Task	Parties Involved	Level of Complexity (low, medium, high)	Priority (short, mid, long)
Determine fee in-lieu of parking payment. The rate of fee-in-lieu payments reflects the cost of constructing a parking facility in the particular region. To gain an accurate understanding of this number, the City of Fargo and West Fargo should research local construction costs for surface lots and determine rate per space.	City of Fargo, City of West Fargo	Medium	Short-term
Create list of capital improvement projects that can be performed with additional funding based on feedback from developers and business owners. Many cities use direct feedback from the business and/or real estate community to guide how fee-in-lieu money is spent. This increases collaboration between the city and stakeholders, and incentivizes stakeholder to use this tool.	City of Fargo zoning department, City of West Fargo zoning department, developers, employers, merchants	Medium	Mid-term

### SHARED PARKING PROGRAM

Shared parking is crucial to creating a vibrant region; different land uses have different peak parking demands. Sharing parking among a daytime office building and adjacent restaurant for example, allows less parking to be built than if each entity had to construct its own parking. This results in less land being dedicated to parking and enables growth without exacerbating congestion problems. Building reserved parking for each individual building induces more vehicle trips on Fargo streets.

It is recommended that the City of Fargo and West Fargo takes steps that encourage the use of shared parking including variance alterations, establishing parking management districts around key commercial nodes, and encouraging the use of on-street parking.

### **Shared Parking Districts. Montgomery County, VA**

Montgomery County has established several parking management districts that correspond with commercial nodes or central business districts. In each city, a shared parking program has been developed and is part of a long-term strategy to offer parking as a shared resource. City officials have found that financial lenders are more accepting of shared parking when these districts are established, which has worked successfully promoting mixed use and more dense development patterns in these areas.





### **Shared Parking with Private Entities. Omaha, NB**

Omaha's parking system includes a Partners program which provides a user-friendly, online process for property owners to offer their unused spaces, at a specified schedule, to the Park Omaha network through a shared parking agreement.

The process begins with an online application. Partner locations are added to the Park Omaha interactive map and includes information on location and hours of operation. Park Omaha identifies these facilities, as "partner" facilities, and distinguishes them from Park Omaha facilities, in its maps and information materials. As Partner facilities, private lots are given official (copyrighted) signage/iconography with a distinct logo that identifies them as part of the Park Omaha network.

ark Omaha	OFF-STREET ON-STREET SE
Interested in becoming a	a Park Omaha Partner?
If your residential or business building	ng has unused parking spaces (for example after 5 p.m.
or on weekends) and you would like	to be part of the shared Park Omaha Partner program,
fill out the form below or call City of	Omaha Parking Division at 402-444-PARK to learn more.
NAME OF FACILITY	
LOCATION OF FACILITY*	
TYPE OF FACILITY *	
AVAILABILITY*	
How many spaces will you have a	available for public parking?
HOURS/RATES*	

### SHARED PARKING PROGRAM: NEXT STEPS

Task	Parties Involved	Level of Complexity (low, medium, high)	Priority (short, mid, long)
Eliminate zoning stipulations that require developers to obtain a conditional use permit to share parking. Parking utilization surveys reveal that City of Fargo and West Fargo both have excess parking supply, however 14 CUPs applications were presented to Fargo's City council since 2015. It is recommended that Fargo and West Fargo eliminated the need to obtain a CUP to share parking, and instead present a written agreement to Council.	City of Fargo, City of West Fargo	Medium	Short-term
<b>Establish Shared Parking Districts.</b> Creating Shared Parking Districts would provide a boundary in which tenants would be able to share parking with one another, and use these assets to meet their minimum requirement. To pursue this, both cities should identify and prioritize nodes with a 1/2-mile to 1/4-mile radius and begin to draft zoning stipulations that would promote this type of development.	City of Fargo, City of West Fargo	Medium	Mid-term

### **Development Prototypes**

To translate how Street Types and their associated access guidelines can set a successful and connected development pattern, three prototypes were developed. These prototypes illustrate how each of the roadway typologies should be accessed by different land uses, while incorporating parking in a shared and effective manner. These prototypes are meant to be used as guidelines to reference when approving building permits, initiating parking policy changes, or constructing new roadways.

The following prototypes represent three land use typologies, with key features highlighted throughout:

- (1) commercial
- (2) mixed use
- (3) residential

The dimensions of the blocks and buildings included in each prototype, were derived from existing land uses throughout the region to ensure that these models are aligned with the regions market and preferences.









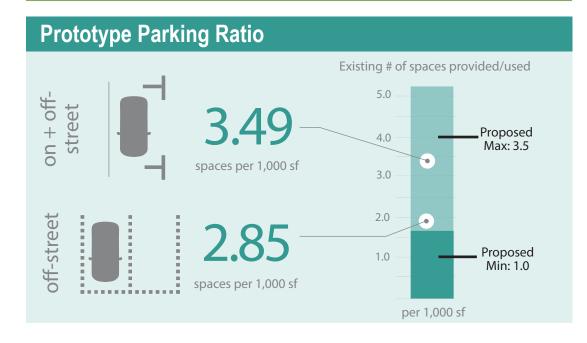
### **Commercial Prototype**

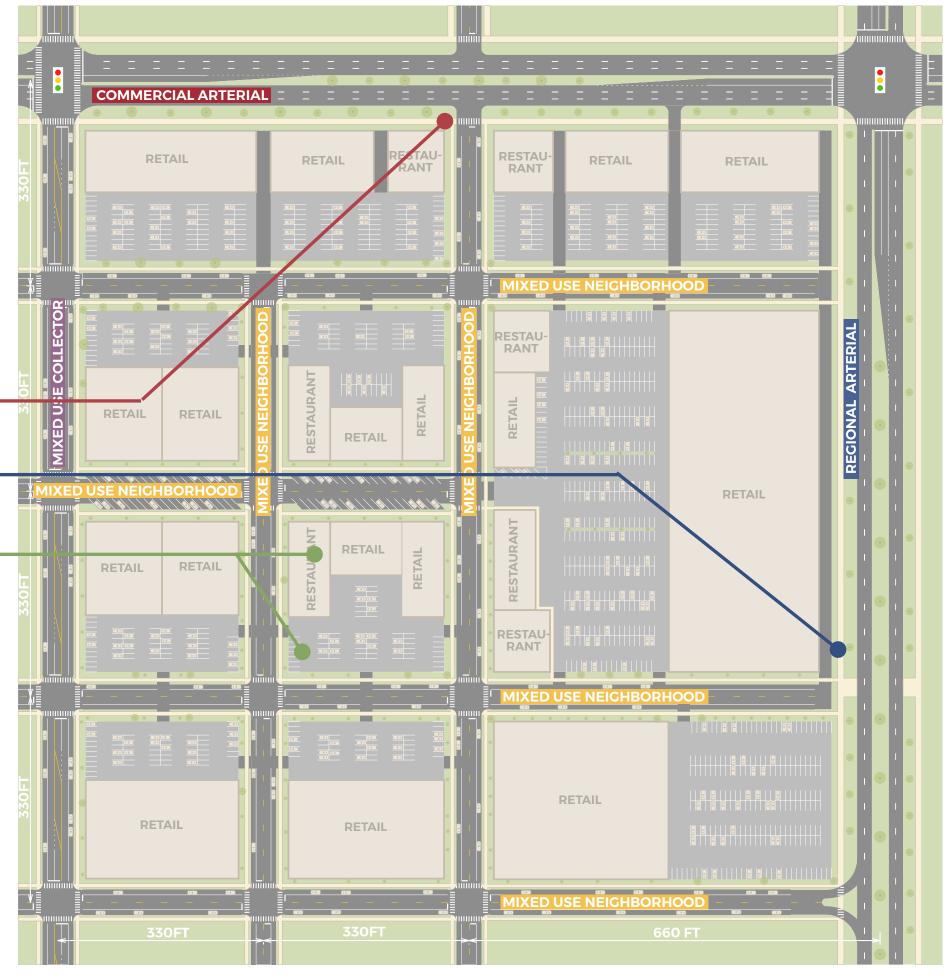
The framework presented here on this ¼-mile by ¼-mile tracts uses regular block sizes to set a walkable grid pattern with sidewalks and plentiful on-street parking to reduce the need for large surface parking lots. Shared parking fields are made feasible by slow traffic speeds and safe pedestrian crossing points. Building fronts are generally oriented toward the street. This development illustration is bordered by a Regional Arterial, which allows only stringent right-in/right-out vehicular access, so neighborhood connections are maintained with sidewalks and grade-separated pedestrian crossings.

Access points managed along the arterial streets while still allowing for a connected, walkable grid

Grade-separated pedestrian crossings needed along **Regional Arterial to connect neighborhoods** 

Shared surface parking lots increase the efficiency of the parking pool and encourages walking





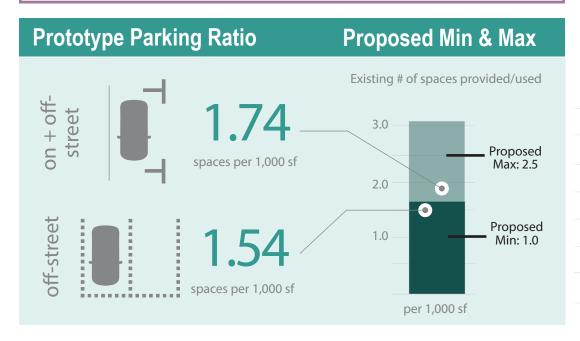
### **Mixed Use Prototype**

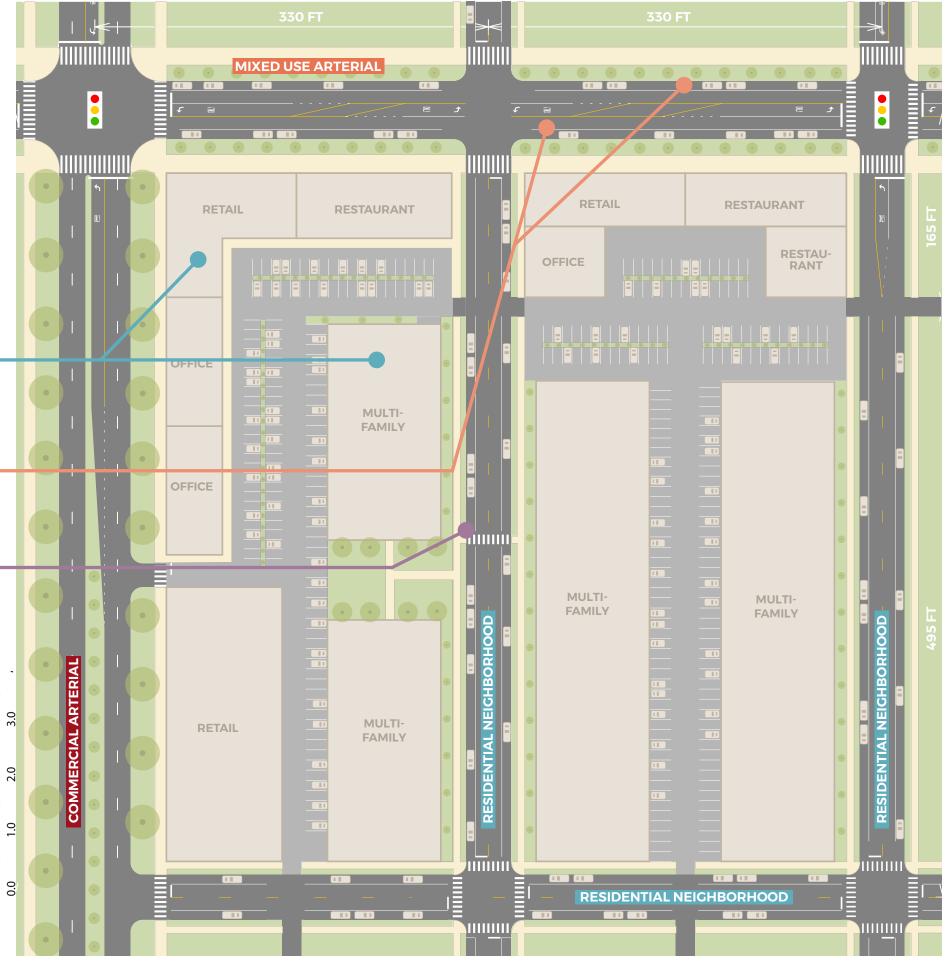
The framework presented here on this 1/8-mile by 1/8-mile tracts assumes typical blocks at the intersection of a Commercial Arterial and Mixed Use Arterial. The commercial and residential uses are connected with sidewalks to encourage walking trips. Plentiful onstreet parking is provided along the Mixed Use Arterial street, as well as the Residential Neighborhood streets, to slow traffic and create a buffer for pedestrians. Building fronts are generally oriented toward the street with parking in the rear.

Retail, office, and mixed use buildings are oriented towards the arterial streets and residential buildings are oriented toward the Residential Neighborhood streets. Underground or 1st floor residential parking is assumed.

On-street parking on the Mixed Use Arterial street supports businesses, reduces the off-street parking footprint, and calms traffic

Sidewalks and crosswalks encourage walkability between blocks.





### **Residential Prototype**

The framework presented here on this ¼-mile by ¼-mile tracts uses regular block sizes to set a walkable grid pattern even though a Regional Arterial borders the site and limits street connections. Neighborhood connections are maintained with sidewalks and signalized/grade-separated pedestrian crossings. Multi-family housing and mixed use buildings are oriented along the Regional Arterial and Commercial Arterial streets, respectively, while single-family homes front the Residential Neighborhood streets. Interior residential parking garages eliminate the need for a separated, covered garages.

Multi-family residential parking is shared with retail land uses during non-peak hours. Enclosed row garages may be appropriate along the Regional Arterial.

Multi-family residential buildings are oriented away from the Regional Arterial, with surface parking facing the corridor.

Access to driveways, on-street parking, and crosswalks slow traffic and encourage walking.

