1. 5:00 P.M. PUBLIC SAFETY AGENDA, FEBRUARY 4, 2021

Documents:

2021 02 AGENDA PACKET.PDF

AGENDA FOR A REGULAR MEETING OF THE
PUBLIC SAFETY COMMITTEE OF THE COMMON COUNCIL OF THE CITY OF HUDSON
COUNCIL CHAMBERS OF CITY HALL, 505 THIRD STREET
5:00 p.m. February 4, 2021

Join Zoom Meeting

https://us02web.zoom.us/j/86435599314?pwd=YXVTejg3Zkk4RHJ5Qkk0bmUralhlUT09

1. Roll Call.
2. Minutes of The Regular Meeting, January 7, 2021.
3. Discussion and Possible Action on Proposal for Additional Police Officers.
4. Discussion and Possible Action on Street Sign Requests and Installation Policy.
5. Discussion and Possible Action on Traffic Safety on Eleventh Street between Vine Street and Saint Croix Street.
6. Informational Items.
7. EMS/Fire Department/Police Department Updates.
8. Other Items for Future Agendas.
9. Adjournment.

CC: Mayor O'Connor; Aaron Reeves
Alderperson Alms; Alderson Hall; Alderperson Morrissette
Chief Willems: Chief St. Martin; Public Works; City Clerk; Jon Muller
Chamber of Commerce; Cable TV; Star Observer; Hudson Patch; Lobbies

Posted in City Hall lobbies and the Public Safety Building, delivered to Star Observer and Committee members: 02/02/21

Notice is hereby given that a majority of the City Council may be present at the meeting of the Public Safety Committee to gather information about a subject over which they have decision-making responsibility.
This constitutes a meeting of the City Council pursuant to **State ex rel. Badke v. Greendale Village Bd., 173 Wis.2d 553, 494 N. W. 2d 408 (1993)**, and must be noticed as such, although the Council will not take any formal action at this meeting.

CITY OF HUDSON
PUBLIC SAFETY COMMITTEE
January 7, 2021

PRESENT: Alderpersons Hall and Morrissette.

ABSENT: Alderperson Alms

ALSO PRESENT: Chief Geoff Willems, Chief Scott St. Martin, Dean Chamberlain, Bridget Murphy, Ruth Peterson, Evy Nerbonne, Jim Perucca, and Melanie Herberg.

A copy of the agenda was posted in City Hall lobbies, delivered to the Hudson Star-Observer, and mailed to committee members on January 5, 2021.

Alderperson Morrissette called the meeting to order at 5:00 p.m. via Zoom.

MINUTES OF THE NOVEMBER 12, 2020 REGULAR MEETING: MOTION by Hall, Second by Morrissette to approve the minutes of the November 12, 2020 regular meeting. MOTION CARRIED.

DISCUSSION AND POSSIBLE ACTION REGARDING HUDSON HOT AIR AFFAIR, FEBRUARY 5-7, 2021: Peterson stated that the Moon Glow and Field of Fire will be drive through events. She pointed out the provided map and stated that they will have directional signage and officers posted for traffic control. Nerbonne stated the Fat Tire bike event is a different organizer and was certain they had their own insurance. Neither EMS nor the Fire Department had any concerns with the event. Hot Air Affair Committee will continue to work with Willems.

MOTION by Hall, SECOND by Morrissette to designate the Hudson Hot Air Affair as a Community Event. MOTION CARRIED.

DISCUSSION AND POSSIBLE ACTION ON LIGHTING AND CROSSWALK SAFETY ON VINE STREET AT DIAMOND DRIVE: Hall stated that she had a close encounter with a pedestrian in the crosswalk. She stated the lighting wasn't sufficient and that the blinking crosswalk lights were not on. Chamberlain stated that the light is on the southwest corner and the crosswalk is on the northeast and southeast corners. He stated that it could be lit better and estimated the cost to move the light would be ~$10-$15K. He further stated that the light belonged to Xcel Energy. Morrissette asked him to reach out to them partner on moving the light. The other issue is that a pedestrian has to activate the blinking lights by pressing the buttons, both of which are easily accessible. He stated that this intersection isn't in the CIP. At some point, it will need to be reconstructed for ADA compliance. He stated that would be the best time to make improvements.

MOTION by Hall, SECOND by Morrissette to forward the issue to Public Works. MOTION CARRIED.

INFORMATIONAL ITEMS: None.

EMS/FIRE DEPARMENT/POLICE DEPARTMENT UPDATES:

Bridget Murphy stated that the call volume was higher than projected. EMS staff received COVID vaccines last week. They are seeing a decline of COVID cases in hospitals and EMS runs.

Fire Chief Scott St. Martin stated they have been busy. They had a couple people out with COVID. There were two sprinkler saves in commercial buildings recently, indicating that the sprinklers activated as they should. They expect to on-board four or five new firefighters in the next couple of months.

Police Chief Geoff Willems stated they and their law enforcement partners are prepared for extra presence with Minnesota opening bars and restaurants but closing at 10:30 p.m. Police are in group 1B for COVID vaccines which should be available soon. The department has had a case of COVID about every four weeks, but recently five were out with it. One officer is on light duty with an injury. Morrissette asked Willems to present a plan at an upcoming Public Safety meeting to increase the police force.

OTHER ITEMS FOR FUTURE AGENDAS: East Canyon Drive when Alms is present.

ADJOURNMENT: MOTION by Hall, SECOND by Morrissette to adjourn. MOTION CARRIED.

Meeting adjourned at 5:44 p.m.

Minutes by Melanie Herberg.

CITY OF
HUDSON

SUBMITTED TO: Public Safety Committee
DATE: January 27, 2021
SUBMITTED BY: Chief Geoff Willems
REGARDING: Proposal for additional officers

BACKGROUND: Over the past year, with all the events of 2020, I have received several requests regarding how many more officers the Hudson Police Department needs to adequately respond and provide the required services to the City. I have attached information regarding these discussions to this issue sheet. I have also attached a Market Analysis study from 2019 for the City of Hudson.

STAFF RECOMMENDATION:

COMMITTEE RECOMMENDATION

Additional Police Officers for 2021

I have been asked several times in the past few weeks how many officers the City would need to get the Police Department where it needs to be. That is a question that is not easily answered in a statement or in a sentence. The FBI and the WI tax payers alliance recommend 1 officer for every 500 in population for a small City. But those numbers are recommendations that do not take into account the actual service population for a given City. The City of Hudson is very different than the City of Menomonie, River Falls, or New Richmond. The City of Hudson draws people from a large radius due to the big box stores, bars, and restaurants that are not available in these other communities. Currently, the estimated population of the City is between 14,000 and 15,000 residents. Our current sworn staff is at 28, which would be right on par for 14,000. However, just north of the City is the Village of North Hudson that has an additional 4,000 people.

According to the latest traffic analysis for the DOT, over 87,000 vehicles travel on I-94 through Hudson on a daily basis. 20,000 of those vehicles exit and travel on Carmichael Road. 34,000 vehicles travel south of I-94 on Carmichael Road per day. 16,700 cars travel on Crest View Drive and another 15,000 vehicles travel through downtown Hudson on a daily basis.

In addition to that, the Market Analysis study performed for the City indicates the market area population for Hudson to be at 64,171 people in 2019. Within this study, they used cell phone data to determine the home location to visitors in the City of Hudson. The heat maps show vast populations from Somerset, New Richmond, Roberts, Hammond, River Falls, Lakeland, MN, Woodbury, MN and St. Paul, MN do an extraordinary amount of business within the City. What the study says, to me, is that the City really serves a population of over 64,000 people.

Currently, the police department has 2-5 officers working at any point during the day as far as regular staffing available to handle calls for service. In 2020, the department handled over 14,000 calls for service. That averages out to be 38 calls for service per day. Keep in mind, this was in 2020 when COVID shutdowns lasted almost three months and our calls for service volume during that time really went down.

The City of Hudson has also become a hotbed so to speak for activity as far as rallies, marches, political events as well as regional social events. Whether this is because its an attractive area, or because it is only 15 miles down the Interstate from the City of St. Paul, or whether it is simply because it is centered between the likes of other St. Croix County Communities, Hudson is a popular destination for scores of people, for a variety of reasons. One of the largest requests from our department to do better in is community relationships and engagement. With our current staffing, it is nearly impossible to dedicate the appropriate time to community engagement. Additional officers would help us be able to fill our shifts with patrol officers as well as allow for some extra time to be able to commit to the public through adding to our community outreach programs such as national night out and the citizens police academy, shop with a cop, internship programs etc, and be able to add to it with neighborhood meetings and additional relationship building practices.

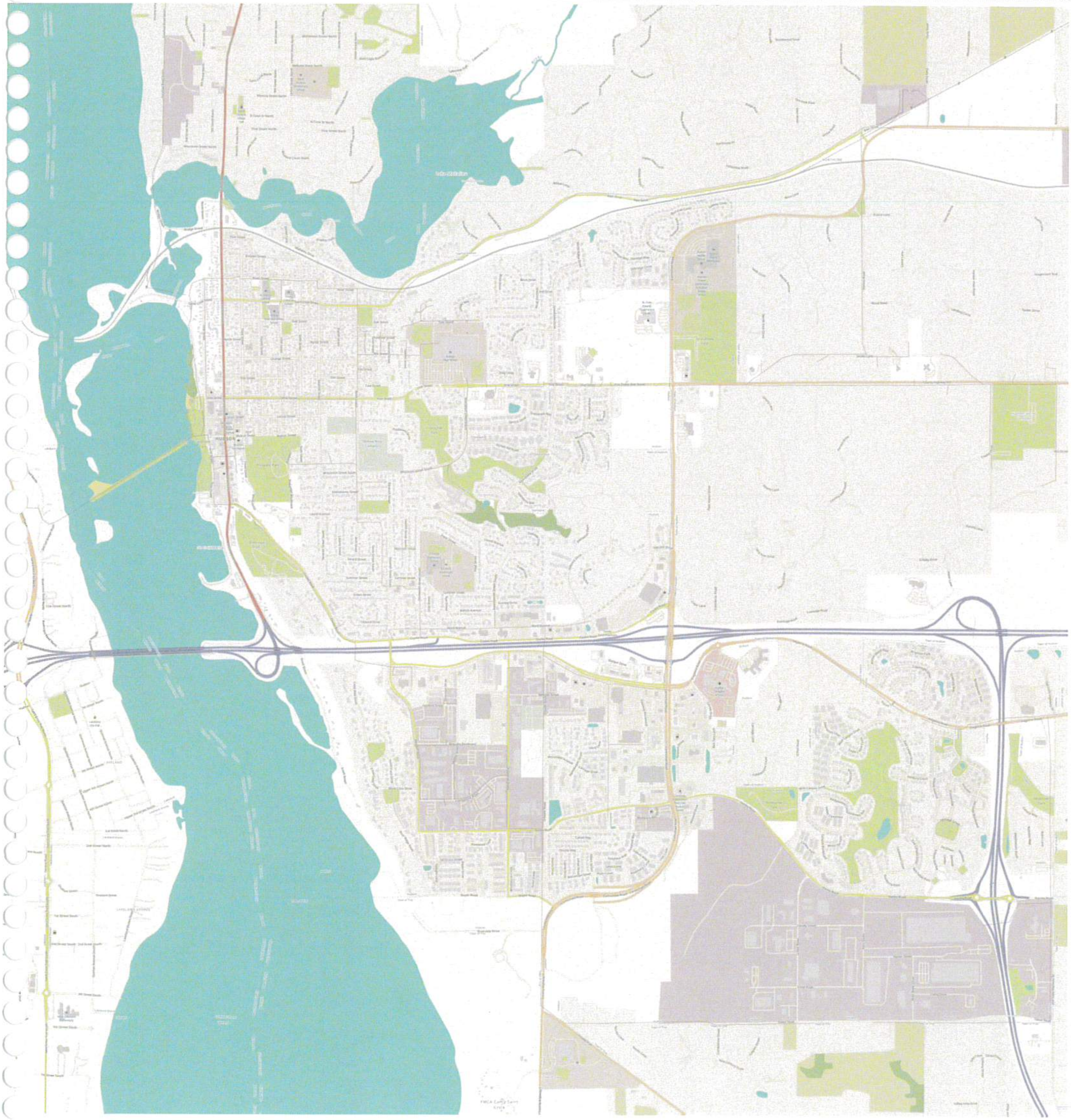
Several times during 2020, with the civil unrest right across the river, to the droves of Minnesotans flooding to Hudson for our dining and entertainment, our department was overwhelmed to the point we needed to call in extra resources from several other communities. The police department is not adequately staffed to handle these large-scale events alone. While it is a nice benefit to rely on our regional law enforcement partners, it is not realistic to think those resources will always be available.

2020 was an extraordinary year, but some of the things we experienced in 2020 I do not think will be an anomaly. Hudson is on the map and is in high demand for people to move here. They will bring their expectations with them.

In order to keep up with the demands and the growing community, the City would need to add 2-4 officers in 2021 and very likely add 1-2 additional officers as the community and the City continues to develop and grow.

MARKET ANALYSIS

CITY OF HUDSON, WISCONSIN



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Place Dynamics

November 2019

INTRODUCTION

Hudson is one of Wisconsin's gateway cities, straddling Interstate 94 at the state line with Minnesota. The city is only 20 miles from downtown St. Paul, and much less from the urban fringe. Both St. Croix County (in which Hudson is located) and Pierce County, in Wisconsin, are part of the Minneapolis – St. Paul Combined Metropolitan Statistical Area, the nation's 14^{th}-largest, with a population of over four million persons.

The City's location has made it an attractive community for both commuters and for growing businesses with a presence in the Minneapolis – St. Paul market. The City is estimated to have grown by 10.8 percent since the 2010 Census. That pace puts it in the top three percent of Wisconsin communities. Meanwhile, St. Croix County is the third-fastest growing county in the state. The City was estimated to have 14,094 residents on 1 January 2019.

Continued population growth and economic expansion are anticipated over the next decade. This study is intended to forecast that growth to lend insight to the City's Comprehensive Plan. The study specifically looks at the residential, commercial, and employment sectors within the community. The analysis finds continuing opportunities for development of all types. Housing needs include condominiums and similar products targeted to an aging population that is looking to downsize and move into homes with fewer maintenance requirements, but which could still be considered upscale. Entry-level detached homes and high-end apartments are also needed to meet market demand.

The city can attract new retail and dining uses to both its highway commercial strips and in its destination downtown district. Within the downtown, this offers the opportunity to redevelop with more intensive use of the available space. Other areas of the city will be attractive to chain businesses, with available space being the principal limitation.

There is demand to support up to 50,000 square feet of new office and industrial space per year. The recommended approach is to focus on flex space that can be divided and configured to suit either need, recognizing the changing composition of the economy and the growing number of small businesses in the area. Some of this need will be met by home-based businesses, and the City may consider a review of its ordinances and policies to facilitate these uses.

AREA OVERVIEW

The City of Hudson is located in St. Croix County, one of two Wisconsin counties that are part of the Minneapolis – St. Paul Combined Metropolitan Statistical Area (also referred to as the Twin Cities). Hudson is located on the eastern side of the St. Croix River, both north and south of Interstate 94. All or part of three interchanges lie within the city. From west to east, the 2nd Street interchange leads north to the downtown district, Carmichael Road offers access to the city's primary commercial districts north and south of the interstate, and State Highway 35 is a limited access highway skirting the city's eastern edge and leading south to River Falls.

COMMERCIAL AREAS

The city's primary commercial district stretches along Carmichael Road and two roads fronting the interstate; Crestview Drive on the south and Coulee Road on the north. This commercial area is anchored by Menards, Home Depot, Walmart, Fleet Farm, Country Market, and car dealerships south of the interstate. Target is located to the north. There are a large number of smaller chain and independent stores, fast food and full service restaurants, and other commercial uses in both areas.

The attractive downtown district contains a large number of restaurants along with specialty retail and services. Attractions in the district include the St. Croix Marina, a lakefront park, and the Phipps Center for the Arts. Most of these are unique, independently-owned businesses, and the district has found some success marketing itself as a shopping, dining, and entertainment or recreation destination for those living in the Twin Cities market.

A small number of commercial businesses are found elsewhere in the city or in the surrounding towns. Several nearby communities offer competition.

- Stillwater (Minnesota) lies only about eight miles or 15 minutes north, by road, and has a larger concentration of chain retail including a Walmart Supercenter, Menards, Lowe's, Kohl's, TJ Maxx, Cub Foods and others. Its downtown is also positioned as a destination district with unique shopping and dining.
- New Richmond (Wisconsin) is 20 miles or 25 minutes northeast. Although it has a smaller concentration of commercial businesses than does Hudson (there is a Walmart Supercenter), the city is closer to Stillwater and its larger number of retail businesses.
- Menomonie (Wisconsin) is 45 miles east. As a larger community, it has a larger concentration of commercial businesses than are found in Hudson.
- River Falls (Wisconsin) is twelve miles and 15 minutes south. The city does have a grocery store (Family Fresh Market) and until recently had a Shopko, which closed when the chain was liquidated in 2019.
- Further south, Hastings (20 miles) and Red Wing (35 miles) also have specialty downtown districts that will draw visitors. Red Wing is the stronger of the two. It also has a Walmart Supercenter, Menards, and Target that will draw customers living south of River Falls.

- Directly west, toward St. Paul, it is only ten miles or ten minutes to the first large commercial center at Keats Avenue, in Woodbury. Here there is a Walmart Supercenter, Target, Sam's Club, HomeGoods, JC Penney, Home Depot, Nordstrom Rack, and many specialty stores and restaurants not found in Hudson or other communities in the region. More than others, this commercial district presents the most direct competition for commercial businesses in Hudson.

Hudson does have a couple advantages relative to some of its competitors. Its location along the interstate does position it to capture traffic headed to or from the Twin Cities, including commuters or even those who may be heading into the metropolitan area to shop. Additionally, Wisconsin has a lower sales tax. There is a 7.125 percent sales tax in most nearby Minnesota communities, while shoppers pay only 5.5 percent in Hudson.

There are limited opportunities for new development in the city's commercial districts. Currently, only a single, one-acre lot is listed in the Carmichael Road area. This is priced at $149,000. There are two commercial buildings listed for sale. Both are fully leased. Seven buildings (storefronts or offices) are listed for rent, ranging from 1,000 to 3,000 square feet. Lease rates fall between $14 and $18 per square foot, triple net.

INDUSTRIAL AREAS

There are two large industrial areas within Hudson. The older of these is located south of the interstate and east of Heggen Street. The newer area, the St. Croix Business Park, is along State Highway 35, between Tower Road and Hanley Road. Developed by the City of Hudson, it has about twelve lots remaining to be developed, ranging from about one to seven acres. Two of these, adjacent parcels, are listed on LoopNet at $550,000, or about $100,000 per acre. LoopNet and other common commercial real estate listing sites only identify two spaces available to lease, at about $5 to $6 per square foot, triple net.

RESIDENTIAL NEIGHBORHOODS

Hudson is not alone among western Wisconsin municipalities in experiencing rapid growth from the expanding Twin Cities metropolitan region. The adjacent towns have attracted a great deal of large lot residential development that now borders the city on all sides. These are mostly large single-family, detached homes on five or more acres. Most multifamily housing and small lot residential development has been within the city. While a few lots remain in platted subdivisions, there are no more large sites left to be developed within the city. This does not preclude the opportunity for redevelopment and small-scale infill.

DEMOGRAPHICS

The City and St. Croix County have similar demographic characteristics. Both are largely homogenous areas with an overwhelmingly white, non-Hispanic population. The adult population tends to be well educated with a solidly middle-income profile.

CHARACTERISTICS OF THE POPULATION, HOUSEHOLDS, AND HOUSING

	ST. CROIX COUNTY		CITY OF HUDSON	
	2010	2017	2010	2017
Total population	84,345	87,142	12,719	13,456
Median age	36.1	38.3	35.4	36.0
Percent white	95.9	96.2	94.8	94.7
Percent Hispanic	2.0	2.3	2.7	3.1
Median household income	$67,446	$77,768	$60,458	$69,065
Below poverty level		4.8		7.0
Labor force participation	76.0	72.9	72.2	71.7
Unemployment rate		2.4		2.7
Bachelor degree or higher		34.0		43.8
Total households	31,799	33,389	5,287	5,656
Average household size	2.63	2.58	2.36	2.34
Total housing units	33,983	35,152	5,642	5,909
Percent vacant	6.4	5.0	6.3	4.3
Homeowner vacancy rate	1.9	0.6	2.0	0.6
Rental vacancy rate	8.8	3.1	8.5	1.9
Owner occupied	77.8	75.7	65.0	59.8
Renter occupied	22.2	24.3	35.0	40.2

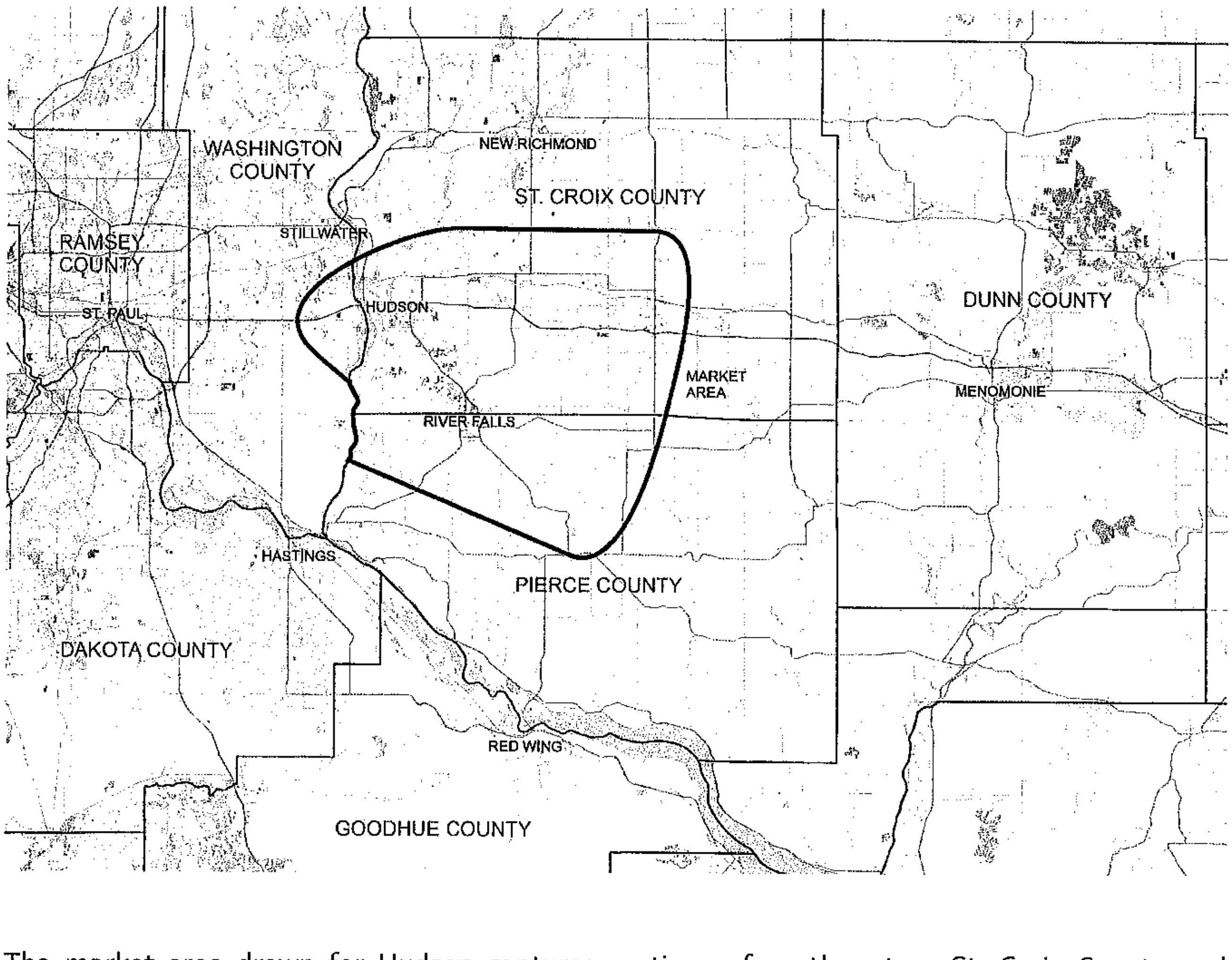
ECONOMY

Hudson has a healthy economy that is fueled by its proximity to the Twin Cities, and gateway location along Interstate 94. While there is a perception that companies expanding from the Twin Cities have fueled growth, in fact, local startups and expanding businesses have contributed the majority of new establishments and employment in the city. Sectors leading that growth include construction, professional, scientific, and technical services, administrative support and waste management services, and health care and social services.

MARKET AREA

The housing and commercial market analyses are based on a market area (trade area) from which the City of Hudson is drawing much of its demand. This area has been defined based on factors including geography, transportation patterns, workforce, and competition. Of these factors, competition is the most influential. In all directions, Hudson is surrounded by other communities – Stillwater, New Richmond, Menomonie, Red Wing, Hastings, and the eastern suburbs of St. Paul – in which there is a similar or stronger set of competing businesses. Potential customers living in these areas are more likely to shop nearer to their home, or when needing access to a higher order of goods and services, travel into the larger metropolitan area.

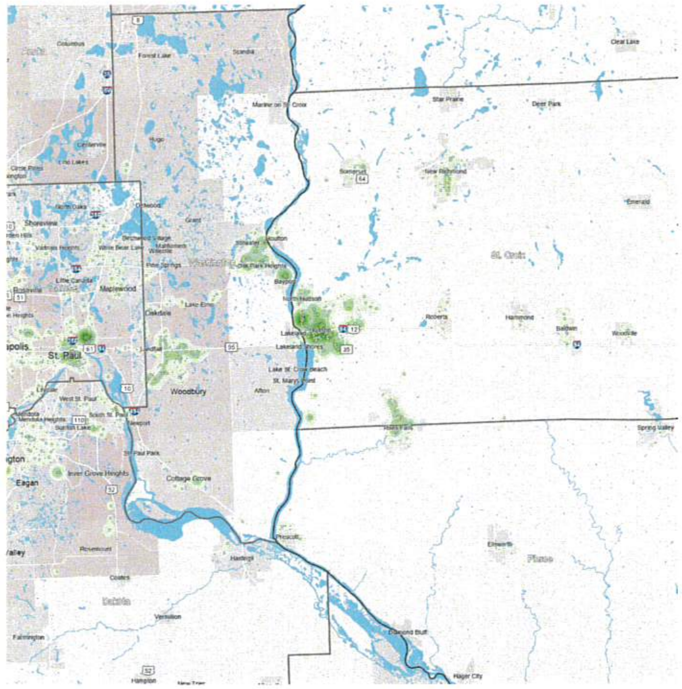
THE CITY OF HUDSON'S MARKET AREA



The market area drawn for Hudson captures portions of southwestern St. Croix County and northwestern Pierce County, along with a part of eastern Washington County in Minnesota. Analysis of the City's work force shows that it is not pulling significant numbers of workers from areas to the south or west, and New Richmond and Stillwater have commercial sectors comparable to Hudson, so that there would be few reasons to leave one of these communities to patronize Hudson businesses.

Still, the market area is not the sole source of business traffic. Those employees from other areas will make purchases during their work day. Some traffic passing through the city, particularly along Interstate 94, will stop at local businesses. Other customers may travel to the city to visit a specific business. As a result, it is estimated that the market area represents only about 70 to 80 percent of the sales potential available to the city's businesses.

ORIGINS OF HUDSON'S WORKFORCE



The same market area was used to examine potential demand for housing. The argument for using this larger area, rather than the city boundary, is that there will generally be movement within an area as people migrate from one home or housing type, to another. In this market, that change might be illustrated by an aging household moving from a large single family home in an adjacent town, to a condominium in the city. Using the larger market area can help to identify demographic trends suggesting new housing needs that might not be apparent from only considering the city.

MOBILE DATA ANALYSIS

A sample of mobile phone data was used to develop a better understanding of the market area and how customers are visiting the city's primary shopping district. This information is collected as cellular phones "ping" cell towers in the area. That "ping" records the time of day and home location of the phone. The data were collected for an area along Carmichael Road including Walmart, Home Depot, Country Market, and other retail businesses, restaurants, and hotels in the immediate area. The interstate was deliberately screened out to avoid recording phones that merely passed through without stopping.

The mobile phone data confirms the selection of Hudson's market area. When all of the data is mapped, it is clear that the majority of visitors to the selection area originate within Hudson and River Falls, with lesser numbers from points east and west, along with New Richmond. It is further possible to screen the data to select only those phones that are recorded on multiple days during the years. When this is done, far fewer visitors are shown to originate in areas other than Hudson and River Falls.. This is especially true of visitors from the Minneapolis-St. Paul area.

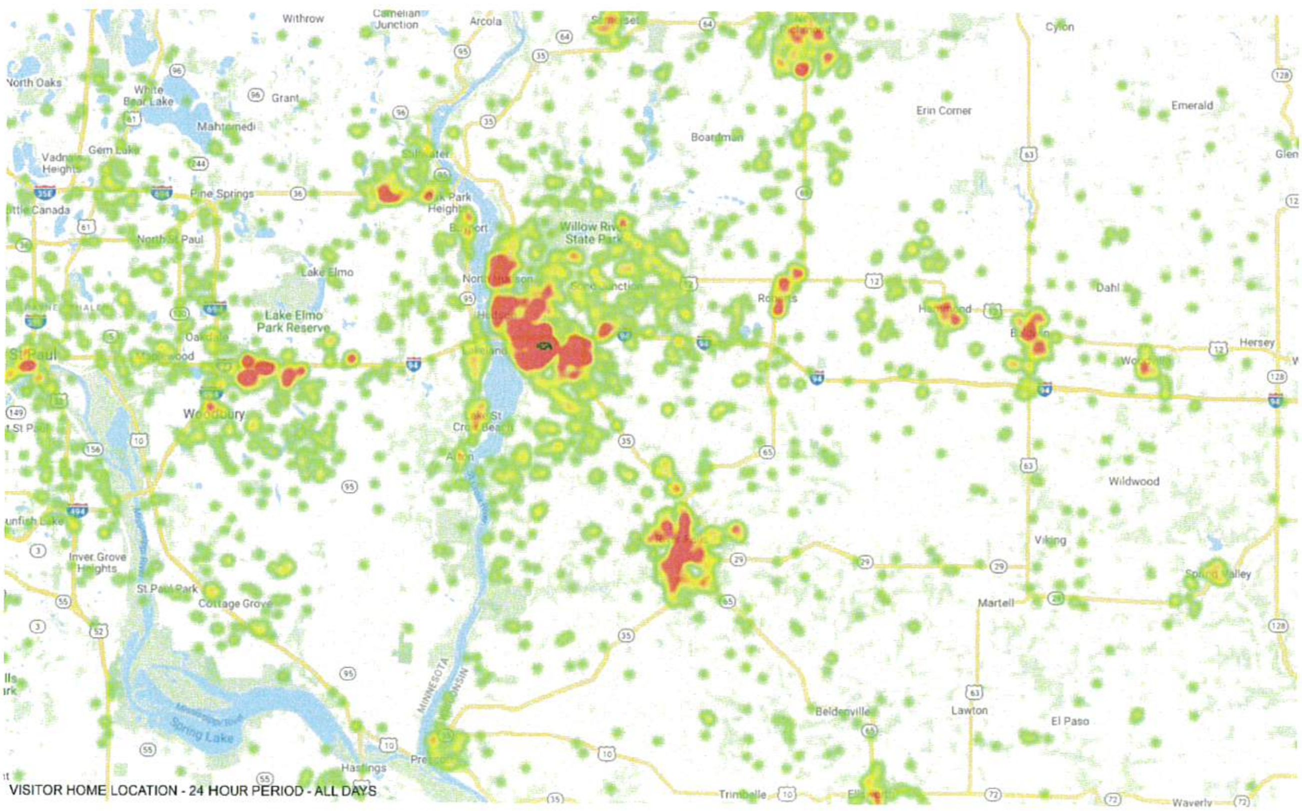
The area from which visitors originate varies by day of the week. There is a greater draw on weekdays, which would be consistent with work-related traffic, whether that reflects commuting or workers who may shop or visit restaurants during the work day. Weekend traffic falls off significantly. This can be seen in two sets of maps. The first is are heat maps demonstrating the concentration of home locations. The second set shows the "path to purchase", or the location of the phone one hour prior to its entry into the selection area. This helps to visualize the relative importance of routes that people are taking to get to the selection area.

Traffic to the selection area increases through the day. The morning, from 6:00 AM to 11:00 AM, sees the fewest visitors. There is an increase around lunch time (11:00 AM to 2:00 PM) and that level of traffic remains consistent through the afternoon hours. Traffic increases dramatically with the evening commute and dinner and early evening hours, from 5:00 PM to 8:00 PM. This information reinforces the importance of having evening business hours, as many residents commute to jobs outside of the area and may only have evening hours available to visit Hudson businesses.

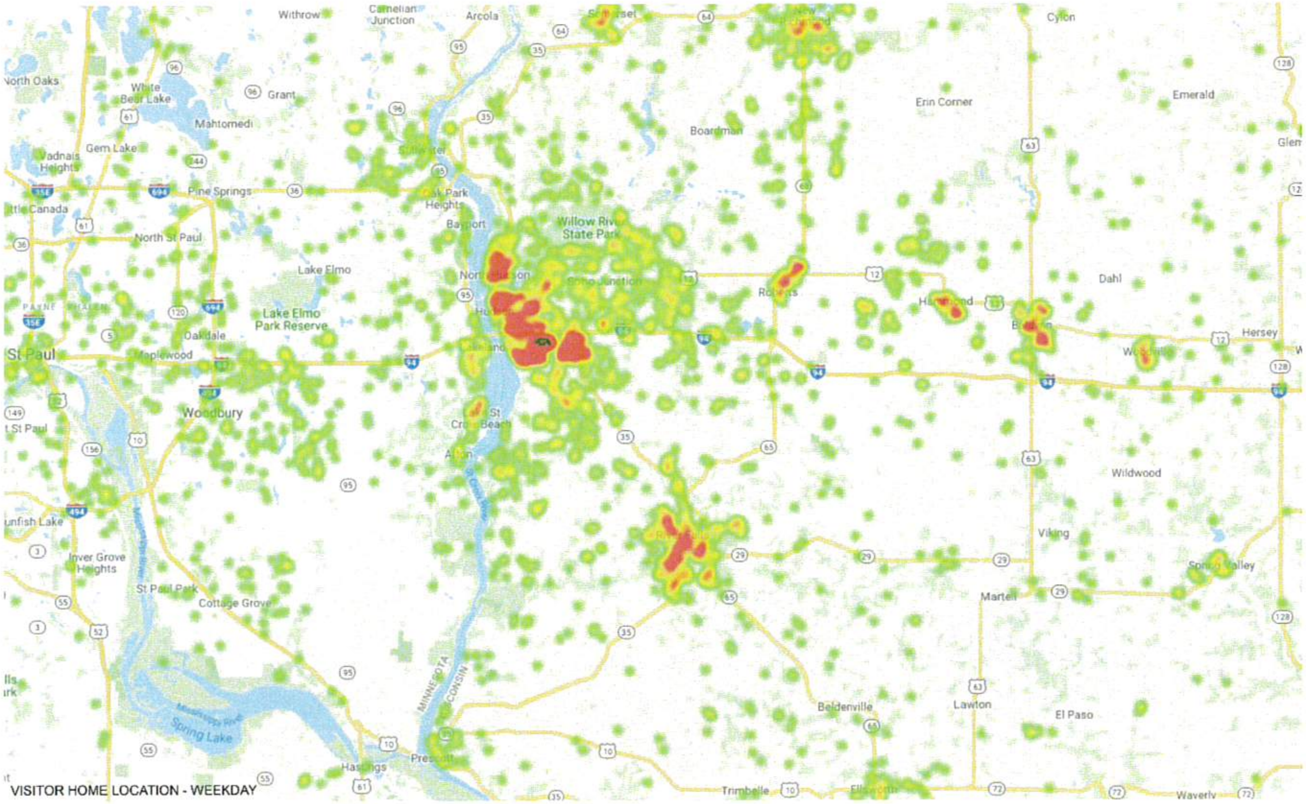
While varying depending on the individual business, the data may point to general strategies for commercial business expansions. These might include:

- Marketing within Hudson and adjoining towns, River Falls, and small communities to the east to reinforce the existing market.
- Targeting selected locations for increased market penetration, such as New Richmond and the eastern fringe of Minnesota, highlighting Wisconsin's sales tax advantage.
- Targeting the workforce commuting into the area for purchases during the week day.

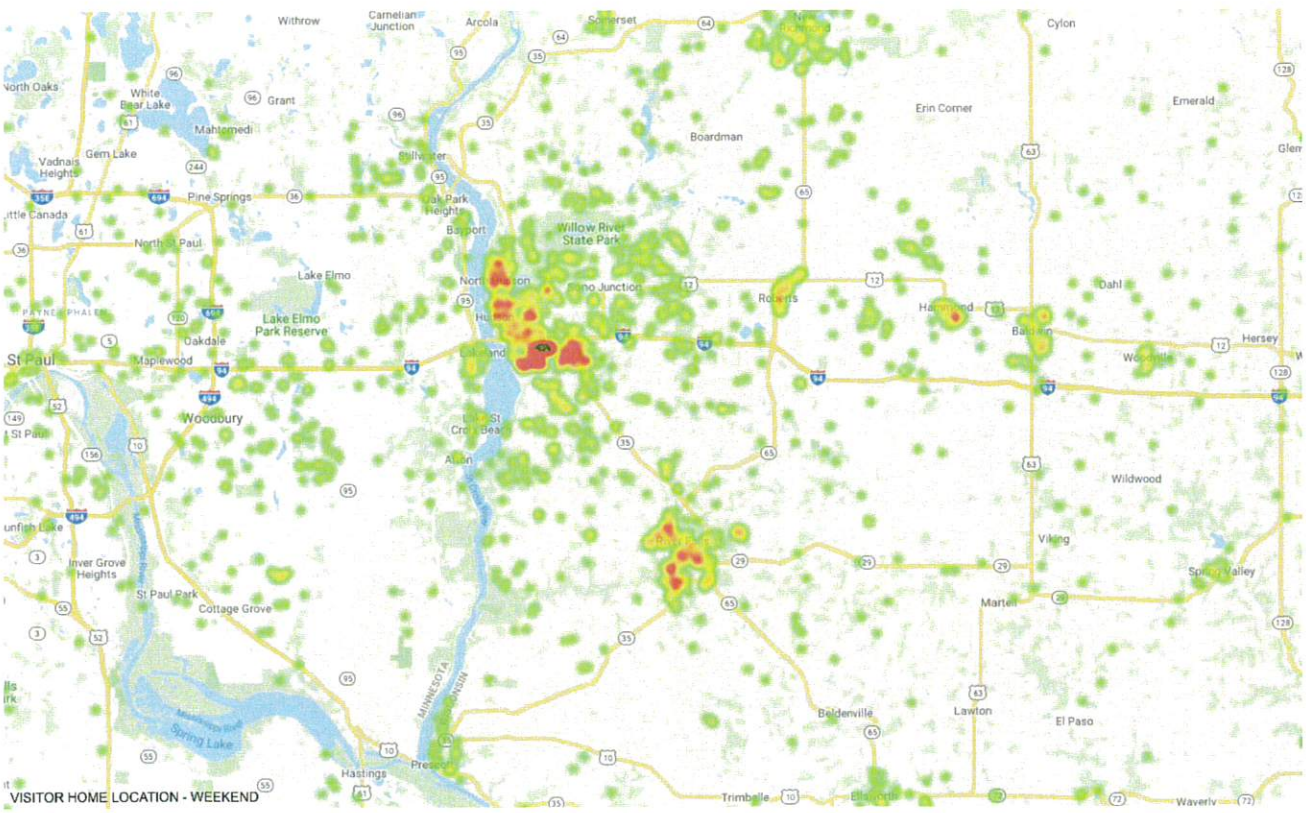
MOBILE PHONE HOME LOCATIONS – ALL DAYS AND TIMES



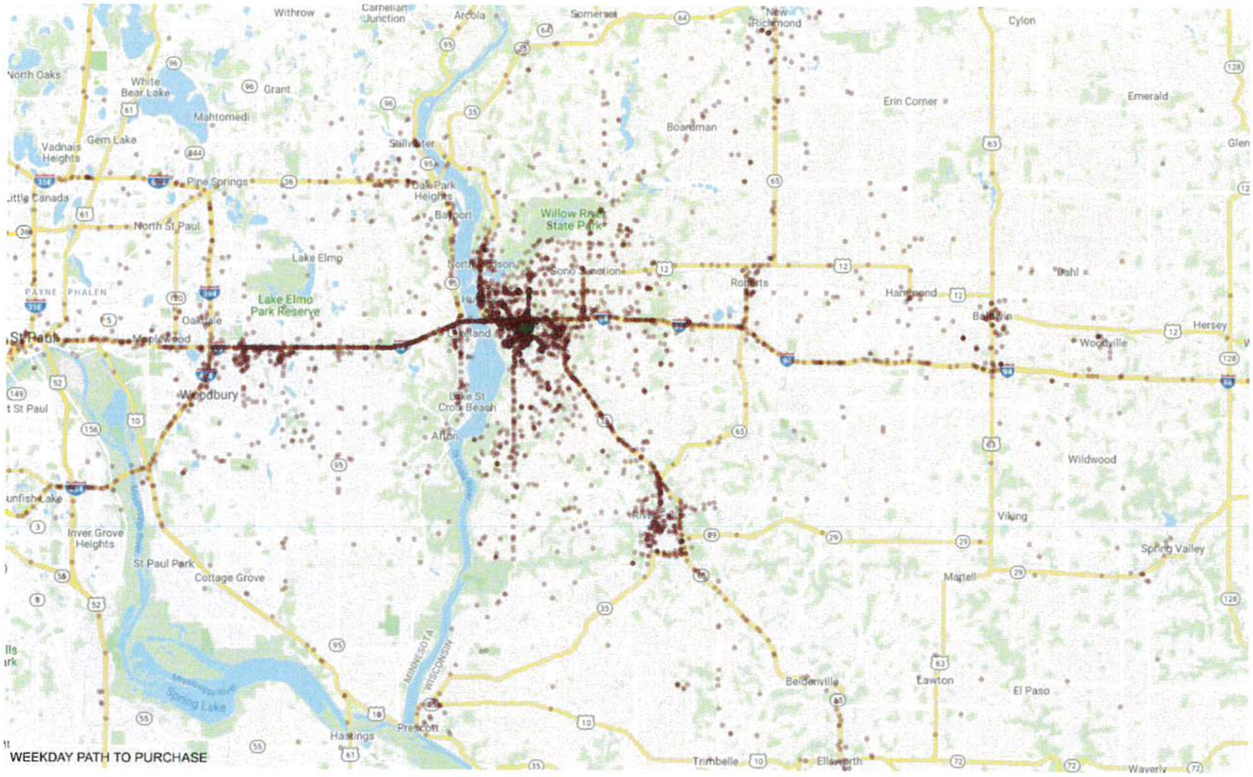
MOBILE PHONE HOME LOCATIONS – WEEKDAYS ONLY



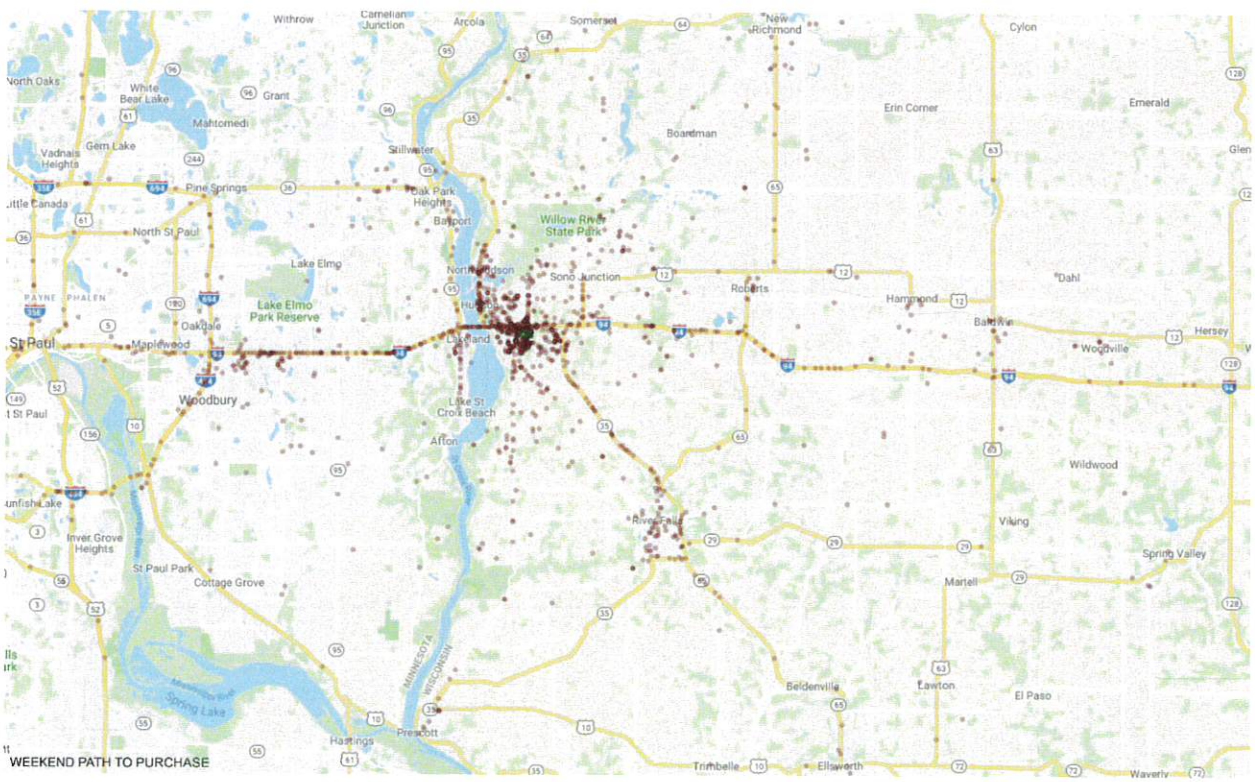
MOBILE PHONE HOME LOCATIONS – WEEKEND DAYS ONLY



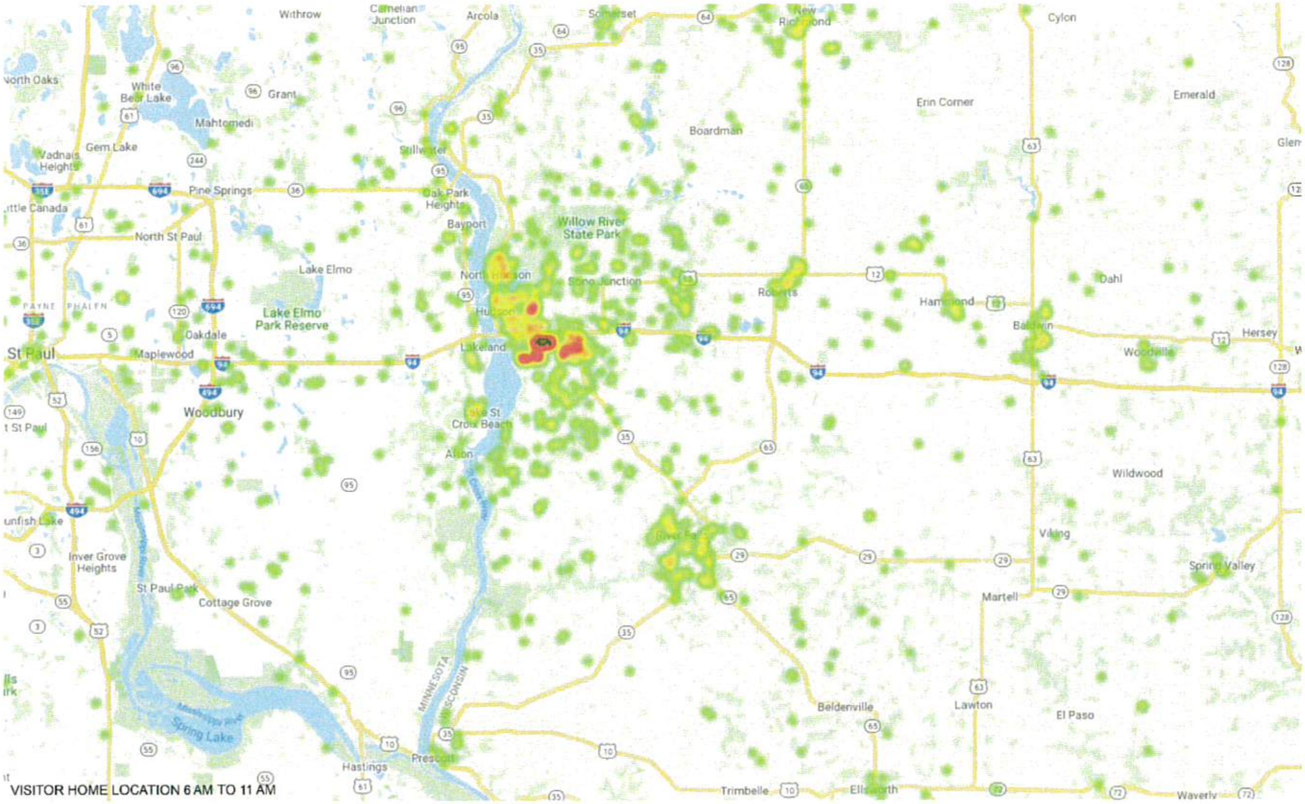
PATH TO PURCHASE – WEEKDAYS ONLY



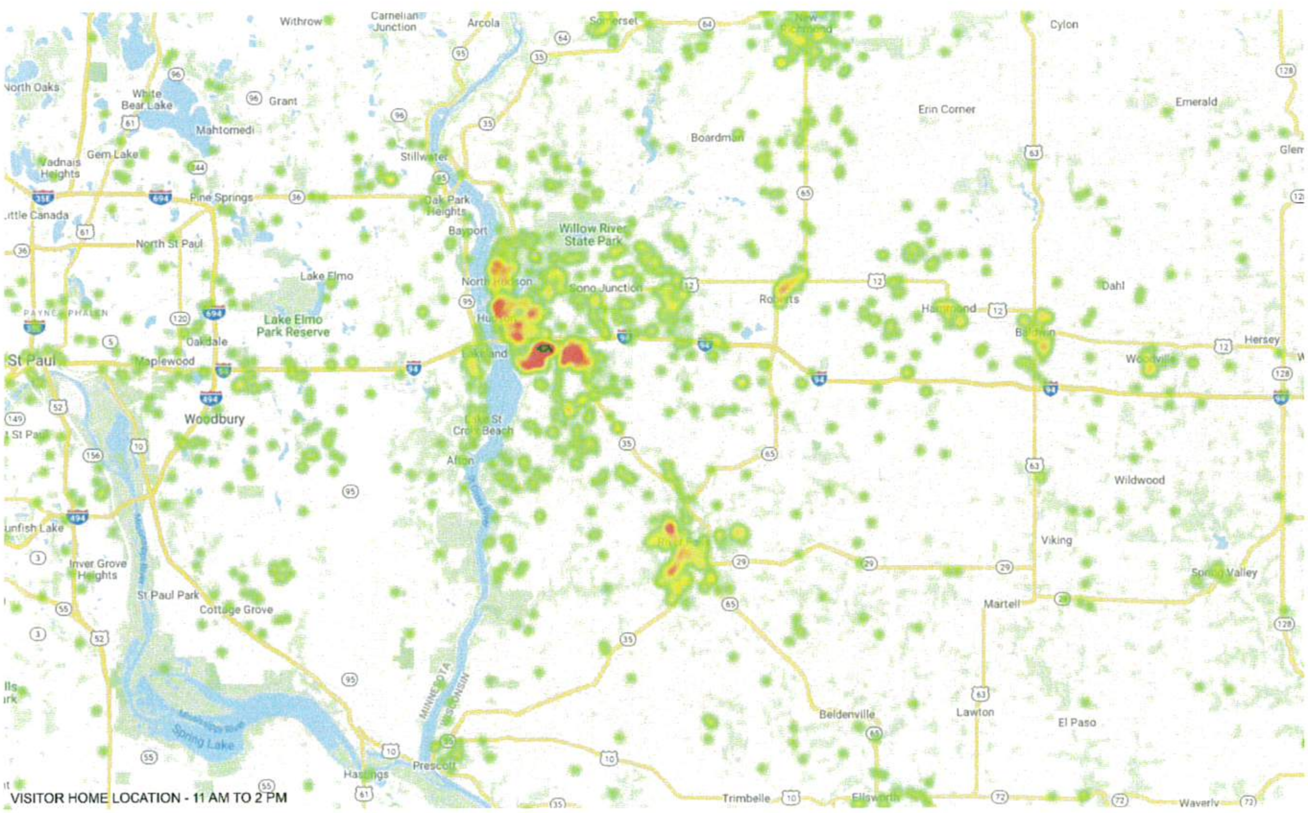
PATH TO PURCHASE – WEEKEND DAYS ONLY



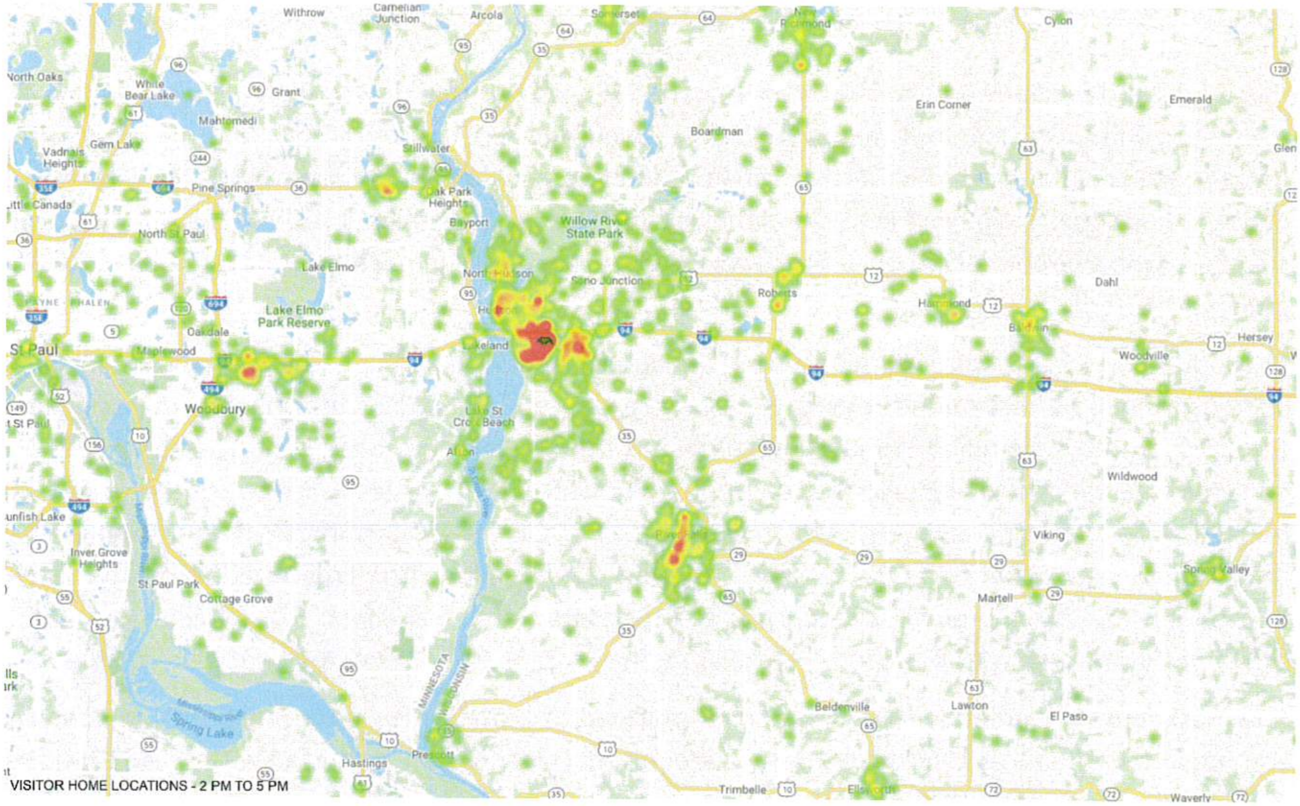
MOBILE PHONE HOME LOCATIONS – 6:00 AM TO 11:00 AM



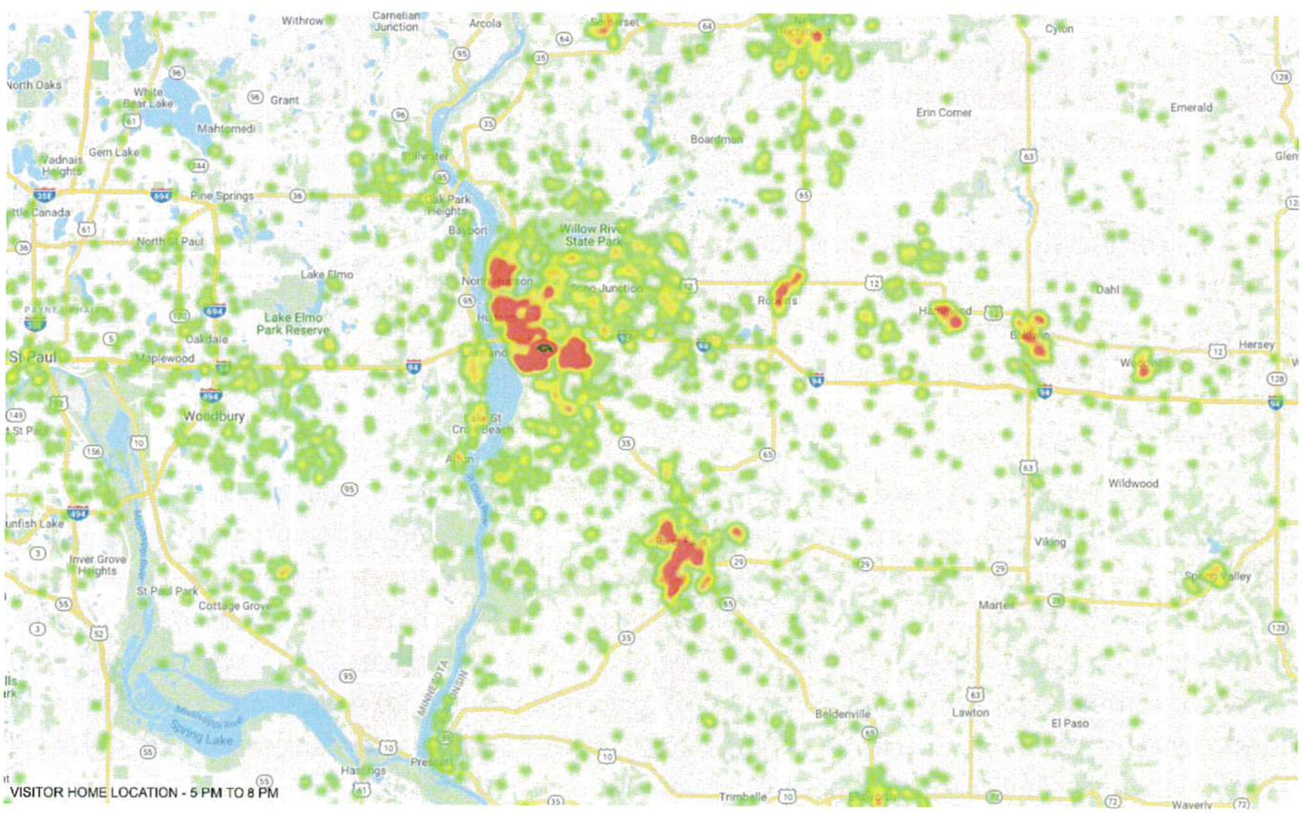
MOBILE PHONE HOME LOCATIONS – 11:00 AM TO 2:00 PM



MOBILE PHONE HOME LOCATIONS – 2:00 PM TO 5:00 PM



MOBILE PHONE HOME LOCATIONS – 5:00 PM TO 8:00 PM



RESIDENTIAL MARKET

River Falls and the surrounding towns have sustained strong residential growth from residents who want to live in Wisconsin, but may work in the Twin Cities. As a result of this, about a third of the housing stock within both the City and the County has been constructed since 2000. Strong market demand has helped to ensure that the older housing stock is maintained. Although individual years may vary, the average selling price for homes in the county has increased from $175,000 in 2008, to $242,500 in 2018.

Demographics, the existing housing supply, and new construction trends suggest that certain kinds of housing will be in demand, but have not been built in any significant quantity in past years. Especially within adjoining towns, the single family homes that have been built over the past three decades have tended to be purchased by trade-up buyers in their forties to sixties. As the age, these households become increasingly likely to want housing, such as condominiums or apartments, that require less maintenance and may be designed for people with diminished mobility. Older households may even prefer assisted living or other retirements facilities. While these households often wish to remain within the immediate area, the housing they desire may not be available.

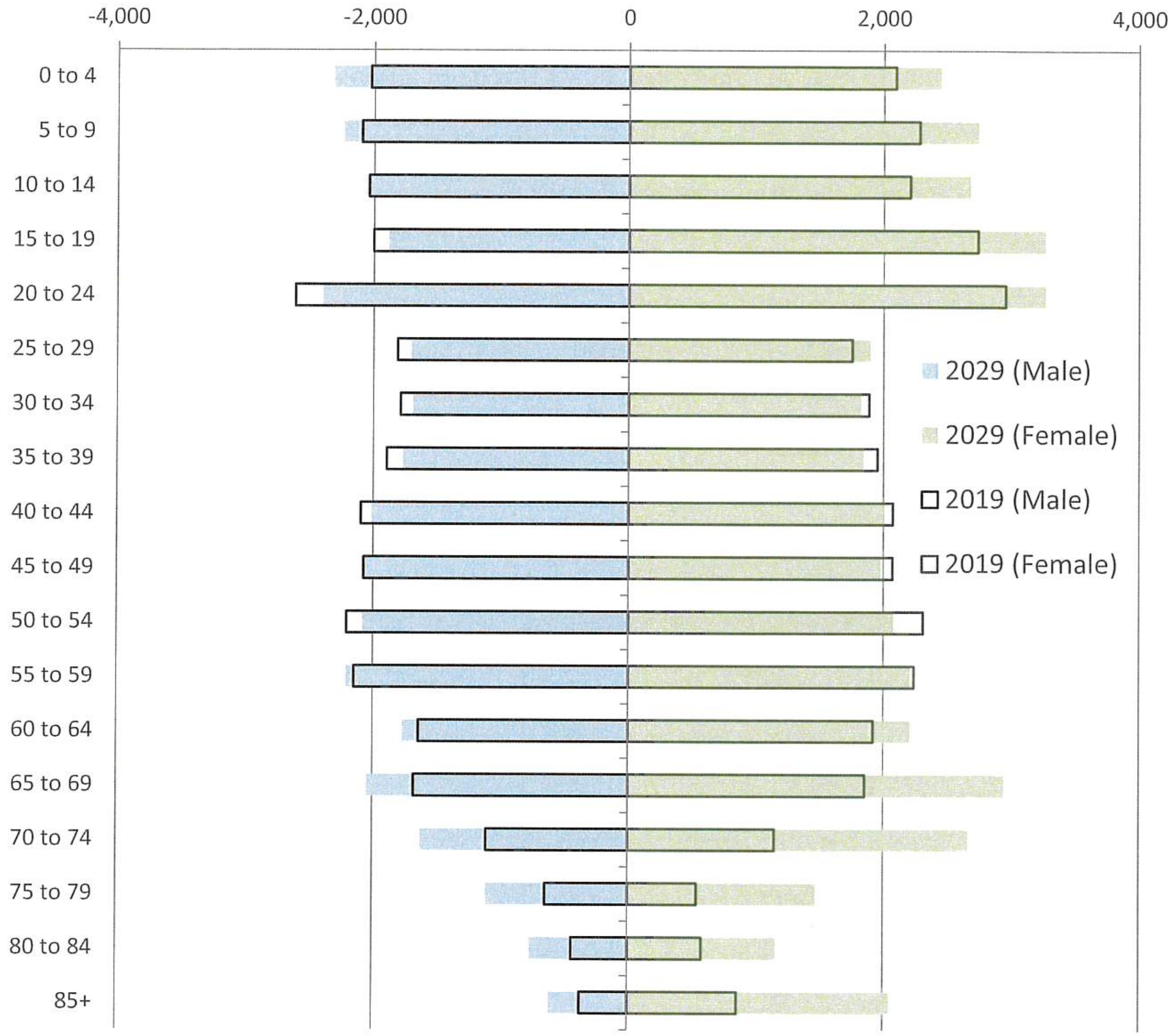
The market area population is anticipated to continue to grow, with the most significant increases coming in the older age cohorts, beginning around age 55 and over. Some growth is also expected within younger cohorts, although this is likely skewed by the student population of the University of Wisconsin – River Falls. As would be expected in a college market, there is a large population in their late teens and early twenties. This skews heavily female, as college enrollment by women increasingly outnumbers that of men. This would also tend to result in an over-estimation of the number of births, though the impact of this error is corrected through the estimates of out-migration as college students graduate and move from the area.

There is a notable drop-off in the number of persons aged 25 or older. These cohorts, up to 54 years old, are anticipated to shrink in size during the next decade. That is typical of Wisconsin, where younger workers often leave the state to find more suitable career employment. The Minneapolis-St. Paul market can offer these opportunities to residents of Hudson and pierce and St. Croix Counties, but housing options and cost may be making it difficult for many to stay.

HOUSING MODEL AND RESULTS

Future housing demand is modeled from existing demographics and recent market trends. Age, income, and tenure are considered along with recent sales, and housing preferences based on national survey data, adjusted for the local market. The model projects demand by housing type, tenure (owner or renter), and price point. It is important to note that demand is different than the net change in housing required to meet that demand. In this case, demand reflects the number of buyers or renters expected to be in the market, who might purchase or rent an existing home or newly constructed home. Within St. Croix County, about 6.7 percent of current home owners and 12.7 percent of current renters changed their housing in the past year.

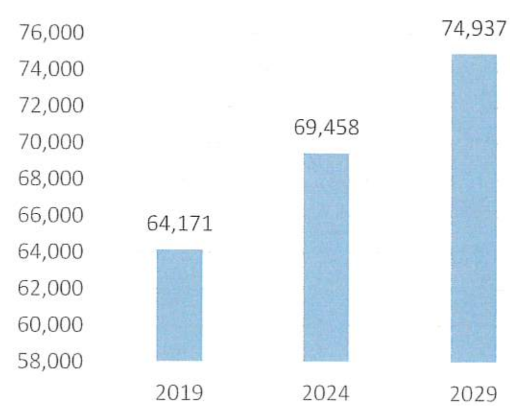
2009 AND 2019 ESTIMATED POPULATION BY AGE



About 10,000 new residents are anticipated within the market area over the next decade, increasing the total population from 64,171 in 2019, to 74,937 in 2029. Much of that growth can be attributed to new housing built primarily in the nearby towns.

Projections for the next decade show the potential for an average of 635 additional households each year. This figure for the market area compares with a 2018 total of 563 units permitted in St. Croix County and 137 units in Pierce County, suggesting that a portion of the annual demand is being met

ANITICIPATED POPULATION GROWTH



elsewhere. A closer inspection of the data suggests that this is particularly true of entry to middle-market owned housing, attached and condominium units, and apartments.

A significant part of the change in demand can be attributed to an aging population. Given the price of most homes in the market area, the typical buyer has been a household trading up from other owned housing, and an income level that is reached at a mid-career level. These are households headed by persons in their mid-forties or older. As they age in this housing they are experiencing shifts that trigger a demand for retirement housing. With smaller households as a result of children moving out, a growing number of single person households through divorce or death, and increased difficulty in maintaining a large home on a rural lot, many of these households will look for age-appropriate housing. This can be provided in any number of formats from smaller, one-story detached homes, to condominiums and attached units, to apartments. Given their income and assets in an existing home, these households will expect quality amenities and finishes in their housing. Few of these housing units are currently being provided in Hudson or surrounding areas.

PROJECTED POTENTIAL CHANGE IN MARKET AREA HOUSEHOLDS

HOUSEHOLDS BY AGE	2019			2024			2029		
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT
15 TO 24	1,245	178	1,067	1,229	176	1,053	1,279	183	1,096
25 TO 34	3,724	1,902	1,822	3,667	1,873	1,794	3,496	1,786	1,710
35 TO 44	4,325	3,111	1,214	4,293	3,088	1,205	3,972	2,857	1,115
45 TO 54	5,052	4,048	1,004	4,928	3,949	979	4,623	3,704	919
55 TO 64	4,236	3,606	630	4,474	3,809	665	4,735	4,031	704
65 TO 74	2,875	2,446	429	3,533	3,006	527	6,034	5,134	900
75 TO 84	1,210	793	417	2,430	915	481	5,954	2,242	1,179
85+	668	250	418	849	318	531	2,125	795	1,330
TOTAL	23,335	16,334	7,001	27,013	19,036	7,977	29,683	20,731	8,953

EXPECTED CHANGE	2024			2029			TOTAL		
	TOTAL	OWN	RENT	TOTAL	OWN	RENT	TOTAL	OWN	RENT
15 TO 24	-16	-2	-14	49	7	42	34	5	29
25 TO 34	-57	-29	-28	-171	-87	-84	-228	-116	-112
35 TO 44	-32	-23	-9	-321	-231	-90	-353	-254	-99
45 TO 54	-124	-99	-25	-306	-245	-61	-429	-344	-85
55 TO 64	238	203	35	260	222	39	499	425	74
65 TO 74	658	560	98	2,502	2,128	373	3,159	2,688	471
75 TO 84	1,220	122	64	3,525	1,327	698	4,744	1,449	762
85+	181	68	113	1,276	478	798	1,457	545	912
TOTAL	3,678	2,702	976	2,671	1,695	976	6,348	4,397	1,952

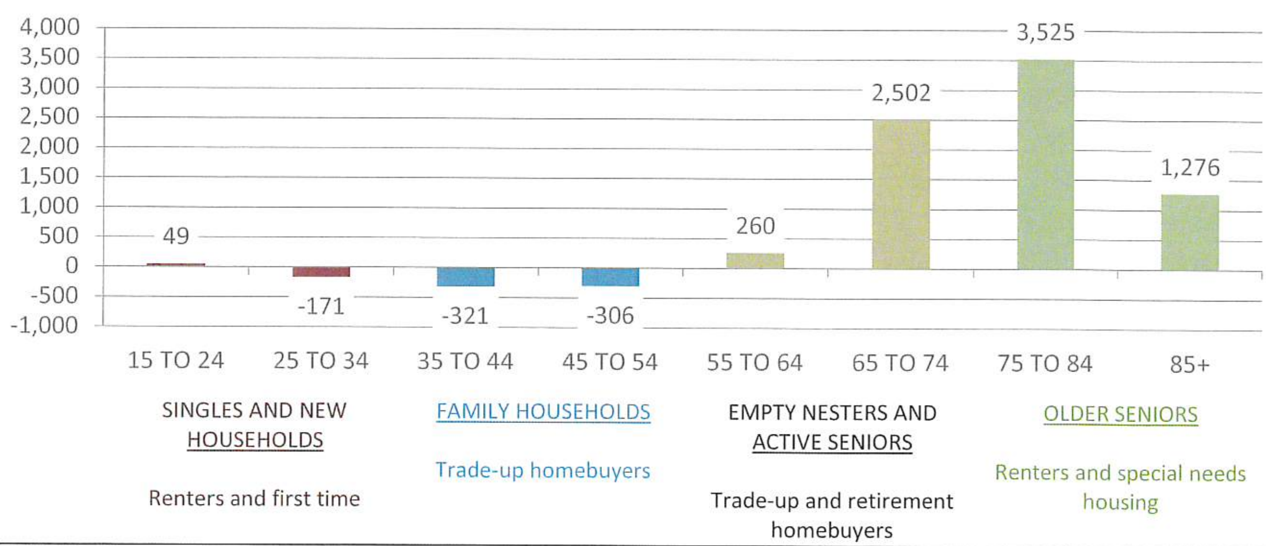
The following table summarizes the kinds of housing available within Hudson and St. Croix county, by tenure. Owner occupied housing overwhelmingly consists of detached single family homes. All attached units, whether condominiums or rowhouses, make up less than ten percent of the total housing available. Detached single family homes also make up more than half of the rental housing offered in the county. Most of the buildings with larger numbers of units are located in Hudson or other cities.

HOUSING TYPE AND TENURE (2017)

	SINGLE FAMILY						
OWNER OCCUPIED	DETACHED	ATTACHED	2-UNIT	3 OR 4 UNITS	5 TO 9 UNITS	10+ UNITS	MOBILE / OTHER
St. Croix County	22,427	1,891	92	137	31	28	660
City of Hudson	2,354	866	20	95	28	17	0
RENTER OCCUPIED							
St. Croix County	1,927	1,546	751	989	742	2,052	116
City of Hudson	274	529	186	312	193	782	0

In October of 2019 there were 168 homes listed for sale in Hudson's zip code. Sixty-seven of these, or 39.9 percent, were priced above $500,000, with several above $1 million. These tended to be located along the river and in the adjacent towns. Only 17, or 10.1 percent, were priced at or below $250,000, with the least expensive conventional sale listed at $165,000. While most were single-family detached dwellings, there were thirteen condominiums priced up to over $1 million. Three of these were in side-by-side structures and were listed at $220,000 or less. The remaining ten are in a newly-constructed building in downtown Hudson, on the river. The least expensive unit is listed for $499,900. Units in this building cost between $380 and $650 per square foot.

PROJECTED CHANGE IN HOUSEHOLDS BY STAGE

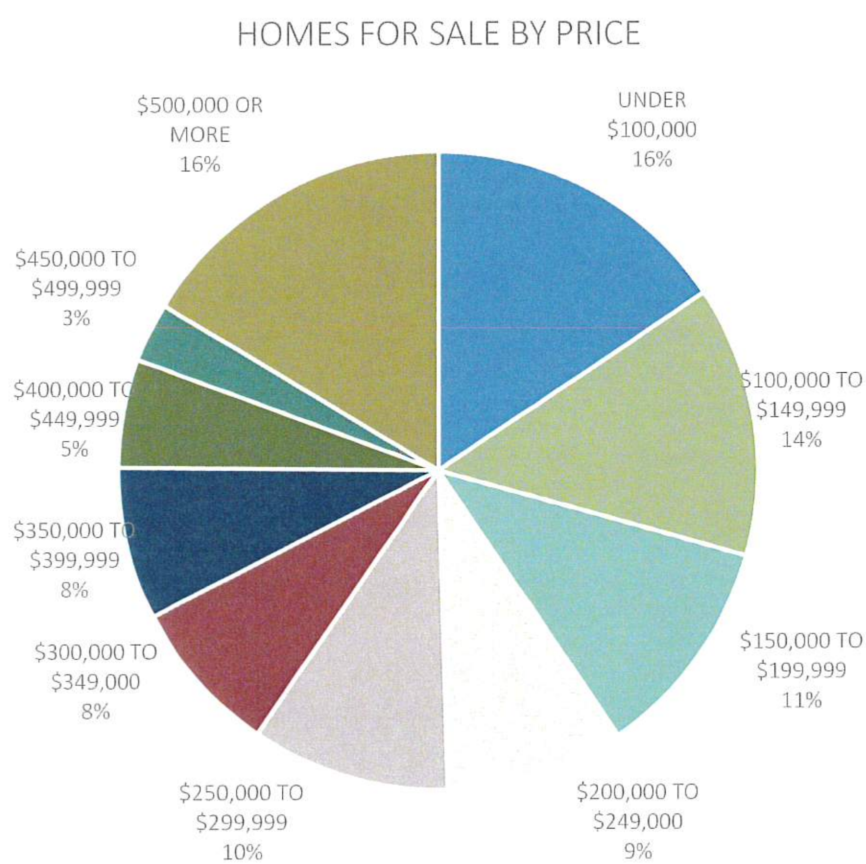


Affordability is likely a factor in the out-migration of younger households from the market area. Projections of market demand show large numbers of buyers able to afford homes under $250,000, while the market is dominated by more expensive housing. Younger buyers are generally in the market for starter housing and family housing which has a more modest price point. The may be finding this housing in communities further from the Twin Cities, or within parts of the metropolitan area where housing is more affordable.

ESTIMATED ANNUAL HOMEBUYERS BY AGE

AGE	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
15 TO 24	60	61	61	62	62	62	63	63	63	63	63
25 TO 34	420	424	428	431	434	436	438	440	441	442	443
35 TO 44	200	202	204	205	206	208	209	209	210	210	211
45 TO 54	160	162	163	164	165	166	167	167	168	168	169
55 TO 64	100	101	102	103	103	104	104	105	105	105	105
65 TO 74	60	61	61	62	62	62	63	63	63	63	63
75+	20	20	20	21	21	21	21	21	21	21	21
TOTAL	1,020	1,030	1,039	1,046	1,053	1,059	1,064	1,067	1,071	1,073	1,075

There is also some mis-match between the types of housing available in the market area, and the expected preferences of households in the market. A large majority of buyers are seeking detached single family housing. Still, about 180 to 200 households, annually, are expected to have a preference for attached or other housing, with roughly half of that number wanting a condominium, similar in style (if not necessarily price) to those offered in the new building in downtown Hudson. This is one of very few buildings of its type in smaller communities within



he stateline area. Because of the infrastructure necessary to support this type of development, urban locations like Hudson offer the best opportunities for its development. The riverfront is an asset that can help to improve the marketability of these projects, and help them to earn high sales values.

ESTIMATED ANNUAL HOME BUYERS BY PROPERTY TYPE

TYPE	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
DETACHED	836	844	852	858	864	868	872	875	878	880	881
ROWHOUSE	51	51	52	52	53	53	53	53	54	54	54
CONDO (5+)	71	72	73	73	74	74	74	75	75	75	75
CONDO (2-4)	31	31	31	31	32	32	32	32	32	32	32
OTHER	31	31	31	31	32	32	32	32	32	32	32

ESTIMATED ANNUAL HOMEBUYERS BY HOME PURCHASE PRICE

PRICE RANGE:	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
UNDER $100,000	103	104	105	106	106	107	108	108	108	108	109
$100,000 TO $149,999	84	85	86	87	87	88	88	88	89	89	89
$150,000 TO $199,999	97	98	98	99	100	100	101	101	101	102	102
$200,000 TO $249,000	91	92	93	93	94	94	95	95	95	96	96
$250,000 TO $299,999	105	106	107	108	109	109	110	110	111	111	111
$300,000 TO $349,000	79	80	81	81	82	82	83	83	83	83	84
$350,000 TO $399,999	84	85	86	86	87	87	88	88	88	89	89
$400,000 TO $449,999	66	66	67	67	68	68	68	69	69	69	69
$450,000 TO $499,999	41	42	42	42	42	43	43	43	43	43	43
$500,000 OR MORE	269	272	274	276	278	279	281	282	283	283	284

There is a strong demand for rental housing. As with owned homes, the income profile of the market enables it to afford a comparatively high rent, with roughly half of renters able to afford $1,300 or more per month, and almost a third able to afford more than $2,000 per month. Apartments.com offers an estimate of the prevailing rents in the Hudson area.

TYPICAL MONTHLY RENTS IN THE HUDSON MARKET

NUMBER OF BEDROOMS	AVERAGE SIZE (SQUARE FEET)	TYPICAL MONTHLY RENT		
		LOWEST	AVERAGE	PREMIUM
Studio	640	$550	$1,270	$3,000
One	639	$725	$859	$1,008
Two	1,110	$725	$1,267	$1,850
Three	1,667	$1,075	$1,524	$2,150
Four	2,362	$1,450	$2,145	$2,990

Three and four bedroom apartments are likely to be single family homes that are being marketed as rentals. Most apartments complexes in the area are dominated by one and two bedroom units. At the "average" level, units may be characterized as mid-market, without significant amenities, and having basic materials and finishes. Most will not have garage parking, or may charge an extra fee for a garage space. Nicer units will offer hardwood floors, granite counters, and better quality amenities. There are few of these units, however, and they are eclipsed by the quality available in nearby communities like Woodbury.

ESTIMATED ANNUAL RENTERS BY MONTHLY RENT

RENT	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
UNDER $600	567	577	589	601	614	627	642	657	673	690	707
$600 TO $699	121	123	125	128	131	134	137	140	143	147	151
$700 TO $799	125	127	130	132	135	138	141	145	148	152	156
$800 TO $899	140	143	145	148	152	155	159	162	166	170	175
$900 TO $999	216	220	224	229	234	239	244	250	256	263	269
$1,000 TO $1,099	125	127	130	133	135	138	142	145	148	152	156
$1,100 TO $1,199	101	103	105	107	110	112	115	117	120	123	126
$1,200 TO $1,299	145	148	151	154	158	161	165	169	173	177	181
$1,300 TO $1,399	190	193	197	201	206	210	215	220	225	231	237
$1,400 TO $1,499	148	150	153	156	160	163	167	171	175	180	184
$1,500 TO $1,749	221	226	230	235	240	245	251	257	263	269	276
$1,750 TO $1,999	275	280	286	292	298	305	312	319	327	335	343
$2,000 OR MORE	951	969	988	1,008	1,030	1,053	1,077	1,102	1,129	1,157	1,186

ESTIMATED ANNUAL RENTERS BY AGE

AGE	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
15 TO 24	471	471	471	472	474	476	479	484	488	493	499
25 TO 34	800	795	789	784	780	776	773	770	769	768	769
35 TO 44	539	535	530	526	521	517	513	508	504	501	497
45 TO 54	435	432	429	427	425	423	420	418	415	413	410
55 TO 64	308	312	315	317	318	319	319	318	318	317	316
65 TO 74	264	284	303	321	339	355	370	384	397	409	420
75 TO 84	237	264	293	325	359	394	430	466	502	539	574
85+	270	296	324	353	386	422	461	505	553	605	661
TOTAL	3,324	3,387	3,454	3,526	3,601	3,681	3,765	3,854	3,947	4,045	4,147

By age, the most significant growth in market potential is expected among older residents, beginning around age 65, and especially among those over 75. The demand is far in excess of the few age-restricted apartment complexes found in Hudson.

HOUSING MARKET NEEDS OR OPPORTUNITIES

Hudson and the surrounding market area can continue to support new housing development in a range of types and price points for both home buyers and renters. An older population will drive demand for types of housing not widely available in the market. This includes units in condominium buildings, high-end apartments, and specialty housing for seniors (ex., assisted living and advanced care).

The housing needs of younger households are arguably not being met in this market. There is a need for entry-level owned housing, which may be difficult to provide given site availability and the dynamics of the local market. There is also a need for better-quality rental housing similar to the kinds of apartment complexes found in the nearby St. Paul suburbs.

COMMERCIAL MARKET

The market area drawn for Hudson is a generalization, which is necessary when completing a market analysis at a district or community level. Individual businesses may have the ability to draw a very different pattern, whether wider or smaller based on their characteristics. The same is true of a district. In this case, Hudson's downtown has several unique shops and restaurants that can be a destination for people living from a much larger region than that represented by the market area. Still, this area reflects the region from which an estimated 70 to 80 percent of the city's aggregate retail and dining sales are drawn.

The market area's favorable demographics and sustained growth are attractive for commercial development, while changes in the retail sector will have more mixed impacts. Hudson's proximity to the Twin Cities is also a limiting factor, and the nearby concentration of specialty and higher-end retail presents significant competition that will dissuade similar chain retailers from considering the city as a location. In the near term, the City's best prospects lie in strengthening the concentration of independent specialty retailers and restaurants in the downtown, both to compete with and to complement similar concentrations in Stillwater and Red Wing.

RETAIL MARKET ANALYSIS

The market analysis was prepared using the same demographic data and estimates that underlie the housing analysis. Market potential was determined using data from the annual Consumer Expenditure Survey, adjusted for income, age, race, and other variables. Market share was then determined by comparing the potential within each retail industry group (4-digit NAICS) to an inventory of the corresponding businesses located within the city. Qualitative analysis, considering issues such as local demographic profiles, the city's business districts and businesses, and competition, were used to recommend potential targets and strategies for retail business development.

The market area has a population that is both homogenous and solidly middle- to upper middle-income. Both of these conditions are important to retailers. The income profile is advantageous in that there is both considerable disposable income and an interest in purchasing premium products that have a higher margin. The fact that the population is relatively similar means that it is not fractured, where diverse groups may have very different preferences with regard to the goods and services they prefer. It is far easier to merchandise, advertise, and sell to a large block of customers with similar desires.

Hudson has a retail market that is performing comparatively well. The city's businesses are estimated to be capturing 38 percent of the total market potential. Within categories such as home improvement centers, discount department stores, and liquor stores, the city is attracting significant outside spending. This is a direct function of the above-average income profile of the area, the pace of home construction and sales, and distance to competing stores. Although the numbers are not as large, the specialty retail cluster in the downtown also attracts outside spending.

ESTIMATED MARKET PERFORMANCE

DESCRIPTION	NAICS	2019			
		TRADE AREA MARKET POTENTIAL	STUDY AREA ESTIMATED SALES	MARKET SHARE OF TRADE AREA	GAP OR (SURPLUS)
New car dealers	441110	$115,152,000	$59,000,000	36%	$56,152,000
Used car dealers	441120	$10,861,000	$1,300,000	10%	$9,561,000
Recreational vehicle dealers	441210	$3,084,000	$0	0%	$3,084,000
Motorcycle, boat, and other motor vehicle dealers	441220	$8,113,000	$1,900,000	14%	$6,213,000
Automotive parts and accessories stores	441310	$7,567,000	$7,065,000	76%	$502,000
Tire dealers	441320	$5,028,000	$4,000,000	72%	$1,028,000
Furniture stores	442110	$9,339,000	$1,400,000	12%	$7,939,000
Floor covering stores	442210	$3,569,000	$600,000	13%	$2,969,000
Other home furnishings stores	442290	$5,365,000	$250,000	3%	$5,115,000
Appliance, television, other electronics stores	443110	$15,018,000	$2,150,000	13%	$12,868,000
Computer and software stores	443120	$3,541,000	$0	0%	$3,541,000
Camera and photographic supplies stores	443130	$666,000	$0	0%	$666,000
Home centers	444110	$24,844,000	$51,600,000		($26,756,000)
Paint and wallpaper stores	444120	$1,823,000	$2,200,000		($377,000)
Hardware stores	444130	$3,796,000	$500,000	12%	$3,296,000
Other building material dealers	444190	$22,427,000	$600,000	2%	$21,827,000
Outdoor power equipment stores	444210	$1,066,000	$0	0%	$1,066,000
Nursery, garden center, and farm supply stores	444220	$6,063,000	$500,000	7%	$5,563,000
Supermarkets and other grocery stores	445110	$83,782,000	$66,500,000	68%	$17,282,000
Meat markets	445210	$952,000	$1,000,000		($48,000)
Fish and seafood markets	445220	$314,000	$0	0%	$314,000
Fruit and vegetable markets	445230	$587,000	$0	0%	$587,000
Other specialty food stores	445290	$952,000	$825,000	87%	$127,000
Beer, wine, and liquor stores	445310	$5,998,000	$7,550,000		($1,552,000)
Pharmacies and drug stores	446110	$41,223,000	$16,700,000	41%	$24,523,000
Cosmetics, beauty supplies, and perfume stores	446120	$2,058,000	$300,000	13%	$1,758,000
Optical goods stores	446130	$1,582,000	$2,100,000		($518,000)
Other health and personal care stores	446190	$2,894,000	$440,000	14%	$2,454,000
Gasoline stations with convenience stores	447110	$55,915,000	$19,850,000	27%	$36,065,000
Other gasoline stations	447190	$19,630,000	$0	0%	$19,630,000
Men's clothing stores	448110	$1,341,000	$0	0%	$1,341,000
Women's clothing stores	448120	$6,438,000	$650,000	6%	$5,788,000
Children's and infant's clothing stores	448130	$1,620,000	$0	0%	$1,620,000
Family clothing stores	448140	$15,423,000	$1,050,000	5%	$14,373,000

ESTIMATED MARKET PERFORMANCE (continued)

DESCRIPTION	NAICS	2019			
		TRADE AREA MARKET POTENTIAL	STUDY AREA ESTIMATED SALES	MARKET SHARE OF TRADE AREA	GAP OR (SURPLUS)
Clothing accessories stores	448150	$936,000	$0	0%	$936,000
Other clothing stores	448190	$1,812,000	$0	0%	$1,812,000
Shoe stores	448210	$4,185,000	$150,000	3%	$4,035,000
Jewelry stores	448310	$4,735,000	$600,000	10%	$4,135,000
Luggage and leather goods stores	448320	$347,000	$0	0%	$347,000
Sporting goods stores	451110	$5,947,000	$950,000	12%	$4,997,000
Hobby, toy, and game stores	451120	$3,021,000	$300,000	8%	$2,721,000
Sewing, needlework, and piece goods stores	451130	$913,000	$0	0%	$913,000
Musical instruments and supplies stores	451140	$962,000	$330,000	27%	$632,000
Book stores and news dealers	451210	$3,392,000	$0	0%	$3,392,000
Prerecorded tape, compact disc, record stores	451220	$643,000	$0	0%	$643,000
Department stores (excl. discount dept. stores)	452111	$13,275,000	$0	0%	$13,275,000
Discount department stores	452112	$24,199,000	$68,000,000		($43,801,000)
Warehouse clubs and supercenters	452910	$55,744,000	$0	0%	$55,744,000
All other general merchandise stores	452990	$7,844,000	$1,800,000	21%	$6,044,000
Florists	453110	$1,144,000	$270,000	21%	$874,000
Office supplies and stationery stores	453210	$4,036,000	$200,000	4%	$3,836,000
Gift, novelty, and souvenir stores	453220	$3,241,000	$2,080,000	44%	$1,161,000
Used merchandise stores	453310	$1,760,000	$1,700,000	68%	$60,000
Pet and pet supplies stores	453910	$2,010,000	$1,300,000	58%	$710,000
Art dealers	453920	$2,914,000	$1,970,000	41%	$944,000
Manufactured (mobile) home dealers	453930	$117,000	$0	0%	$117,000
All other miscellaneous store retailers	453990	$3,793,000	$4,800,000	84%	($1,007,000)
Non-store retailer	999900	$44,927,000	$0	0%	$44,927,000
TOTAL		$679,926,000	$334,480,000	38%	$345,448,000

The market potential is anticipated to grow significantly through a combination of new households and inflation, adding an aggregate $479 million in spending. Based on this growth, gaps in existing sales, the current business mix, and competition within the region, it is still possible to suggest the opportunity for future retail business development in the following categories.

- **Automotive parts and tire stores.** About three quarters of the demand for these goods is being met by stores already in Hudson, but population growth will create an opportunity for new stores to enter the market. Examples of chains not already in the community include Advance Auto Parts, Big) Tires, Discount Tire, and Pep Boys.

CURRENT YEAR AND PROJECTED MARKET POTENTIAL ESTIMATES

DESCRIPTION	NAICS	TRADE AREA MARKET POTENTIAL			
		2019	2024	2029	CHANGE
New car dealers	441110	$115,152,000	$150,351,837	$196,319,958	$81,167,958
Used car dealers	441120	$10,861,000	$14,181,071	$18,516,750	$7,655,750
Recreational vehicle dealers	441210	$3,084,000	$4,026,714	$5,257,830	$2,173,830
Motorcycle, boat, other motor vehicle dealers	441220	$8,113,000	$10,593,354	$13,832,134	$5,719,134
Automotive parts and accessories stores	441310	$7,567,000	$9,879,854	$12,900,491	$5,333,491
Tire dealers	441320	$5,028,000	$6,564,949	$8,572,096	$3,544,096
Furniture stores	442110	$9,339,000	$12,193,151	$15,921,048	$6,582,048
Floor covering stores	442210	$3,569,000	$4,660,002	$6,084,737	$2,515,737
Other home furnishings stores	442290	$5,365,000	$7,005,174	$9,146,915	$3,781,915
Appliance, television, other electronics stores	443110	$15,018,000	$19,608,897	$25,604,062	$10,586,062
Computer and software stores	443120	$3,541,000	$4,623,203	$6,036,688	$2,495,688
Camera and photographic supplies stores	443130	$666,000	$870,210	$1,136,265	$470,265
Home centers	444110	$24,844,000	$32,438,199	$42,355,757	$17,511,757
Paint and wallpaper stores	444120	$1,823,000	$2,379,632	$3,107,173	$1,284,173
Hardware stores	444130	$3,796,000	$4,956,006	$6,471,240	$2,675,240
Other building material dealers	444190	$22,427,000	$29,282,562	$38,235,325	$15,808,325
Outdoor power equipment stores	444210	$1,066,000	$1,391,406	$1,816,810	$750,810
Nursery, garden center, and farm supply stores	444220	$6,063,000	$7,916,774	$10,337,225	$4,274,225
Supermarkets and other grocery stores	445110	$83,782,000	$109,392,582	$142,837,943	$59,055,943
Meat markets	445210	$952,000	$1,243,185	$1,623,273	$671,273
Fish and seafood markets	445220	$314,000	$409,700	$534,960	$220,960
Fruit and vegetable markets	445230	$587,000	$765,803	$999,937	$412,937
Other specialty food stores	445290	$952,000	$1,243,214	$1,623,311	$671,311
Beer, wine, and liquor stores	445310	$5,998,000	$7,831,428	$10,225,785	$4,227,785
Pharmacies and drug stores	446110	$41,223,000	$53,824,758	$70,280,978	$29,057,978
Cosmetics, beauty supplies, and perfume stores	446120	$2,058,000	$2,687,485	$3,509,149	$1,451,149
Optical goods stores	446130	$1,582,000	$2,065,564	$2,697,083	$1,115,083
Other health and personal care stores	446190	$2,894,000	$3,778,421	$4,933,624	$2,039,624
Gasoline stations with convenience stores	447110	$55,915,000	$73,006,708	$95,327,560	$39,412,560
Other gasoline stations	447190	$19,630,000	$25,630,918	$33,467,238	$13,837,238
Men's clothing stores	448110	$1,341,000	$1,751,561	$2,287,078	$946,078
Women's clothing stores	448120	$6,438,000	$8,405,389	$10,975,227	$4,537,227
Children's and infant's clothing stores	448130	$1,620,000	$2,115,536	$2,762,333	$1,142,333
Family clothing stores	448140	$15,423,000	$20,138,162	$26,295,144	$10,872,144
Clothing accessories stores	448150	$936,000	$1,222,529	$1,596,301	$660,301

CURRENT YEAR AND PROJECTED MARKET POTENTIAL ESTIMATES (continued)

DESCRIPTION	NAICS	TRADE AREA MARKET POTENTIAL			
		2019	2024	2029	CHANGE
Other clothing stores	448190	$1,812,000	$2,365,856	$3,089,186	$1,277,186
Shoe stores	448210	$4,185,000	$5,464,277	$7,134,908	$2,949,908
Jewelry stores	448310	$4,735,000	$6,182,402	$8,072,591	$3,337,591
Luggage and leather goods stores	448320	$347,000	$452,845	$591,296	$244,296
Sporting goods stores	451110	$5,947,000	$7,764,430	$10,138,303	$4,191,303
Hobby, toy, and game stores	451120	$3,021,000	$3,945,094	$5,151,256	$2,130,256
Sewing, needlework, and piece goods stores	451130	$913,000	$1,191,908	$1,556,318	$643,318
Musical instruments and supplies stores	451140	$962,000	$1,255,698	$1,639,612	$677,612
Book stores and news dealers	451210	$3,392,000	$4,428,310	$5,782,209	$2,390,209
Prerecorded tape, compact disc, record stores	451220	$643,000	$839,051	$1,095,581	$452,581
Department stores (excl. discount dept. stores)	452111	$13,275,000	$17,333,010	$22,632,352	$9,357,352
Discount department stores	452112	$24,199,000	$31,596,039	$41,256,117	$17,057,117
Warehouse clubs and supercenters	452910	$55,744,000	$72,783,935	$95,036,677	$39,292,677
All other general merchandise stores	452990	$7,844,000	$10,241,234	$13,372,358	$5,528,358
Florists	453110	$1,144,000	$1,493,999	$1,950,769	$806,769
Office supplies and stationery stores	453210	$4,036,000	$5,269,514	$6,880,599	$2,844,599
Gift, novelty, and souvenir stores	453220	$3,241,000	$4,232,011	$5,525,894	$2,284,894
Used merchandise stores	453310	$1,760,000	$2,298,450	$3,001,172	$1,241,172
Pet and pet supplies stores	453910	$2,010,000	$2,623,802	$3,425,996	$1,415,996
Art dealers	453920	$2,914,000	$3,804,178	$4,967,256	$2,053,256
Manufactured (mobile) home dealers	453930	$117,000	$152,791	$199,505	$82,505
All other miscellaneous store retailers	453990	$3,793,000	$4,952,990	$6,467,302	$2,674,302
Non-store retailer	999900	$44,927,000	$58,660,288	$76,594,909	$31,667,909
TOTAL		$679,926,000	$887,768,050	1,159,191,594	$479,265,594

- **Furniture and home furnishings stores.** The typical household spends roughly an additional $7,000 in the year in which it moves into a new home. Given the area's growth and prevalence of middle to upper income households in single family homes, it is somewhat surprising that there are not already more businesses of this type in Hudson. One reason, certainly, is their availability in the nearby Twin Cities. As the area grows there will continue to be the potential for these businesses to locate in Hudson. With most of the major chains located in Woodbury, independent stores or regional chains are most likely to have interest.

- **Nursery, garden center, and farm supply stores.** These uses (such as Farrill's Sunrise Nursery and My Sister's Garden) are now located outside of the city. Over time there will be more demand for the use, and sites within Hudson may be considered.

- **Supermarkets and other grocery stores.** Continued growth, along with the demographic profile of the market, will make Hudson an attractive location for expanding grocers such as Festival Foods, Hy-Vee, and Woodman's.
- **Specialty food stores.** These stores tend to be independently owned and often arise out of the interests of the person starting the business. The downtown, with its ability to draw visitors, will be a preferred location for most of these businesses, which include delis, bakeries, cheese shops, fruit and vegetable stores, natural foods stores, and others.
- **Cosmetics, beauty supplies, and perfume stores.** There is a considerable gap in this category, which suggests the potential for one or more stores in the category. This is often represented by independent stores, such as those selling handmade soaps or luxury bath products.
- **Gasoline stations with convenience stores.** The city's location along the interstate and at the state line makes it an attractive location for gas stations. Increasingly, the convenience stores that are part of the business are becoming larger to offer more merchandise along with prepared foods or franchised restaurants. As well as attracting additional businesses, there is the potential for existing businesses to redevelop with a larger and more modern site and building configuration.
- **Women's clothing stores.** This is not a use that is typically found in communities Hudson's size, but is able to succeed as an independent merchant because the downtown is a destination district. Additional stores of the type could locate in the district.
- **Clothing accessories stores.** This use complements the women's clothing stores, and is commonly found in districts where independent or chain stores are found. The city is not likely to attract a chain store of this type.
- **Sporting goods stores.** Both general-line and specialty sporting goods stores have potential within Hudson. General line stores are represented by small-footprint chains like Big 5 Sporting Goods and Hibbett Sports. Specialty sporting goods stores are usually independently-owned and focused on one, or a small number of related activities such as soccer, hunting and fishing, paddle sports, or other activities.
- **Hobby, toy, and game stores.** Stores in this category include both chains (Hobby Lobby, GameStop) and independent retailers. This last group tends to follow the particular interests of the store owner and may be less dependent than others on physical proximity to a market.
- **Warehouse clubs and supercenters.** Walmart is all but certain to have an interest in converting its discount store to a supercenter format, which would have an impact on the potential to attract other grocery stores to Hudson. The will approach the market potential needed to support a warehouse club such as Sam's Club or Costco, but their proximity (especially Sam's Club) is a consideration.

- **Gift, novelty, and souvenir stores.** These independent businesses are mostly found clustered in the downtown, and will benefit from larger numbers of these and other specialty stores creating a stronger draw to the district as a whole.
- **Used merchandise stores.** There is a single antique mall in Hudson. While this type of business became more difficult to support as internet sites ate into the market, there is a demand for specialized antique stores and those tapping the higher end of the market, within districts such as downtown Hudson.
- **Pet and pet supplies stores.** Two-thirds of American households include at least one pet. Dogs are the most popular, and are found in nearly two of every five homes. It is estimated that there are just under 19,000 dogs living in the city's market area, and over 20,000 cats. Spending on pets has grown faster than most other categories, increasing from about $45 million in 2009 to $75 million in 2019. Petco, PetSmart, Pet Supplies Plus, Bentley's Pet Stuff, or other chains would be good prospects for the city.
- **Art dealers.** This is a use the is found in the downtown, and like other specialty retailers, will gravitate to destination districts.

Hudson is able to attract a wider selection of chain and independent retailers than most communities of its size. For the city, though, the critical question may be where to locate them. Both business districts have a very low vacancy rate and appear to be commanding rents that are more than typical of comparably-sized Wisconsin communities. With little land available for redevelopment, attracting additional retail may hinge upon redeveloping existing sites with a greater ratio of building floor area to lot size.

DINING MARKET ANALYSIS

As with retail, the demographic and income profile of the area, the city's interstate location, and the ability of the downtown to attract visitors all factor into the vibrancy of the city's restaurants. The city has attracted several national fast food, fast-casual, and family chains, along with independent casual to fine dining restaurants.

Sales attributed to visitors – people from outside of the market area – are estimated to make up 28 percent of restaurant sales. The city's businesses do have the potential to capture a greater share of visitor traffic, including both visitors heading to Hudson as a destination, and those who may stop while passing through along the interstate.

MARKET POTENTIAL FROM WITHIN THE TRADE AREA

	2019	2024	2029
Full Service Restaurants	$47,586,000	$59,223,000	$73,568,000
Limited Service Restaurants	$45,720,000	$56,900,000	$70,683,000
Other venues	$15,396,000	$19,160,000	$23,801,000
TOTAL	$108,702,000	$135,283,000	$168,052,000

RESTAURANT SALES ATTRIBUTED TO VISITORS

	2019	2024	2029
Full Service Restaurants	$7,915,000	$8,527,000	$9,896,000
Limited Service Restaurants	$10,543,000	$11,358,000	$13,181,000
Other venues	$1,683,348	$1,813,444	$2,104,576
TOTAL	$20,141,348	$21,698,444	$25,181,576

TOTAL MARKET POTENTIAL

	2019	2024	2029
Full Service Restaurants	$55,501,000	$67,749,000	$83,464,000
Limited Service Restaurants	$56,263,000	$68,258,000	$83,864,000
Other venues	$15,396,000	$19,160,000	$23,801,000
TOTAL	$127,160,000	$155,168,000	$191,130,000

Overall, Hudson is thought to be capturing 57 percent of the market from residents and existing visitors. This varies from a 39 percent share of "other venues" to a 67 percent share of limited service restaurants. Other venues include snack and beverage shops (such as coffee shops or ice cream parlors), buffets, cafeterias, concessions, food trucks, vending, and other eating and drinking places. These figures are within normal ranges. Just as people from outside of the city travel to Hudson to eat, residents of the market area will also vary the restaurants they patronize, traveling to neighboring communities for variety as well as to meet others who may live elsewhere.

The strong performance of the limited service restaurants can be attributed to traffic from the interstate. Full service restaurants also perform well because of this traffic, along with destination visitors to restaurants primarily within the downtown. Other venues tend to perform well in areas with a high daytime population, such as major employment centers. Since this is not the case with Hudson, the lower market share seen here is to be expected.

HUDSON'S ESTIMATED RESTAURANT MARKET SHARE

	MARKET POTENTIAL	ESTIMATED SALES	MARKET SHARE
Full Service Restaurants	$55,501,000	$28,400,000	51%
Limited Service Restaurants	$56,263,000	$37,830,000	67%
Other venues	$15,396,000	$6,040,000	39%
TOTAL	$127,160,000	$72,270,000	57%

Hudson does have a large number of restaurants (68) for a community with its population. Wisconsin has one restaurant for every 438 residents, while there is one restaurant for every 204 residents of Hudson. This is to be expected, but it is also an indication of strong competition within the market. As the population increases there should be demand to support new restaurants, and additional demand might be created if Hudson can attract larger numbers of visitors. As with retail, the greater challenge may be to find suitable sites for new restaurants to locate.

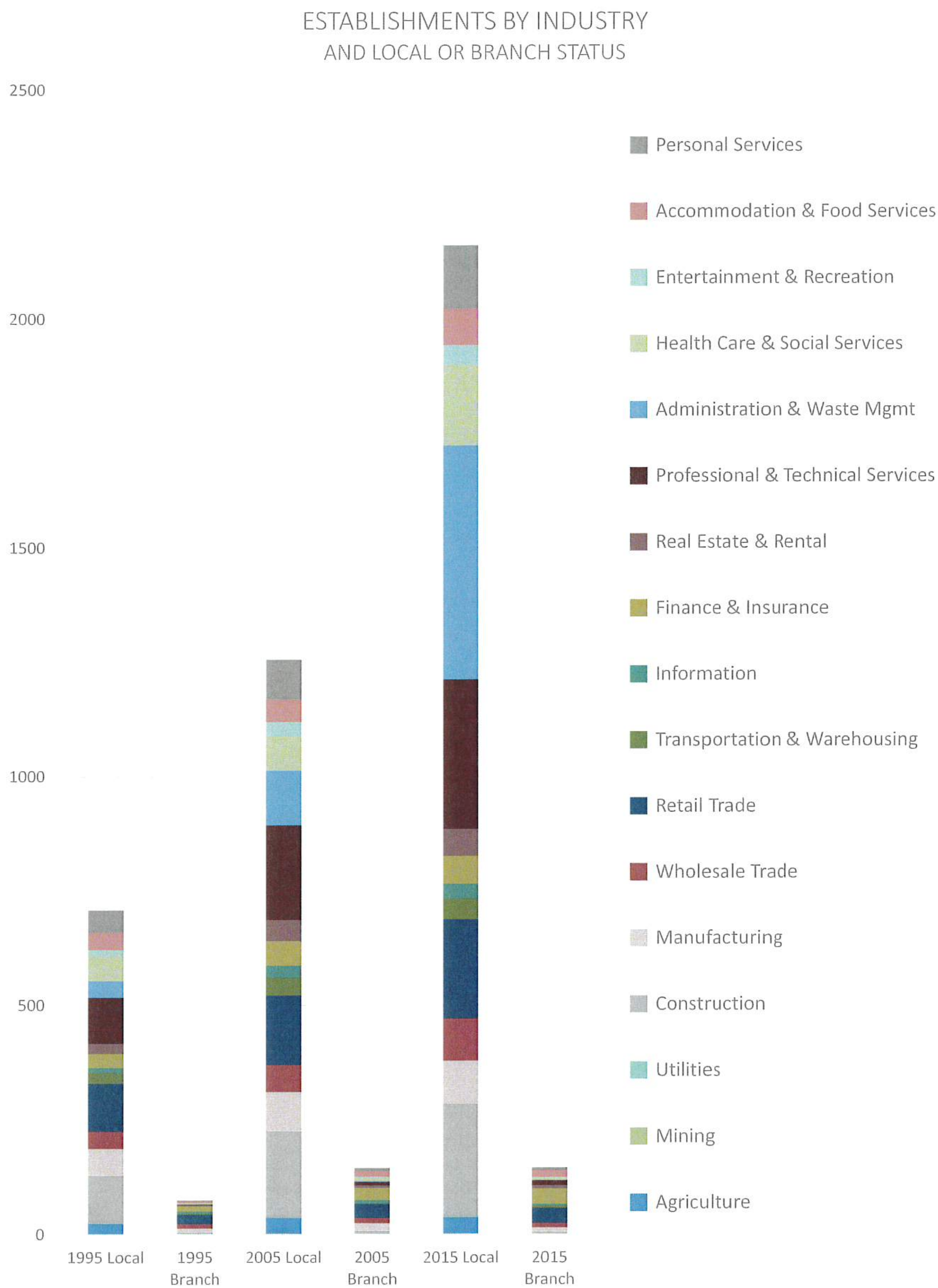
OFFICE/INDUSTRIAL MARKET

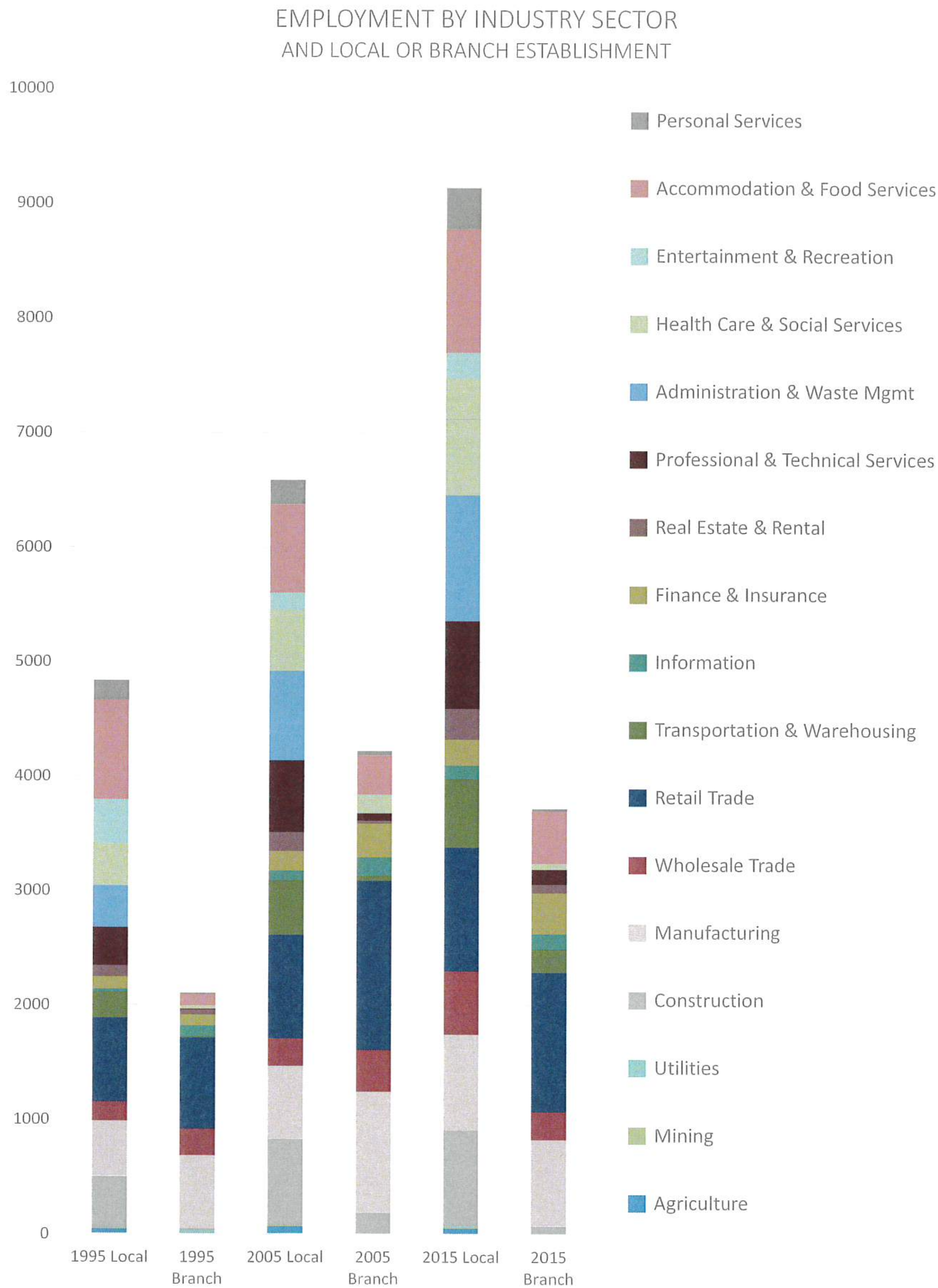
Hudson has continued to grow its economy over the past several decades, even with the recession of 2007 to 2010. While there is a perception among some that the growth can be credited to Twin Cities businesses moving or opening branch facilities in Hudson, the majority of the city's growth has come from its local businesses and entrepreneurs. From 1995 to 2015 there was a net addition of 1,453 establishments and 4,295 jobs from existing and new businesses based in Hudson. Over the same period, all new or existing branch establishments and subsidiaries added 71 establishments and 1,610 jobs.

BUSINESS MIX AND CHANGE FROM 1995 TO 2015

SECTOR	ESTABLISHMENTS					EMPLOYMENT				
	1995	2005	2015	CHANGE	PERCENT	1995	2005	2015	CHANGE	PERCENT
Agriculture	26	36	38	12	46.2%	56	68	54	-2	-3.6%
Mining	2	1	1	-1	-50.0%	16	10	8	-8	-50.0%
Utilities	1	1	2	1	100.0%	15	5	10	-5	-33.3%
Construction	106	197	251	145	136.8%	470	939	912	442	94.0%
Manufacturing	67	101	102	35	52.2%	1,117	1,690	1,585	468	41.9%
Wholesale Trade	46	70	102	56	121.7%	396	603	800	404	102.0%
Retail Trade	126	182	250	124	98.4%	1,531	2,384	2,295	764	49.9%
Transport. & Warehousing	26	41	49	23	88.5%	241	517	802	561	232.8%
Information	15	33	37	22	146.7%	118	252	256	138	116.9%
Finance & Insurance	42	81	95	53	126.2%	202	464	582	380	188.1%
Real Estate & Rental	25	51	66	41	164.0%	145	191	346	201	138.6%
Prof. & Technical Services	102	215	338	236	231.4%	338	691	897	559	165.4%
Admin. & Waste Mgmt.	36	122	512	476	1,322.2%	365	788	1,100	735	201.4%
Health & Social Services	58	82	182	124	213.8%	398	685	1,057	659	165.6%
Entertainment & Rec.	14	33	44	30	214.3%	384	155	238	-146	-38.0%
Accommodation & Food	41	62	95	54	131.7%	971	1,114	1,529	558	57.5%
Personal Services	51	94	144	93	182.4%	183	252	380	197	107.7%
TOTAL	784	1,402	2,308	1,524	194.4%	6,946	10,808	12,851	5,905	85.0%

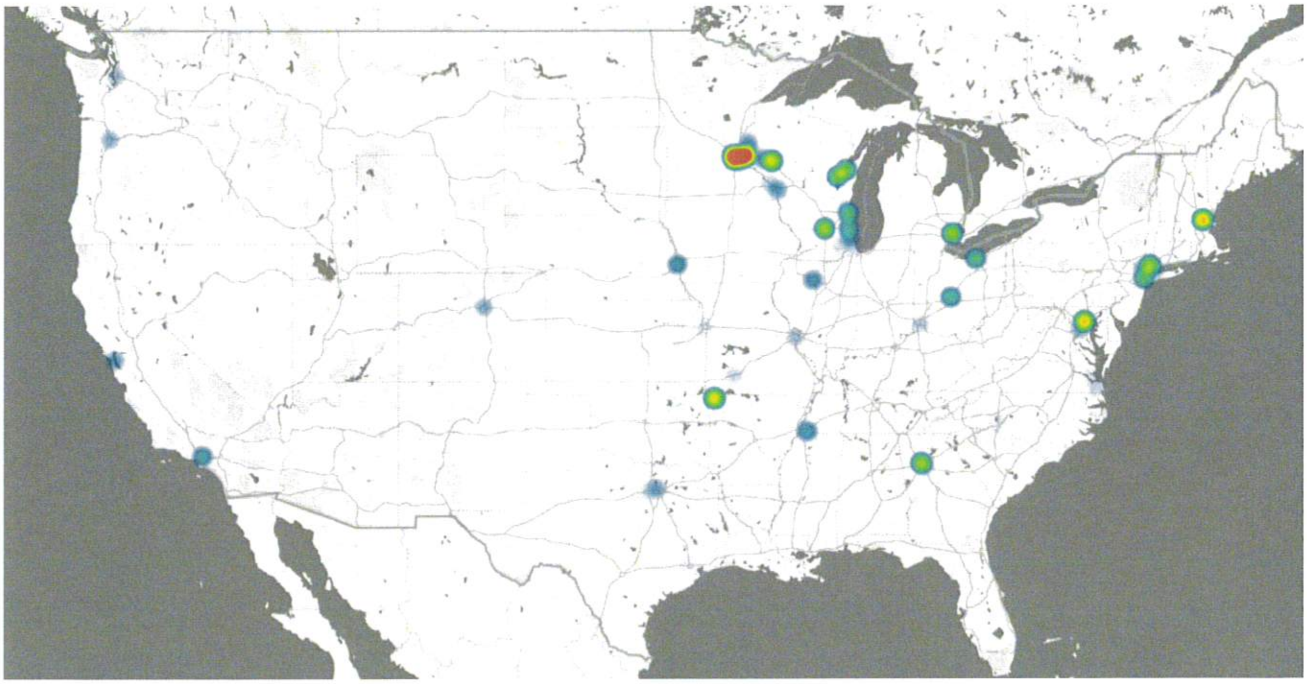
Retail trade, administrative and waste management services, health care and social services, transportation and warehousing, professional, scientific, and technical services, and accommodation and food services added the most jobs. Except for retail and accommodation and food services, local businesses and startups were overwhelmingly the source of this job growth. Branch establishments were also the largest source of new jobs in financial services.


ESTABLISHMENTS BY INDUSTRY
AND LOCAL OR BRANCH STATUS
2500
2000
1500
1000
500
0
1995 Local
1995 Branch
2005 Local
2005 Branch
2015 Local
2015 Branch
Personal Services
Accommodation & Food Services
Entertainment & Recreation
Health Care & Social Services
Administration & Waste Mgmt
Professional & Technical Services
Real Estate & Rental
Finance & Insurance
Information
Transportation & Warehousing
Retail Trade
Wholesale Trade
Manufacturing
Construction
Utilities
Mining
Agriculture

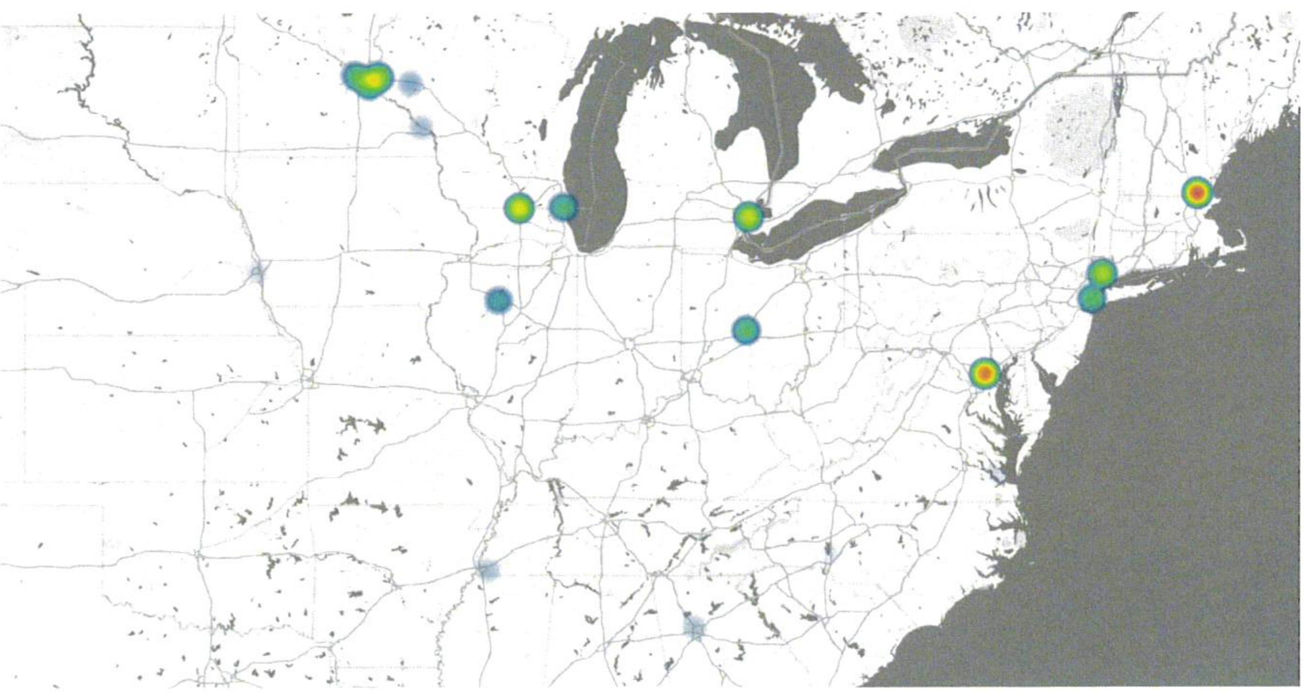

EMPLOYMENT BY INDUSTRY SECTOR
AND LOCAL OR BRANCH ESTABLISHMENT
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1995 Local
1995 Branch
2005 Local
2005 Branch
2015 Local
2015 Branch
Personal Services
Accommodation & Food Services
Entertainment & Recreation
Health Care & Social Services
Administration & Waste Mgmt
Professional & Technical Services
Real Estate & Rental
Finance & Insurance
Information
Transportation & Warehousing
Retail Trade
Wholesale Trade
Manufacturing
Construction
Utilities
Mining
Agriculture

Hudson is drawing investment for several regions of the country, as reflected in the mapped headquarters locations of branch establishments, weighted by employment. If this is narrowed to manufacturing, wholesale trade, transportation and warehousing, and professional, scientific, and technical services, the area from which investment is drawn becomes more concentrated.

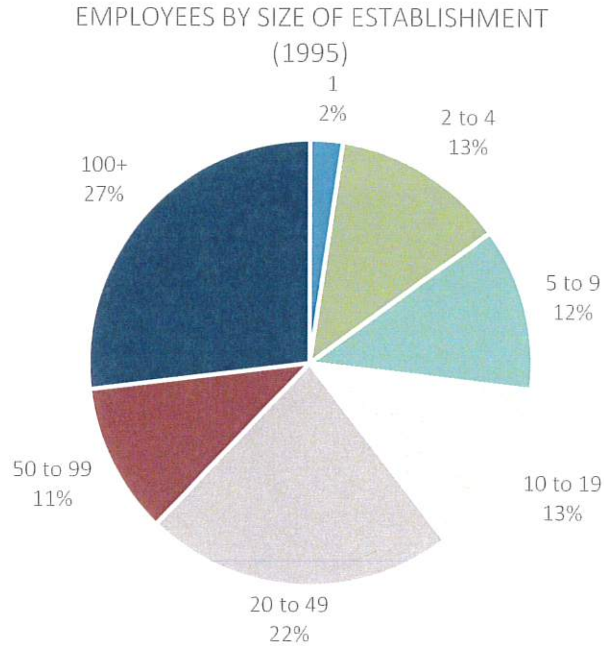
ORIGIN OF INVESTMENT FOR ALL BRANCH ESTABLISHMENTS

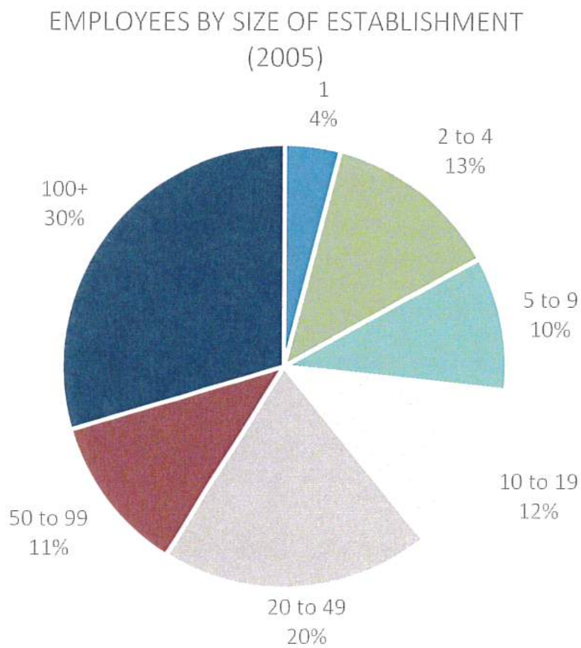


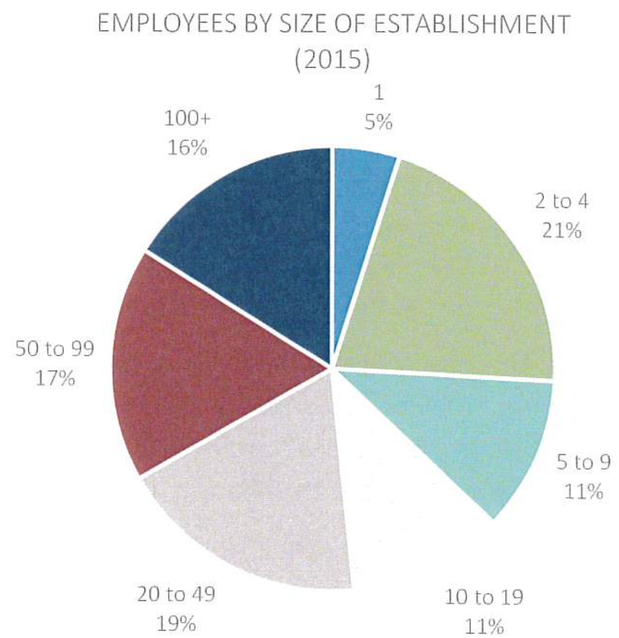
ORIGIN OF INVESTMENT FOR SELECTED INDUSTRY SECTOR ESTABLISHMENTS



There has been a dramatic change in the distribution of establishments by number of employees, especially within the most recent decade. The number of people working in one-person businesses or other micro-businesses (defined by the Census Bureau as having fewer than five employees) has grown from 15 percent of the total in 1995, to 26 percent in 2015. A smaller percentage are working in establishments with 100 or more employees, while the percent in establishments with 50 to 99 employees increased. This is consistent with national trends that have seen an increase in solo work (within or outside of an incorporated business) and microbusinesses.







The growing number of small businesses will have a demand of commercial and industrial space, along with the industries in which these businesses are being formed. The largest number of new businesses are in industries including construction and trades, administrative services, landscaping and janitorial services, insurance and real estate, and professional, scientific, and technical services. Most of these are businesses that can be – and likely are – operated from a home office or garage.

Only when reaching a larger scale, reflected by higher levels of employment, will more than a relative handful of businesses need to move into commercial space. While there were 2,346 establishments in Hudson in 2015, only 492 had five or more employees, and only 141 had more than 20 employees.

NUMBER OF ESTABLISHMENTS AND TOTAL EMPLOYMENT

	1995		2005		2015	
	ESTABS	EMPLOY	ESTABS	EMPLOY	ESTABS	EMPLOY
1	174	174	460	460	661	661
2 to 4	339	929	564	1,462	1,193	2,833
5 to 9	136	867	171	1,108	234	1,523
10 to 19	70	930	109	1,414	117	1,524
20 to 49	58	1,660	79	2,239	89	2,488
50 to 99	12	803	21	1,308	38	2,320
100+	12	1,974	19	3,363	14	2,179

FUTURE DEMAND FOR OFFICE AND INDUSTRIAL SPACE

An estimate of the future demand for space can be generated by extrapolating from past growth trends. Hudson has been annually adding about five new businesses with ten or more employees. On average, these businesses have had 29 employees. The typical space required per employee varies greatly by industry and even by individual companies, but generally, an office worker may need 200 square feet while 450 square feet is common in a light manufacturing setting. Using an average of 325 square feet, it can be expected that most future growth can be accommodated by adding between 45,000 and 50,000 square feet of new space annually.

Much of the past non-residential construction in Hudson has been build-to-suit. Ideally, future development may be designed for adaptability to adjust to future needs. A typical suburban pattern of multi-tenant "flex space" offer the opportunity to expand or contract into adjoining bays, and may be finished for any combination of office or light industrial uses.

Office uses may have other options, as they create fewer impacts and can be more easily accommodated in less intensive zoning districts. Offices may fit within existing or redeveloped commercial buildings, in the upper floors of downtown buildings, or even in conversions of homes on the periphery of commercial districts.

Lastly, the City may consider how its regulation of businesses, particularly through zoning, may impact the growing number of small and home-based businesses in the community.

SUBMITTED TO: Public Safety Committee
DATE: January 28, 2020
SUBMITTED BY: Chief Geoff Willems
REGARDING: Sign requests

BACKGROUND: The public works committee has directed staff to develop a process for when citizens request signs other than stop or yield signs (like speed limit signs, deer crossings, crosswalk signs, etc.)

Attached to this issue sheet is a draft policy that City Engineer Dean Chamberlin developed for such requests.

STAFF RECOMMENDATION:

COMMITTEE RECOMMENDATION:

505 Third Street
Hudson, Wisconsin 54016-1694
FAX: (715)386-3385

www.hudsonwi.gov

STREET SIGN REQUEST & INSTALLATION POLICY

I. PURPOSE

The purpose of this policy is to establish guidelines for requesting and installing signs on streets over which the City of Hudson has jurisdiction.

Requesting and installing STOP or YIELD signs shall follow the adopted City of Hudson Stop and Yield Sign Policy.

This policy does not apply to signs deemed necessary for installation by the City Engineer or Public Works Director as a part of a related project or as a standalone project.

II. BACKGROUND

The Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD) provides standards, guidance, and options for installation of signs on any roadway within the State of Wisconsin.

The WMUTCD lays out certain standards which must be followed on all roadways within the State of Wisconsin. These standards are not subject to interpretation or modification by local jurisdictions.

The WMUTCD also lays out guidance and options for consideration when considering installation of signs on public roadways. Guidance in the WMUTCD refers to recommended, but not mandatory, practices that are meant for typical situations. Deviations to the guidance sections in the WMUTCD are allowed if engineering judgment or an engineering study indicates the deviation to be appropriate.

The policy established in this document is intended to comply to the greatest extent possible with the requirements of the WMUTCD.

III. POLICY

A. General

The City of Hudson will consider installation of traffic signs to safely and effectively manage the flow of vehicular, bicycle, and pedestrian traffic through the city's street network.

The City of Hudson, without exception, will follow all standards described in the current edition of the WMUTCD regarding the installation of any traffic control device.

For all requests of signs on City roadways, the City Engineer or his/her designee will conduct an engineering study to determine whether the proposed sign installation is appropriate or if another traffic control solution would be more effective to address the issues contributing to the request. The engineering study may consider the following depending on the sign being installed:

- Vehicular, bicycle, pedestrian, and other traffic volumes on all intersection approaches
- Number and angle of all approaches
- Approach speeds
- Sight distance available on each approach
- Reported crash experience
- Description of applicable WMUTCD standards and guidance and determination of whether the proposed sign installation meets the standards and guidance
- Explanation of engineering judgment used to modify or overrule WMUTCD guidance
- Consideration of alternative measures to address underlying issues contributing to the proposed installation of the sign

Each study will consider the unique characteristics of the street segment or intersection where the sign is proposed.

Less restrictive traffic control will typically be considered and prioritized first before more restrictive traffic control.

B. Restrictions Related to Specific Signs

The following signs will not be installed in the City of Hudson unless otherwise approved by the City Engineer and Public Works Director due to proven ineffectiveness in research studies or inapplicability to public streets:

- W11-3 Deer Crossing
- Deaf or Blind Child Signs
- "SLOW" signs
- "NO THRU TRAFFIC" signs

IV. PROCEDURE

The following procedure will be taken with all requests for the installation of signs.

1) All sign requests shall be sent to the City Engineer or Public Works Director in writing or by direction of the Public Safety Committee, Public Works Committee, or City Council to initiate the procedure.
2) The City Engineer will conduct an engineering study for the location proposed for the installation of the signs.
3) A staff group comprising the City Engineer, Public Works Director, and other staff as needed will review the results of the Engineering Study. The staff committee will rate the request as one of the following:
    a. "Not Recommended" – This designation will be applied only if the request violates the conditions of this policy or the standards within the WMUTCD.
    b. "Further Discussion or Analysis Warranted" – This designation will be applied if the sign request meets the conditions of this policy and the standards within the WMUTCD but staff believes that further study or an analysis of alternative measures is needed.
    c. "Recommended" – This designation will be applied if the sign request meets the conditions of this policy and the standards within the WMUTCD and that the requested sign is, in staff's view, the best course of action to solve the particular issue leading to the request.
4) If the request is rated as "Not Recommended", staff will inform the requestor of the determination and the reasons for such as designation. The sign request will not be forwarded for future discussion at a committee meeting. The requestor may appeal the designation to the Public Works Committee.

    If the request is rated as "Further Discussion or Analysis Warranted" or "Recommended", the City Engineer or Public Works Director will discuss the sign request at the next applicable committee meeting(s) as appropriate. For any sign request related to existing or potential future public safety concerns, the request must be discussed at the Public Safety Committee. For any sign request paid for by Public Works general operating or capital funds, the request must be discussed at the Public Works Committee. For requests applicable to both committees, the request will be first discussed at whichever committee meets first and then at the committee meeting second.
5) For sign requests requiring discussion by the Public Safety Committee, the Public Safety Committee will, upon consultation with staff and consideration of the results of the engineering study, determine whether the proposed sign will address the underlying safety concerns leading to the request or if additional analysis is needed to make a determination.

    For sign requests requiring discussion by the Public Works Committee, the Public Works Committee will, upon consultation with staff and consideration of the results of the engineering study, determine whether the proposed sign installation is recommended given available budgets, specific site constraints, and other factors or if additional analysis is needed to make a determination.

If additional information is needed by committee decision, the City Engineer and Public Works Director will collect and analyze any needed additional information and bring the matter back to the appropriate committee(s) for additional discussion.

If the sign request is approved by the appropriate committee(s), it will be forwarded to the Common Council for consideration and approval.

6) If a recommendation is forwarded to the Common Council for installation of the proposed sign, the City Council will consider the recommendation and approve, modify, or deny the recommendation or take an alternative action as deemed appropriate.

No publicly-requested signs will be installed except as approved by the City Council and following the procedure in this policy.

This policy will be reviewed when the WMUTCD is updated to ensure the policy does not conflict with the WMUTCD. The policy may be reviewed sooner upon direction by City Council or upon recommendation by City staff.

Policy developed by:

Dean Chamberlain, PE
City Engineer
dchamberlain@hudsonwi.gov
715-716-5729

Policy Reviewed By Public Works Committee on _____________

Policy Reviewed By Public Safety Committee on _____________

Policy Approved By City Council on _____________

CITY OF HUDSON

SUBMITTED TO: Public Safety Committee
DATE: January 28, 2020
SUBMITTED BY: Chief Geoff Willems
REGARDING: 11^{th} Street traffic safety

BACKGROUND: Council woman Hall emailed myself as well as Dean Chamberlin regarding an email she received from Andrew Ellingbow, a resident on 11^{th} St between Vine Street and St. Croix Street. It seems from the email, the biggest issue is with regard to high school students speeding excessively in this area.

Upon speaking with Dean Chamberlin, the City Engineer, he advised that before the Holidays, the Public Works Committee discussed the speed hump policy and they had referred it back to public safety with the direction to come up with a more all-encompassing policy for speed and safety issues.

This issue seems like a good time to have more discussion about speed humps and signs, etc.

STAFF RECOMMENDATION:

COMMITTEE RECOMMENDATION:

CITY OF HUDSON
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SPEED HUMP POLICY

Introduction

Speed humps have been increasingly recognized by engineers as a suitable geometric design technique for controlling traffic speeds under appropriate roadway circumstances. This policy recognizes the need to develop a standard set of guidelines and criteria to follow when a speed hump is applicable in the City of Hudson.

Description

Speed humps are a vertical traffic calming device intended to slow traffic speeds on streets intended for low traffic speeds. Constructed of asphalt pavement, recycled rubber, or plastic, speeds humps have a ramp length of 3-6 feet and height of 3 inches. Placed perpendicular to the traffic flow of the street, speed humps reduce speeds to 12-20 mph.

Non-Eligible Streets

Certain streets are not eligible for installation of speed humps due to certain characteristics of the street.

Urban roads are designed to promote faster-moving traffic connecting two places of interest and thus are not suitable locations for speed humps. Examples of these roads include:

- Carmichael Road from Vine Street to the south city limits
- Hanley Road from Carmichael Road to Highway 35

Streets that are fully or partially under the jurisdiction of other agencies (e.g., the Wisconsin Department of Transportation (WisDOT), St. Croix County, Town of Hudson) would require the approval of the agency or agencies with jurisdiction over that street. Examples of streets that are included in this description include:

- 2nd Street/State Highway 35 (WisDOT)
- Tower Road (Town of Troy)
- Old State Highway 35 (Town of Hudson)

Additionally, other factors of streets within the city's jurisdiction cause certain streets to not be good locations for speed humps. These factors are discussed in the following sections of this policy document.

Recommended Restrictions on Placement of Speed Humps

Number of Lanes

Speed humps should be used only on streets with no more than two travel lanes.

Pavement Characteristics
Overall pavement on streets considered for speed humps should have good surface (PASER Rating 6-10) and drainage qualities. Where major resurfacing/reconstruction of a street is planned for the near future, speed hump installation should be deferred and incorporated in the resurfacing process unless otherwise approved by the City Engineer, Public Works Director, and Public Works Commission.

Street Grades
Speed humps should not be employed on streets with grades exceeding 5 percent approaching the speed hump site as to ensure that vehicles will not approach a speed hump at excessive speeds.

Placement Near Curves (Vertical & Horizontal)
Speed humps should not be placed within severe horizontal or vertical curves that might result in substantial lateral or vertical forces on a vehicle traversing the speed hump. Speed humps should be avoided within horizontal curves of less than 300 feet centerline radius and on a vertical curve (hill) with less than the minimum safe stopping sight distance. Safe stopping sight distance for a vehicle traveling 30 mph is 200 ft.

Traffic Speeds
Speed humps should generally be installed only on streets where the posted speed limit is 25 mph or less. Where speed problems occur on streets with higher speed limits (such as streets posted for 35 mph experiencing 45-50 mph traffic), employment of focused enforcement and combinations of other types of control measures should be considered instead of speed humps.

When speed humps are installed to address speeding concerns, studies should be performed to confirm the magnitude of the speeding problem to ensure that the installation of speed humps can be expected to appreciably address that problem. As justification for speed humps on streets, Hudson's speed criteria are as follows: Eighty-fifth percentile speed exceeds posted speed limit (normally 25 mph).

Traffic Volumes
Speed humps should be installed only on streets with an average daily traffic volume of 6,000 vehicles or less.

Emergency Vehicle Access
Speed humps should not be installed on streets that are defined or used as primary emergency vehicle access routes. Both the City of Hudson Fire Department and EMS services shall be contacted and approved by said organizations. Examples of these streets include:

- Vine Street
- Coulee Road
- Crest View Drive / Stageline Road

Citizen Support
Where speed humps are considered at citizen request, a petition signed by 75% of the properties in the primary impact zone of the speed humps shall be considered sufficient indication of community support for the city to act on the request (impact zone to be defined by the City Engineer and Public Works Director on a case by case basis).

Other Locations to Avoid
In addition to the restrictions and guidance presented elsewhere in this document, there are other locations where construction of speed humps should be avoided. These locations include:

- Locations within intersections
- Locations at driveways
- Locations over utility manholes, gate valves, pull boxes, and access vaults
- Locations at fire hydrants
- Locations immediately up-grade from drainage inlets
- Locations at or adjacent to surface cross drains

<u>Design and Construction Considerations</u>
Traffic Control
Speed humps shall be accompanied by a sign (MUTCD W17-1) warning drivers of the upcoming traffic control device. Furthermore, the speed humps shall be marked with 12-inch reflective white stripes set parallel to the centerline tangent on 6-foot centers with the center-most stripes offset by 3 feet on centers from the centerline. The word message BUMP in eight (8) foot white reflective letters shall be placed fifty (50) feet in advance on each approach to each hump.

Spacing and Location
Location and spacing of speed humps will be determined on a case by case basis by the City Engineer and Public Works Director. In all, speed humps intended to operate in series would be located no closer than 200 feet apart and no farther than 500 feet apart. On short blocks (less than 500 feet in length), 1-2 humps per block would be typical.

Minimum Distances
Speed humps should be located a certain minimum distance from traffic control features as shown in the table below:

A. Traffic Signal	300 ft.
B. Stop Sign	150 ft.
C. Other Traffic Calming Devices	135 ft.
D. Intersections	100 ft.
E. Driveways	30 ft.
F. Curves/Hills and Visual Impairments	200 ft.
G. Mid-block Crosswalks	100 ft.

The City Engineer and Public Works Director reserve the right to apply other minimum distances other than those in the preceding table if deemed reasonable to promote safety for vehicle, bicycle, or pedestrian traffic.

Design
Speed humps should be designed to the following criteria;

- Slopes should not exceed 1:10 or be less steep than 1:25
- Side slopes on tapers should be no greater than 1:6
- The vertical lip should be no more than a quarter-inch high

Drainage
Speed humps shall not be constructed in locations where street drainage is significantly impeded. Speed humps should not be constructed in locations that will block curb flow lines unless adequate catch basins are located immediately upstream of the proposed speed hump location.

Alternative Options
In locations where speed humps are not recommended, judicious use of other guide, warning, or regulatory traffic control devices and/or other physical changes to the street characteristics may instead be used to slow traffic speeds.

Alternative measures include, but are not limited to:

- Portable speed trailer(s)
- Radar detector signage
- Increased speed enforcement
- Restriping of lane lines to reduce lane widths
- Addition or removal of on-street parking
- Construction of temporary or permanent bumpouts/curb extensions
- Construction of temporary or permanent medians, chicanes, or other diversions
- Additional and/or more conspicuous speed limit signage

However, some of these alternatives have been vetted with no significant results altering recorded speeds.

Responsibility for Cost for Construction of Speed Humps
Petitioners for speed humps shall be aware that all expenses related to the installation of the speed humps will be shared by people within the impact zone unless the speed hump is constructed in conjunction with a city maintenance or reconstruction project or is paid for by funding by a grant or other funding program.

Process for Requesting Speed Humps
Petitioners must send a request for a speed hump to the City Engineer and/or Public Works Director to initiate the review process for the speed hump(s). Petitioners must identify the location(s) of any speed hump(s) requested using a description of the street areas/blocks/segments and/or a map for review. Requests may be received via email, mail, or in-person at the Community Development/Public Works Departments offices at City Hall.

When a petition is received, the City Engineer will initiate a speed study and analysis of the requested location of the speed hump(s). The City Engineer will then respond in writing to the petitioner(s) with initial findings of the review of the request, whether recommended approval as requested, recommended denial, or with proposed changes to the request. If the petitioner(s) wish to proceed with the request, the City Engineer and Public Works Director will determine the impact zone area and survey the residents, business owners, and/or property owners within the impact zone area.

If the citizen support threshold is met, the speed hump request will be placed on the agenda for the next Public Works Committee meeting. If the request is approved by the Public Works Committee, City staff will notify the impact zone residents, make arrangements to collect the cost of the approved speed hump(s), and schedule construction of the speed hump(s) for a time as deemed appropriate by the Public Works Director.

Evaluation of Constructed Speed Humps

The City reserves the right to evaluate the effectiveness of any constructed speed humps and remove any installed speed humps if they pose a hazard to the traveling public or maintenance operations. The City will pay any associated costs with removal of any installed speed humps.

Incorporation into Other Plans and Policies

This policy is intended to stand alone unless otherwise superseded or incorporated by another plan or policy.

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Policy Approved By City Council on ______________________________