

Needs Assessment

ROADS



Town of Richmond
St. Croix County

As approved by the Town Board on

August 8, 2024



**IMPACT FEES
PUBLIC FACILITIES NEEDS ASSESSMENT
TOWN OF RICHMOND, WISCONSIN
October 31, 2023**

INTRODUCTION

The Town of Richmond is located in west-central St. Croix County, Wisconsin and covers an area of approximately 32 square miles. This is an area that has been subject to significant growth pressure. It is expected that these growth pressures will continue during the next 20 years due to growth of the Minneapolis / St. Paul metropolitan area, improvements in the regional transportation system, and the general metropolitan population movement to outlying areas.

The Town has recognized that this pattern of growth will continue to place additional stress on the existing town facilities. To accommodate this, new and expanded facilities are required. The most prominent of these include its road network.

Presently, the Town uses the general tax base or general obligation bonds and impact fees to help pay for infrastructure improvements. As the cost of providing services and infrastructure continues to increase along with the pressure to control property taxes, impact fees provide an equitable means for both existing and new development to pay for portions of public infrastructure projects. Wisconsin Statutes 66.0617 with revisions allows local governments to charge impact fees for public improvements. These fees can be used to recover costs to construct, expand, or improve public facilities necessary to accommodate land development and to maintain current levels of service within the Town.

The Needs Assessment and associated impact fees must meet the following criteria:

- Maintain a rational relationship to the need for new, expanded or improved public facilities that are required to serve land development.
- Cannot exceed the proportionate share of the capital costs that are required to serve land development, as compared to existing uses of land within the municipality.
- Be based upon actual capital costs or reasonable estimates of capital costs for new, expanded or improved public facilities.
- Be reduced to compensate for other capital costs imposed by the municipality with respect to land development to provide or pay for public facilities, including special assessments, special charges, land dedications or fees in lieu of land dedications or any other items of value.

- Be reduced to compensate for monies received from the federal or state government specifically to provide or pay for the public facilities for which the impact fees are imposed.
- Cannot include amounts necessary to address existing deficiencies in public facilities.
- Be payable by the developer or the property owner to the municipality in full upon issuance of a building permit by the municipality.
- May be held for 10 years from the time collected plus 3 years longer if the municipality finds due to extenuating circumstances or hardship a longer time to hold the impact fees is needed.

POPULATION PROJECTIONS

Table 1 shows the 2020 population and household count from the 2020 U.S. Census Bureau. The population and household projections for 2030-2040 were produced in 2013 and based on the 2010 Census. No updated projections are available at this time.

TABLE 1 - Residential	
2020 Population	4,074
2020 Households	1,400
2030 Projected Population	4,831
2030 Projected Households	1,750
2020-2030 Additional Population (4,831-4,074)	757
2020-2030 Additional Households (1,750-1,400)	350
2035 Projected Population	5,123
2035 Projected Households	1,883
2020-2035 Additional Population (5,123-4,074)	1,049
2020-2035 Additional Households (1,883-1,400)	483
2040 Projected Population	5,365
2040 Projected Households	2,001
2020-2040 Additional Population (5,365-4,074)	1,291
2020-2040 Additional Households (2,001-1,400)	601

Capital costs for expanded roadways are allocated between projected new residential and commercial/industrial development. Commercial/industrial development may also include non-profit institutional uses that are similar to commercial and other non-residential development, such as churches, schools, and government buildings. Roadway impact fees will be based on trips generated by various land use types, as analyzed below, and summarized in Appendix B. Traffic generation is a fair and equitable criterion on which to base the impact of roadway projects.

Based on the Town's 2023 Comprehensive Plan, it is estimated that Richmond will develop 15 acres of new commercial land and 240 acres of new industrial land by 2040. The roadway impact fee analysis uses these assumptions:

Industrial:

240 acres – non-metallic mining

Commercial:

5 acres – commercial retail

5 acre – gas station/convenience store

5 acre – restaurant

Commercial-industrial development will be assessed at 5% of its full trip generation in the impact fee formula, because most future commercial-industrial development will not be in the immediate vicinity of the planned roadway improvements but will have some impact on them. Future residential development will be spread across the Town, but a large share of that development will be within and near the area where the roadway improvement projects are planned. Traffic from future residential development is therefore taken at 100% of its impact in those formulas.

ROADWAY NEEDS ASSESSMENT

The Town of Richmond is currently served by an extensive transportation network consisting of two State Highways (64 and 65), several County Highways and 67.88 miles of Town Roads. The Town of Richmond has adopted an Official Town Road Map displaying the roads within the Town of Richmond and their designated classification. The State of Wisconsin, St. Croix County and the Town of Richmond are each financially responsible for maintaining and adding improvements to their respective roads.

The town roads are generally laid out in a grid pattern following the section lines. Most existing town roads are 18-20 feet wide with one-to-two-foot shoulders. The Town realizes that these currently do not meet road width standards. Therefore, the needs assessment accounts for these existing deficiencies and only calculates the cost difference after the deficiency has been corrected.

The proposed roads included in the impact fees serve as minor collector roadways. Minor collectors provide the connection between neighborhoods and the county and state highway system. The roadways chosen reflect areas where residential development is anticipated based on the best information available at the time of completion of this Needs Assessment. The proposed roads and length of improvement are listed [Note that this list of roadways is not meant to be exclusive; development may occur along other roadways within the Town which may require the improvement of those roadways to accommodate new

development. Any impact fees ultimately approved by ordinance passed by the Town Board on the basis of this Needs Assessment shall therefore also apply to development along any such unlisted roadways.].

95th Street from 155 th Avenue to STH 64:	13,950'
100th Street from CTH A to 170 th Avenue:	14,690'
120th Street from CTH E to CTH G:	15,960'
130th Avenue from STH 65 to 120 th Street:	5,350'
140th Street from CTH E to CTH G:	15,900'
157th Avenue from 140 th Street to STH 65	<u>5,340'</u>
Total:	71,190' or 13.5 miles

Impact fees are generally to be used within 7 years; therefore, 13.5 miles over the 7 years is close to 2 miles per year which is consistent with the Town's general road improvement practice.

Based on current traffic volumes, the existing Town road standard is adequate to support the current traffic levels. However, additional traffic generated by expected growth will affect the level of service and traffic patterns of these roadways. Therefore, improvements to these roadways will be necessary to adequately serve the increase in traffic caused by new development. The improvements include the increase of roadway width from current Town Standards and the FDM guidelines for a RT1 Town Road with 0-250 AADT (22' pavement with 3' shoulders on each side) to a RT2 Town Road with 251-400 AADT (22' pavement with 4' shoulders on each side) and additions of bypass and turn lanes, if needed.

ROADWAY IMPACT FEE

Road impact fees will be applied to residential and commercial/industrial properties because the proposed roads to be upgraded serve these two land uses. The amount to charge for impact fees is based on the percentage of trips generated for each land use. Impact fees for residential development are imposed on each new residential unit, or residential equivalent unit (REU) based on typical trip generation rates for single family homes. Single family homes are the only form of residential development expected in the near future in the Town. If more dense housing – duplexes, townhouses, apartments, etc. – is anticipated or proposed in the future it can be analyzed and accounted for in the impact fees and ordinance at that time. Impact fees for commercial/industrial development, including non- profit uses such as churches, schools, and government buildings, are also based on trips generated, with two adjustments. We anticipate 255 acres combined of new commercial/industrial development by 2040. Fees are based on the trips generated by that development, adjusted first for pass-by or share trips, and then weighted according to their anticipated location within the Town. This weighting factor reduces the trip impact to 5% of the estimated trips generated.

Cost estimates have been prepared to expand roads from current RT1 Town Road width standards to RT2 Town Road standards. The cost estimates are based on recent bids for roadway reconstruction projects in Western Wisconsin and the Twin Cities area. The impact fee for roads is calculated by first dividing the expanded roadway improvement cost by a percentage of trips attributed to residential uses and a percentage attributed to commercial/industrial uses. New residential development is expected to be all single-family homes. The residential portion is then divided by the anticipated 601 new residential units. The commercial/ industrial portion is divided by the total number of anticipated daily trips at full development of an additional 255 acres of development. The associated calculations and resulting impact fee for road improvements are presented in the tables below. The detailed cost estimates for the road improvements are in Appendix A.

Land Use Type	Average Trips per Day*	2020-2040 Additional Projections		
		Quantity	Trips per Day	% of Total
Residential	9.57/unit	601 New Units	5,752	96.9%
Commercial/Industrial	0.73/acre	255 Acres	186	3.1%
TOTAL			5,938	100.0%

The total cost eligible to be recovered through impact fees is \$2,415,125. However, \$254,162.93 currently exists in the existing impact fee roadway improvement fund balance. The table above identifies the proportionate share of costs that can be imposed on residential impact fees is 96.9%. The tables below calculate the impact fee for new residential development and new commercial/industrial development within the Town. The dollar amount to be divided among all future C/I development was weighted using the 5% location factor to arrive at 3.1% of roadway costs to be allocated to this future C/I development. Within that amount, each new use will be assessed on a per trip basis, using each new use's share of the actual 5,938 trips calculated.

Residential Road Improvement Costs	
Total Estimated Expansion Cost	\$2,415,125
Minus Impact Fee Fund Balance as of October 10, 2023	\$254,163
Subtotal	\$2,160,962
Residential Road Improvement Impact Fee	
Total Estimated Expansion Cost	\$2,160,962
Percentage of Cost for residential land use	96.9%
Subtotal	\$2,093,972
2020-2040 Additional Residential Units	601
Impact Fee per REU	\$3,484
(Percentages are rounded)	

Commercial / Industrial Road Improvement Impact Fee	
Total Estimated Expansion Cost	\$2,160,962
Percentage of Cost for com./industrial land	3.1%
Subtotal	\$66,990
Projected Commercial/Industrial Acres	255
Projected Commercial/Industrial Trips	3,729
Impact Fee per C/I Trip	\$17.96/trip
(Percentages are rounded)	

Roadway impact fees for some typical uses under these formulas would be:

- Specialty Retail, 15,000 square feet: \$8,360
- Gas Station/Convenience Store, 12 gas pumps: \$46,788
- Restaurant, high turnover, 5,000 square feet: \$9,708
- Single Family Home: \$3,484

IMPACT FEES SUMMARY

The chart below summarizes the potential impact fees the Town could impose on new development.

	Residential per Unit	Commercial/Industrial
Roadways	\$3,484	Varies – Trip Based

Payment of the impact fees shall be per the approved Impact Fee Ordinance.

EFFECT OF IMPACT FEE UPON AFFORDABLE HOUSING

As noted above, the total impact fee for each REU is \$3,484. The following table outlines the effect of this fee on affordable housing based on a mortgage for a median home value in Richmond of \$311,182 and a median household income of \$87,949, assuming the entire cost of the fees is added to the home price. For a 30-year mortgage at 7% interest rate, adding the impact fee results in roughly 0.4 percent increase of household income that goes towards housing – from 37.2% of median household income to 37.6% of median household income. For lower cost housing and lower income households, the fees would be a proportionally larger share of the home price and the household income. The fees may negatively impact the availability of affordable housing, but

we have not estimated the scale of that impact because there is no clear definition of affordability or how many homes of what price constitute affordable housing in Richmond.

Median House Value	\$311,182	
Annual Cost of Housing:		
Annual Mortgage Payment	\$25,077.04	30 years @ 7%
Estimated Property Taxes	\$4,667.73	\$15/\$1000
Estimated Insurance	\$3,000	
Total Payment	\$32,744.77	
Median Household Income	\$87,949	
Mortgage Pmt as % of Income	37.2%	
Impact Fee Added to Mortgage	\$3,484	
Median Housing Value + Impact Fee	\$314,666	
Annual Mortgage Payment w/Impact Fee	\$25,357.80	30 years @ 7%
Total Payment incl taxes and insurance (T/I)	\$33,025.53	
Mortgage Payment + T/I as % of Income	37.6%	
Increase in % of income for housing	0.4%	

APPENDIX A - ROADWAY EXPANSION COSTS

Source: Stevens Engineers, Inc., based on bids from road reconstruction projects in western Wisconsin, 2023

95TH STREET 155TH AVENUE TO STH 64 Minor Collector Roadway 13,950 L.F.

Item	Unit	Quantity	Unit Price	Total Price
Common Excavation	CY	3100	\$15.00	\$46,500
Granular Fill	TN	7059	\$15.00	\$105,881
8" Aggregate Base	TN	1597	\$15.00	\$23,957
Shouldering	TN	799	\$45.00	\$35,935
Storm culvert extension	LF	123	\$100.00	\$12,276
Erosion Control	LF	13950	\$6.00	\$83,700
Restoration	SY	12400	\$4.00	\$49,600
Subtotal				\$357,849
15% Contingency				\$53,677
15% Engineering and Admin				\$61,729
TOTAL ESTIMATED 95th STREET COST				\$473,255

100TH STREET CTH A TO 170TH AVE Minor Collector Roadway 14,690 L.F.

Item	Unit	Quantity	Unit Price	Total Price
Common Excavation	CY	3264	\$15.00	\$48,967
Granular Fill	TN	7433	\$15.00	\$111,497
8" Aggregate Base	TN	1682	\$15.00	\$25,228
Shouldering	TN	841	\$45.00	\$37,841
Storm culvert extension	LF	129	\$100.00	\$12,927
Erosion Control	LF	14690	\$6.00	\$88,140
Restoration	SY	13058	\$4.00	\$52,231
Subtotal				\$376,831
15% Contingency				\$56,525
15% Engineering and Admin				\$65,003
TOTAL ESTIMATED 100th STREET COST				\$498,359

**120TH STREET
CTH. E TO CTH. G
Minor Collector Roadway
15,960 L.F.**

Item	Unit	Quantity	Unit Price	Total Price
Common Excavation	CY	3547	\$15.00	\$53,200
Granular Fill	TN	8076	\$15.00	\$121,136
8" Aggregate Base	TN	1827	\$15.00	\$27,409
Shouldering	TN	914	\$45.00	\$41,113
Storm culvert extension	LF	140	\$100.00	\$14,045
Erosion Control	LF	15960	\$6.00	\$95,760
Restoration	SY	14187	\$4.00	\$56,747
Subtotal				\$409,409
15% Contingency				\$61,411
15% Engineering and Admin				\$70,623
TOTAL ESTIMATED 120th STREET COST				\$541,444

**130TH AVENUE
STH. 65 TO 120TH ST
Minor Collector Roadway
5,350 L.F.**

Item	Unit	Quantity	Unit Price	Total Price
Common Excavation	CY	1189	\$15.00	\$17,833
Granular Fill	TN	2707	\$15.00	\$40,607
8" Aggregate Base	TN	613	\$15.00	\$9,188
Shouldering	TN	306	\$45.00	\$13,782
Storm culvert extension	LF	47	\$100.00	\$4,708
Erosion Control	LF	5350	\$6.00	\$32,100
Restoration	SY	4756	\$4.00	\$19,022
Subtotal				\$137,239
15% Contingency				\$20,586
15% Engineering and Admin				\$23,674
TOTAL ESTIMATED 130th AVENUE COST				\$181,499

**140TH STREET
CTH. E TO CTH. G
Minor Collector Roadway
15,900 L.F.**

Item	Unit	Quantity	Unit Price	Total Price
Common Excavation	CY	3533	\$15.00	\$53,000
Granular Fill	TN	8045	\$15.00	\$120,681
8" Aggregate Base	TN	1820	\$15.00	\$27,306
Shouldering	TN	910	\$45.00	\$40,958
Storm culvert extension	LF	140	\$100.00	\$13,992
Erosion Control	LF	15900	\$6.00	\$95,400
Restoration	SY	14133	\$4.00	\$56,533
Subtotal				\$407,870
15% Contingency				\$61,181
15% Engineering and Admin				\$70,358
TOTAL ESTIMATED 140th STREET COST				\$539,409

**157TH AVE
140TH ST TO STH 65
Minor Collector Roadway
5,340 LF**

Item	Unit	Quantity	Unit Price	Total Price
Common Excavation	CY	1187	\$15.00	\$17,800
Granular Fill	TN	2702	\$15.00	\$40,531
8" Aggregate Base	TN	611	\$15.00	\$9,171
Shouldering	TN	306	\$45.00	\$13,756
Storm culvert extension	LF	47	\$100.00	\$4,699
Erosion Control	LF	5340	\$6.00	\$32,040
Restoration	SY	4747	\$4.00	\$18,987
Subtotal				\$136,983
15% Contingency				\$20,547
15% Engineering and Admin				\$23,630
TOTAL ESTIMATED 157th AVENUE COST				\$181,160

TOTAL EXPANSION COST OF EXISTING ROADWAYS	\$2,415,125
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APPENDIX B

COMMERCIAL / INDUSTRIAL LAND USE TRAFFIC IMPACT

Based on the Town of Richmond's 2023 Comprehensive Plan, it is anticipated that there will be 255 acres of commercial and industrial development. The breakdown is assumed as follows:

Industrial:

240 acres – non-metallic mining

Commercial:

5 acres – commercial retail

5 acre – gas station/convenience store

5 acre – restaurant

Background – Traffic Impact

The size and construction of roadways is closely related to the amount of traffic on them. The roadway impact fees will be based on the proportion of traffic that can be assigned to various land uses. The accepted basis for estimating traffic is the Institute of Transportation Engineers (ITE) Trip Generation Manual, which assigns trip generation rates to various types of land use. We have used ITE figures in the analysis; however, there are no standard trip rates for non-metallic mining. A wide range of activity levels exist for each mine. As an example, the mining operation proposed in the Town of Osceola anticipated 200 trucks per day (or 400 trips). This was anticipated to be a fairly "active" mine. For calculation purposes, we will use approximately half the number of trips, but recommend that during the permitting process, a traffic analysis be performed to calculate the actual trips generated.

For each commercial use, the trips were further adjusted to account for passby trips, where a trip going to a given destination passes by another use and turns in. Many commercial uses will have a passby factor, reducing their trip numbers compared to the raw ITE rates.

Analysis – Traffic Impact

The impact that various future developments will have on the planned roadway improvement projects is an estimate since exact figures would be difficult to come by. Information in this Needs Assessment was based on the Comprehensive Plan and a typical ratio of development types. A Weighting Factor of 5% was used for the Commercial-Industrial trips calculation.

Land Use	Units	Acres	Anticipated Sq. Ft.	Trip Rate*	Passby Trip Factor	Adjusted Trip Rate	Adjusted Trips (rounded to the nearest whole number)
Industrial		240		0.5	1.00	0.5	120
Specialty Retail		5	15,000	44.32	0.70	31.02	465
Gas/convenience**	12 pumps	5		542.6	0.40	217.04	2,604
Restaurant, high turnover		5	5,000	127.15	0.85	108.08	540
Single Family Resid.***	601			9.57	1.00	9.57	5,752

* Trip rate for Specialty Retail, General Office and restaurant per 1,000 sq. ft.

**Trip rate for Gas/convenience per gas pump.

*** Trip rate for Single Family Residence per unit.

Weighting Factor (assumed reduction in impact of C-I trips on roadway projects)

	Trips	Weighting Factor	Weighted Trips	Percent of Wtd. Trips
C-I trips	3,729	5%	186	3.1%
Resid. trips	5,752	100%	5,752	96.9%
Total			5,938	