11333 N. Cedarburg Road
Mequon, WI 53092
Phone: 262-236-2914
Fax: 262-242-9655

www.ci.mequon.wi.us

Office of the City Clerk
Taped & Televised

COMMITTEE OF THE WHOLE
Wednesday, August 14, 2024
6:00 PM
Christine Nuernberg Hall

Agenda

1. Call to Order, Roll Call
2. Approval of Meeting Minutes
   a. May 2, 2024
   b. July 9, 2024
3. Discussion Items
   a. Discussion Regarding the Regulation of Structures Located Along the Lake Michigan Bluff (6:00 PM – 6:30 PM)
   b. Presentation of a Phase II Report for a Real Estate Market Analysis of the Port Washington Road Corridor, Between County Line Road and Glen Oaks Lane (6:30 PM – 7:00 PM)
   c. Review and Discussion of Revised Town Center Neighborhood Signage Designs (7:00 PM – 7:10 PM)
   d. Discussion Regarding Brush Site Automation Project (7:10 PM – 7:30 PM)
4. Informational Items
   a. Committee of the Whole Planning Calendar
5. Adjourn

Dated: August 14, 2024 */s/ Andrew Nerbun, Mayor*

Notice is hereby given that a quorum of other governmental bodies may be present at this meeting to present, discuss and/or gather information about a subject over which they have decision-making responsibility, although they will not take formal action thereto at this meeting.

Persons with disabilities requiring accommodations for attendance at this meeting should contact the City Clerk's Office at 262-236-2914, twenty-four (24) hours in advance of the meeting.

Any questions regarding this agenda may be directed to the City Administrator's Office at 262-236-2941, Monday through Friday, 8:00 AM – 4:30 PM.

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COMMITTEE OF THE WHOLE
Strategic Planning Workshop
Thursday, May 2, 2024
Ozaukee Country Club, 10823 N. River Road
8:30 A.M.

Minutes

1) Call to Order, Roll Call

Mayor Nerbun called the meeting to order at 8:30 AM.

Present:
Mayor Andrew Nerbun
Alderman Robert Strzelczyk
Alderman Kelly Tolocko
Alderman Dale Mayr
Alderman Jeffrey Hansher
Alderman Gregg Bach
Alderman Brian Parrish
Alderman Peter Bratt
Alderman William Gebhardt

Also present: City Administrator Jones, Assistant City Administrator/HR Director Schoenemann, City Clerk Fochs, City Engineer/Public Works Director Lundeen, Community Development Director Tollefson, Assistant Director of Community Development Zader, Finance Director Engroff, Assistant Finance Director Keyser SOFD Chief Bialk, Police Chief Pryor, Captain Riley, Deputy Director of Public Works, Weyker, Building Superintendent Budoh, Executive Assistant Enea, and interested public.

2) Introduction; Workshop Overview

Administrator Jones stated that the first Strategic Planning Workshop was held in 2021 and this is the first follow-up discussion to determine what progress has been made and what is yet to be accomplished. The Strategic Plan suggests meeting annually for this type of update.

DRAFT

Attachment: 05-02-24_COTW Strategic Planning (9354 : COTW Strat Planning)

3) 2022-2025 Strategic Plan Update

Accomplishments for the city thus far have been Police Accreditation, consolidation of the Mequon and Thiensville Fire Departments, consolidation of dispatch services, an IT Strategic Plan, among others.

Projects in the works include Capital Planning for the Sewer Utility, MUNIS implementation, traffic light pre-emption and the reconstruction of I-43.

In the future staff plans to address brush site automation, the implementation of a Land Management System, update the Parks Master Plan, and restructure Library funding.

4) Community Pool Discussion

a) Civic Campus Master Plan

Director Lundeen lead the discussion on the city pool and civic campus. The pool was originally built in 1934 and is nearing the end of its useful life. Presented to the Committee were five options:

1. Close the pool
2. Modify the Superpass agreement
3. Lease/purchase an existing pool
4. Hybrid options that could include elements of the preceding options
5. Construct a new city pool

The Committee discussed full closure, the best location for a city pool, funding options, the life of the pool, short and long-term solutions, and the importance of public input.

5) Public Safety Facility Space Needs Planning

Police Chier Pryor and Fire Chief Bialk presented an overview of the condition of the facilities as they exist today, and the potential they could be. Brian Wright, Andrew Mayo and Christopher Kehde were present from FGM Architects to discuss options and answer questions. The Committee discussed separate and consolidated facilities, location, equipment, storage and personnel needs as well as building for the future.

6) Lunch

7) Mequon Town Center Presentation

Assistant Director Zader presented a visual history of the town center pre and post development of the Town Cetner.

8) Long-Term Capital Funding Discussion

Attachment: 05-02-24_COTW Strategic Planning (9354 : COTW Strat Planning)

Phillip Cosson and Brian Roemer from Ehlers began the discussion of long-term capital funding by showing the Committee where the city is today. He then explained the growth assumptions which were termed conservative in its approach. Accounting for existing and new debt, the Committee was walked through an exercise of displaying what borrowing would mean to the average tax-paying citizen over the next twenty years.

a) Sewer Utility Rate Modeling

Brian Roemer explained there are two ways to budget for the sewer utility, on a cash basis or on a utility basis. He provided a five year look back and comparison. The goal in the future is to increase unrestricted cash from 10-12% to 25%. This will be done incrementally. The proposed ten-year plan identifies appropriate cash balances by the end of planning period with future debt issued needed to fun the Capital Improvement Plan.

9) Alternative Revenue Sources Presentation

Presented to the Committee were six alternative revenue sources identified for them to consider: Impact fees, a wheel tax, special assessments, a stormwater utility, a potential street light utility and consideration of a room tax.

10) Other Matters; Workshop Wrap-Up

The Committee made suggestions to the Committee of the Whole calendar that included discussion of the new FEMA maps and the Water Utility Agreements.

11) Adjourn

Motion to adjourn at 3:55 PM.

RESULT:	**Approved by Voice Acclamation [Unanimous]**
MOVED BY:	Alderman Strzelczyk
SECONDED BY:	Alderman Hansher

AYES:	Strzelczyk, Tolocko, Mayr, Hansher, Bach, Parrish, Bratt, Gebhardt, Nerbun

Dated: May 3, 2024 /s/ Andrew Nerbun, Mayor

Notice is hereby given that a quorum of other governmental bodies may be present at this meeting to present, discuss and/or gather information about a subject over which they have decision-making responsibility, although they will not take formal action thereto at this meeting. Persons with disabilities requiring accommodation for attendance at this meeting should contact the City Clerk's Office at 262-236-2914, twenty-four (24) hours in advance of the meeting.

Any questions regarding this agenda may be directed to the City Clerk's Office at 262-236-2914, Monday through Friday, 8:00 AM – 4:30 PM.

Attachment: 05-02-24_COTW Strategic Planning (9354 : COTW Strat Planning)

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COMMITTEE OF THE WHOLE
Tuesday, July 9, 2024
7:00 PM
Christine Nuernberg Hall

Minutes

1. Call to Order, Roll Call

   Mayor Nerbun called the meeting to order at 7:19 PM.

   Present:
   Mayor Andrew Nerbun
   Alderman Robert Strzelczyk
   Alderman Kelly Tolocko
   Alderman Dale Mayr
   Alderman Jeffrey Hansher
   Alderman Brian Parrish
   Alderman Peter Bratt
   Alderman Gregg Bach - **Excused**
   Alderman William Gebhardt - **Excused**

   Also present: City Administrator Jones, Assistant City Administrator Schoenemann, City Attorney Sajdak, City Clerk Fochs, Acting Finance Director Keyser, Finance Director Arnett, press and interested public.

2. Approval of Meeting Minutes

   a. June 11, 2024

   RESULT: **Approved by Voice Acclamation [Unanimous]**
   MOVED BY: Alderman Strzelczyk
   SECONDED BY: Alderman Mayr

   AYES: Nerbun, Strzelczyk, Tolocko, Mayr, Hansher, Parrish, Bratt
   DEEMED NO: Bach, Gebhardt

DRAFT

Attachment: 7.9.24 (9557 : COTW Minutes)

3. Discussion

   a. Review of Proposed Updates to the City's Financial Policies

   Administrator Jones provided an overview of proposed updates to 18 City policies brought forward by the Finance and Personal Committee. Discussion included fund balances and reserves, cash management and investments, capital funding and debt issuance, purchasing, employee credit card usage and travel, and donation policies. A final policy related to sewer funding will be included in the eventual adoptions planned for August.

4. Informational Items

   a. Committee of the Whole Planning Calendar

55. Adjourn

   Motion to Adjourn at 7:52 PM.

RESULT:	**Approved by Voice Acclamation [Unanimous]**
MOVED BY:	Alderman Hansher
SECONDED BY:	Alderman Mayr

AYES:	Nerbun, Strzelczyk, Tolocko, Mayr, Hansher, Parrish, Bratt
DEEMED NO:	Bach, Gebhardt

Respectfully Submitted,

Janet Meyer
Deputy Clerk

Attachment: 7.9.24 (9557 : COTW Minutes)

11333 N. Cedarburg Road
Mequon, WI 53092-1930
Phone: 262-242-3100
Fax: 262-242-9655

www.ci.mequon.wi.us **Office of Community Development**

TO: **Committee of the Whole**
FROM: **Kim Tollefson, Director of Community Development**
DATE: **August 14, 2024**
SUBJECT: **Discussion Regarding the Regulation of Structures Located Along the Lake Michigan Bluff**

Background

The Committee of the Whole has requested discussion regarding the possibility of allowing structures, such as staircases, to be constructed on the Lake Michigan Bluff. To provide context of the issues associated with such a policy objective, the following outlines several considerations.

Local Regulations: Historic and Current

The City's current regulations for the setback from the Lake Michigan bluff are as follows:

> *"All permanent structures, including in-ground swimming pools erected or constructed after January 1, 1988, on property that is contiguous to Lake Michigan shall be set back from the top of the bluff a distance based on a slope ratio of two feet horizontal distance to every one-foot vertical distance measured from the toe of the bluff. In no case, however, shall a building be set back less than 75 feet from the top edge of bluff at the time of construction."*

Based on an interpretation of the ordinance and the configuration of the bluff, the City Attorney in 2006 determined that the 75-foot distance will prevail upon most of the sites in Mequon. The opinion also clarified that all structures, as defined by Section 58-8 and 58-419 (b) of the Mequon Municipal Code, are regulated by this ordinance and includes the area on the bluff as well as the area at the top of the bluff. Natural paths and structures less than six inches in height are exempt from this requirement.

Staff has researched past ordinances, and it appears that the bluff setback requirements were initially approved on May 8, 1974 (Ord# 74-312). The setback for all permanent structures from the Lake Michigan bluff was established at 160 feet. This ordinance remained in effect until it was amended on February 2, 1988 (Ord# 88-647) to its current form. It was stated in the staff report that the change was made to be consistent with Ozaukee County's ordinance.

Analysis

One important issue to understand when contemplating the idea of allowing structures on the Lake Michigan Bluff (LMB) is the known conditions of the LMB. The Wisconsin Shoreline

Inventory & Oblique Photo Viewer[1] provides relevant information regarding this. As illustrated in Attachment 1, the majority of the LMB in the City of Mequon is classified as "Moderately Unstable" (yellow) or "Unstable/Failing" (red). The Wisconsin Coastal Management Program along with the National Oceanic and Atmospheric Administration funded a comprehensive study of the Southeastern Wisconsin Coastal Recession Between 1956 to 2015 (Attachment 2). This study produced the mapping referenced above in Attachment 1, and led to these classifications of the bluff documented through photographic evidence from 1956-2015. For further reference, an interactive web-based tool for viewing the transformation of the bluff is available at:

https://floodscience.maps.arcgis.com/apps/instant/minimalist/index.html?appid=c47ab45bb8c046e099a46df28837ca88

One section classified "Moderately Stable" (green) near Highland Road is the portion of the LMB at Concordia University, which had a stone revetment installed in 2007 to prevent further erosion.

A second issue to take into consideration is how the City's Building Code relates to structures constructed on the LMB. Per both City ordinances and Mequon's Building Code, structures are defined as follows:

- Section 58-8 – Definitions: Structure means a combination of materials other than natural terrain or plant growth erected or constructed to form among other things, a building, shelter, sign enclosure, retainer, container, support, base, or decoration.
- 2015 International Building Code – Definitions: Structure – That which is built or constructed.

Mequon currently adopts SPS 321, construction standards for all one- and two-family dwellings along with the 2015 International Building Code (IBC). A free-standing deck is the only structure, other than a one- or two-family dwelling, in which SPS 321 can be applied, and the IBC is silent on any structures not associated with a building. Walking paths and steps embedded in the ground are considered landscaping and not regulated by either code.

Staff looked at neighboring communities which have properties along the LMB. Both Whitefish Bay (Attachment 3) and Fox Point (Attachment 4) have ordinances similar to one another regarding structures on the LMB. Those regulations rely heavily on the use of a registered professional engineer throughout the process. The LMB in these communities, according to the comprehensive study of the Southeastern Wisconsin Coastal Recession, has been classified as "Moderately Stable" (Attachment 5). Conversely, Ozaukee County has adopted ordinance 7.0300 (Attachment 6), which is very similar to current Mequon Ordinance 58-416 (Attachment 7).

Legal Summary

Some structures on the bluff, such as stairways, might be utilized for recreational purposes in that they provide access to the water and shoreland. Under Wisconsin statute, property owners

[1] Association of State Floodplain Managers. 2021. Wisconsin Shoreline Inventory and Oblique Photo Viewer. Madison, WI. no.floods.org/wcmp.

may have civil liability protection for injuries sustained by individuals who are engaged in a recreational activity on the owner's property. This recreational immunity applies to the owner of private or public lands, thereby protecting the owner from a lawsuit. However, recreational immunity would not apply to the City because there is no City-owned land. Recreational immunity only applies to personal injuries sustained during recreational activities, and does not extend to other areas of potential liability such as damage caused to adjoining parcels of land, improper permitting, etc.

Accordingly, the City's legal authority and liability relates to the approval of structures (if allowed by zoning), the issuance of permits for construction, and subsequent compliance inspection/approval of structures at the time of inspection. The City does not provide on-going inspection of structures, and does not evaluate the condition of, or its compliance with regulations after final inspection, unless enforcement becomes necessary, or modifications are proposed to the structure through subsequent permit applications. The City will generally enforce the provision of its Code once it becomes aware of a known violation and, as such, would require removal of structures that are constructed without a permit.

According to City Attorney Sajdak, there is no reported case law related to liability for the construction of structures on the bluff within the state.

Potential Modifications

Options for consideration include:

1) No change to the current ordinance, which prohibits structures on the LMB
2) Amending the City's current ordinance to allow structures to be built on the LMB
3) Amending the City's ordinance to allow non-structural pathways to be built on the LMB

Public Benefit to Amending Ordinance:

- Allows flexibility for property owners on the LMB to pursue means for direct access to the lakefront. If access is constructed and maintained to ensure long-term safety, it may enhance the use and value of their properties.

Potential Risk to Amending Ordinance:

- Once the means to access passes a City inspection, the future and long-term condition of these structures will be unknown.
- Conditions of the LMB on the subject site and neighboring properties may be affected, due to grade changes, erosion and sloughing.

Staff Summary

Currently, Section 58-416 of the Mequon Municipal Code does not permit structures to be constructed within 75 feet of the LMB, and as noted, the majority of the LMB in Mequon is considered moderately unstable or failing. Neighboring communities that permit structures on the LMB have moderately stable bluffs and rely on registered professional engineers to assume

the liability for any structures that are constructed. Any contemplated changes to the City's current policy would require amendments to the City's Zoning and Building Codes and would require further analysis regarding best practices for stabilizing affected areas of the bluff.

Attachments:
LMB Attachment 1 (PDF)
LMB Attachment 2 (PDF)
LMB Attachment 3 (PDF)
LMB Attachment 4 (PDF)
LMB Attachment 5 (PDF)
LMB Attachment 6 (PDF)
LMB Attachment 7 (PDF)

Attachment 1



Attachment: LMB Attachment 1 (9570 : LM Bluff Structure Regulations)

Attachment 2

Southeastern Wisconsin Coastal Recession Between 1956 to 2015

Nick Jordan, FreshWater Engineering (formerly), Inver-Fluve (current affiliation)
Adam Bechle, Wisconsin Sea Grant, Wisconsin Coastal Management Program
Boyuan Lu, University of Wisconsin–Madison Department of Civil and Environmental Engineering
Isak Fruchtman, University of Wisconsin–Madison Department of Civil and Environmental Engineering
Prakriti Khanal, University of Wisconsin–Madison Department of Civil and Environmental Engineering
Chin H. Wu, University of Wisconsin–Madison Department of Civil and Environmental Engineering

May 6, 2019

Executive Summary

Lake Michigan coastal bluff and shoreline recession data are provided for Kenosha, Racine, Milwaukee, and Ozaukee Counties (collectively called "southeastern Wisconsin") for a time period between 1956 to 2015 and is publicly available on the Wisconsin Shoreline Inventory and Oblique Viewer (http://floodatlas.org/asfpm/oblique_viewer/). Coastal recession is the distance that coastal bluff or shoreline features have receded, or moved landward. For areas with coastal bluffs, recession information is provided for the bluff crest, where the relatively flatter upland meets the steeper bluff face, and the bluff toe, where the bluff face meets the beach. In areas that lack a bluff, recession information is provided for the shoreline, where the beach meets the water. Recession was measured from the position of these features in historic aerial orthophotography over two analysis periods: a long-term period from 1956 to 2015 and a short-term period from 1995 to 2015. Recession is represented as both the distance coastal feature changed in position over the analysis period ("recession distance") as well as the average annual of change of the coastal feature's position ("recession rate") Each recession data point represents an average of recession measurements along a 300-foot section of coast and does not represent any specific property or municipal boundary. Approximate uncertainty in the long-term recession distances is ±4 feet (±0.07 ft/year for recession rate) and in the short-term recession distances ±2 feet (±0.1 ft/yr for recession rate). This data should be considered preliminary and are intended for informational purposes. Care should be exercised in interpreting these data based on knowledge of coastal geology, engineering and mapping.

This data was produced as a part of ongoing studies at the University of Wisconsin-Madison Coastal Sustainability Laboratory with assistance from Freshwater Engineering. This data has been made public through collaborations of the University of Wisconsin-Madison, the Wisconsin Coastal Management Program, University of Wisconsin Sea Grant, and the Association of State Floodplain Managers.

Funding
Funded by the Wisconsin Coastal Management Program and the National Oceanic and Atmospheric Administration, Office for Coastal Management under Grant # NA17NOS4730144.

WISCONSIN COASTAL MANAGEMENT PROGRAM

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Southeastern Wisconsin's Coast

The Lake Michigan coast of Southeastern Wisconsin (defined here as Kenosha, Racine, Milwaukee, and Ozaukee Counties) is composed of low sandy shores of less than 10 feet in elevation, low bluffs 10 feet to 50 feet high, and high bluffs up to 130 feet high (Figure 1). Bluffs in this region are principally composed of clayey soil deposited by glaciers during the last Ice Age. The coast is also composed of breakwaters and harbor infrastructure near the port and harbor cities of Port Washington, Milwaukee, Racine, and Kenosha.

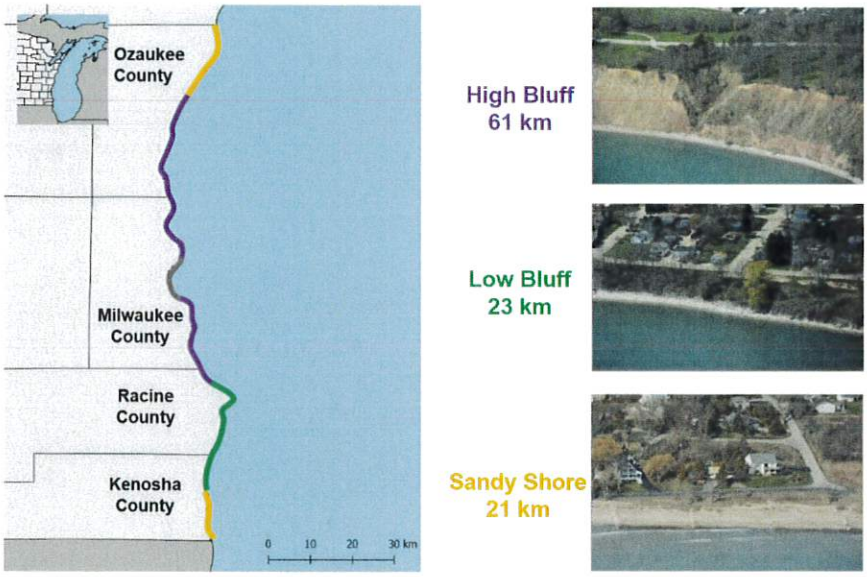


Figure 1: Southeastern Wisconsin's coast is composed of high bluffs (purple), low bluffs (green), sandy shores (tan), and harbor infrastructure (gray).

This coastline is subject to erosion and bluff slope failures which can cause the coast to recede, or move landward, and threaten upland coastal properties. Coastal recession is often referenced to key recognizable coastal features which are depicted in Figure 2 and defined as follows:

Bluff Crest: the location where the relatively flatter upland meets the steeper bluff face

Bluff Toe: the location where the bluff face meets the beach

Shoreline: the location where the beach meets the water

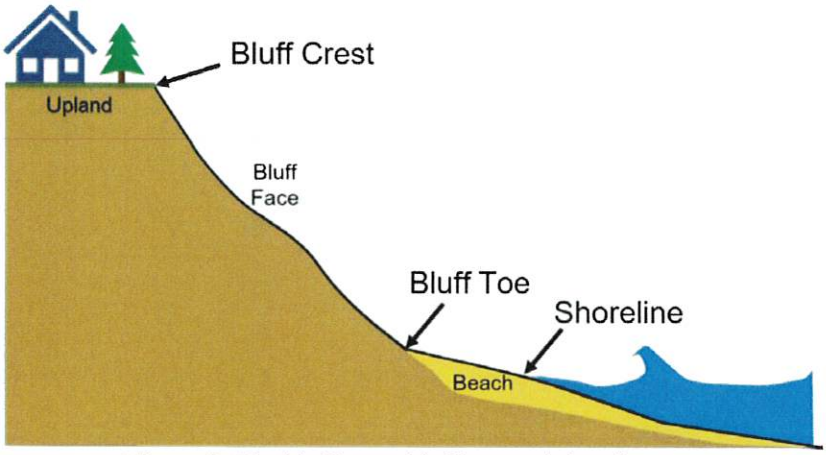


Figure 2: The bluff crest, bluff toe, and shoreline

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Coastal Recession Measurements

Coastal recession is the distance the bluff or shoreline has receded, or moved landward over a given period of time. Recession was measured along bluffed coasts for the bluff crest and the bluff toe or, in areas that lack a bluff, for the shoreline (Figure 3). Coastal feature recession distances were measured from historical aerial photos in Geographic Information System (GIS) software for two analysis periods: 1956-2015 and 1995-2015.

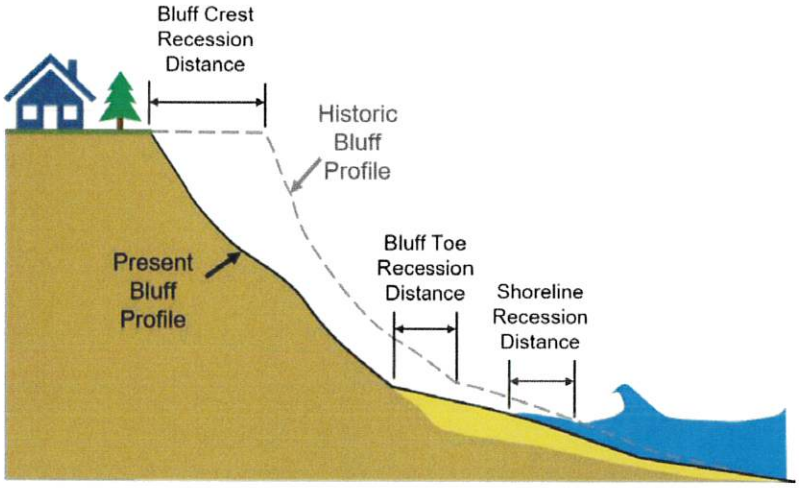


Figure 3: Coastal recession measurements which compare the positions of coastal features over time

The procedure for making coastal recession measurements explained below and summarized in Figure 4 (following page).

1) Photos from each analysis year (1956, 1995, and 2015) were orthorectified to remove vertical distortions caused by the camera lens and georeferenced to position them accurately in space. The photos used for this analysis are summarized in Table 1.

Table 1: Summary of aerial photos used in recession analysis

Year	*Month*	*Photo Source*	*Photo Description*	*Photo Scale*	*Resolution (m)*
1956	May/June	USDA	Scanned B&W Aerial Photo	1:20,000	N/A
1995	April	SEWRPC	B&W Aerial Orthophoto	1:20,000	N/A
2015	April	SEWRPC	Color Aerial Orthophoto	N/A	0.152

2) Coastal features were traced in each photo using differences in soil color, vegetation or other indicators to distinguish the features on each photo.

3) Once each feature is digitized, the United States Geological Survey (USGS) Digital Shoreline Analysis System (DSAS) software was used to measure the location of each digitized feature along transect lines spaced at 10-meter intervals (~33 feet) along the shoreline.

4) Recession distances are averaged at 100 meter intervals (~328 foot) along the coast using a spatial averaging technique. This spatial averaging serves two purposes: i) to represent recession over a distance wider than the typical scale of a single lot, and not at a specific parcel and ii) in order to removes spikes in the data which may result from localized erosion events.

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

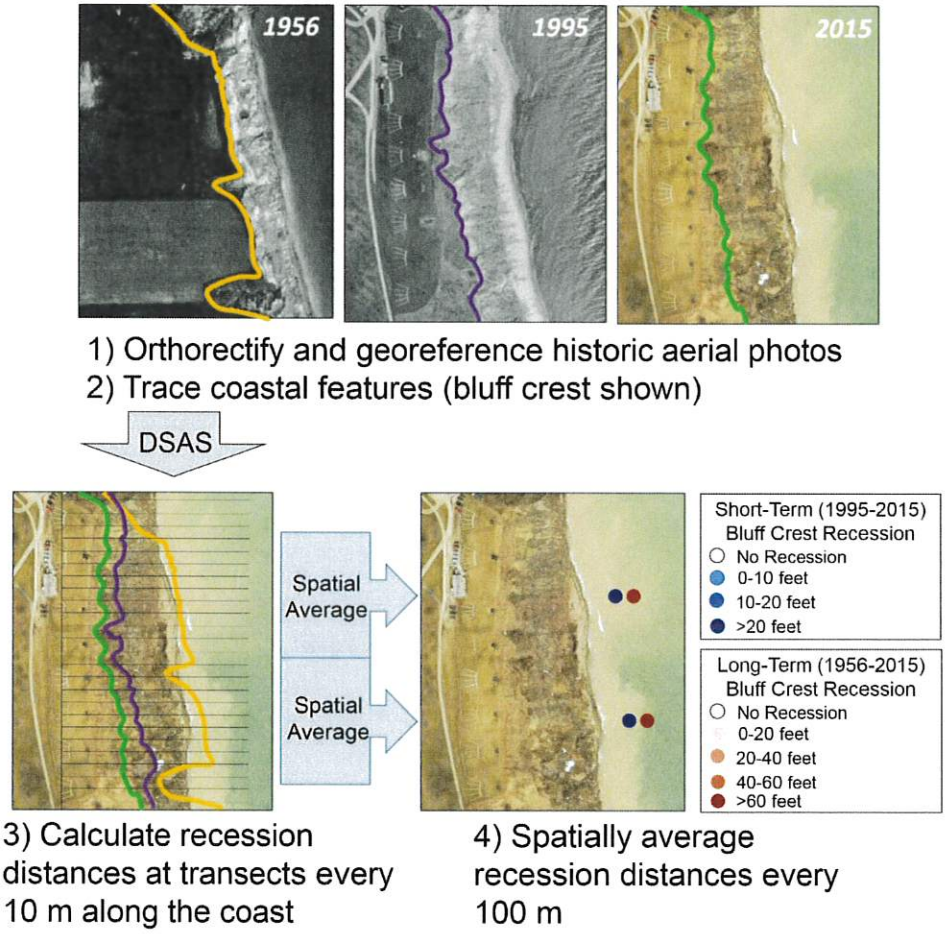


Figure 4: Coastal recession measurement procedure

The following recession measurements are available.

Layer	Description
Bluff Toe Recession – Long-term (1956 – 2015)	The distance the bluff toe has moved landward between 1956 and 2015.
Bluff Crest Recession - Long-term (1956 - 2015)	The distance the bluff crest has moved landward between 1956 and 2015.
Shoreline Recession – Long-term (1956 - 2015)	The distance the shoreline has moved landward between 1956 and 2015.
Bluff Toe Recession – Short-term (1995 – 2015)	The distance the bluff toe has moved landward between 1995 and 2015.
Bluff Crest Recession – Short-term (1995 - 2015)	The distance the bluff crest has moved landward between 1995 and 2015.
Shoreline Recession – Short-term (1995 - 2015)	The distance the shoreline has moved landward between 1995 and 2015.
Shoreline Position (2015)	The location where the beach met the water, as measured in 2015 aerial photographs

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Each data point represents an average of recession measurements along a 300-foot section of coast and does not represent any specific property or municipal boundaries. By clicking on a point, the actual average measured recession distance and an average annual rate of recession can be viewed. Note that a positive recession value represents a landward movement of the feature and a negative recession value represents a lakeward movement of the feature, also known as accretion.

The recession information can provide useful insights into the historic migration of the southeastern Wisconsin coast. It should be noted that the recession distances provided here represent how the bluffs and shorelines have responded to historic environmental conditions and human actions over a specific time period in the past (1956-2015 and 1995-2015). There is always uncertainty in how bluff and shoreline recession will respond to future conditions. Bluff recession can also be sporadic. For example, a bluff crest that had remained unchanged for decades can recede many feet almost instantly due to a bluff collapse. Human actions may also change the evolution of the coast. For example, a bluff that may have been heavily eroded historically may have been recently stabilized or had shore protection added such that recession could be expected to decrease compared to historic rates.

Disclaimer

Please note that the data presented here should be considered preliminary and may not reflect current conditions along the coast. Care should be exercised in interpreting these data based on knowledge of coastal geology, engineering and mapping. Site assessments may be necessary to property interpret this data. As the Lake Michigan coast is a dynamic and constantly changing environment, one should consider consulting with local authorities and qualified professionals before building or making other land use decisions along the coast.

Methods

Bluff recession distances were measured from historical aerial photos in Geographic Information System (GIS) software for two analysis periods: 1956-2015 and 1995-2015. Using GIS software, photos from each year are georeferenced to position them accurately in space and orthorectified to remove vertical distortions caused by the camera lens. The bluff crest, bluff toe, and shoreline are carefully traced on each photo. The bluff crest is identified as the break in slope between the upland and the bluff slope, the bluff toe is identified as the break in slope between the bluff slope and beach, and the shoreline is defined as the location that appears as the interface between the water and the land at the time the photo was acquired. Differences in soil color, vegetation or other indicators are used to distinguish the features on each photo. Once each feature is digitized, the Digital Shoreline Analysis System (DSAS) software is used to measure the location of each digitized feature along transect lines spaced at 10-meter intervals along the shoreline. The data presented here shows recession data which have been spatially averaged along 300-foot sections of coast. The data shown on this data viewer therefore represents average recession over a distance wider than a typical single lot, parcel, or shoreline frontage, and not at a specific parcel or location on the coast.

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Measurement Uncertainty

Uncertainty is inherent in any measurement. Errors during the digitization process of coastal features are the primary source of uncertainty for these bluff recession measurements. The most important sources of uncertainty during the digitization process are georeferencing errors of older photographs, photo resolution and/or quality, and visual obstruction of features in photos (i.e., dense forests concealing the bluff crest). Approximate uncertainty in the long-term recession distances is ±4 feet (±0.07 ft/year for recession rate) and in the short-term recession distances ±2 feet (±0.1 ft/yr for recession rate). Uncertainty values may be higher in some areas that suffer from image quality issues.

Funding
Funded by the Wisconsin Coastal Management Program and the National Oceanic and Atmospheric Administration, Office for Coastal Management under Grant # NA17NOS4730144.

WISCONSIN COASTAL MANAGEMENT PROGRAM

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Appendix: Metadata

Dataset Title	Southeastern Wisconsin 2015 Shoreline Position
Dataset Reference Date	1/4/2019
Dataset Responsible Party	UW-Madison Coastal Sustainability Lab
Geographic location of the dataset	Northernmost Latitude: 43 32' 44" Southernmost Latitude: 42 29' 36" Easternmost Longitude: 87 45' 26" Westernmost Longitude: 87 51' 44"
Dataset language	English
Dataset topic category	Shoreline Lake Michigan Great Lakes Coastal Erosion Environmental Hazard Landform Land Status
Abstract defining the dataset	This dataset contains a digitized shoreline position in 2015 in Kenosha, Racine, Milwaukee, and Ozaukee Counties on Southeastern Wisconsin's Lake Michigan coast. The shoreline is traced in GIS software from vertical aerial photos taken in Spring 2015 by the Southeastern Wisconsin Regional Planning Commission. The position of the shoreline is defined as the wet/dry line visible in photos. Shoreline position in the Great Lakes is highly sensitive to lake level fluctuation, wave conditions, beach material, and beach slope. The shoreline position in this dataset represents one moment in time and may not reflect current shoreline positions.
Update Frequency	Not planned
Spatial representation type	ESRI Shapefile
Reference system	EPSG 3069
Metadata language	English
Metadata point of contact	Chin Wu - chinwu@engr.wisc.edu
Metadata date stamp	

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Dataset Title	Southeastern Wisconsin Bluff Recession Rates
Dataset Reference Date	1/4/2019
Dataset Responsible Party	UW-Madison Coastal Sustainability Lab
Geographic location of the dataset	Northernmost Latitude: 43 32' 44" Southernmost Latitude: 42 29' 36" Easternmost Longitude: 87 45' 26" Westernmost Longitude: 87 51' 44"
Dataset language	English
Dataset topic category	Bluff Shoreline Lake Michigan Great Lakes Coastal Erosion Environmental Hazard Landform Land Status
Abstract defining the dataset	This dataset contains bluff crest, bluff toe, and shoreline change data in Kenosha, Racine, Milwaukee, and Ozaukee Counties on Wisconsin's Lake Michigan coast. Rates of change are presented for two time periods: 1956-2015 and 1995-2015. Rates are calculated at 10 m intervals from features digitized from leaf-off vertical aerial photos in GIS software and measured using the Digital Shoreline Analysis System. A spatial averaging technique is applied to the dataset to provide data at 100 m intervals along the coast.
Update Frequency	Not planned
Spatial representation type	ESRI Shapefile
Reference system	EPSG 3069
Metadata language	English
Metadata point of contact	Chin Wu - chinwu@engr.wisc.edu
Metadata date stamp	

Attachment: LMB Attachment 2 (9570 : LM Bluff Structure Regulations)

Chapter 16. Zoning

Article III. Zoning Districts

§ 16-8. District 1 - Lake Shore Residence District.

[Amended by Ord. No. 1227; Ord. No. 1343; Ord. No. 1365; Ord. No. 1467; Ord. No. 1685; Ord. No. 1722; Ord. No. 1723; Ord. No. 1724]

A. In District 1, except as in this chapter otherwise provided, no building or premises shall be used and no building or structure shall be erected, altered, or maintained which is arranged, intended or designed to be used except for one or more of the following uses:

(1) Single-family dwellings. Not more than one dwelling shall be located on any lot.

(2) Noncommercial greenhouses, nurseries and gardens.

(3) Accessory.

(a) Uses and buildings accessory to those enumerated above in this subsection, including private garages designed for not more than one motor vehicle for each 2,400 square feet of top land area, but not including any store, trade, professional office, business or industry. However, not exceeding one person may, in a dwelling used as his residence:

[1] Furnish room or table board to no more than two persons.

[2] Carry on a customary home occupation, provided no persons other than members of his own household are employed therein. (Cannot stock materials and cannot create parking problems.)

(b) Improved space is not allowed in accessory buildings or structures, except that one area of up to 220 square feet of improved space on the ground floor of any garage is allowed, provided at least 440 square feet of garage space in the garage is maintained for vehicle parking. In no event may accessory buildings or structures be used for sleeping.

(4) Garage.
[Amended 3-2-2020 by Ord. No. 1862]

(5) Access from the public street or alley or from a private road to each garage required in Subsection **A(4)** above shall be by means of an approved driveway.

(6) Newly constructed driveways shall have a concrete, an asphaltic concrete or an asphaltic penetration surface, free of dust, loose stones or gravel, constructed on an adequate base.

(7) Parking spaces shall have an adequate concrete, asphaltic concrete, asphaltic penetration, or a geogrid with organic ground cover surface, free of dust, loose stones or gravel, constructed on an adequate base.
[Amended 8-5-2019 by Ord. No. 1853; 8-1-2022 by Ord. No. 1892]

(a) The minimum setbacks for an approved parking space shall be as follows:

[1] In Districts 1, 1A, 2 and 3, three feet from side and rear property lines where no alley exists.

[2] In Districts 1, 1A, 2 and 3, five feet from the adjacent alley line.

Attachment: LMB Attachment 3 (9570 : LM Bluff Structure Regulations)

[3] In Districts 1, 1A, 2 and 3, the established setback from the adjacent street property line.

[4] In Districts 4, 4A, 5, 6 and 7, as required under § **16-17**.

(b) The maximum number of vehicles permitted to be parked on an approved parking space in Districts 1, 1A, 2 and 3 shall be two.

(c) A plot plan to a minimum scale of one inch equals 20 feet, showing the location and size of the proposed parking space, the location and dimensions of all buildings and physical features on the premises and the location of buildings immediately adjacent to the parking space shall be submitted to the Building Inspector.

(d) The Building Inspector may refer said plot plan to the Architectural Review Commission for approval or denial if he believes the proposal will have a depreciating effect on the property values of the neighborhood.

(e) The permit fee for construction of the parking space, if approved, shall be as set from time to time by the Village Board.

(8) Parking of vehicles, except on public streets, where not otherwise prohibited or restricted; on approved off-street parking facilities; in garages; on approved driveways or approved parking spaces, is prohibited.

(9) Parking in the public way, except upon the public street where permitted, is prohibited.

(10) Notwithstanding Subsection **A(8)** above, no vehicle except an automobile may be parked in the front setback area of an interior lot, nor between adjacent residences which front on the same street, nor in the side setback area which fronts on a street or a corner lot.

B. In District 1, each lot shall abut either upon a public street or upon the westerly line of said district; shall extend from such public street or the westerly line of District 1 to the shore of Lake Michigan; shall contain at least 9,600 square feet of top land lot area and have an average width from north to south of at least 80 feet for each single-family dwelling erected, altered or maintained thereon. No dwelling shall be erected, altered or maintained on any lot in District 1 which occupies more than 30% of the top land area of the lot. No building accessory to a dwelling, including garages, shall occupy more than 10% of the top area of the lot. The combined area of the dwelling and all accessory buildings including garages and any satellite earth station shall not exceed 40% of the top land lot area of the lot.

C. Yard minimums; structure maximums.

(1) Each dwelling shall have two side yards each at least three feet in width; in case the height of any building exceeds 25 feet, the required width of the side yards shall be increased 10% for each foot that such dwelling exceeds such height. Dwellings shall have a rear yard of at least 10 feet in depth. No building, when accessory to a dwelling, shall be over 18 feet in height. Subject to the provisions of § **16-35A**, each garage attached or detached, and each accessory building, shall have a minimum side yard of three feet; a detached garage or an accessory building, except where adjacent to alley (see § **16-36**), shall have a minimum rear setback of three feet; an attached garage shall have a minimum rear yard of five feet except when dwelling space or quarters are provided over said garage, in which event a minimum rear yard of 10 feet shall be provided.

(2) The maximum height of single- and two-family residential structures shall be as designated in Article **XVI**, Single-Family and Two-Family Residential Design Guidelines.[1]

[1] *Editor's Note: Original Subsection (3)(c), which immediately followed this subsection, was repealed by Ord. No. 1724.*

D. In the event that the property is on the bluff of Lake Michigan, the following requirements shall also apply:

(1) A registered professional engineer, having a minimum of 10 years of geotechnical experience involving foundation investigation/engineering and shoreline slope stability evaluation, and who is hired by the owner of the lot, shall certify to the Village that the construction of any building and structure(s) proposed to be located within 100 feet of the top edge of the bluff will be safe. Specifically, he shall certify that:

Attachment: LMB Attachment 3 (9570 : LM Bluff Structure Regulations)

(a) The design of any building or structure(s), the method of constructing such buildin structure(s), and the materials used therefor are structurally adequate and will protect the public health and safety;

(b) The proposed building and structure(s) will not in any way adversely affect the structural integrity or safety of any building, or structure(s) located on adjoining or adjacent sites;

(c) The proposed building and structure(s) will not adversely disturb ravine and bluff slopes, interfere with surface or subsurface drainage, or create new or exacerbate existing problems of erosion and recession;

(d) The drainage system will not adversely affect the adjacent and adjoining properties;

(e) There is no danger to the proposed or existing buildings or structures and its occupants from slippage of the slope above and/or below the proposed structure.

(2) The engineer shall make a technical report accompanying the certificate, which shall include, at a minimum:

(a) Recommendations regarding site preparation, foundation design, lateral earth pressure and support of slabs on grade;

(b) The stability of the slope before, during and after construction;

(c) The effect of the construction on the natural drainage in the areas, including any measures, such as "weepers," which are designed to improve natural drainage in the area.

(3) The owner of the property shall certify to the Village that he/she is aware of potential problems of lake shore erosion, including but not limited to the possibility of adding fill of various types to stabilize the bluff area, is aware of the requirement for securing of a fill permit from the Village for any such filling, is aware of the provisions of said fill permit ordinance, and is further aware of the potential cost involved.

(4) A memorandum of said certifications, including the legal description of the property, shall be recorded with the Register of Deeds of Milwaukee County.

Attachment: LMB Attachment 3 (9570 : LM Bluff Structure Regulations)

Chapter 285. Stormwater Management, Erosion Control and Bluff Regulation

Article I. Construction and Cutting on Banks of Ravines and Lake Bluff

§ 285-6. Structure or building at foot of lake bluff or ravine bank.

A. A structure or building may be built at the foot of the lake bluff where the bluff abuts on North Beach Drive or on flat land that abuts on North Beach Drive or a ravine bank.

B. A registered professional engineer retained by the owner of the lot shall certify to the Village that the construction of the proposed building and structure(s) will be safe. The engineer shall have recognized experience and expertise in geotechnical investigations, soil mechanics, and structural and coastal engineering. Specifically, he shall certify that:

(1) The design of any building or structure(s), the method of constructing such building or structure(s), and the materials used therefor are structurally adequate and will protect the public health and safety.

(2) The proposed building and structure(s) will not in any way adversely affect the structural integrity or safety of any building or structure(s) located on adjoining or adjacent sites.

(3) The proposed building and structure(s) will not adversely disturb ravine or bluff slopes, interfere with surface or subsurface drainage, or create new or exacerbate existing problems of erosion and recession, assuring the continued integrity of the ravine or bluff slopes involved.

(4) The drainage system will protect the downhill properties or downstream properties.

(5) There is no danger to the proposed structure or building and its occupants from slippage of the slope above and/or below the proposed structure or building.

C. The engineer shall make a technical report accompanying the certificate which shall include, at a minimum:

(1) Recommendations regarding site preparation, foundation, design, lateral earth pressure, and support of slabs on grade.

(2) The stability of the slope before, during, and after construction.

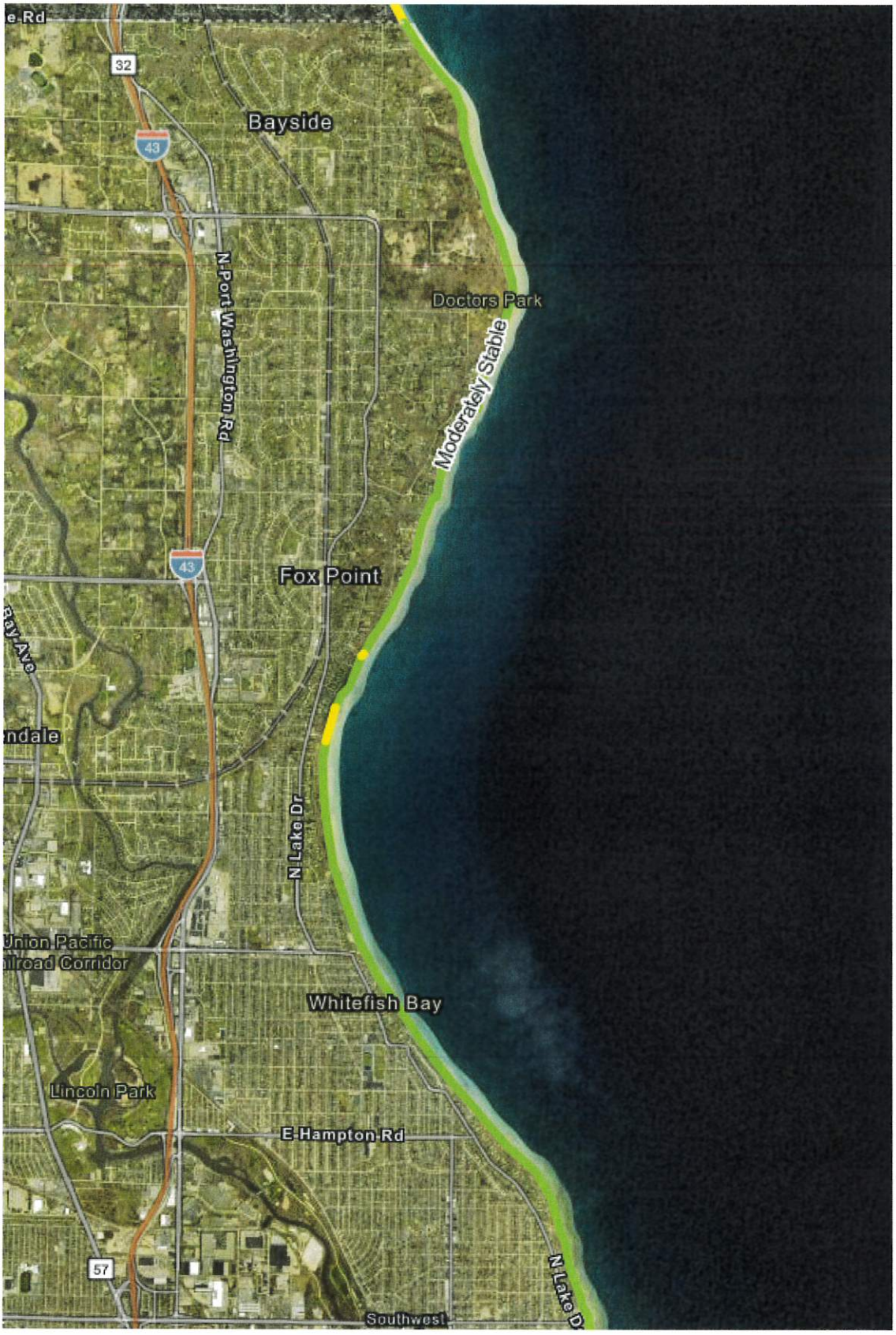
(3) The effect of the construction on the natural drainage in the area, including any measures such as "weepers" which are designed to improve natural drainage in the area.

(4) The effect of the construction on flora and fauna.

D. In addition to the standards contained in Chapter **19**, Article **II**, Building Board, of this Code, no building permit for any structure on the foot of the lake bluff or ravine shall be issued unless it has been found as a fact by the Building Board by at least a majority vote, after a view of the site of the propose structure and an examination of the application papers for a building permit, that the location of the proposed structure will, when erected, not be so at variance with the structures already constructed on the neighboring properties or in the character of the immediate neighborhood as to cause a substantial depreciation in the property values of a neighboring property or of the immediate neighborhood. The Building Board shall give notice of the meeting at which it will consider an application for approval of a building or structure. Such notice shall be given to the applicant and to the owners of properties within 500 feet of the property in question; it shall be in writing and mailed not less than seven days before the day of the meeting. Persons to whom the notice is required to be given may attend the Building Board meeting and be heard.

Attachment: LMB Attachment 4 (9570 : LM Bluff Structure Regulations)

Attachment 5



Attachment: LMB Attachment 5 (9570 : LM Bluff Structure Regulations)

SECTION 7.0300 LOT, SITE, AND SETBACK REQUIREMENTS

7.0301 NO FILLING IN FLOODPLAIN AREAS

For lots created after the effective date of this ordinance, no filling shall be permitted within the floodplain to accommodate those uses listed in Section 7.0709.D unless a variance is granted by the Board of Adjustment in accordance with Section 7.1006.

7.0302 LOTS NOT SERVED BY PUBLIC SANITARY SEWER

The minimum lot area shall be 20,000 square feet and the minimum average lot width shall be 100 feet, with at least 100 feet of frontage at the ordinary high water mark.

7.0303 LOTS SERVED BY PUBLIC SANITARY SEWER

The minimum lot area shall be 10,000 square feet and the minimum average lot width shall be 65 feet, with at least 65 feet of frontage at the ordinary high water mark.

7.0304 EXISTING SUBSTANDARD LOTS

A. Substandard Lots Served By Public Sanitary Sewer. A substandard lot served by a public sanitary sewer which is at least 7,500 square feet in area and is at least 50 feet in width at the building setback line and at least 50 feet in width at the ordinary high water mark may be used as a building site for a single family dwelling upon issuance of a zoning permit by the Zoning Administrator, provided all of the following requirements are met:

1. The lot was on record in the Office of the Register of Deeds office prior to the effective date of the County Shoreland Zoning Ordinance adopted on August 6, 1986.
2. The lot was in separate ownership from abutting lands prior to August 6, 1986. If abutting lands and the substandard lot were owned by the same owner as of August 6, 1986, the substandard lot shall not be sold or used without full compliance with the terms of this ordinance, including the minimum area and width requirements set forth in Sections 7.0302 and 7.0303.

B. Substandard Lots Not Served By Public Sanitary Sewer. A substandard lot not served by public sanitary sewer which is at least 10,000 square feet in area and at least 65 feet in width at the building setback line and at least 65 feet in width at the ordinary high water mark may be used as a building site for a single-family dwelling upon issuance of a zoning permit by the Zoning Administrator if it meets all of the requirements of Section 7.0304.A.1 and 2.

C. Other Substandard Lots. Except for lots which meet the requirements of Subsection 7.0304.A or B, a zoning permit for the improvement of a lot having lesser dimensions than those stated in Sections 7.0302 and 7.0303 shall be issued only if a variance is granted by the Board of Adjustment.

7.0305 BOATHOUSE REGULATIONS

A. Boathouses Shall be Designed solely for the storage of boats and related equipment and shall not be used for human habitation.

B. The Construction or Placing of a boathouse waterward beyond the ordinary high water mark of any navigable water is prohibited.

Attachment: LMB Attachment 6 (9570 : LM Bluff Structure Regulations)

C. Boathouses Shall Not Exceed 400 square feet in floor area.

D. The Highest Point of the Roof Elevation shall not exceed 10 feet in vertical measurement above the average elevation of the existing grade immediately adjacent to all sides of a structure. Railings may be placed on top of the boathouse in excess of the 10-foot height limitation, provided that the railing is not solid in appearance and does not exceed 3.5 feet in height.

E. Boathouses Shall be Set Back a minimum of 10 feet from the ordinary highwater mark and shall be constructed in conformity with the floodplain requirements set forth in Section 7.0700.

F. No Boathouse shall be constructed where the existing slope is more than 20%.

7.0306 SETBACK FROM NAVIGABLE WATERS

A. Setback for Buildings and Structures. Except as hereinafter provided, all buildings and other structures shall be set back at least 75 feet from the ordinary high water mark of navigable waters.

1. Piers, docks, wharfs, boat hoists, and boathouses are exempt from the 75-foot setback requirement under Section NR 115.05 (3) (b) 3 of the Wisconsin Administrative Code. A zoning permit is required for such structures. The zoning permit application shall include a copy of any required DNR permits, or correspondence from the DNR that no DNR permit is required.

2. Stairways, walkways, lifts, trails, and trail bridges may be located within the 75-foot setback if necessary to provide pedestrian access to navigable waters or a water-dependent use, provided a zoning permit is granted by the Zoning Administrator and all other applicable requirements of this ordinance are met, including those related to vegetation removal; filling, grading, and excavating; and structures in floodplain areas. Stairways, walkways, lifts, trails, and trail bridges shall be located so as to minimize earth disturbing activities and shoreland vegetation removal during construction and to be visually inconspicuous and screened by vegetation as viewed from adjacent navigable waters and public thoroughfares. Stairways, walkways, lifts, trails, and trail bridges shall be no more than four feet wide, unless a greater width is required to meet the requirements of the Americans with Disabilities Act or the guidelines of the American Association of State Highway and Transportation Officials. Stairway landings shall be no more than 40 square feet in area.

3. Transportation and utility facilities, including but not limited to streets, bridges, and transmission lines, may be located within the 75-foot setback area if it is not feasible to locate the facility outside the setback and a stipulated permit allowing a lesser setback is granted by the Zoning Administrator in accordance with Section 7.0905.

4. Patios and decks are exempt from the shoreland setback requirement provided the following requirements are met:

   (a) The patio or deck shall be located so as to minimize earth disturbing activities and shoreland vegetation removal during construction.

   (b) The patio or deck shall be visually inconspicuous and screened by vegetation as viewed from adjacent navigable waters and public thoroughfares.

   (c) The part of the patio or deck that is nearest to the water shall be located at least 35 feet landward from the ordinary high water mark.

   (d) The total floor area of all structures in the shoreland setback area of the lot, including the patio or deck, shall not exceed 200 square feet. Boathouses shall be excluded from this calculation.

   (e) The patio or deck shall have no sides or shall have open or screened sides.

Attachment: LMB Attachment 6 (9570 : LM Bluff Structure Regulations)

(f) The landowner shall submit a plan to the Zoning Administrator to preserve or establish a vegetative buffer area that covers at least 70 percent of the half of the shoreland setback area that is nearest to the water.

(g) The top surface of the floor of the patio or deck shall not exceed a height of six inches above the original grade.

(h) A zoning permit and approval of the vegetative buffer plan required under paragraph (f) above is required prior to construction.

5. Open Fences less than six feet in height on land used for agricultural purposes that meet the standards of Chapter 30 and Chapter 90 of the Wisconsin Statutes are exempt from the 75-foot setback requirement.

B. Reduced Building Setbacks/Setback Averaging. A setback of less than that required by Section 7.0306.A may be permitted by the Zoning Administrator where there is at least one principal building on either side of the applicant's lot within 200 feet of the proposed site that is built to less than the required setback. In such case, the setback shall be the average of the setbacks of the nearest principal building on each side of the proposed site or, if there is an existing principal building on only one side, the setback shall be the average of the existing building's setback and the required setback. Any other setback reduction may be permitted by the Board of Adjustment pursuant to Section 7.1006 of this ordinance.

7.0307 PROTECTIVE AREAS ADJACENT TO STREAMS, LAKES, AND WETLANDS

Projects that require a stormwater management plan under Chapter 151 of the Wisconsin Administrative Code shall comply with the standards set forth in Section 151.12 (5) (d) of that code, which specify "protective areas" to be provided adjacent to streams, lakes, and wetlands.

7.0308 EROSION HAZARD SETBACK FROM BLUFFS

A. All Buildings and Structures in the Lake Michigan bluff area shall be set back the greater of the following distances:

1. A distance equal to a slope ratio of 2.5 feet horizontal distance to every one foot vertical distance, measured horizontally from the toe of the bluff, calculated using the most severe angle of slope as determined by a registered professional engineer or a surveyor and approved by the Zoning Administrator, and based on the following graph (see Figure 1). Measurement of the stable slope angle setback shall be made from the toe of the bluff perpendicular to the shoreline. There shall be two such measurements for every 100 feet of shoreline at points not less than 50 feet apart. The setback shall be a line connecting these two points, or such line extended.

2. A minimum setback of 75 feet from the edge of any bluff.

B. Seepage Pits and Soil Absorption Fields in the Lake Michigan bluff area shall be set back a minimum of 75 feet from the edge of any bluff, unless a stipulated permit is granted in accordance with Section 7.0905 to allow a lesser setback.

7.0309 EROSION HAZARD SETBACK FROM RAVINES

A. Except as set forth in Subsection B, all buildings, structures, seepage pits, and soil absorption fields shall be set back the greater of the following distances in the Lake Michigan ravine area:

1. A distance equal to a slope ratio of 2.5 feet horizontal distance to every one foot vertical distance measured horizontally from the toe of the ravine, calculated using the most severe angle of slope, as determined by a registered professional engineer or a surveyor and approved by the Zoning Administrator, and based on the following graph (see Figure 1).

2. A minimum setback of 75 feet from the edge of any ravine.

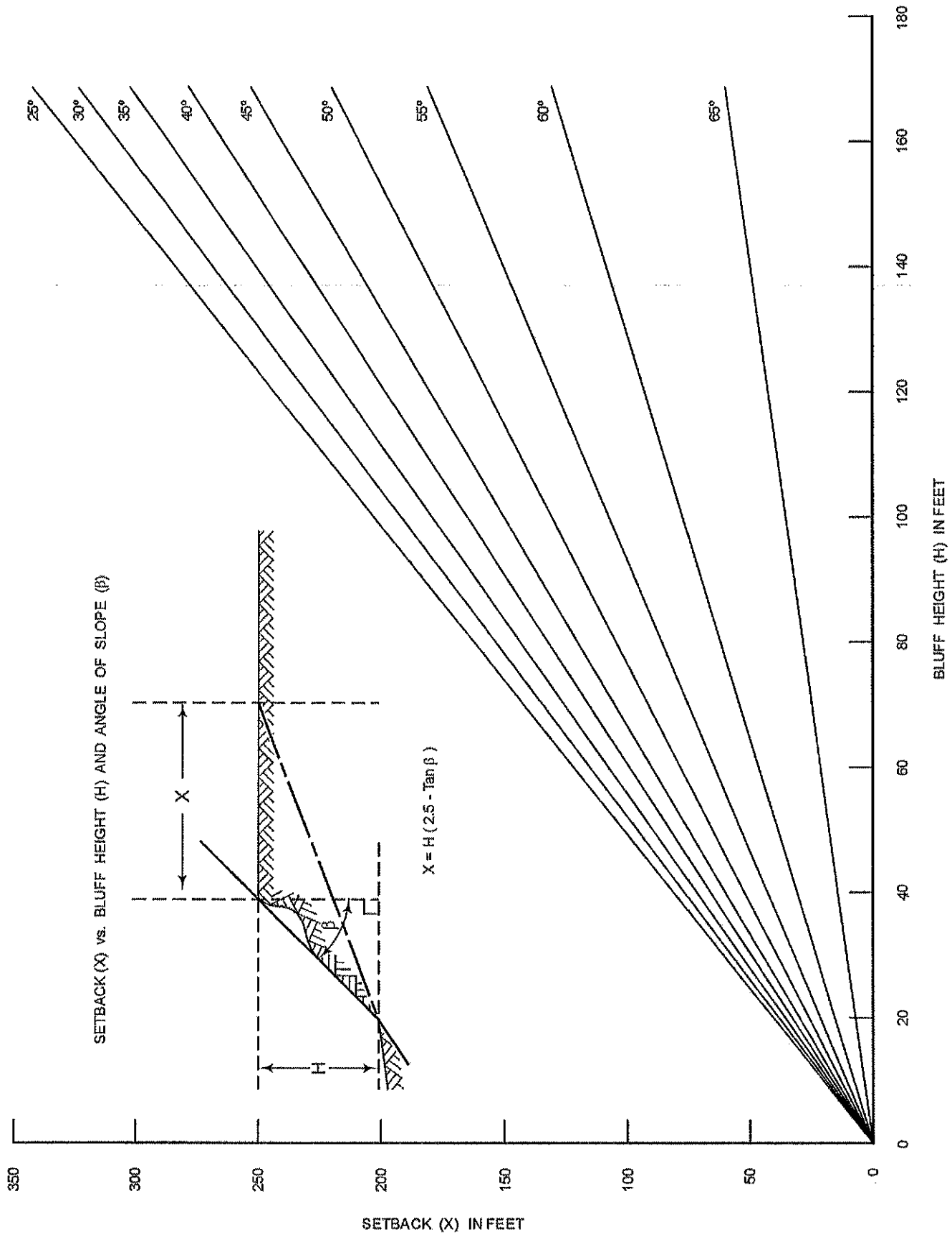
Attachment: LMB Attachment 6 (9570 : LM Bluff Structure Regulations)

3. When a detailed subsurface investigation report by a Wisconsin Registered Geotechnical Engineer indicates that a ravine is a stable formation, the setback shall be as recommended in the report, subject to a minimum setback of 40 feet from the edge of that particular ravine, and subject to the approval of the Board of Adjustment.

B. Setback from Shallow Ravines. In the case of shallow ravines in the Lake Michigan ravine area, all buildings, structures, seepage pits, and soil absorption fields shall be set back a minimum of 40 feet from the edge of the angle of repose based on a slope ratio of three feet horizontal distance to every one foot vertical distance. The vertical distance of a specific site is measured from the bottom of the ravine to the horizontal level of the land adjacent to the ravine.

Attachment: LMB Attachment 6 (9570 : LM Bluff Structure Regulations)

Figure 1



Attachment: LMB Attachment 6 (9570 : LM Bluff Structure Regulations)

Sec. 58-416. - Building and structure location.

(a) *Purpose and intent.* The purpose and intent of regulating building and structure location is as follows:

(1) To require the provision of a buffer zone between noise-intolerant land uses (e.g. residences, nursing homes, day care centers, schools, churches) and adjacent streets or highways to effectively attenuate noise and buffer such developments from the pollution and hazards attendant to vehicular traffic.

(2) To require the provision of adequate physical separation between uses to minimize conflict.

(3) To allow exposure to optimum amounts of light, air, and ventilation.

(4) To attenuate noise, odors, fumes, and dust generated by land use before they infringe upon adjacent land use.

(5) To provide aesthetic open space of sufficient size to accommodate landscaping and to soften, compliment, and enhance architectural design of buildings, parking areas, loading facilities, and utilities.

(6) To provide adequate area for snow piling.

(7) To insure adequate separation between pedestrian and vehicular circulation.

(8) To promote cluster development and other internally oriented living, shopping and working environments, and to discourage strip development.

(9) To provide adequate area to detain, retain, and facilitate surface drainage.

(10) To protect and preserve the quality and quantity of ground water resources.

(11) To prevent development which may result in unacceptable non-point source pollution.

(12) To provide diversified and balanced growth.

(b) *Base setback line.* The following base setback lines are hereby established parallel to the centerline of all public streets and highways:

(1) For all streets designated as "local streets", the base setback line shall be located 30 feet from the centerline of such street or 75 feet from the center point of a cul-de-sac unless otherwise specifically established by action of the common council.

(2) For all streets and highways, other than those designated as "local" streets, a base setback line shall be located at a distance from the centerline of such street or highway equal to one-half the width of its ultimate right-of-way as established by the common council.

(3) The width of frontage roads shall not be included in the above designated rights-of-way.

(c) *Setbacks.* Unless otherwise specified within an individual zoning district or in accordance with section 58-41, no building or structure shall be erected, constructed, structurally altered, or relocated on a lot closer to the base setback line than the minimum setback distance specified in

Attachment: LMB Attachment 7 (9570 : LM Bluff Structure Regulations)

the established zoning district.

(1) *Frontage roads, service drives and parking areas setback.* Frontage roads, service drives, parking areas, etc., shall be set back a minimum of 25 feet from the adjacent base setback line.

(2) *Setback from Lake Michigan Bluff.* All permanent structures, including in-ground swimming pools erected or constructed after January 1, 1988, on property that is contiguous to Lake Michigan shall be set back from the top of the bluff a distance based on a slope ratio of two feet horizontal distance to every one foot vertical distance measured from the toe of the bluff. In no case, however, shall a building be set back less than 75 feet from the top edge of bluff at the time of construction. Additions or alterations to structures that were erected or constructed prior to January 1, 1988, on property that is contiguous to Lake Michigan shall in no case reduce the existing setback from the edge of the top of the bluff to the existing structure.

All underground utilities including but not limited to sewer, water, gas, electric, or telephone shall be installed no closer than 75 feet from the top edge of the Lake Michigan bluff. Underground extensions of existing utilities shall not reduce the existing setback from the edge of the bluff if said utilities are closer than 75 feet to the top of the bluff. However, utilities located more than 75 feet from the top of the bluff may be extended underground to structures lacking the 75-foot setback from the top of the bluff. The city does not guarantee, warrant or represent that only those areas which lie within the required setback area from the top of the bluff will be subject to damage resulting from bluff erosion or instability and hereby asserts that there is no liability on the part of the common council, its agencies or employees for any damages that may occur as a result of reliance upon and conformance with this section.

(d) *Setback exceptions.*

(1) Additions to existing buildings which lack the required setback may be allowed if either:

a. The addition is set back at a distance greater than or equal to the average of the existing building setback and the required setback; or

b. The addition is set back at a distance at least equal to the building setback and the planning commission determines that the addition will neither impede any likely public improvements nor cause any hardship, inconvenience, or diminution in value to any adjacent properties and further determines that the addition will be harmonious with neighboring properties.

(2) On corner lots, on record as of the effective date of the ordinance from which this section is derived, the effect of the setback regulations shall not reduce the buildable width of such corner lot to less than 30 feet.

Attachment: LMB Attachment 7 (9570 : LM Bluff Structure Regulations)

(e) *Offsets.* The proximity of any portion of a structure to the side or rear lot lines shall be regulated as follows:

(1) Except as specifically otherwise provided by ordinance, no structure shall hereinafter be erected, structurally altered, or relocated so that it is closer to any lot line than the offset distance specified by the regulations for the district in which it is located:

(2) No non-residential structure shall be erected, structurally altered, or relocated on any property so that it is closer to the lot line of a residentially zoned property than the greater of (i) the distance set forth in paragraph (1) or (ii) one times the height of the non-residential structure as deemed pursuant to section 58-418.

(3) Offset exceptions.

a. In the case of any lot of record which has a minimum average width less than that required by the district in which it is located, the offset from a side lot line may be reduced proportionally to the ratio of the actual minimum average width and the required minimum average width (i.e. actual width/required width) provided, however, that no offset shall in any case be less than 75 percent of the required offset.

b. Where a lot abuts a district boundary line, the offset from such line in the district of less restrictive use shall not be less than that required for the district of more restrictive use.

c. The required offset area on one property may be reduced if the offset area on the adjoining property is increased by deed restriction to include the required offset area plus the equivalent amount of offset area resulting from the adjacent reduction.

d. In the case of attached single-family, row, multiple-family, commercial, or industrial use structures, two or more buildings on adjoining lots may be erected with common or directly adjoining walls provided the requirements of the state industrial code relative to such construction are complied with and provided that at both ends of such row type buildings the applicable offset requirements shall be complied with.

e. Structures that are specifically Structures that are specifically excluded from offset regulations by ordinance including those structures excluded by section 58-419 are not subject to subsection (e).

f. Garages allowed as accessory uses to residences are subject to subsection (e)(1) but not subsection (e)(2) or (e)(3).

(4) Any required offset area shall be landscaped and kept clean and free from the accumulation of debris or refuse, and shall not be used for the storage or display of equipment, products, vehicles, or any other material.

(f) *Driveway offsets.* Residential driveways shall be located no closer than three feet to a side or rear property line unless written approval is granted by the adjacent property owner.

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(Code 1957, § 3.03(5); Ord. No. 96-878, 5-14-1996; Ord. No. 96-890, 6-25-1996; Ord. No. 2003-1065, § I, 4-8-2003; Ord. No. 2008-1238, § I, 4-8-2008; Ord. No. 2016-1488, § I(Att.), 1-10-2017)

Attachment: LMB Attachment 7 (9570 : LM Bluff Structure Regulations)

11333 N. Cedarburg Road
Mequon, WI 53092-1930
Phone: 262-242-3100
Fax: 262-242-9655

www.ci.mequon.wi.us **Office of Community Development**

TO: **Committee of the Whole**
FROM: **Kim Tollefson, Director of Community Development**
DATE: **August 14, 2024**
SUBJECT: **Presentation of a Phase II Report for a Real Estate Market Analysis of the Port Washington Road Corridor, Between County Line Road and Glen Oaks Lane**

Background

In March of 2024, the Common Council authorized a contract with Redevelopment Resources of Madison to conduct a real estate analysis of the Port Washington Road corridor. The market analysis is one of several on-going efforts intended to support redevelopment of the City's east side commercial corridor. Amongst others, these efforts include:

- A revised Incentive Policy for Tax Increment Districts Nos. 4 and No. 5
- Streetscape Plans for Port Washington Road from Mequon Road to County Line Road
- Architectural Design Standards for Port Washington Road

This project will result in the following:

- Inventory of commercial and residential projects
- Occupancy and vacancy calculations for commercial and residential sectors
- Gap Analysis
- Analysis of the highest and best use of key sites
- Identification of high-value opportunities
- Recommended action steps to achieve short-, mid-, and long-terms goals

The analysis is projected to be complete in September 2024.

Analysis | Reporting

Redevelopment Resources' Principal and CEO, Kristen Fish-Peterson, will be present at Tuesday evening's Committee of the Whole meeting to present a summary of the Phase II Report for this project, which includes short, mid and long-term opportunities for development derived from the data gathered in Phase I and based on viability of use categories including commercial, service, medical, education, hospitality, recreation and residential. Specific commercial targets as well as the type, scale and size of residential uses for inclusion in the corridor will be identified. Redevelopment sites will be identified and prioritized as well as any potential changes to zoning and the potential for high-impact opportunities such as clustering, transformative redevelopment sites and economic drivers. Please find attached a copy of the Phase II Summary Report for the Port Washington Road corridor, between County Line Road and Glen Oaks Lane.

Phase III and IV, which identify priority locations and recommendations for implementation, is expected in September.

Attachments:
PHASE II Mequon Corridor Market Study (PDF)













REAL ESTATE MARKET ANALYSIS
City of Mequon, WI

PHASE II REPORT

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

ACKNOWLEDGMENTS

Public Officials

Andrew Nerbun, Mayor

Alderman

District 1	Robert Strzelczyk
District 2	Kelly Tolocko
District 3	Dale Mayr
District 4	Jeffrey Hansher
District 5	Gregg Bach
District 6	Brian Parrish
District 7	Peter Bratt
District 8	Bill Gebhardt

City Staff

William Jones, City Administrator
Kimberly Tollefson, Director of Planning and Development
Jac Zader, Community Development Assistant Director
Carolyn Vogel, Assessment Technician

Consultant Team

Redevelopment Resources
Kristen Fish-Peterson, CEcD, EDFP
Dayna Sarver, CEcD

REDEVELOPMENT
RESOURCES

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

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Introduction

When considering a commercial corridor and its propensity for redevelopment, the most important thing is to take a market-based approach to understand how the market is changing. Communities need to know the business case for redevelopment and new uses. Mequon is taking such an approach with their thinking about Port Washington Road.

The traditional approach to corridor improvements was to make infrastructure upgrades to accommodate higher density, reconstruct roads, add signs, and hope this would motivate developers to transform an area. The modern approach is for communities to take control of their own real estate to determine who owns what parcels and what can be done with them. It's a collaborative approach between the city, developers, residents and small business owners.

To revitalize a commercial corridor, there is ideally a transformative, or catalytic project, but it must be led by a champion. By understanding the corridor in today's market perspective, and the city preparing changes to the zoning code to anticipate future developments, Mequon will be creating near shovel-ready sites along Port Washington Road.

Understanding not only the market, but the properties and property owners, their individual goals for their property and how long-term the owners are thinking about their parcels will guide decision making when properties become available.

This market analysis reviews existing conditions in the community compared to the study area, reviews competitive shopping/commercial districts, and checks in on national trends in commercial development. It also considers future uses for property along the Port Washington Road corridor. The report considers residential for senior citizens, hotel, office, retail, medical, and recreational/entertainment uses.

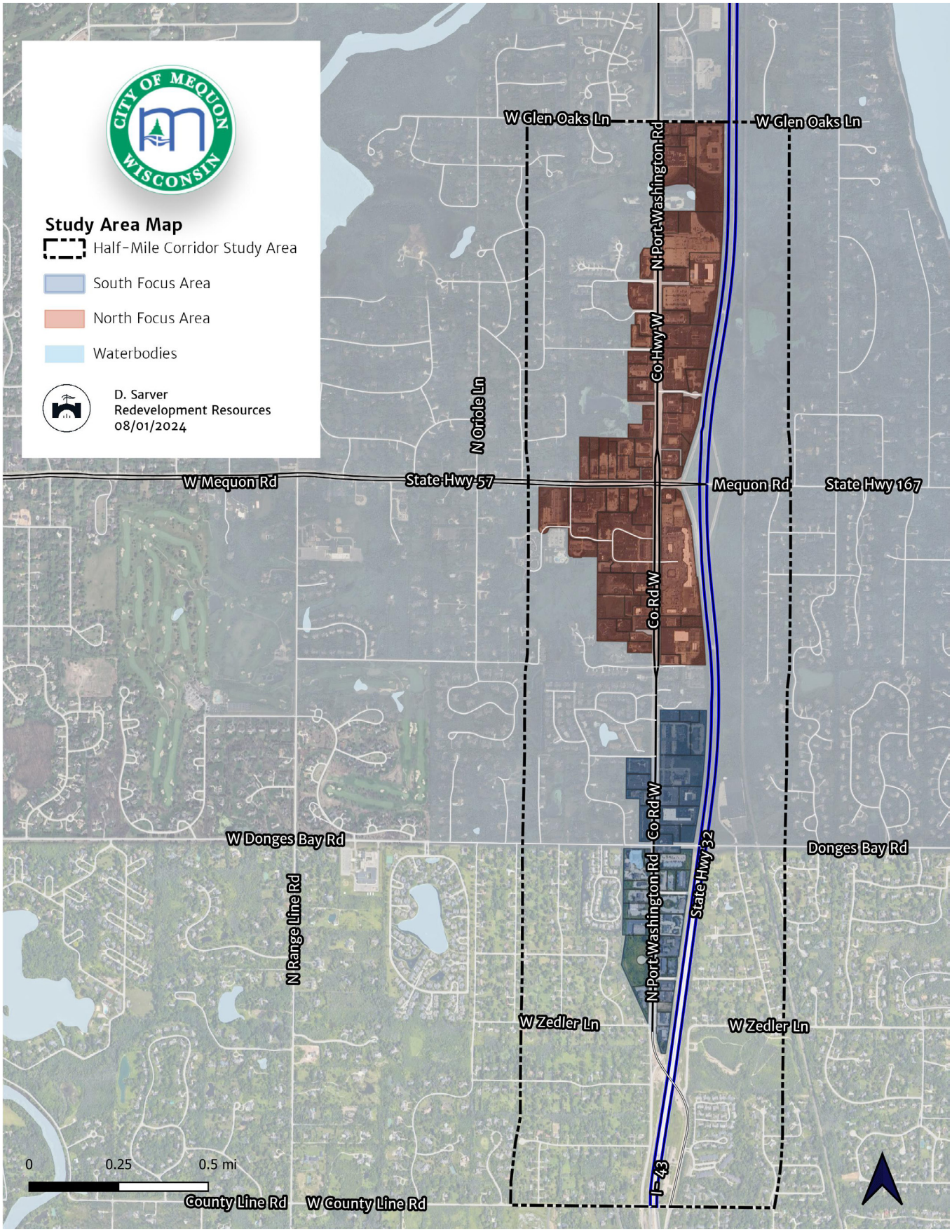
The report looks at short-, mid-, and long-term opportunities in a variety of sectors. Redevelopment sites have been identified and prioritized based on their availability, access, size, function, and recommended future use.

Study Area

The corridor study area stretches approximately three miles along Port Washington Road (County Highway W) from County Line Road on the south end to Glen Oaks Lane on the north end and approximately a quarter mile on either side. State Highway 57/Interstate 43 is also a heavy traffic transportation corridor that runs nearly parallel to Port Washington Road.



Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



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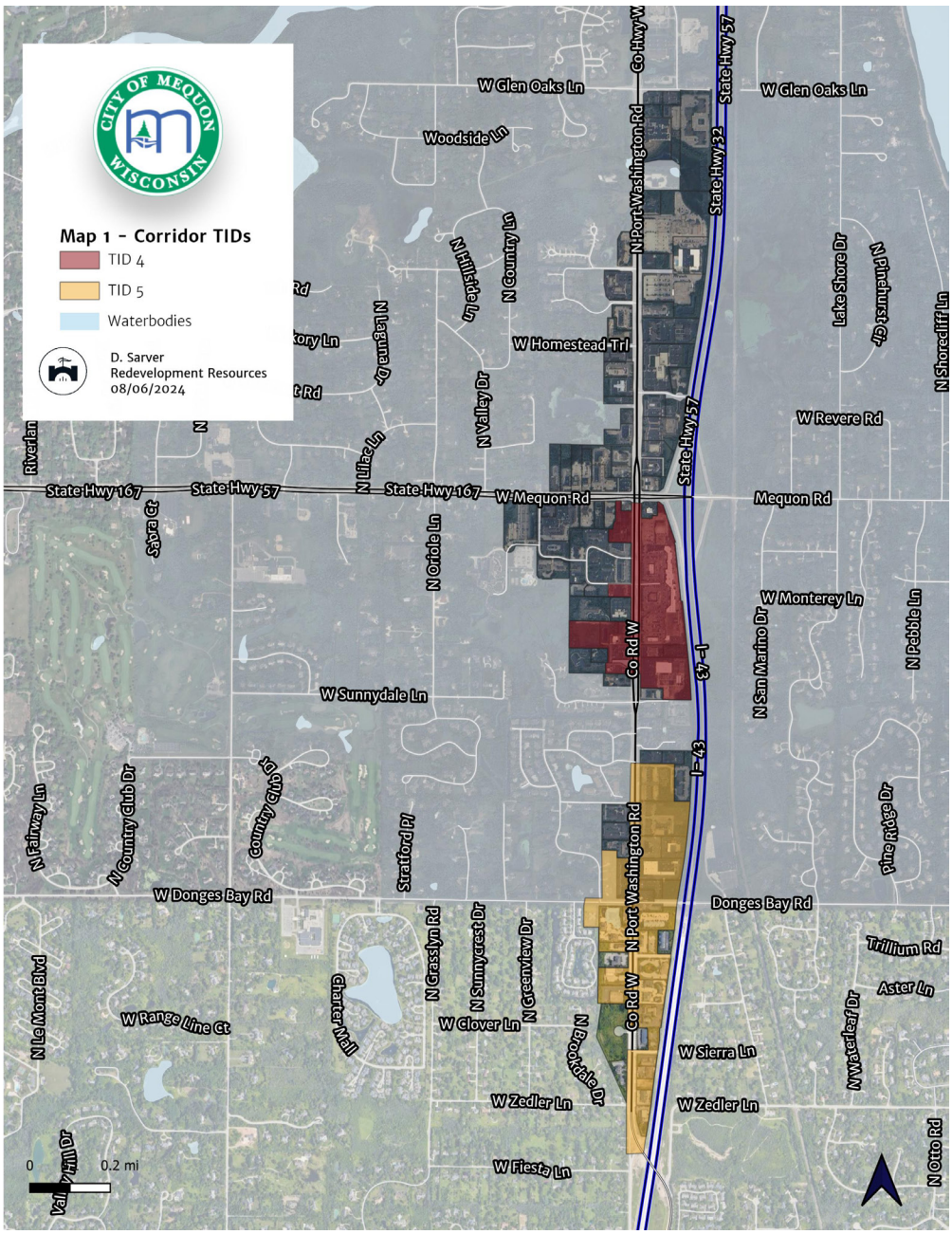
Internal Document Review

Goals stated on the Community Development Department web site as they related to Port Washington Road include the following:

- Develop policies, zoning, text amendments and tools for the Port Washington Road corridor to plan for redevelopment and future, new development opportunities.
- Contract and construct Port Washington Road public streetscaping improvements.

Tax Increment Financing

Tax Increment Financing Districts #4 and #5 cover areas along Port Washington Road. Both districts were created in 2012, and both are rehabilitation/conservation districts. Each project plan estimated expenditures totaling approximately $5 million and estimated new tax based created to be roughly $24 million in each district. Both districts' project plans also stated that it was anticipated 70% of new development within district boundaries would be retail. Both districts anticipated investing incentives to developers as the primary use of funds in the districts.



Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Comprehensive Plan

Goals stated at the beginning of the comprehensive plan (as they relate to Port Washington Road) include:

- Promotion of the redevelopment of lands with existing infrastructure and public services and the
- maintenance and rehabilitation of existing residential, commercial, and industrial structures.
- Encouragement of land uses, densities and regulations that promote efficient development patterns and relatively low municipal, state government, and utility costs.
- Providing adequate infrastructure and public services and an adequate supply of developable land to meet existing and future market demand for residential, commercial, and industrial uses.
- Promoting the expansion or stabilization of the current economic base and the creation of a range of employment opportunities at the state, regional, and local level.
- Preserve and enhance Mequon's rural and small-town character.
- Retain and foster the City's healthy and vital commercial areas.
- Ensure Well-Designed, Visually Attractive Development While Preserving the City's Existing Small Town Character
- Develop and Retain a Diverse Tax Base
- Develop a Proactive Economic Development Strategic Plan

There is a section of the Comprehensive Plan that lists desirable business types for the City. Those business and industry types include;

- Biotechnology, including the biomedical technology industry
- Health care, including home healthcare firms and facilities such as RCACs and CBRFs
- Information systems, including software development and data processing
- Communications media, including computer/web-based/electronic and print
- Construction industry
- Entrepreneurial companies and independent businesses led by visionaries that will attract venture capital to the City and produce new ideas in fields such as computer technologies and biotechnology
- Research and development firms
- Manufacturing, including advanced technology manufacturing and niche manufacturing such as the plastics and medical industries and manufacturing that requires high precision and low product volume
- Developers specializing in providing housing for seniors, including senior living arrangements
- Educational institutions
- Educational support services
- Necessity retail, such as grocery stores, in areas of the City that are currently underserved
- Financial services, including financial planning, banking, online support facilities, and processing facilities
- Business incubators that provide shared services for small businesses looking for cost efficient start-up facilities, which may grow into larger businesses and expand in Ozaukee County
- Small businesses and home-based businesses
- Niche agriculture, including organic farming; food production for local restaurants, micro-breweries, and other niche marketing; and crop production for the bio-fuel industry
- Dairy farming and other types of agriculture existing in the City
- Additional restaurants, both locally owned and franchises
- Alternative fuel suppliers

The goals listed on the City's website, within TID project plans, and in the comprehensive plan are all consistent with encouraging development and redevelopment along the Port Washington Road corridor.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



Stakeholder Engagement

3 - Stakeholder Engagement

Stakeholders were engaged in individual interviews. Interviewees included Chamber of Commerce staff, Ozaukee County Economic Development staff, multiple investor/developers, commercial real estate brokers, business owners, and City staff.

Those interviewed agreed that the new interchange at the south end of the study area will make things on Port Washington Road more accessible and have an overall positive impact. They also all shared the thought that more office space is not needed on Port Washington Road, unless there is a single large office user which has a building constructed for their use. One person questioned if existing office space is using all the surface parking that is allocated to each building. The thought was voiced that other buildings could be constructed on some of the existing parking lots, if parking were not being used by the office tenants.

Although there is a significant presence of medical sector uses, specialty medical would be a cluster worth exploring. Certain outpatient clinics, med-spa, personal care, and wellness-related businesses could support a strong cluster of health and wellness entities along the corridor.

The restaurants located on Port Washington Road appear to be busy and do good business. While those interviewed believe more restaurants are welcome, it was believed there was not a high demand for more restaurants in the study area.

Some interviewees believe there is space in the market for more high-quality assisted living facilities, due to the waiting list at Newcastle Place. Other potential uses which could be located on Port Washington Road include business to business goods & services, family entertainment complexes, a daycare/KinderCare, and a hotel.

A member of the leadership team at Concordia University shared that they own a significant amount of land to the south and north of their campus, so any future growth of their physical space will likely occur on their property. Their student population growth is occurring mostly online. Students shop at Meier, or online, for many of their necessities, if they can't find something on the well-appointed campus. Although it might appear that the student body would be a good source of part-time employees, the University has found that their student population is less likely to hold a part time job during their college years than students from the past. The University itself supports businesses along Port Washington Rd., adding to the economic impact.

One long-time retail tenant voiced the thought that the corridor needed a commercial anchor on the south end of the corridor. For that tenant, business has been strong for them, but it was not easy to find a new retail location on Port Washington Rd. This business owner believes there is opportunity for more retail space along the corridor.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

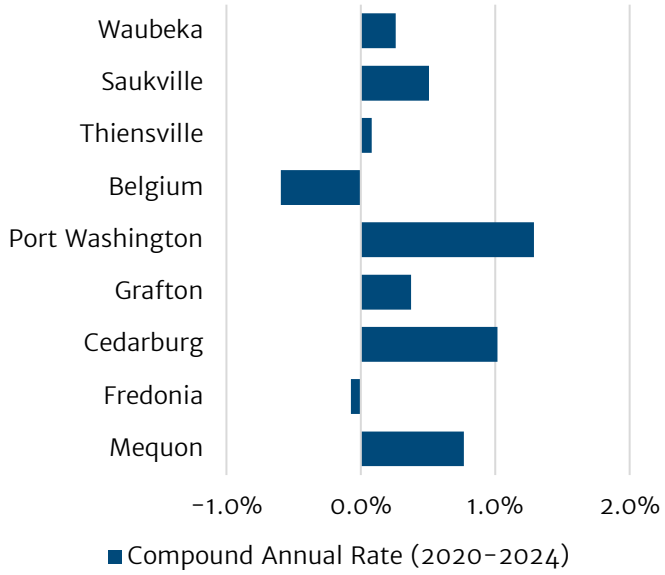
Existing Conditions



Population

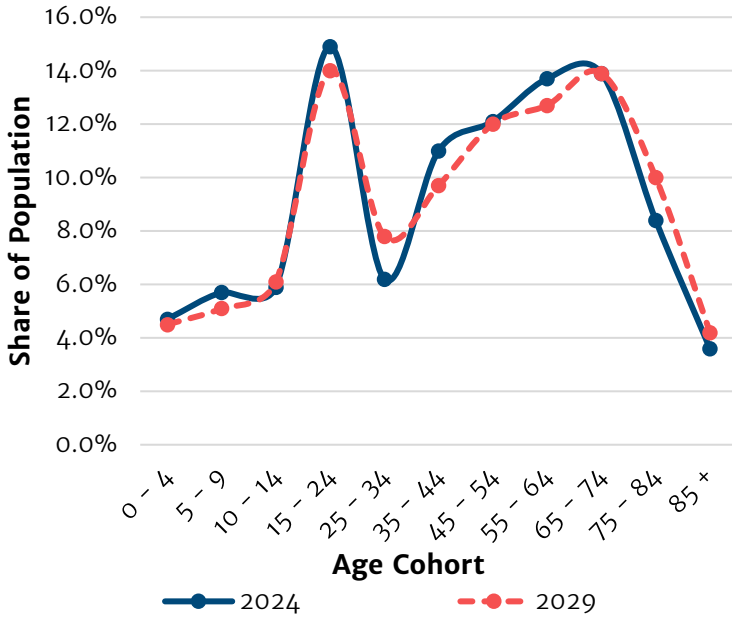
The City of Mequon's population grew by approximately 2,565 residents between 2010 and 2024 to 25,724. Esri estimates the city's population in 2029 to be 25,827. The following chart compares the compound annual growth rate from 2020-2024 of Mequon with other communities in Ozaukee County. While Port Washington and Cedarburg experienced higher rates of growth, they are also nearly half the size of Mequon.

Figure 1. Population trends by community in Ozaukee County



Data Source: ESRI Community Profile, Redevelopment Resources.

Figure 2. Age Distribution Trends



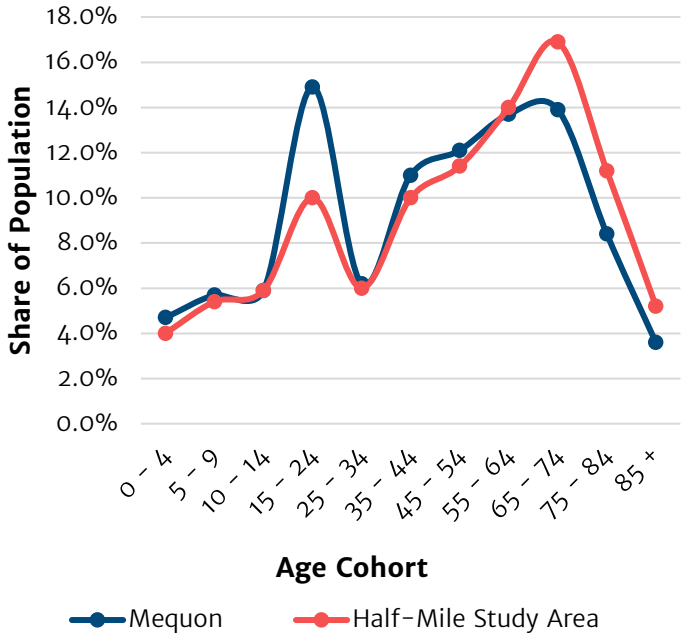
Data Source: ESRI Community Profile.

Age and Race

The largest age cohorts by population are between ages 15-24 and ages 65-74. Compared to the rest of the city, the age distribution of the study area tends to be those of retirement age or older, which could be explained by the presence of Newcastle Place, an assisted living community. By 2029, Esri predicts that the share of Mequon's population by age cohort will decline in each category except for those above retirement age.

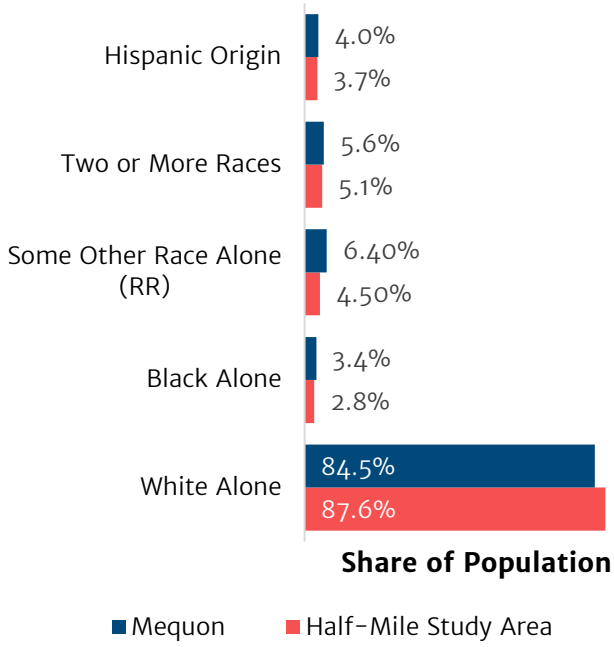
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Figure 3. Age Distribution Comparison



Data Source: ESRI Community Profile.

Figure 4. City of Mequon Racial Composition



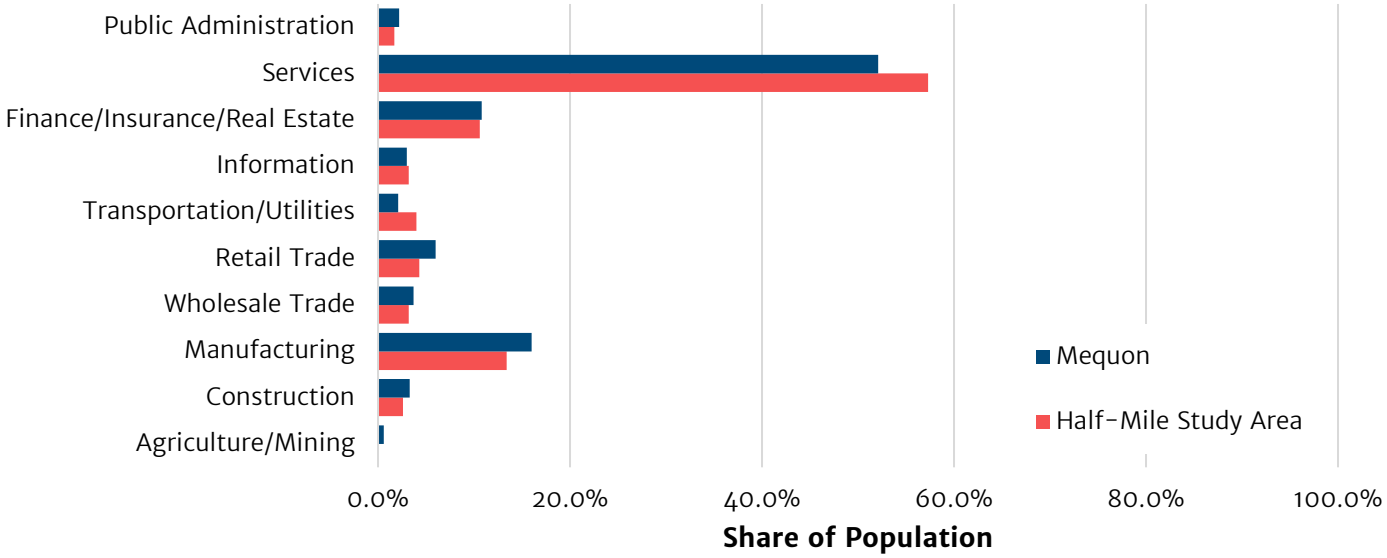
Data Source: ESRI Community Profile.

The working-age population is 25-64. Therefore, it is anticipated that this, the largest share of the city's population, is also expected to decline. Declining birth rates and an aging population are factors in this calculation.

Over 84% of the population of Mequon is white. Other races and combinations of races make up the remaining with no other single race comprising more than five percent of the population.

Employment

Figure 5. Employed Population 16+ by Occupation (2024)



Data Source: ESRI Community Profile.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Employment in Mequon is dominated by services, followed by manufacturing and finance/insurance/real estate. The services category is filled with occupations in professional and management, business, hospitality service, and other occupations.

Industry Employment Projections

The workforce is constantly evolving as workers retire, change careers, take promotion opportunities, or complete retraining. The Department of Workforce Development's projections methodology accounts for these types of job changes. The state is split into 11 Workforce Development Areas (WDAs), and projections are updated every two years. Ozaukee County is part of the WOW WDA that also includes Waukesha and Washington County. The industry employment projections below are for the WOW WDA.

Figure 6. Ozaukee County Workforce Profile Graphic (2023)

Industry	2020 Employment	Projected 2030 Employment	Employment Change	Percent Change (2020-2030)
Total All Industries	364,810	401,378	36,568	10.0%
Natural Resources and Mining	1,774	1,970	196	11.1%
Construction	21,512	23,505	1,993	9.3%
Manufacturing	64,310	67,837	3,527	5.5%
Trade, Transportation, and Utilities	66,178	71,685	5,507	8.3%
Information	4,119	4,217	98	2.4%
Financial Activities	21,120	22,852	1,732	8.2%
Professional and Business Services	41,579	50,228	8,649	20.8%
Education and Health Services	69,233	74,974	5,741	8.3%
Leisure and Hospitality	27,245	33,021	5,776	21.2%
Other Services (except Government)	19,658	21,941	2,283	11.6%
Public Administration	10,438	11,035	597	5.7%
Self Employed and Unpaid Family Workers	17,644	18,113	469	2.7%

Regional employment is expected to grow by 10.02% or 36,568 jobs from 2020 to 2030. Statewide employment is projected to grow at a slower rate during the same timeframe (6.29%). Growth is projected to be stronger in service industries than product industries, due to a projected rebound in leisure and hospitality. Note that these projections only forecast levels of filled positions rather than potential demand, which can further illustrate the issues associated with an aging population. Job growth is expected to continue, despite declines in labor force levels. Employers find it difficult to replace workers even if overall employment in the industry declines. Businesses already face difficulty replacing retirees' positions, and this difficulty will expand to filling new openings, too. This could constrain job growth by limiting expansion.

Although solutions will be different for each business, they will likely include a combination of talent pipeline development, increased focus on talent attraction and retention, engagement of under-utilized populations, increased automation, and retention of retirees in non-conventional work arrangements.

~ Excerpt taken from the Ozaukee County Workforce Profile, Wisconsin Department of Workforce Development, 2023

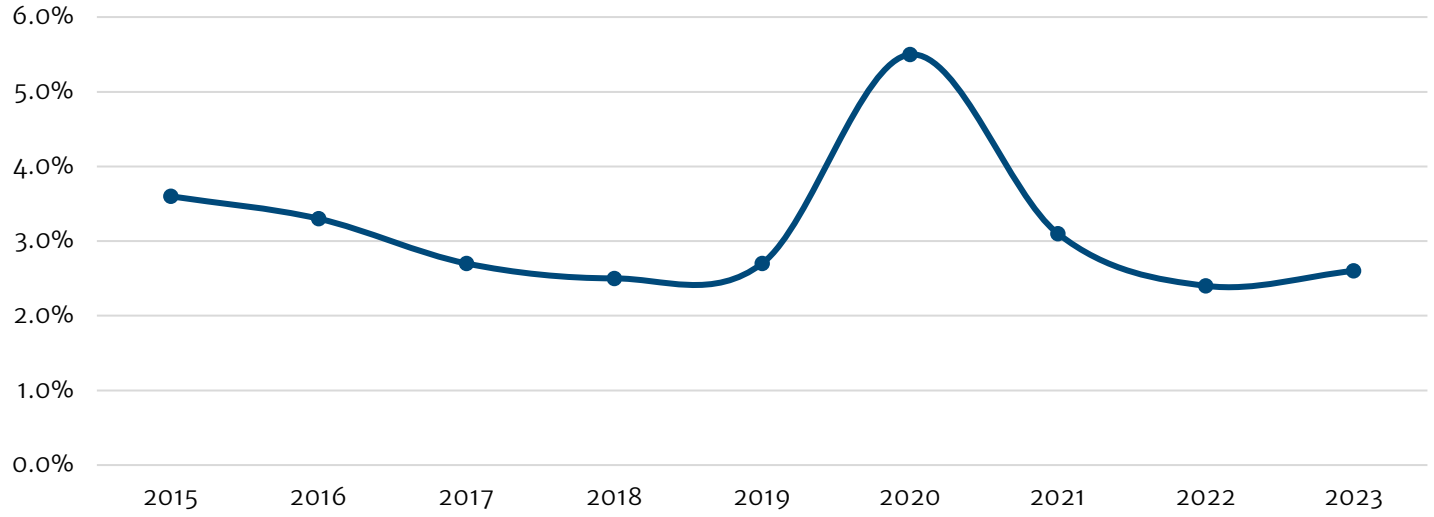
According to Wisconomy, Ozaukee County had 49,050 people in the labor force in 2022, and that number has grown to 49,543 people in 2023, a 1.01% increase year over year. This increase in the labor force over the past year is comparable to labor force increases over the same time in Washington County and Waukesha County, as well as the state of Wisconsin overall, where the labor force also rose 1.01%.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Unemployment

Unemployment information was not available for the city; therefore, the unemployment rate of the county was examined. Unemployment spiked in 2020, but by 2022 recovered to its pre-COVID levels and remains at less than 3%.

Figure 6. Ozaukee County Unemployment Rate Trends (2015-2023)

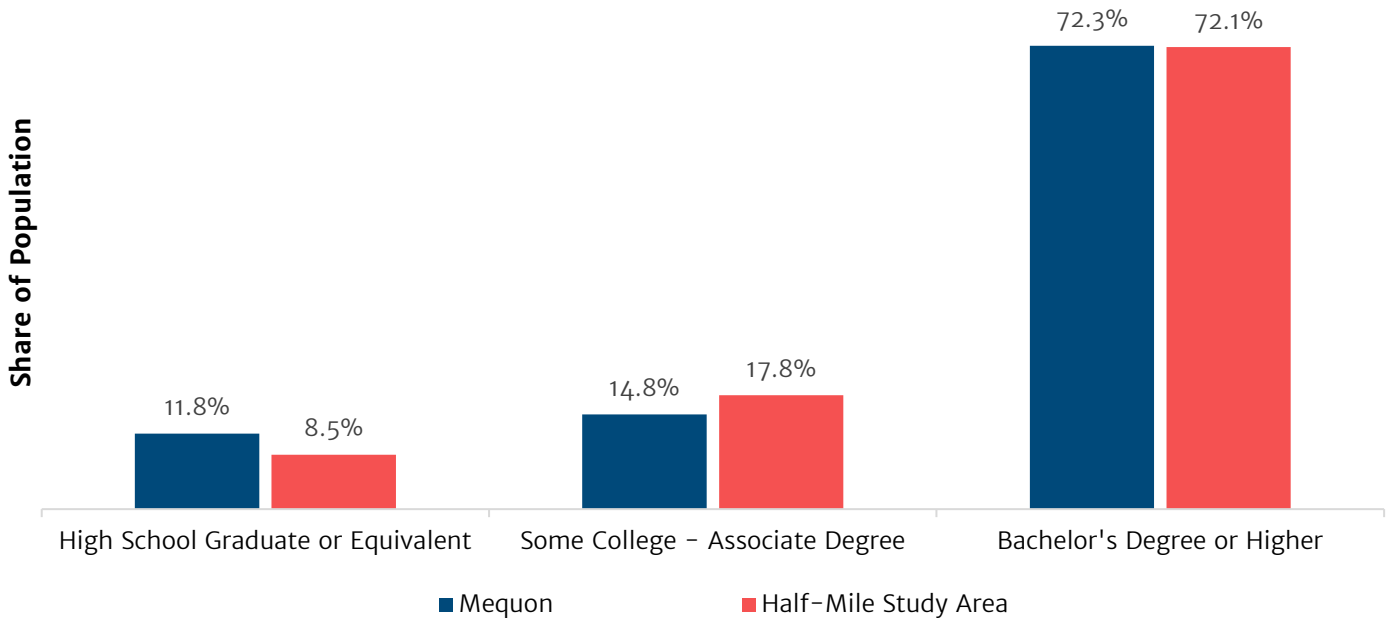


Data Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics Table.

Educational Attainment

Educational attainment is high for the City of Mequon, with 72% of residents holding a bachelor's degree or higher. Fifteen percent of residents have some college or an associate degree.

Figure 7. Mequon Educational Attainment (2024)



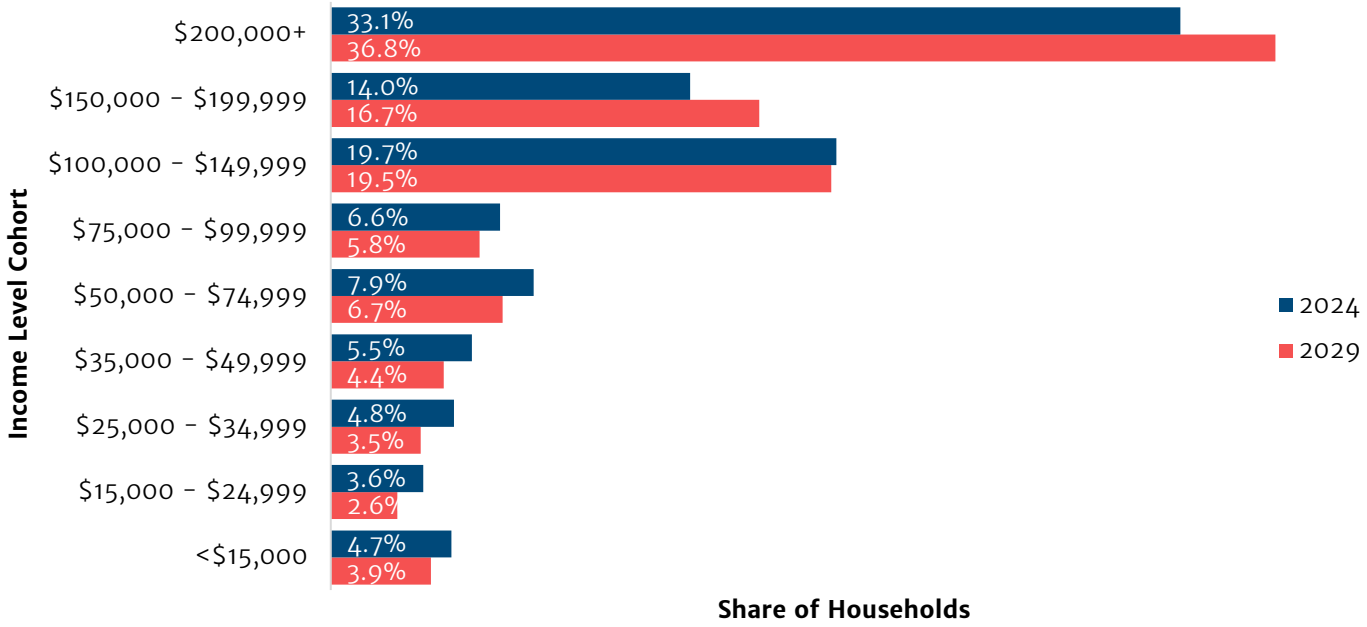
Data Source: ESRI Community Profile.

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Income

The median household income is $140,219 and Esri predicts that this will increase to $158,048 by 2029. The largest share of resident households earns more than $200,000 annually. The 1999 median annual household income for the City of Mequon was $90,733.

Figure 8. City of Mequon Households by Income Trends

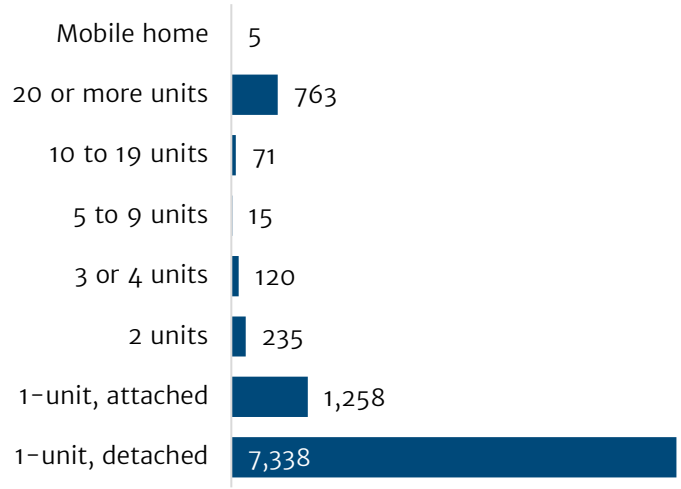


Data Source: ESRI Community Profile.

Housing

The housing market in Mequon consists of approximately 9,805 total units of housing including (mostly) single family homes, condos, apartments, and mobile homes as shown in the graphic below.

Figure 9. Housing Units by Type (2022)

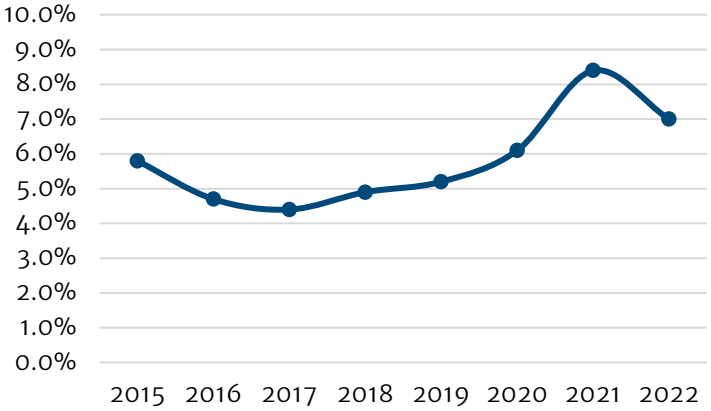


Data Source: American Community Survey 5-Year Estimates, Housing Characteristics.

Arthur Nelson, author of Planner's Estimating Guide: Projecting Land-Use and Facility Needs, states "Some amount of vacant residential units is needed to facilitate the free movement of population and choice of reasonable alternatives. The number of vacant units, usually expressed as a percent of total habitable units, caries by such things as growth rates and tenure characteristics of renters and buyers." The market had a relatively healthy vacancy rate in 2022, which was trending downward from approximately 7%.

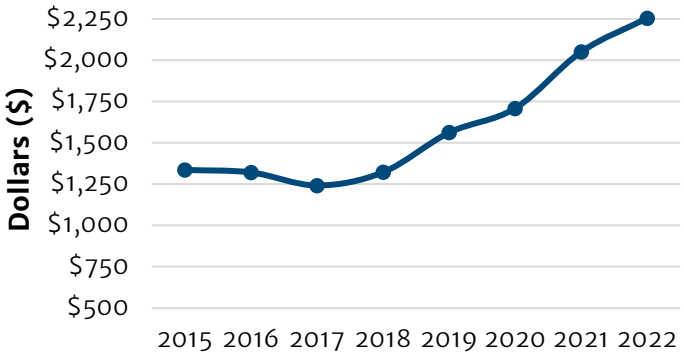
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Figure 10. Vacancy Rate Trends (2015-2022)



Data Source: American Community Survey 5-Year Estimates, Housing Characteristics.

Figure 11. Median Rent (2015-2022)



Data Source: American Community Survey 5-Year Estimates, Housing Characteristics.

It is possible that vacancy rate is even lower when considering that in April of 2024, there were 19 homes sold; eight were sold under asking price, two were sold at asking price, and nine were sold over asking price. This shows there is healthy demand for residential properties in Mequon.

Mequon continues to be a seller's market for residential for-sale units. In April of 2024, the median sold price was $610,000, and the median sold price in each bedroom category increased over the 2023 median sold price. The Mequon housing market is not the most expensive market compared to nearby cities but sees the second highest median sold price.

Median rent has been increasing for the last several years. This is occurring in markets across the state and country and is not unique to Mequon. More and more residents are choosing to rent, from young singles and couples to empty nesters who don't want to care for yards and snow removal anymore.

As noted above, the only population category experiencing growth over the next five years is the categories over retirement ages. Senior Housing in Mequon is a housing category feeling the demand of a growing population. The most recently opened center, Lumia Mequon, on Port Washington Rd, has 68 units and this facility is now full. There are also reported waiting lists at other care centers. The projected population of residents over age 75 in Mequon by 2028 is 3,200 people, which will be 12% of the population of Mequon. As these residents continue to age, there will be a pressing demand for more residential options for this component of the population.

Table 1. Senior Living Facilities and Services

	Independent Living	Assisted Living	Enhanced Living	Skilled Nursing	Memory Care	Rehab	Short Term Stays
New Castle Place*	●	●		●	●	●	
Lumia Mequon		●		●	●		
Charter Senior Living of Mequon		●					●
Mequon Court Apartments	●						
Teal Shores	●	●			●		
Highlands at Riverwalk Apartments	●						
Luther Manor at River Oaks		●					
Storypoint Mequon	●	●	●		●		

*Includes The Estates at Newcastle and Highlands Health Care

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



Competitive Analysis

Competitive Retail Nodes

The following retail nodes were identified as potential comparisons with Mequon Pavilions, which is part of the study area, to analyze comparable retail nodes similar in area and the potential impact to the corridor: Mequon Town Center, Bayshore Mall, and Grafton Commons.

Mequon Town Center



Mequon Town Center is a 100-acre mixed-use neighborhood along W. Mequon Rd. stretching from N. Cedarburg Rd. to N. Wauwatosa Rd. There are several dense commercial and residential developments in this core business district including the MTC1, Mequon Public Market, and Spur 16. MTC1 tenants include Collectivo Coffee, Café Hollander, The Ruby Tap, salons, and other services fill commercial space at the MTC1 development, which was completed in 2019. The Mequon Public Market boasts numerous tenants, including a florist, ice cream, brew pub and several food vendors. Spur 16 is a 14-acre residential neighborhood comprised of luxury townhomes and market rate multi-family development.

The neighborhood has a variety of commercial spaces which are relatively fully occupied. There are two spaces available at 6103 W. Mequon Rd, one for 1,249 square feet and one for 1,450 square feet, both leasing for $18 per square foot.

Bayshore Mall



Bayshore Mall is an outdoor, regional mall in Glendale, WI, approximately 6 miles south of the study area. It currently has 86 total stores, restaurants, banks, and other types of services. It is currently anchored by Barnes & Noble, Kohl's, Total Wine & More, and Target along with one of the Milwaukee area's two Apple Stores. Included in the development are several entertainment offerings including a cinema, creative arts space, board game place. Coming soon is Kids Empire. Kids Empire is a secure indoor children's entertainment center that features mazes, slides, rides, creative building games, climbing, bouncing, and ball pits.

Bayshore Mall has 14 spaces available for lease, totaling over 209,600 square feet. Of the 702,275 square feet of total gross leasable space, this is approximately 30 percent. Available spaces range from 767 to 49,550 square feet (about half the area of a Manhattan city block). There are two spaces available on the first floor, one for 40,000 square feet and one for 6,000 square feet. This space is available at a lease rate of between $14-$15 per square foot.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Grafton Commons

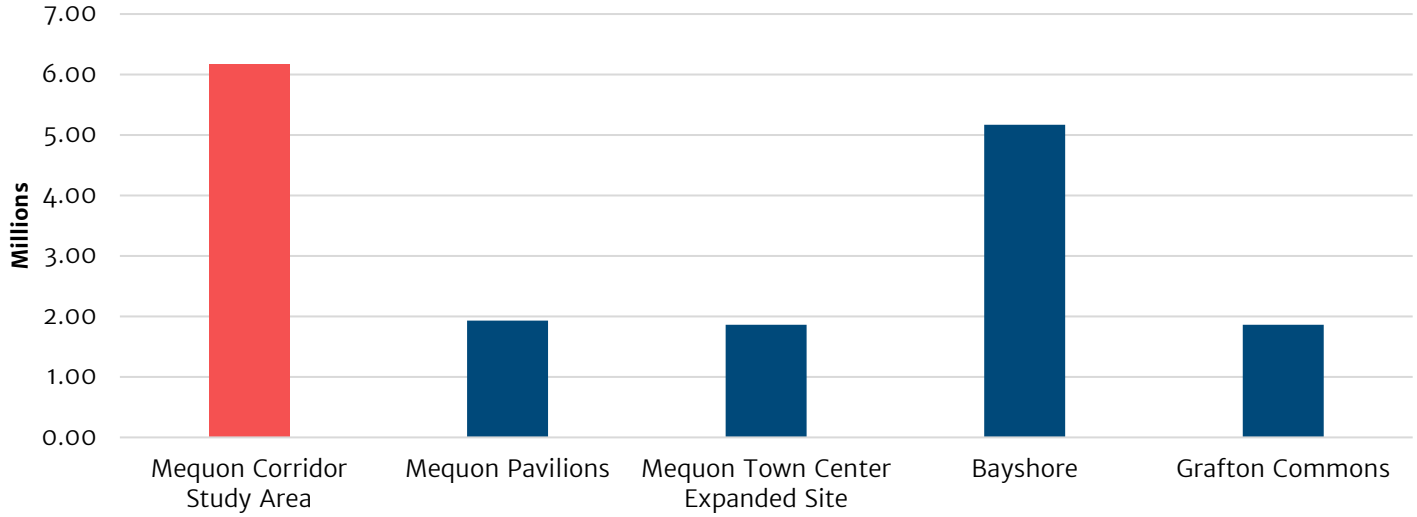


Located approximately 8 miles north in the Village of Grafton, Grafton Commons is a Class A shopping center located at the I-43/Hwy 60 interchange, with over 1,800' of I-43 frontage. Anchors include Costco, Ulta, Kohl's, Dick's Sporting Goods, TJ Maxx, PetSmart, Michaels, Steinhafels, and Aldi. South of Hwy. 60 is more commercial development including Target, Home Depot, Meijer, Office Max, and a variety of smaller stores.

Grafton Commons is fully built out, for the most part. Absorption was swift, as most sites were built-to-suit. There is one out-lot parcel being marketed currently, for an approximate 4,100 square foot building on the property also occupied by Kohls/Michels/Five Below/TJ Maxx.

Visit Traffic Comparison

Figure 12. Visit Count Comparison

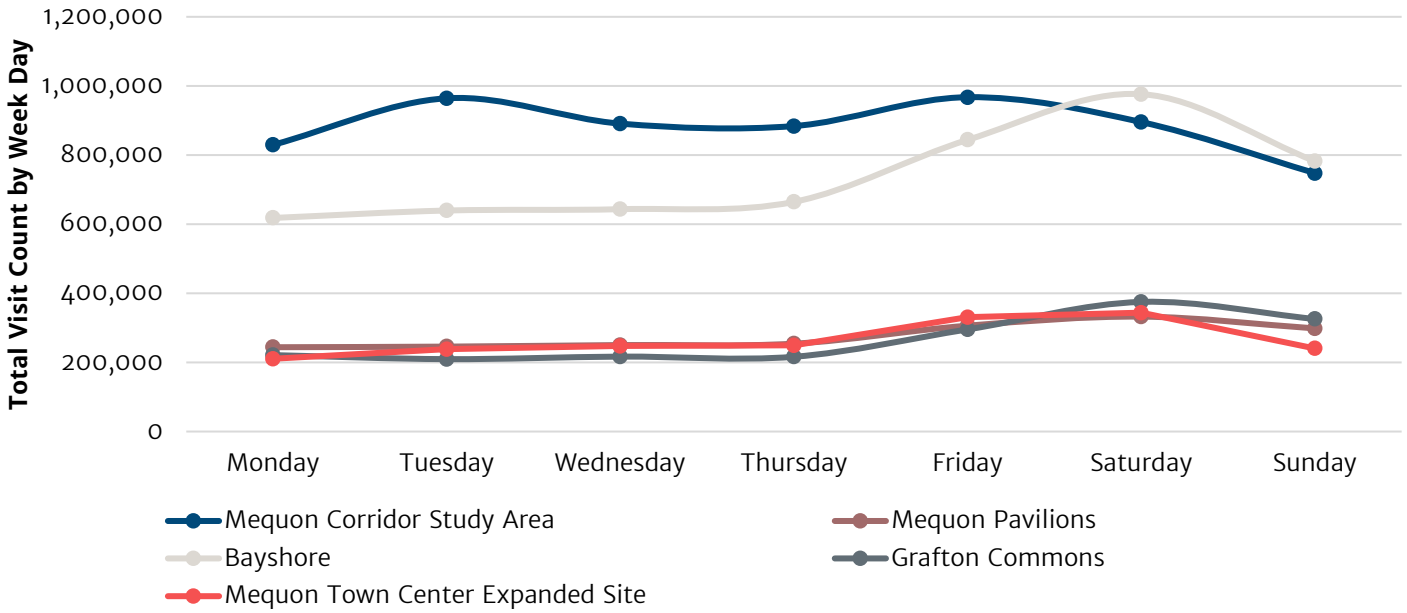


Source: Placer.ai, Metric comparison of competive retail nodes with visits greater than 10 minutes in duration (2023).

Using Placer.ai, foot traffic counts that were more than 10 minutes in duration from January 1, 2023, to December 31, 2023, were analyzed. Bayshore Mall had the highest traffic counts by all metrics. Total visit counts to Mequon Pavilions (1.93M) exceeded both the Town Center and Grafton Commons (both had 1.86M visits). However, while the total visit count to Grafton Commons is less than Mequon Pavilions, the visitors to Grafton Commons visit more frequently.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

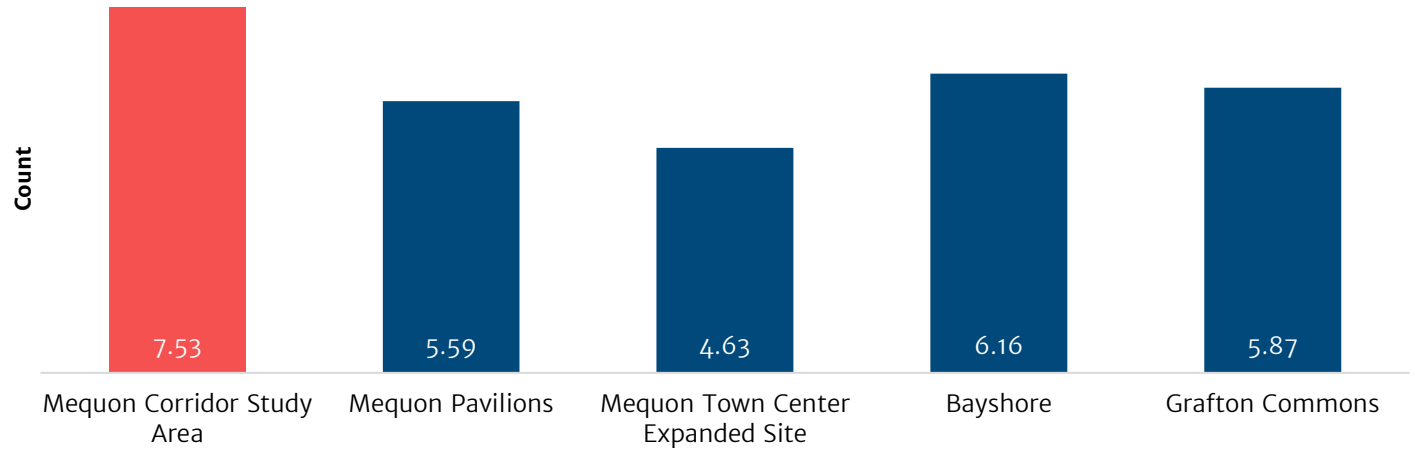
Figure 13. Daily Visit Comparison by Retail Node



Source: Placer.ai, weekday visit comparison of competive retail nodes and visits of greater than 10 minutes in duration (2023).

Mequon Pavilions, Mequon Town Center area, and Grafton Commons have remarkably similar traffic patterns in terms of day of the week and time of day visits occurred. Mequon Pavilions and Mequon Town Center have more weekday traffic while Grafton Commons, however, Grafton Commons has more traffic on the weekends. Bayshore Mall is also primarily a weeknight and weekend destination while the Town Center has consistent traffic throughout the week.

Figure 14. Visits Frequency Comparison

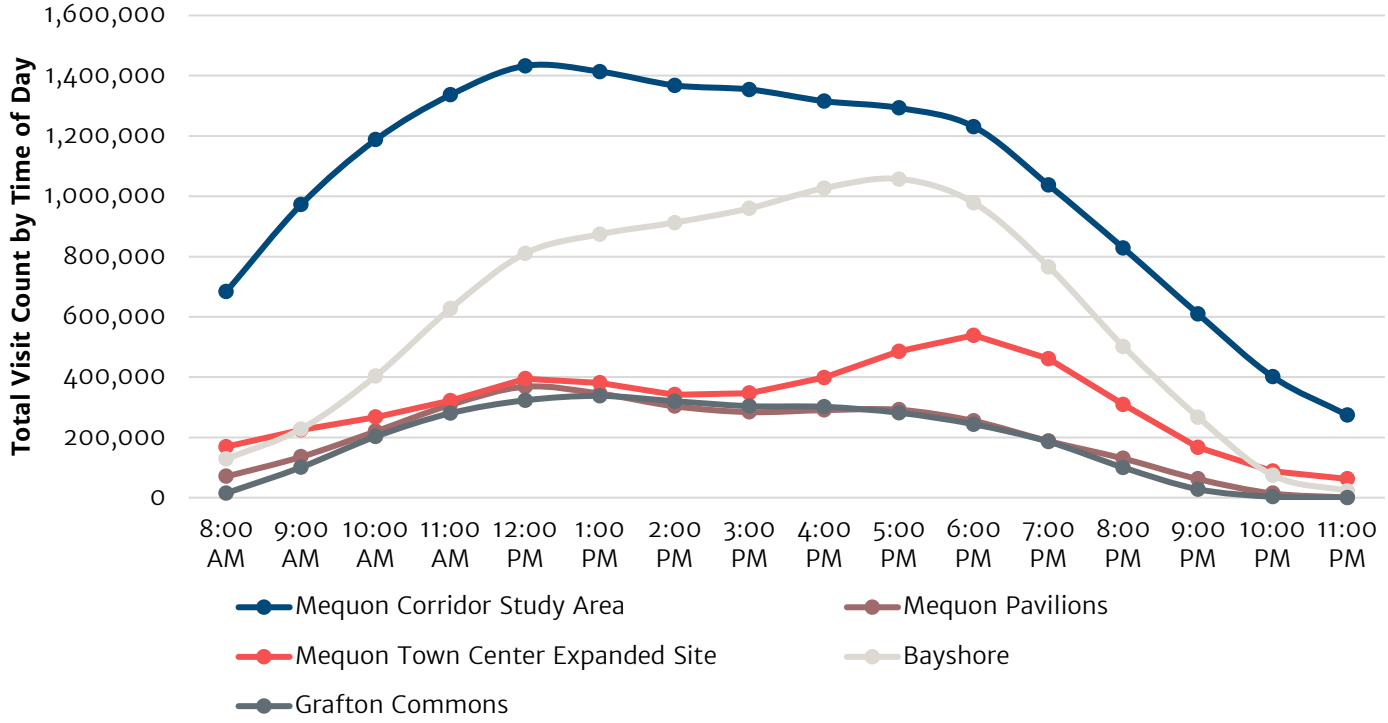


Source: Placer.ai, Metric comparison of competive retail nodes with visits greater than 10 minutes in duration (2023). Data Note: Visits Frequency counts the number of individual visitors that visit a specific property a number of times. This data helps to understand loyalty trends and routine engagement relative to the overall visit volume.

The Port Washington Road Corridor study area has the highest visitor traffic of all the areas studied. This may be because Port Washington Road is a corridor through which people travel, whether to work at the medical complex on Port Washington Road, or through the community, avoiding the interstate. Traffic to the other shopping centers likely travels on I-43 directly to the shopping center and back again, not using that shopping center area as a through-way to other destinations.

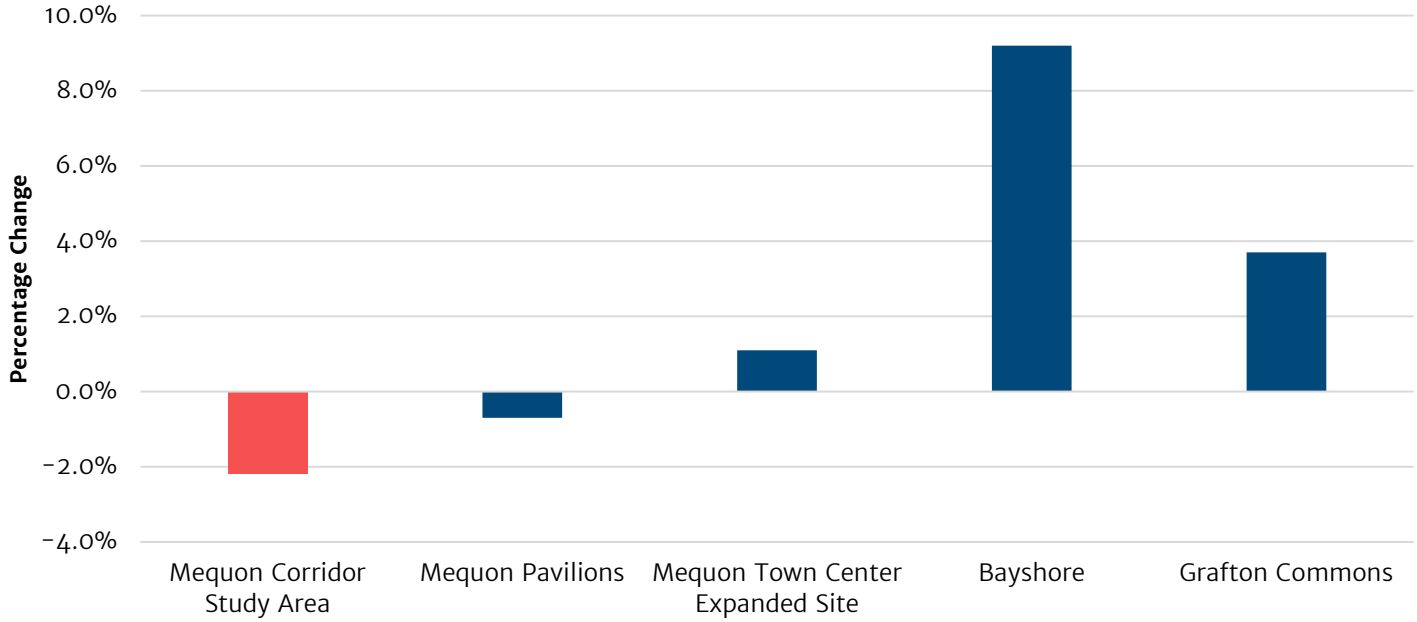
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Figure 15. Hourly Visit Comparison by Retail Node



Source: Placer.ai, hourly comparison of competive retail nodes and visits of greater than 10 minutes in duration (2023).

Figure 16. Visit Change (2022-2023)



Source: Placer.ai, Metric comparison of competive retail nodes with visits greater than 10 minutes in duration (2023).

Visits by visitors to the corridor study area and Mequon Pavillions have declined over the last year, while visits to the other comparative retail nodes have grown.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



Visitor Trade Area and Market Outlook

Placer.ai is a location analytics provider that allows researchers to analyze locations or geographic areas by audience type. Placer receives third-party data from cell phone providers and characterizes the location data by audience type. Audience types include visitors, employees, and/or residents based on the visit frequency, time of day, number of days, and duration of a "visit".

Impressions measure "passer-by" data located at a specific address or intersection. Placer.ai uses this data to render the number of views for billboards, or the number of individuals that pass by traffic pins. Each device/person is counted only once per day (i.e. if a person drives through a billboard location twice a day, an impression will only be counted once). Impressions at three major intersections along the corridor were analyzed using Placer.ai by placing traffic pins at the following intersecting roads: Glen Oaks, Mequon Rd, and Donges Bay Road.

Glen Oaks

A total of 4.9M impressions occur annually at this intersection. Most impressions (3M) to Glen Oaks-N. Port Washington Rd., travels southbound on I-43 to Highland Rd., and then southbound on N. Port Washington Rd. Otherwise, 1.5M visits come from I-43 northbound until the STH 57/167/W. Mequon Rd. exit and then travel north along N. Port Washington Rd. (See Map 18 in Appendix A.)

Mequon Road

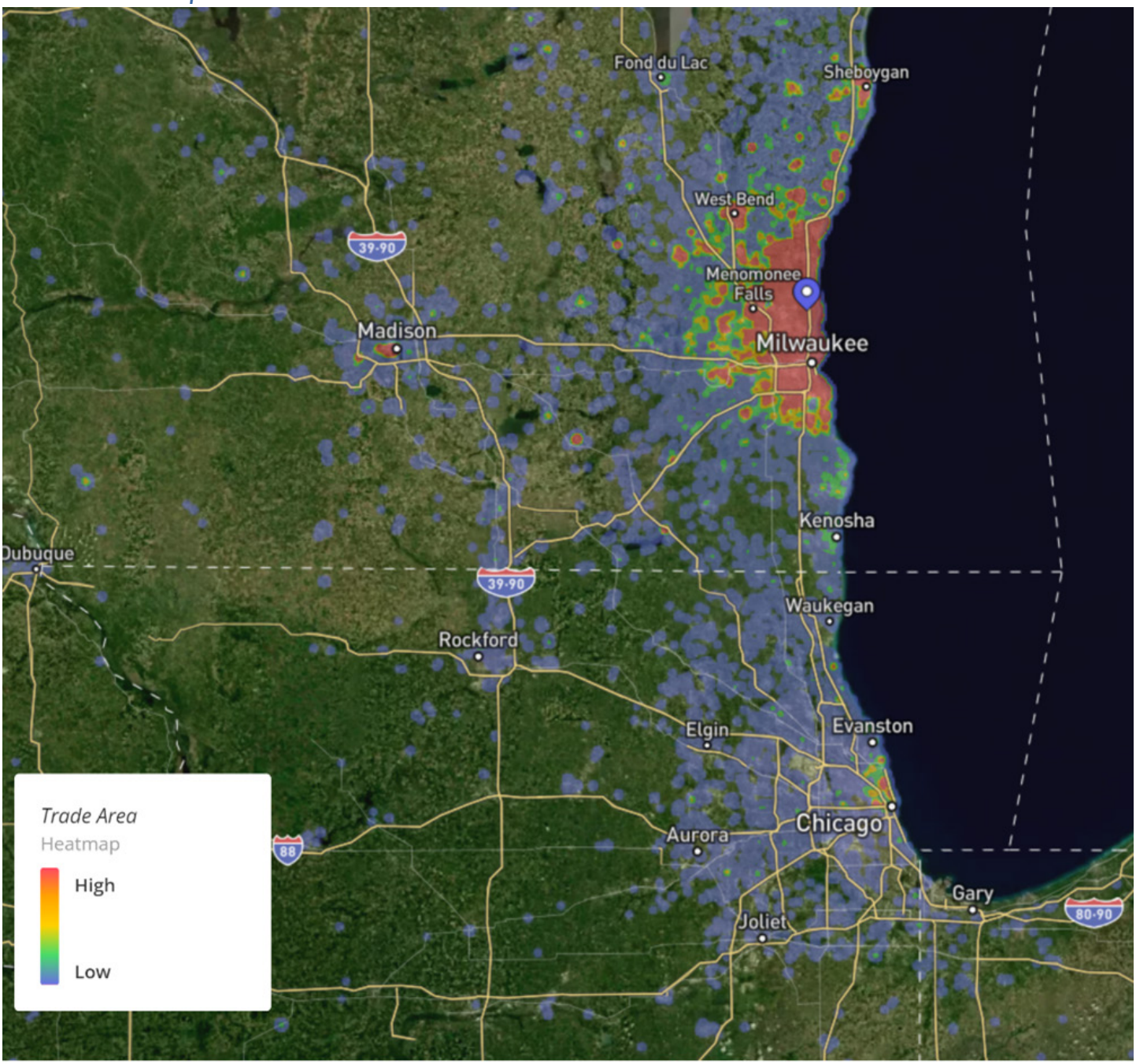
More than 14M annual impressions occur at this intersection. Most traffic to the Mequon Rd.-N. Port Washington Rd. intersection travels northbound on I-43 to the Mequon Road exit (6.3M). Otherwise, 4.7M visits come from I-43 southbound until the STH 57/167/W. Mequon Rd. exit. Between the traffic exiting the interstate and those traveling westbound on Mequon Rd., this intersection sees 11.6M visits annually. (See Map 19 in Appendix A.)

Donges Bay Road

A total of 5.4M impressions occur annually at this intersection. There are 3.2M annual visits by travelers exiting the interstate and those traveling northbound on N. Port Washington Rd. from County Line Road. From the Mequon Road intersection, 2.6M visits are by travelers southbound to the Donges Bay Road intersection. (See Map 20 in Appendix A.)

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Placer Trade Area Map



Mequon Corridor Study Area | | Jan 1st, 2023 - Dec 31st, 2023
Data provided by Placer Labs Inc. (www.placer.ai)

This map illustrates the true trade area (100% of visits by visitors) from Jan. 1, 2023, to December 31, 2023. Naturally, most visitors are from the Greater Milwaukee Area, however, Green Bay and Chicagoland may be considered secondary markets.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Visitor Trends

Due to its proximity to the Milwaukee market, the supply and demand of goods and services was limited to a five-mile radius. From January 1, 2023 to December 31, 2023, there were 820,094 visitors to the area. These visitors may include residents and employees of Mequon that do not live or work within the study area. During the same period, there were 8,066 employees and 2,589 residents within the study area. Visit frequency refers to the number of times the audience type frequented the area within the time frame.

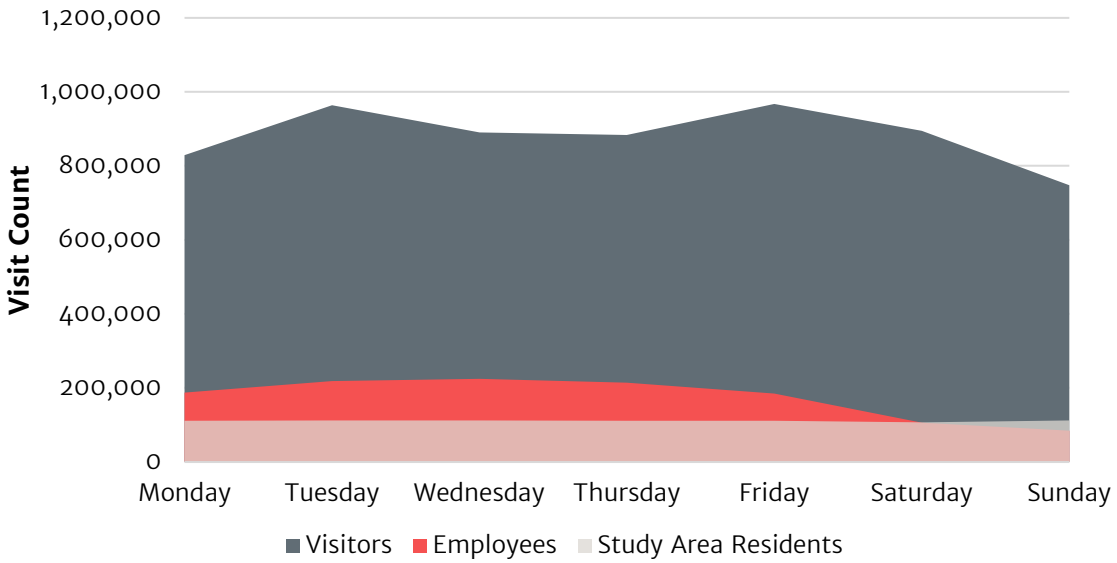
Table 2. Mequon Corridor Study Area Visitor Trends

			Visits Change		
	Visits	**Visit Frequency**	**since 2022**	**since 2021**	**since 2020**
Visitors	6,175,158	7.53	-2.2%	-2.6%	11.4%
Employees	1,220,181	151.27	17.3%	22.6%	8.7%
Study Area Residents	777,923	300.46	14.8%	14.9%	9.0%

Data Source: Placer.ai. Data Note: Visits Frequency counts the number of individual visitors that visit a specific property a number of times. This data helps to understand loyalty trends and routine engagement relative to the overall visit volume.

Visits by visitors to the corridor study area have declined over the past couple of years, however, visits by residents and employees have increased significantly since 2020. There were a few days during that time frame that were inconsistent with the visitor trends in general. Further research indicates that it is possible that medium- heavy snow fall as well as holidays impacts the amount of visitors to the area. However, unusually high volumes of visitors tend to frequent the area the business day before a holiday.

Sundays tend to be the lowest traffic day of the week. Traffic begins to pick up after 6:00 am and resumes its baseline by 10:00 pm. There were no visits to the corridor less than 10 minutes. The majority of visits are 15-29 minutes long or greater than 150 minutes by visitors. Employees and residents most commonly visit the area for greater than 150 minutes.

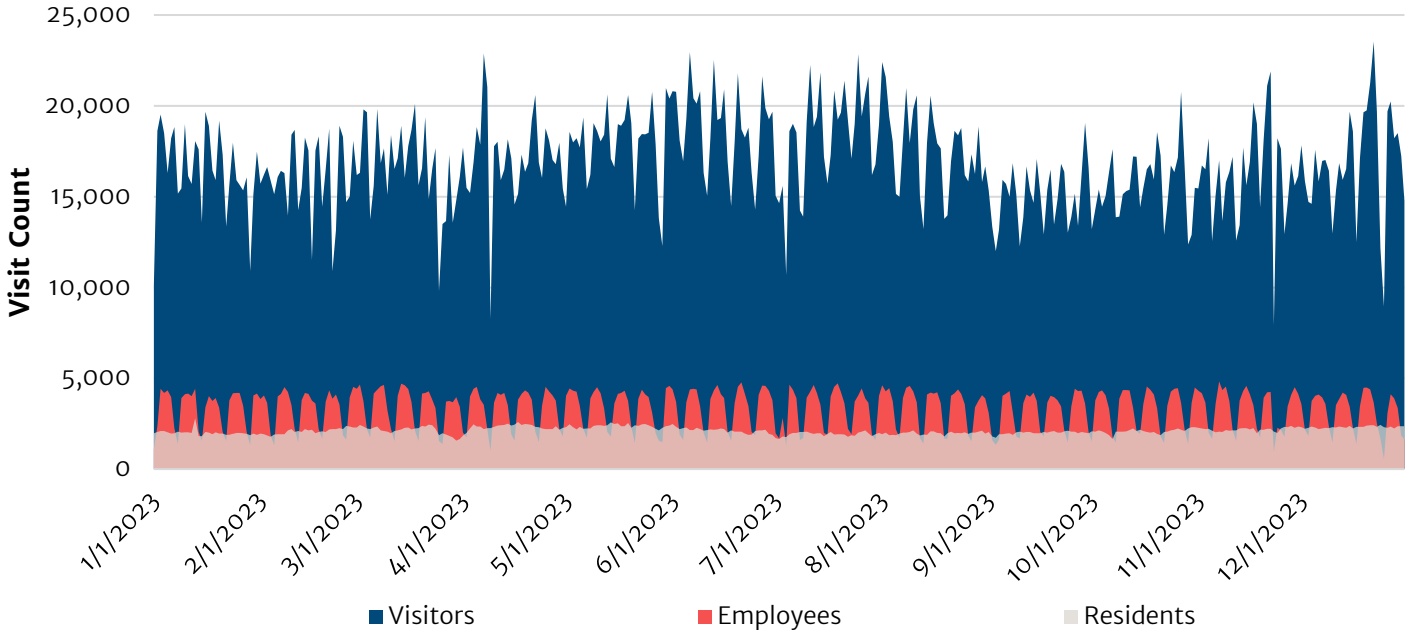


Source: Placer.ai, Mequon Corridor Study Area.

Figure 17. ***Visit Trends by Day of the Week (2023)***

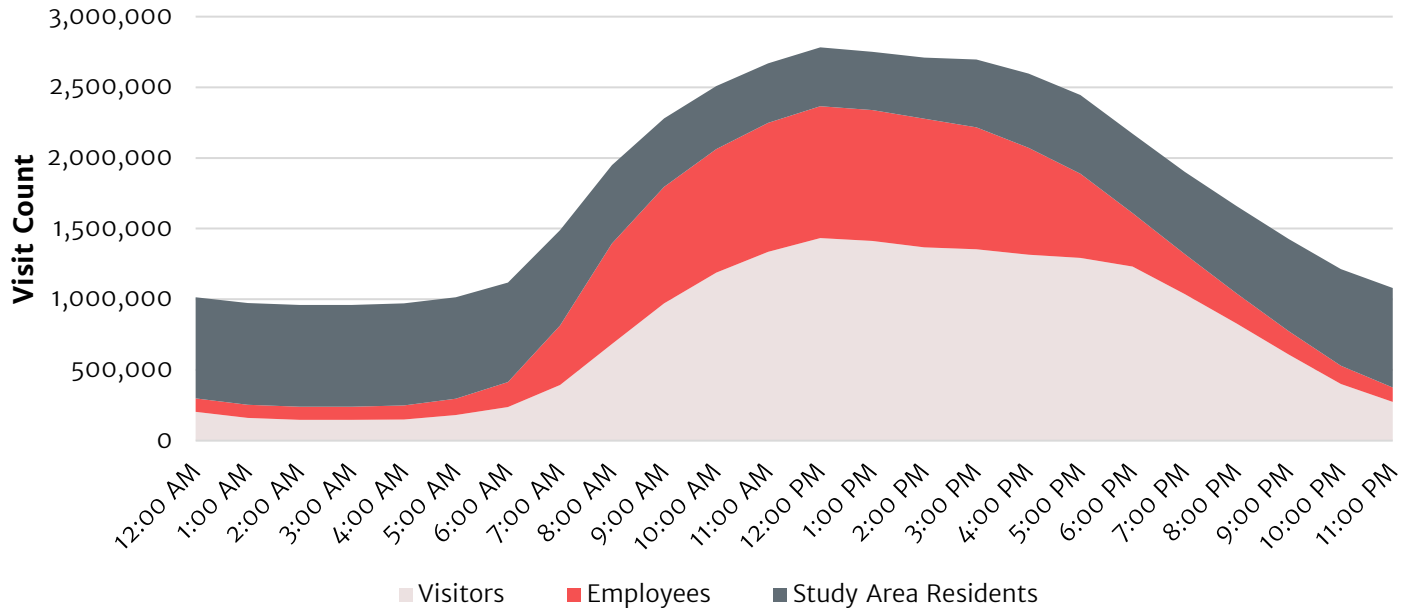
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Figure 18. ***Daily Trends (2023)***



Source: Placer.ai, Mequon Corridor Study Area.

Figure 19. ***Visits by Time of Day (2023)***



Source: Placer.ai, Mequon Corridor Study Area.

Table 3. Visit Duration Table (2023)

	Average Duration (min.)	Median Duration (min.)
Visitors	109	60
Employees	428	200
Study Area Residents	710	200

There are three places that are the favorite places to visit for all audience types: Bayshore, Marcus Theaters, and Mequon Pavilions. Employees and residents within the study area frequent local grocery stores and other local retail locations. Other favorite places of visitors include entertainment venues such as the state fairgrounds and major league baseball stadium, American Family Field, as well as O'Hare airport.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Table 4. Top 10 Favorite Places by Audience Type

Audience	Name	Distance (Miles)
Visitors, Employees, and Residents	Bayshore	6.4
	Marcus Theatres	1.2
	Mequon Pavilions	0.3
Visitors and Employees	Mayfair	12
	White Stone Station	9.5
Employees and Residents	Metro Market	1
	Marshalls	0.3
	Grafton Commons	7.5
	Sendik's Food Market	0.2
	Riverpoint Village Shopping Center	2.7
Visitors	American Family Field	13
	Brookfield Square	15.6
	O'Hare International Airport	85.3
	The Mayfair Collection	11.6
	Wisconsin State Fair Park	14
Residents	Costco Wholesale	7.7
	Walgreens	0.6

Visitor Demographics

Visitors to the study area may contain residents of Mequon that live outside. Resident demographics of both the city and the study area will be further analyzed in Chapter 5.

Placer.ai provides statistical analysis of the captured market which "Emphasizes the Census Block Groups that generated more visits to the property over areas that generated fewer visits. This approach weights the Census Block Groups by the number of visits when calculating audience profile attributes." The table below compares the captured market of the study area with the state and the nation.

The captured market has a higher median income than either the state or the nation and a higher share of visitors with a bachelor's degree or higher. Household size is approximately the same as the state, but a bit smaller than the nation. While slightly more diverse than the state in terms of ethnicity, the area doesn't reflect the diversity of the nation.

*Table 5. **Captured Market/Wisconsin/United States Comparison***

Category	Mequon Corridor Study Area Captured Market	Wisconsin	United States
Bachelor's Degree or Higher	60%	32%	34%
Median Household Income	$99,638	$73,069	$76,063
Persons per Household	2.38	2.37	2.55
Most Common Ethnicity	76.4% White	79.5% White	58.1% White

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Gap Analysis

The following chart illustrates those business types in which demand exceeded supply which means the captured market left the area for these types of goods and services. **Unmet demand is identified in categories such as general merchandise, building materials, automotive parts/accessories, department stores, bars/drinking establishments, and liquor/beer/wine stores. Automobile dealerships show up as a gap in every market but not every market can support a new automobile dealership. While this graph shows unmet demand for calendar year 2023, it is the most current chart documenting unmet demand for the market and is appropriate to only review the most current demand graph, versus previous years' demand.**

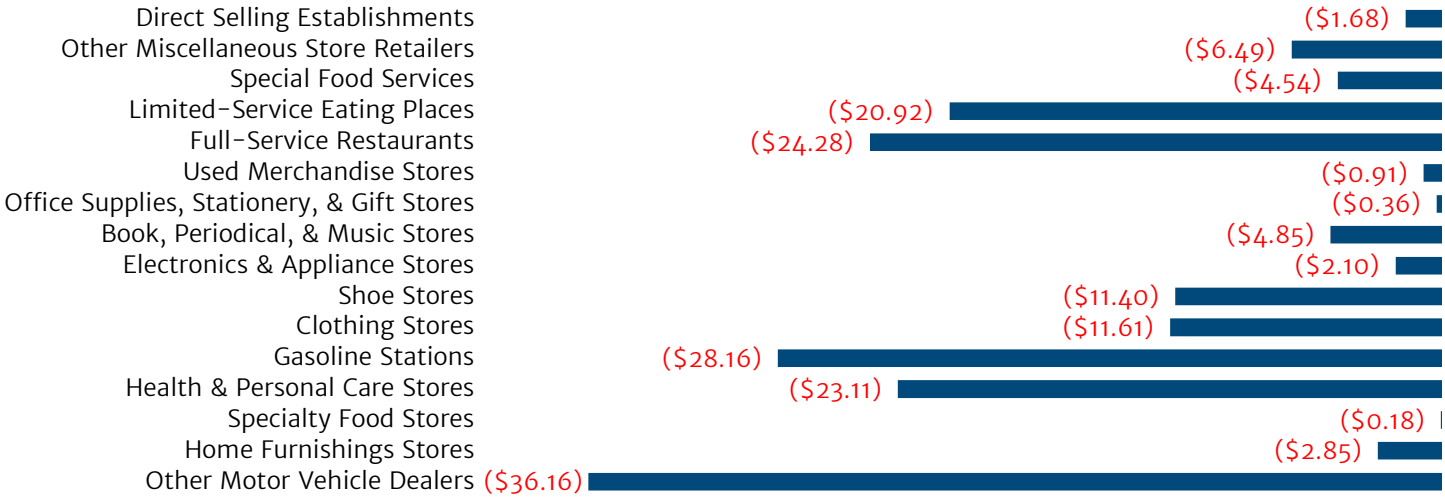
Figure 21. ***Unmet Demand (Millions $)***



Data Source: Placer.ai. STI: Market Outlook of Potential Market for 100 % of visits within 5 miles of the study area from 01/01/2023 to 12/31/2023 benchmarked to state.

Surplus supply, or those categories in which demand is met within the market, are listed below. This chart shows all the categories in which the businesses within five miles of Port Washington Road meet the amount of demand that exists within the Mequon market.

Figure 22. ***Surplus Supply (Millions $)***



Data Source: Placer.ai. STI: Market Outlook of Potential Market for 100 % of visits within 5 miles of the study area from 01/01/2023 to 12/31/2023 benchmarked to state.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Development Trends



Retail, National - 2023 in Review

Despite ongoing worries about a weakening economy and a potential decrease in consumer spending, the U.S. retail market remained resilient throughout 2023. This resilience can be attributed to consistent demand from various sectors, a notable decline in store closures, and limited additions to the supply of new retail space. In 2023, there was an almost historically low addition of approximately 52 million square feet of new retail space, representing a decrease of more than 40% compared to the sector's typical historical average. The recent construction has mainly concentrated on build-to-suits, grocery-anchored centers, or smaller retail spaces within extensive mixed-use projects. Due to the scarcity of available space, tenants are encountering challenges in securing locations, particularly those seeking midsized boxes and outparcels in primary corridors.

Rent

Nationwide, retail rent growth has been strong nominally, up by 3.3% in 2023, with average asking rent sitting at a record of $25 per square foot. Landlords, on average, are experiencing increased pricing leverage due to a reduced supply of competitive available space.

Construction

New retail supply is expected to be minimal in the foreseeable future. While this trend may seem unusual in a typically tight market, it can be attributed to the recent increase in construction financing costs and record-high land and labor expenses, which pose challenges to the economic viability of new development in many cases.

Future of Retail

In 2024, greater digitization, customization, and efficiency will define the retail landscape. The surge in online shopping is reshaping the industry, prompting retailers to invest in robust e-commerce systems. Brick-and-mortar stores are adapting by offering curbside or in-store pickup services for quicker access to purchases. Omnichannel retailing, exemplified by significant players like Walmart and Target, provides a unified shopping experience across physical stores, mobile apps, and websites, enhancing customer satisfaction.

The shrinking retail trend sees retailers reducing store footprints, exemplified by smaller-format stores gaining preference. In-store collaborations are on the rise, with brands sharing space to attract a broader customer base through synergies. These trends collectively reflect the dynamic and evolving nature of the retail sector in 2024.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Malls

The decline in mall popularity over the years can be attributed to several significant factors, including:

- Changing consumer preferences, including the rise in e-commerce giants like Amazon and the convenience of shopping online.
- The growth in alternative shopping and entertainment options.
- Economic influences, including a shift from mid-priced and upscale brands to discount retailers like Walmart, Costco, Ross, Dollar General, TJ Maxx, and Five Below.
- Some malls have become outdated in terms of design and amenities, making them less appealing to modern shoppers who seek a more contemporary and comfortable environment.

Future of Malls

Since mall properties were designed to accommodate many tenants and uses, they have the square footage, parking, and infrastructure necessary to accommodate a diverse range of non-retail functions. This makes them ideally suited to bring together a new collection of commercial, retail, and lifestyle functions within a centralized location, often without the need to demolish the existing structure, including:



- Office and commercial spaces for telecommunications carriers, data center operators, and Internet service providers
- Healthcare clinics, fitness centers, pharmacies, and other wellness facilities (aka, “Health Malls” or “Mall to Medicine”)
- Government and civic services, including Department of Motor Vehicles registration renewal centers and post offices
- Satellite education centers and urban technology and research centers
- Multi-family residential housing, including condos, rental apartments, and affordable housing
- Logistics and storage facilities such as fulfillment centers for online retailers, grocery delivery services, mini-storage, and warehousing
- Cultural and entertainment venues including aquariums, escape rooms, community festivals, haunted houses, libraries, and theater and concert performance spaces
- Churches and community centers
- Hotels and other mixed-use areas
- Unique food courts featuring small locally owned restaurants

This adaptability demonstrates that, rather than fading away, malls are embracing new roles, emphasizing experiences, entertainment, and services beyond traditional retail, such as restaurants, fitness centers, and healthcare facilities. Others have even evolved into mixed-use developments or transformed into fulfillment centers for online retailers.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Commercial Corridors

Different than malls, commercial corridors offer a variety of uses along a corridor, or length of roadway. While most commercial corridors combine a mix of office, service, and retail uses at a certain density, that form of development is changing. While density along a corridor is still desired, the future of many corridors is mixed-use. If the goal is to achieve vitality and activity at hours beyond the workday, many communities wishing to achieve that goal are planning and attracting more residential to their commercial corridors. Pedestrian-scale retail and office developers are experimenting with new configurations of square footage that cater to consumers' fresh demands to live, work, and play in their microcosm.



An example is that of banks, usually late adopters to innovations in urban design, who have begun experimenting with coffee shops in their retail branches to offer a third place to customers.

Other ways to achieve vitality in otherwise tired commercial corridors and help achieve a sense of a neighborhood district or engaging, stimulating environment include:

1) Entertainment or recreational venues that are programmed with regular events;
2) Unique businesses (such as experiential retail, specialty food such as bakeries, meat/fish markets, or organic grocers);
3) Design features such as interactive fountains, public art, small gathering places with benches or tables/chairs, or large-scale games such as Jenga, chess/checkers, Connect Four, or small playgrounds.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



Study Area Trends and Analysis

There are 148 parcels in the study area. For mapping purposes, properties with condos were combined for analysis of the whole property, therefore, there are 106 properties which were analyzed.

Zoning

Zoning ordinances have many purposes, including protecting the health and safety of residents and employees through planned orderly development that regulates adjacent uses, density, building setbacks, height, and more. The Port Washington Road corridor is primarily zoned for community business, office and services.

Table 6. Study Area Properties by Zoning Code

Zoning Code	Zoning Description	Count
B1	Neighborhood Business District	8
B2	Community Business District	51
B2/PUD	Community Business District with Planned Unit Development Overlay	8
B3	Office and Service District	25
B3/PUD	Office and Service District with Planned Unit Development Overlay	1
B3/PUD/LTD	Office and Service District with Planned Unit Development and Limited Use Overlay	1
B4	Business Park District	3
B4/PUD	Business Park District with Planned Unit Development Overlay	3
C2	General Conservancy District	1
IPS	Institutional and Public Service District	5
		106

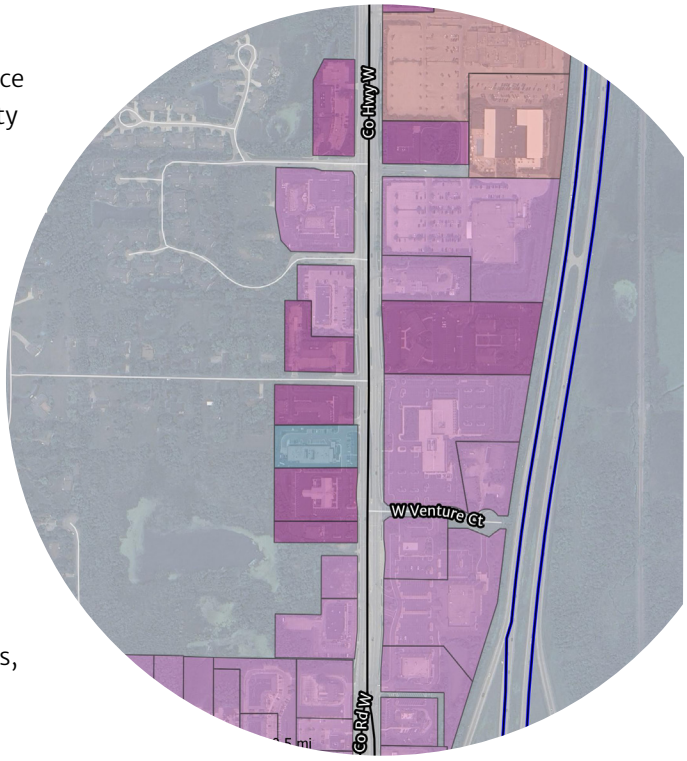
Neighborhood Business District (B-1)

The B-1 District is intended to generally accommodate the basic day-to-day retail and service needs of persons residing in the nearby residential areas. Possible uses include neighborhood level retail, office and service uses, public institutions, restaurants, museums, public or private utilities, churches, health and child day care facilities, and satellite dishes.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Community Business District (B-2)

The B-2 District is intended to accommodate the retail and service needs of the greater community. Possible uses include community level retail, office and service uses, health care facilities, public institutions, restaurants, museums, public or private utilities, day care facilities, churches, animal hospitals, wholesale, service stations, warehousing, vehicle sales, department stores, hotels, research facilities, light fabrication, and satellite dishes.



Office and Service District (B-3)

The B-3 District is intended to provide for individual or group office and special service uses where the office activity would be compatible with surrounding uses. Possible uses include office, professional, business, financial, special service uses, commercial day care, studios, residential quarters, research facilities, light assembly, satellite dishes, public or private utilities, and personal services.

Business Park District (B-4)

The B-4 District is intended to provide for the development of an attractive and aesthetically mixed grouping of office and limited light industrial uses in a planned park-like setting. Possible uses include office and light industrial uses such as light manufacturing, wholesaling, warehousing, processing, distribution, research, printing, health clubs, salons, restaurants, bookstores, childcare, florists, gift shops, pharmacies, studios, vehicle services, satellite dishes, public and private utilities, and theaters.

Limited Use Overlay District (LTD)

The LTD District is intended to provide for the conduct of certain limited business uses which are located adjacent to or in a primary residential area.

Planned Unit Development District (PUD)

The PUD District allows for flexibility of overall development design that benefits from such design flexibility intended to be derived by both the developer and the community, while at the same time maintaining in so far as possible the land use density and other standard or use requirements as set forth in the underlying zoning district.

Institutional And Public Service District (IPS)

The IPS District is intended to provide, where appropriate, specifically defined areas where public or institutional uses may be permitted. Such uses may be subject to regulatory standards as necessary to insure compatibility with surrounding areas.

Possible uses include public and private schools, churches, libraries, public offices, public utilities, childcare facilities, mausoleums and funeral homes, crematories, communication towers, concert halls, lodges and clubs, public and private outdoor recreation facilities, restaurants and taverns, landfills, nursing homes, cemeteries, and satellite dishes.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Primary Land Use Analysis

The Port Washington Road corridor from Glen Oaks at the north end to County Line Rd at the south end, contains 2,759,201 square feet of developed property, not including residential. It is mainly office space, with 890,089 square feet, followed by retail at 568,440 square feet. Health Services make up the next largest category of development with 369,093 square feet.

Table 7. Property Count and Square Feet (SF) by Primary Land Use

Primary Land Use Description	Count	SF
Senior Living	2	150,426
Service	1	3,463
Childcare, Childcare/Petcare	1	26,045
Law	1	13,098
Office	30	890,089
Funeral	1	12,806
Health Services	12	369,093
Storage	1	143,686
Hotel	2	76,314
Vacant Land	8	0
Retail	20	631,822
Vacant Space	2	23,971
Restaurant and Entertainment	4	195,840
Finance	11	122,480
Auto Service, Gas Station/Convenience	7	44,845
Tax Exempt	3	55,223
	106	2,759,201

Note: Several properties are multitenant buildings on single parcels, therefore, the use describes the primary land use of the parcel.

Vacancies in office space are at 6.6%, with 58,686 square feet available for lease. These spaces are mostly small office spaces, ranging from 111 square feet, up to 6,400 square feet. Lease rates range from $10/sf to $18/sf, with the average lease rate at $16/sf. Vacancies in retail space are at less than 1%, with 4,825 square feet available. Lease rates for available space range from $12.75/sf to $16/sf.



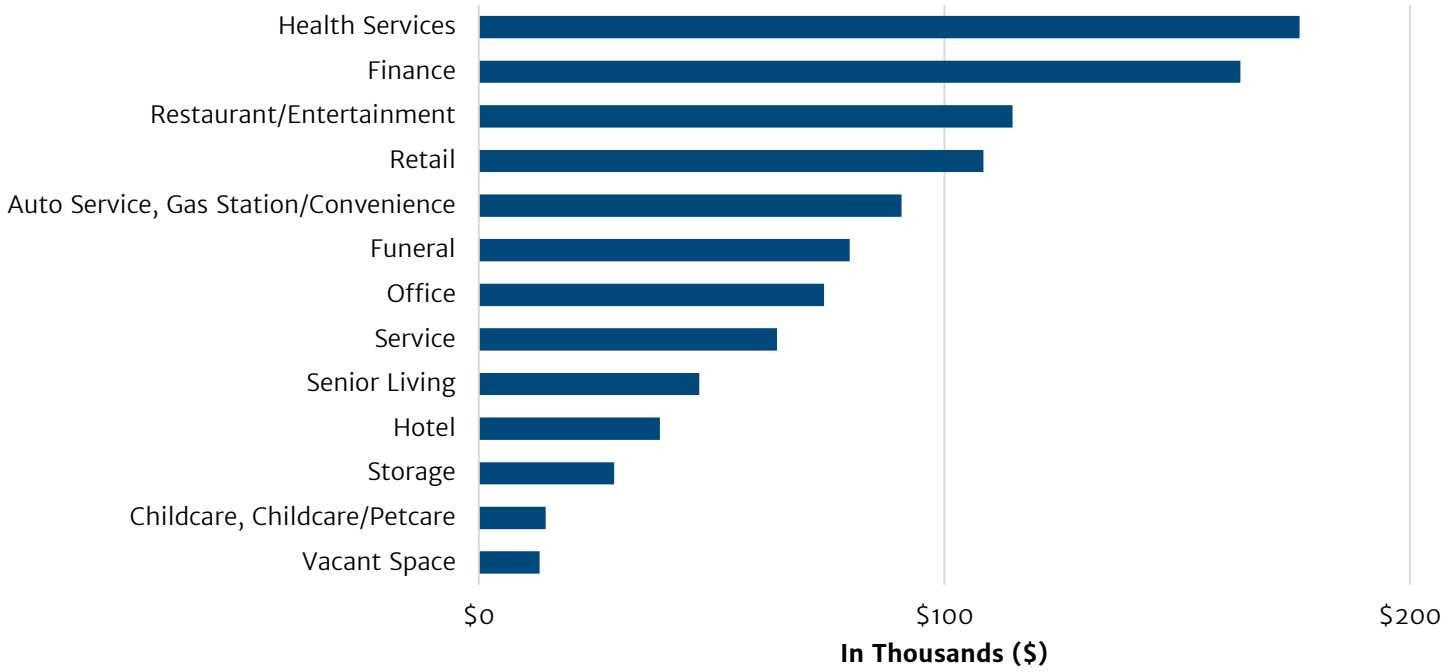
Taxable Improved Value Per Square Foot (SF)

Taxable improved value per square foot analyzes the assessed improved value (building value) per the estimated square footage. This excludes land value which will be analyzed in the subsequent section. Health Services is the heavy hitter at approximately $176/SF, followed by financial institutions ($164/SF), restaurants and entertainment $115/SF), and retail ($108/SF).

Conversely, vacant space is performing at $13/SF. This vacant office building is significantly underperforming considering that the average taxable improved value per square foot for office buildings in the corridor is $75/SF.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Figure 23. Average Taxable Improved Value per Square Foot by Property Primary Use (2023)

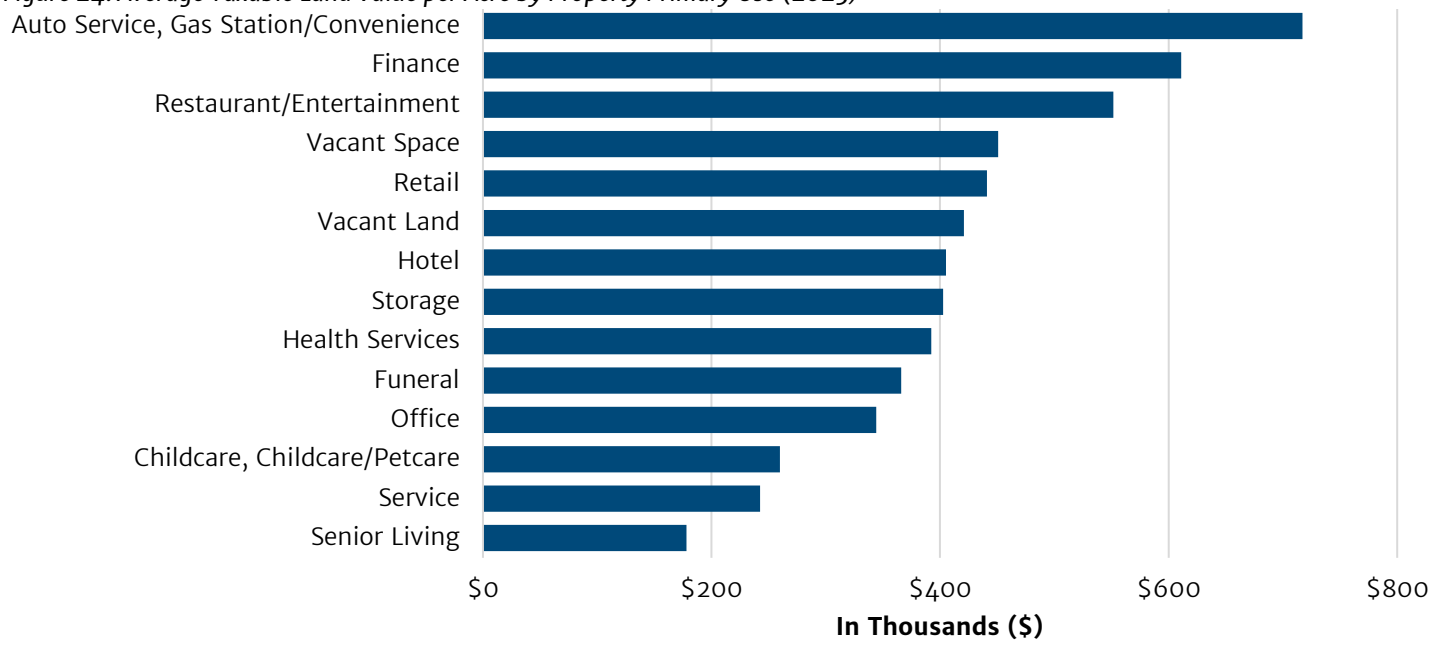


)ata Sources: Redevelopment Resources, City of Mequon, REGRID, Wisconsin State Cartographer's Office. Note: Several properties are nultitenant buildings on single parcels, therefore, the use describes the primary land use of the parcel.

Taxable Land Value per Acre by Property Primary Use (2023)

Taxable land value per acre analyzes the assessed land value (without a building if there is one) per acre. This allows for large properties with small buildings to be evaluated, such as gas stations/convenience stores which are the highest valued land uses in the corridor.

Figure 24. Average Taxable Land Value per Acre by Property Primary Use (2023)



Data Sources: Redevelopment Resources, City of Mequon, REGRID, Wisconsin State Cartographer's Office. Note: Several properties are multitenant buildings on single parcels, therefore, the use describes the primary land use of the parcel.

Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Change in Estimated Fair Market Value

The city went through a revaluation process in 2009 and 2021. The following table analyzes the estimated fair market values of taxable properties before and after the 2021 revaluation. Categories that experienced the highest change in fair market value include Health Services and Finance.

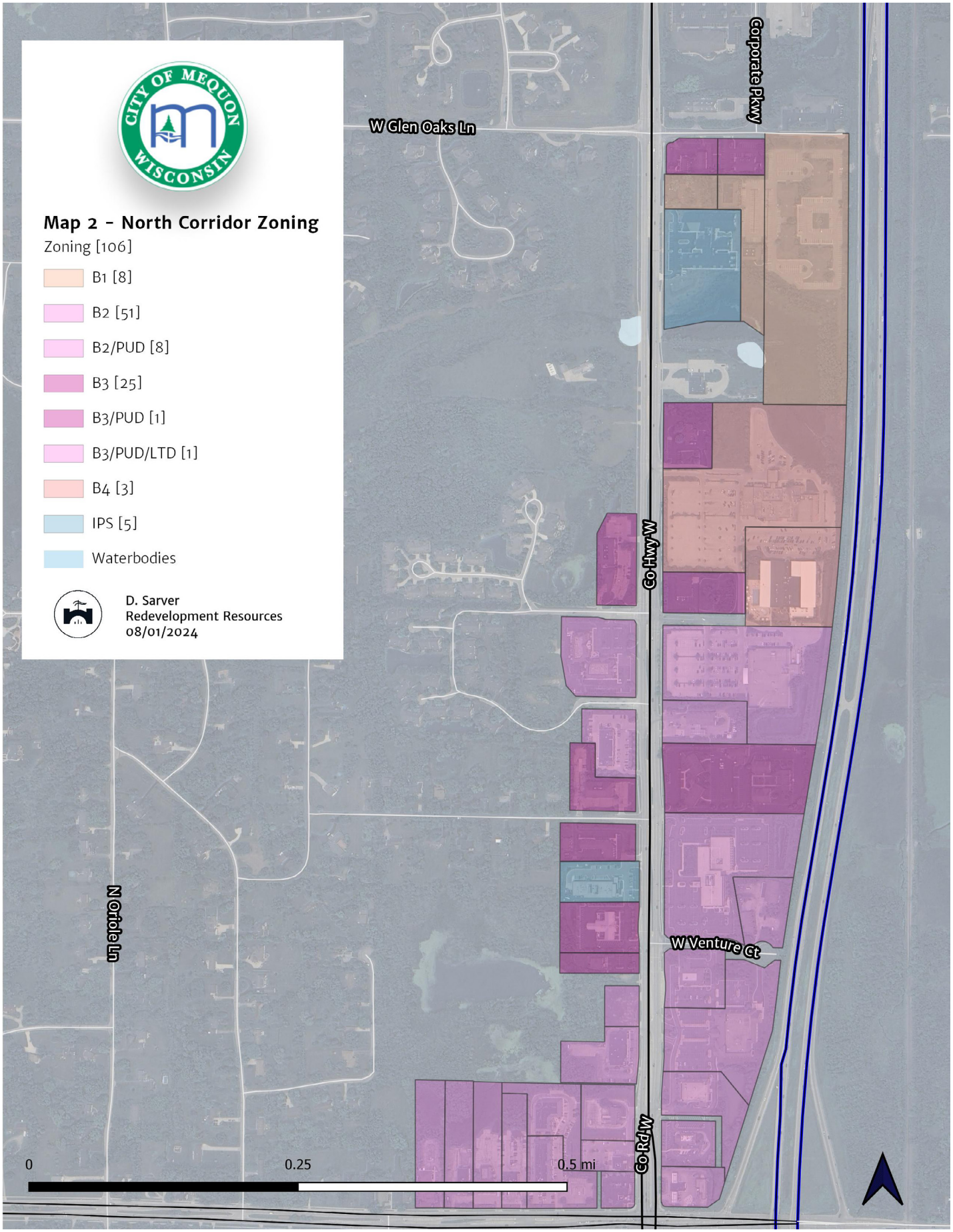
Table 8. Average Fair Market Value (FMV) Percentage Change (2020-2022)

Primary Use	2020-2022
Health Services	61%
Finance	54%
Vacant Space	28%
Senior Living	27%
Office	17%
Service	13%
Auto Service, Gas Station/Convenience	10%
Childcare, Childcare/Petcare	10%
Retail	10%
Funeral	6%
Restaurant and Entertainment	4%
Vacant Land	-6%
Law	-18%
Hotel	-41%

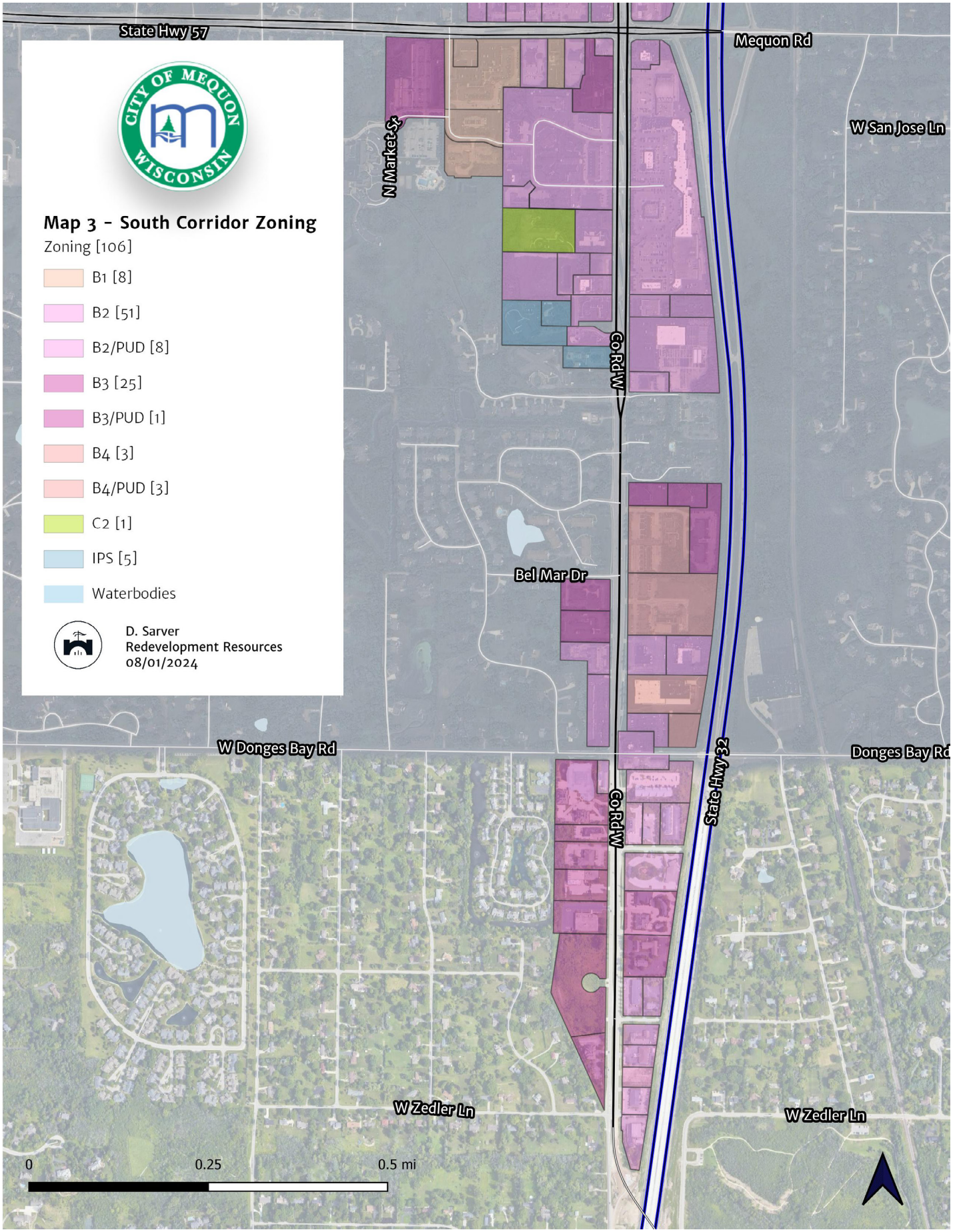
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

Appendix A – Maps

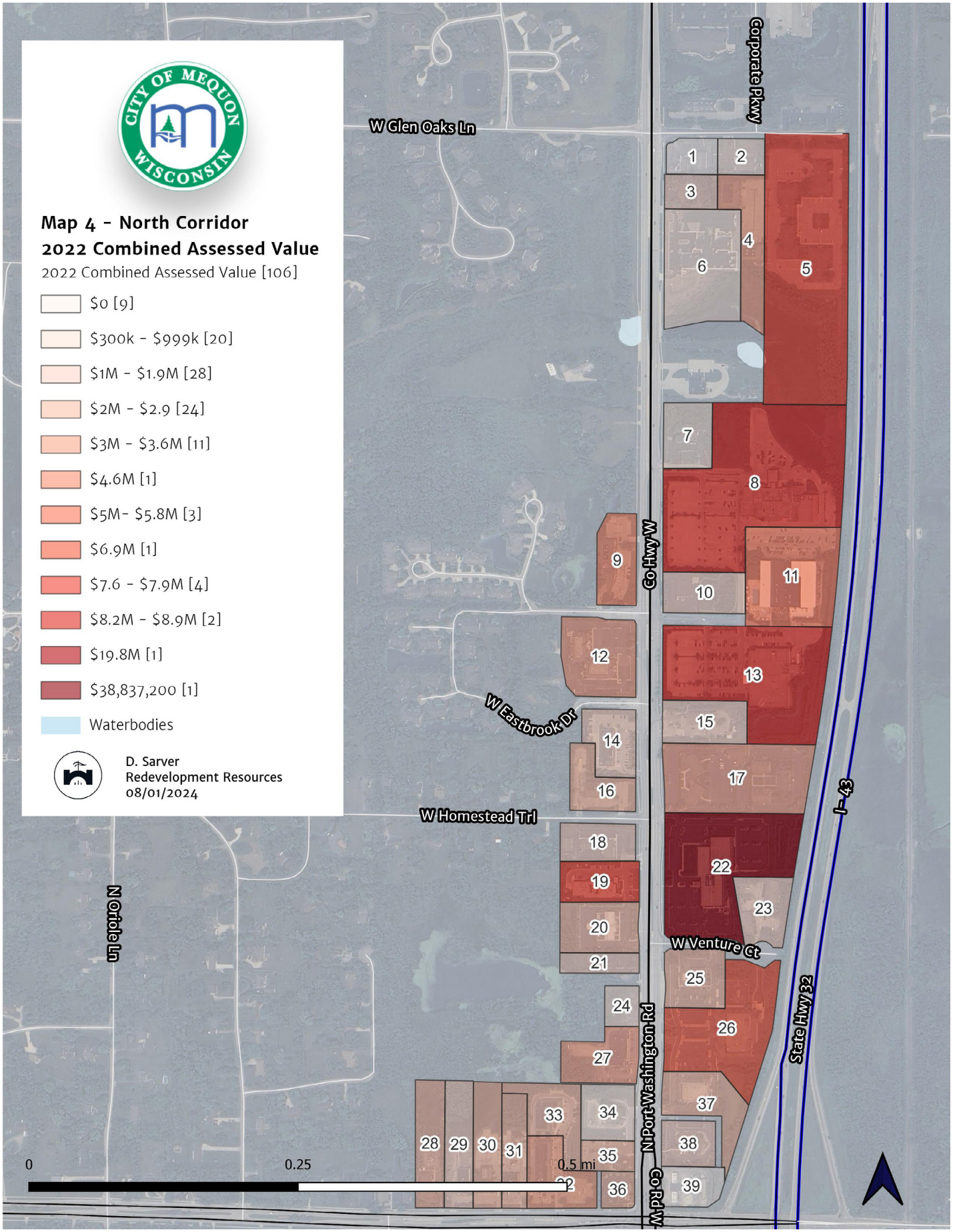
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



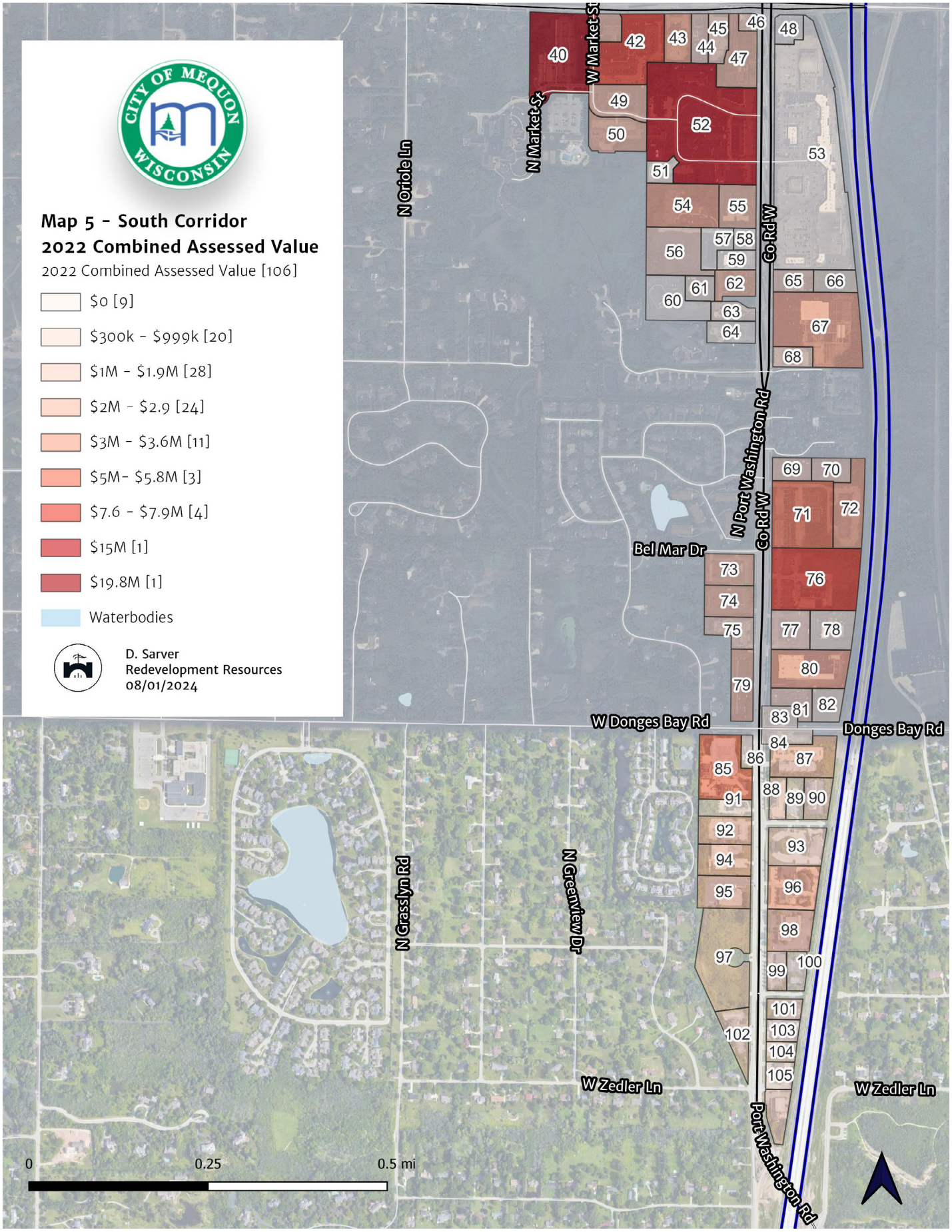
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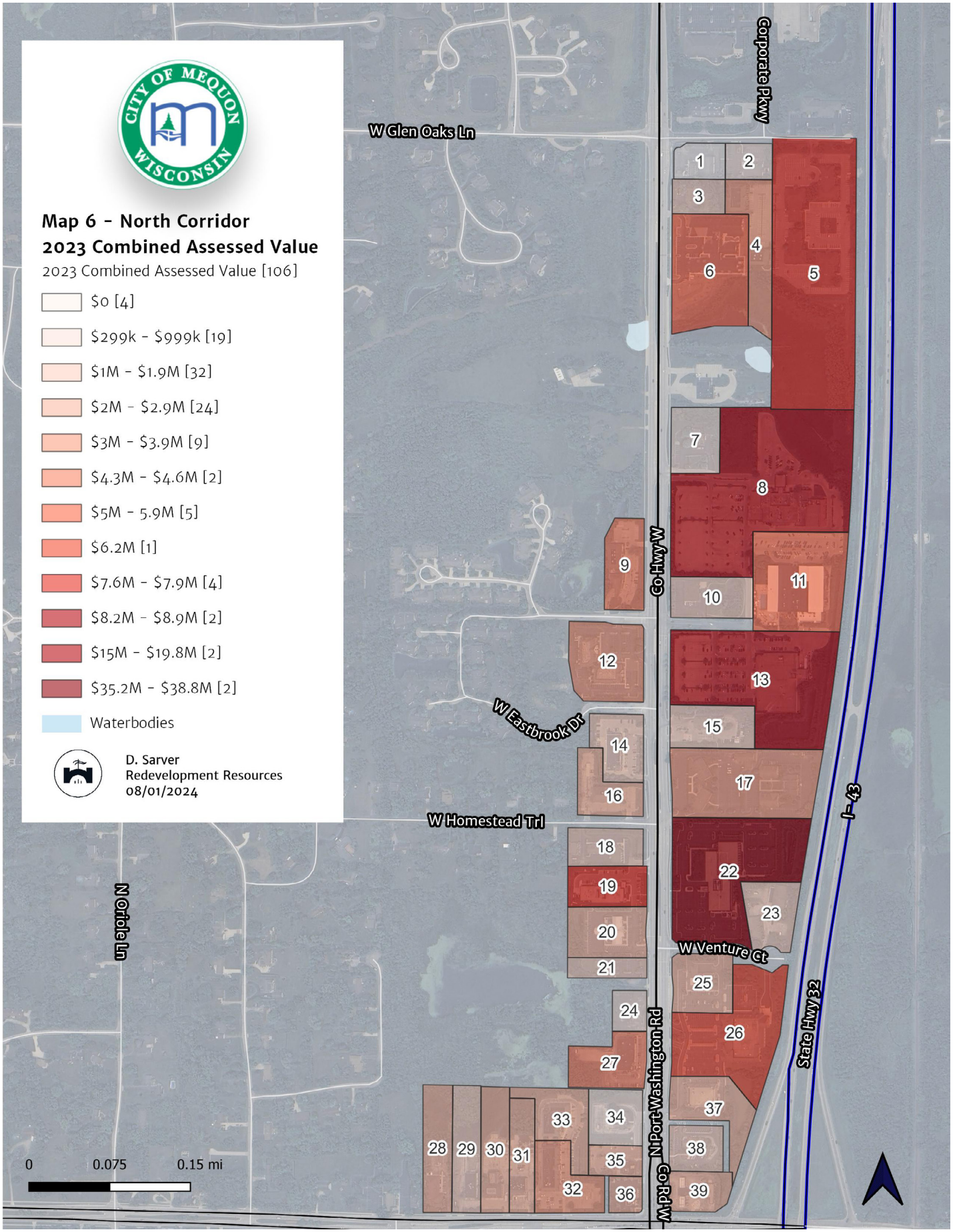
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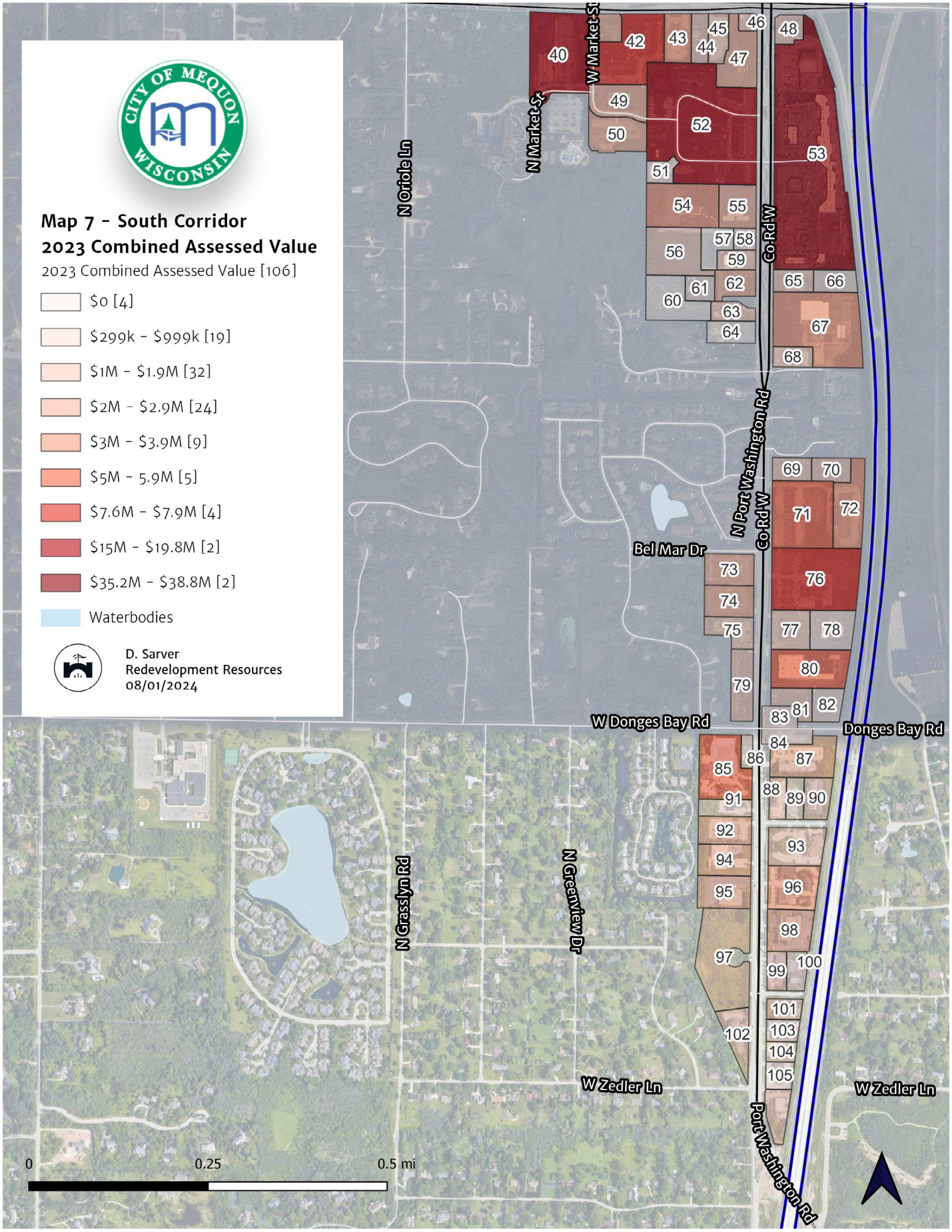
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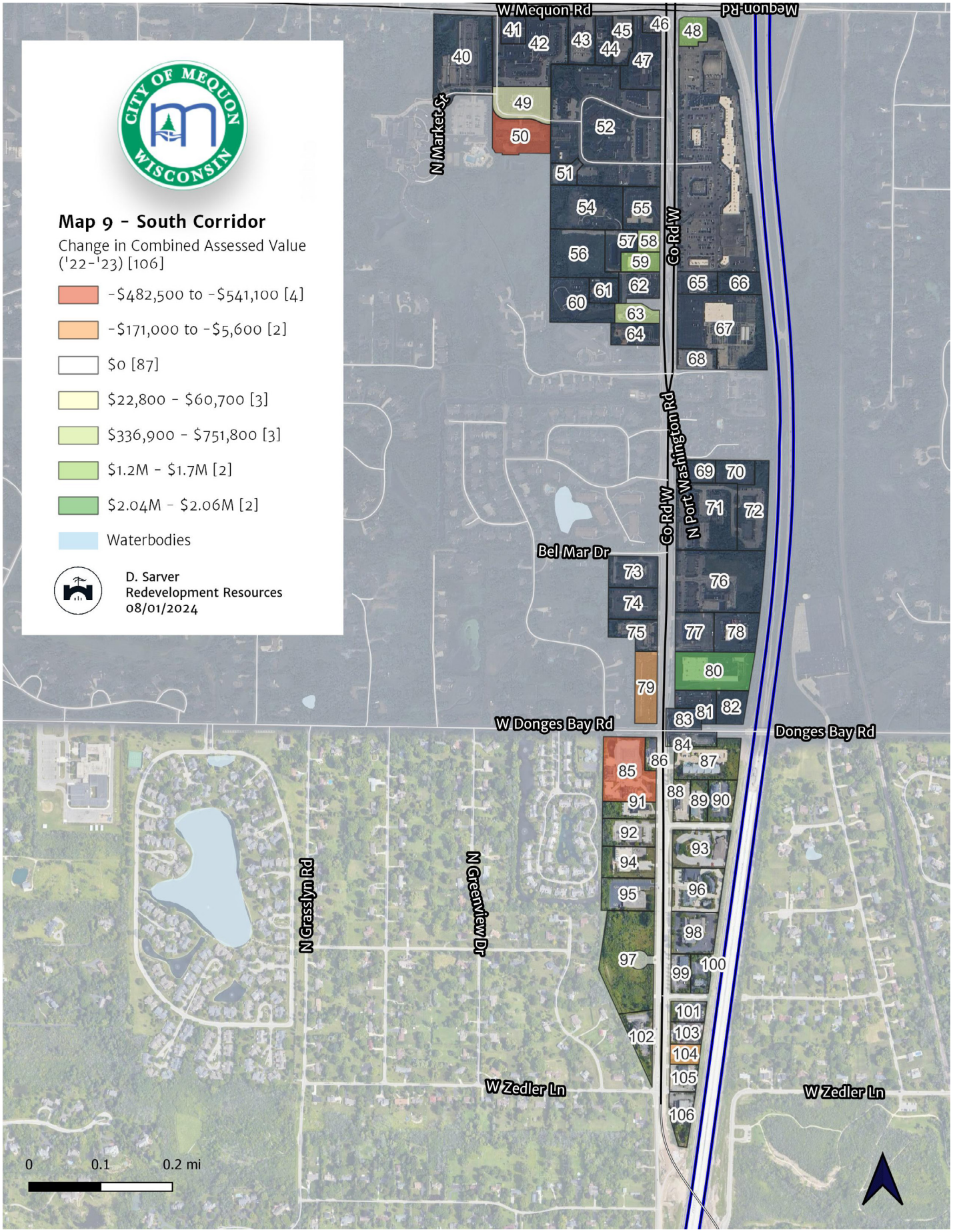
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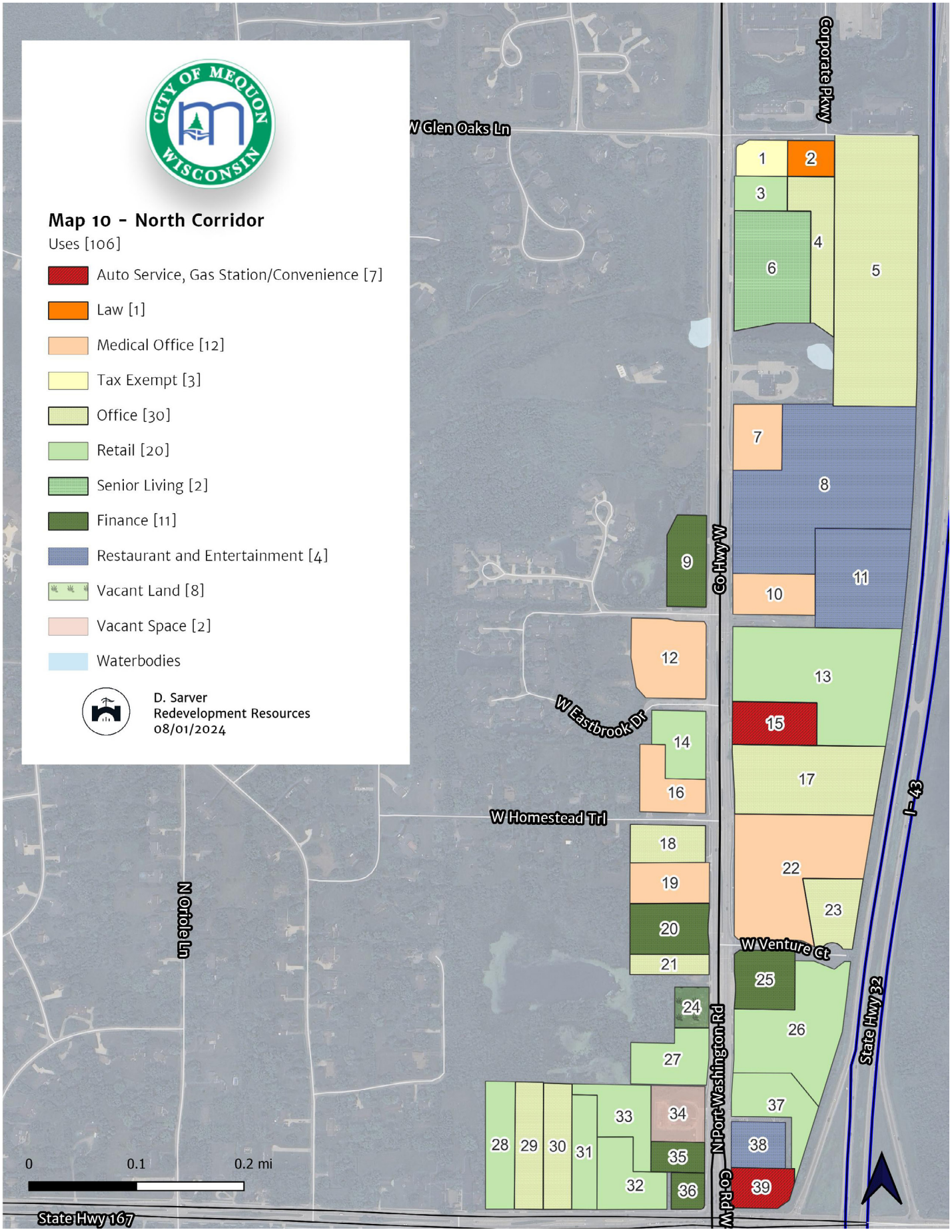
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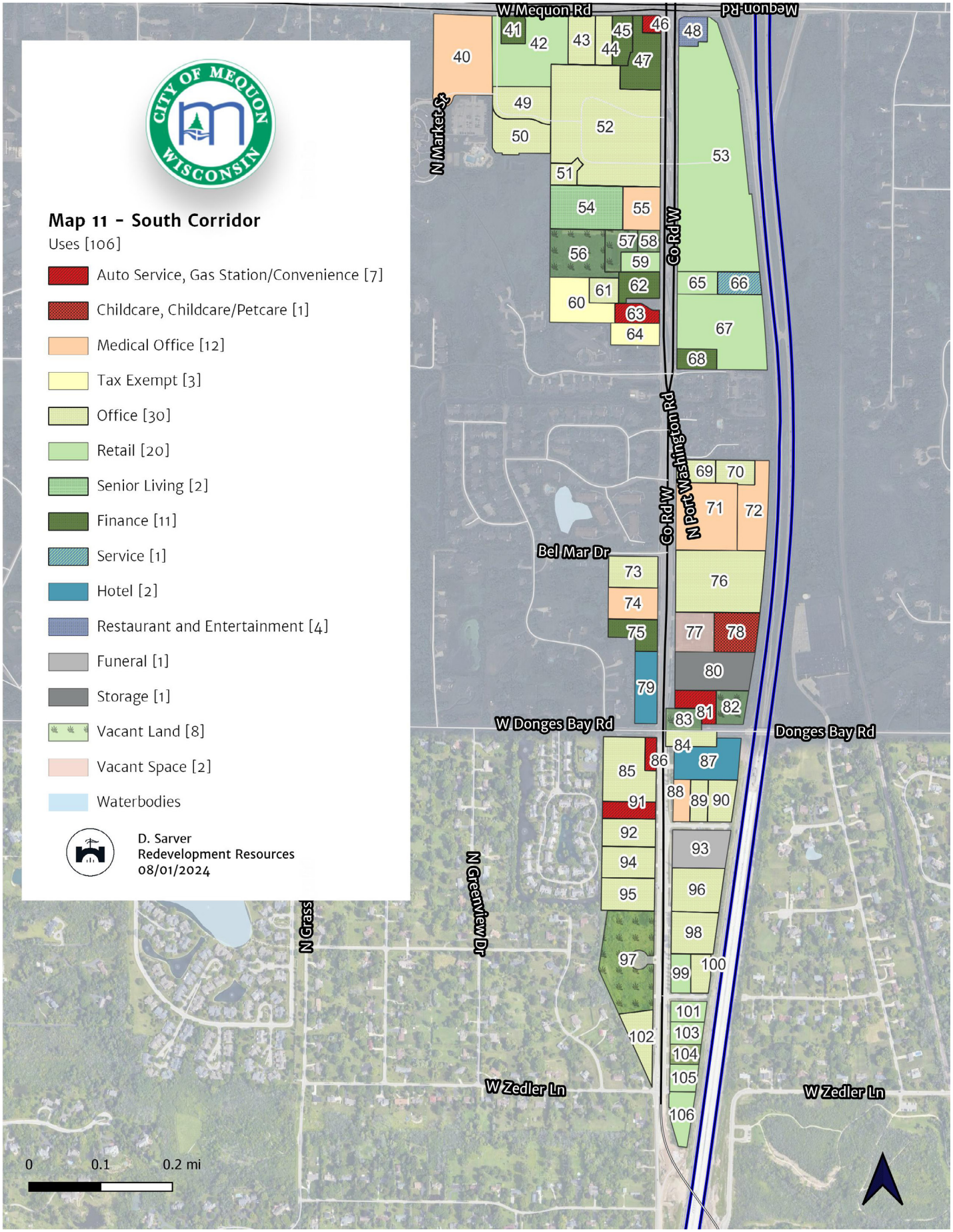
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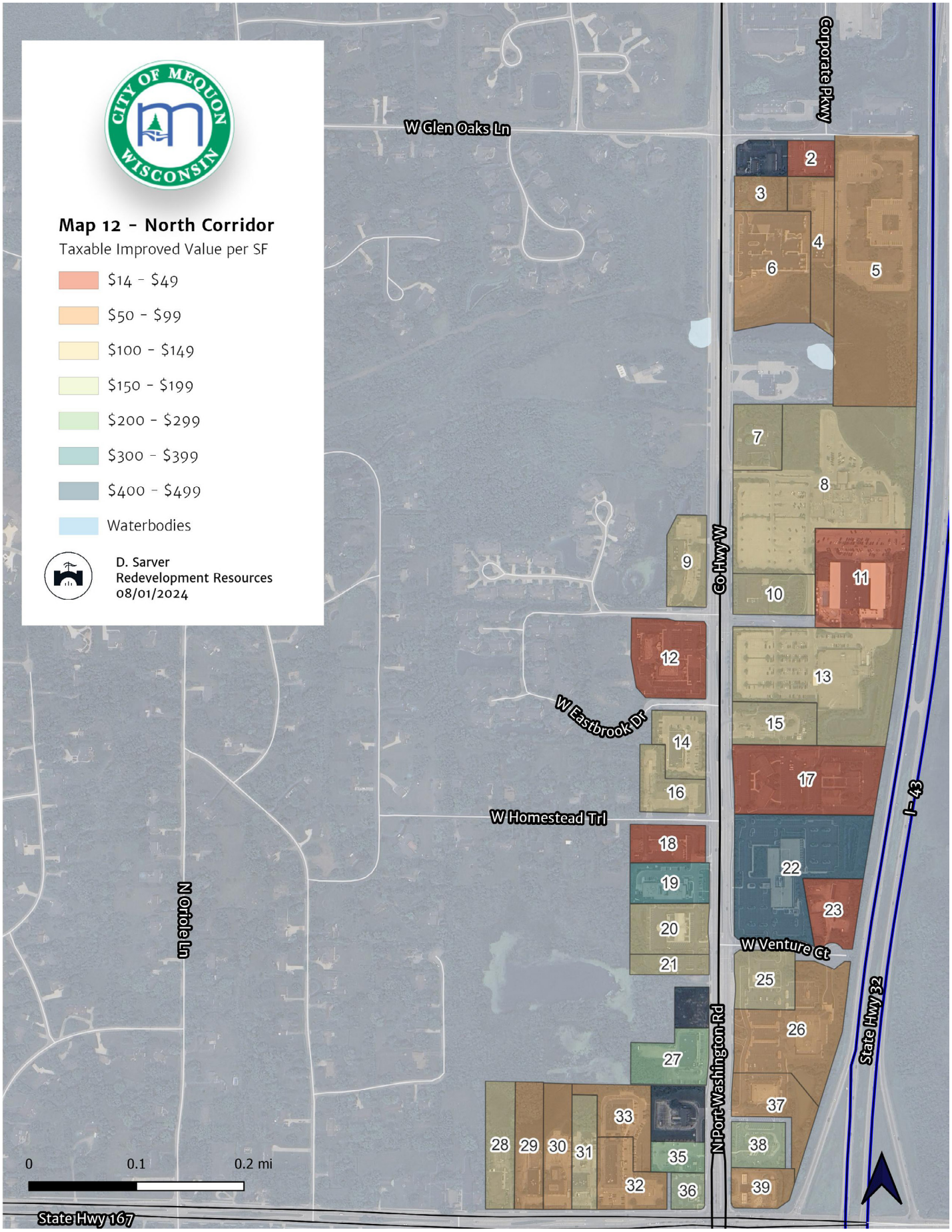
Map 11 - South Corridor

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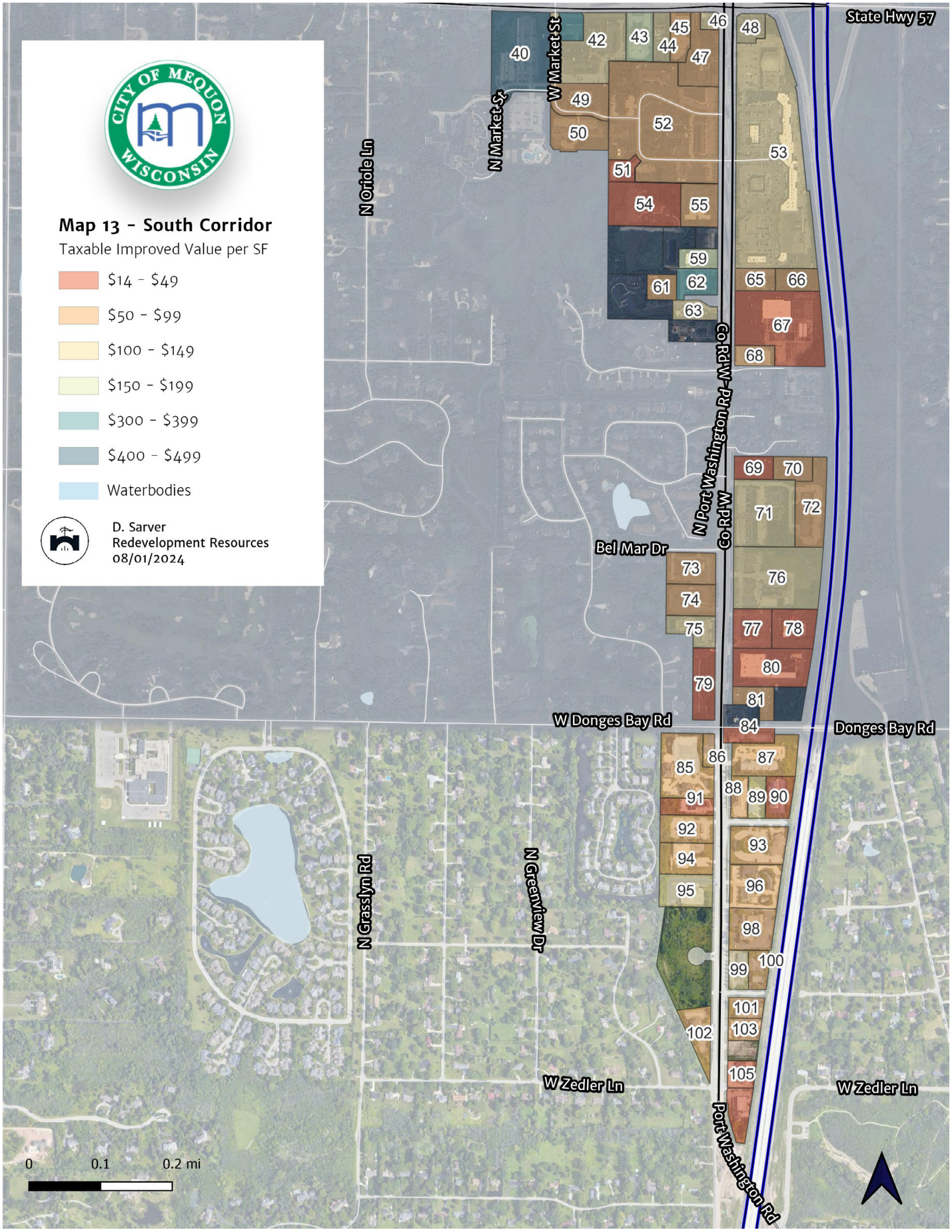
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- Childcare, Childcare/Petcare [1]
- Medical Office [12]
- Tax Exempt [3]
- Office [30]
- Retail [20]
- Senior Living [2]
- Finance [11]
- Service [1]
- Hotel [2]
- Restaurant and Entertainment [4]
- Funeral [1]
- Storage [1]
- Vacant Land [8]
- Vacant Space [2]
- Waterbodies

D. Sarver
Redevelopment Resources
08/01/2024

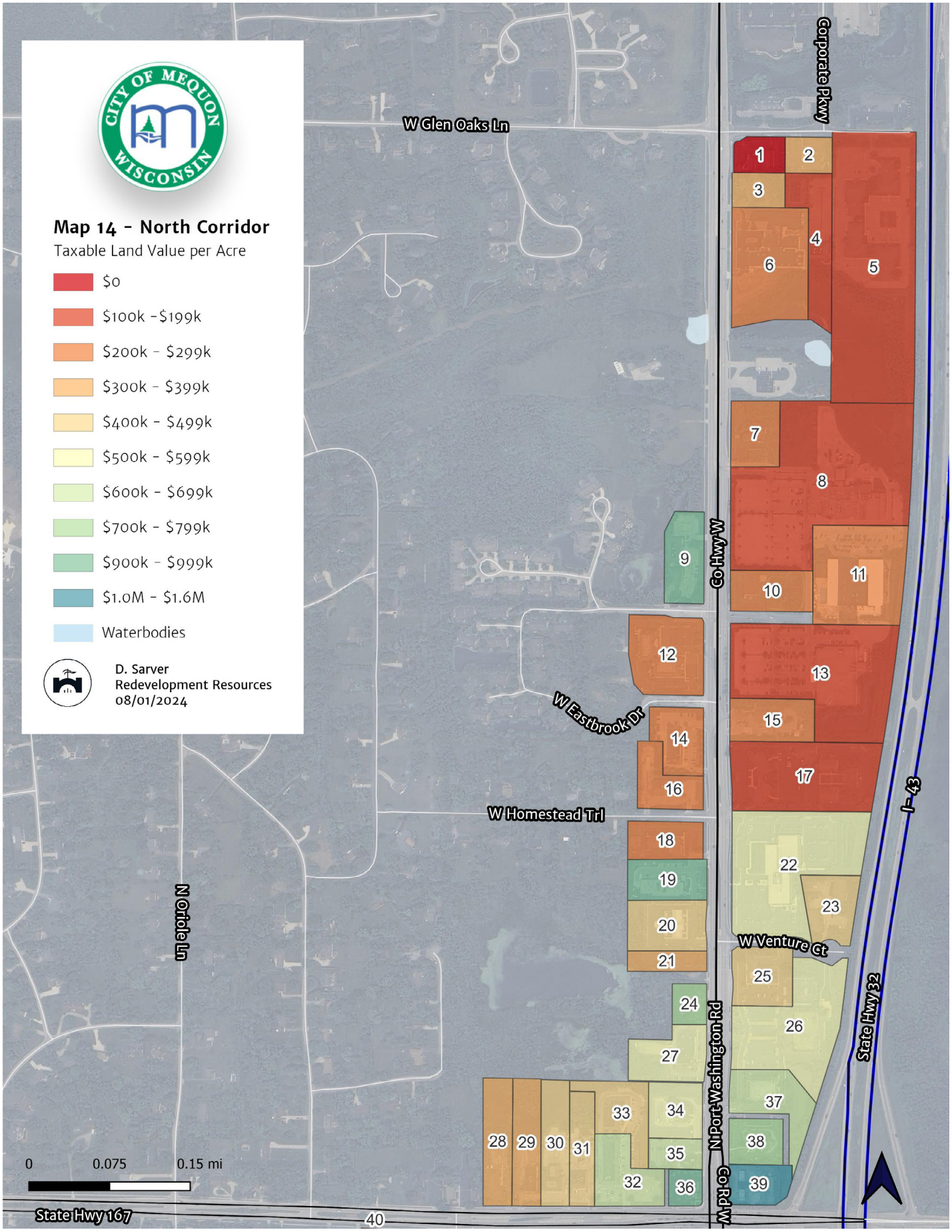
Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)



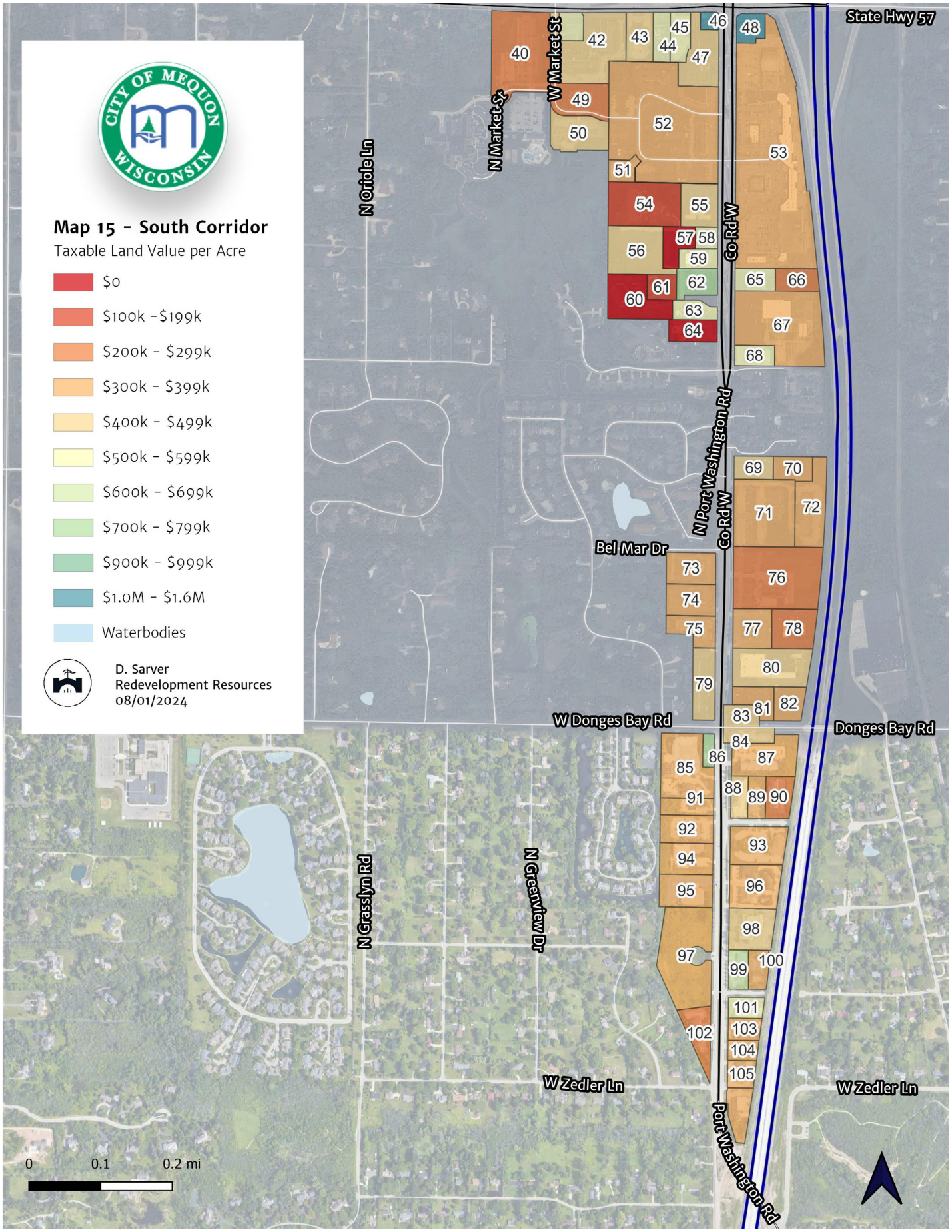
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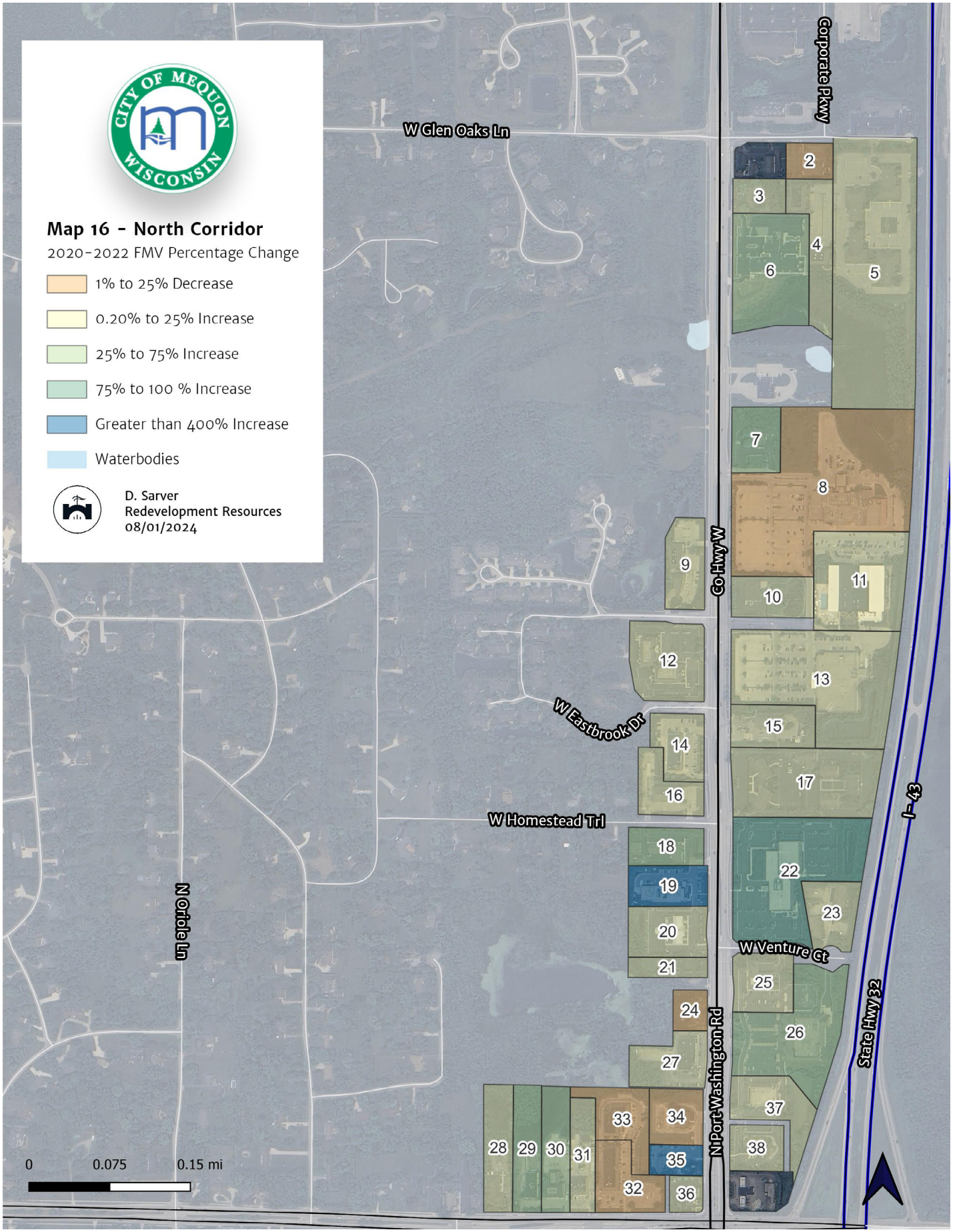
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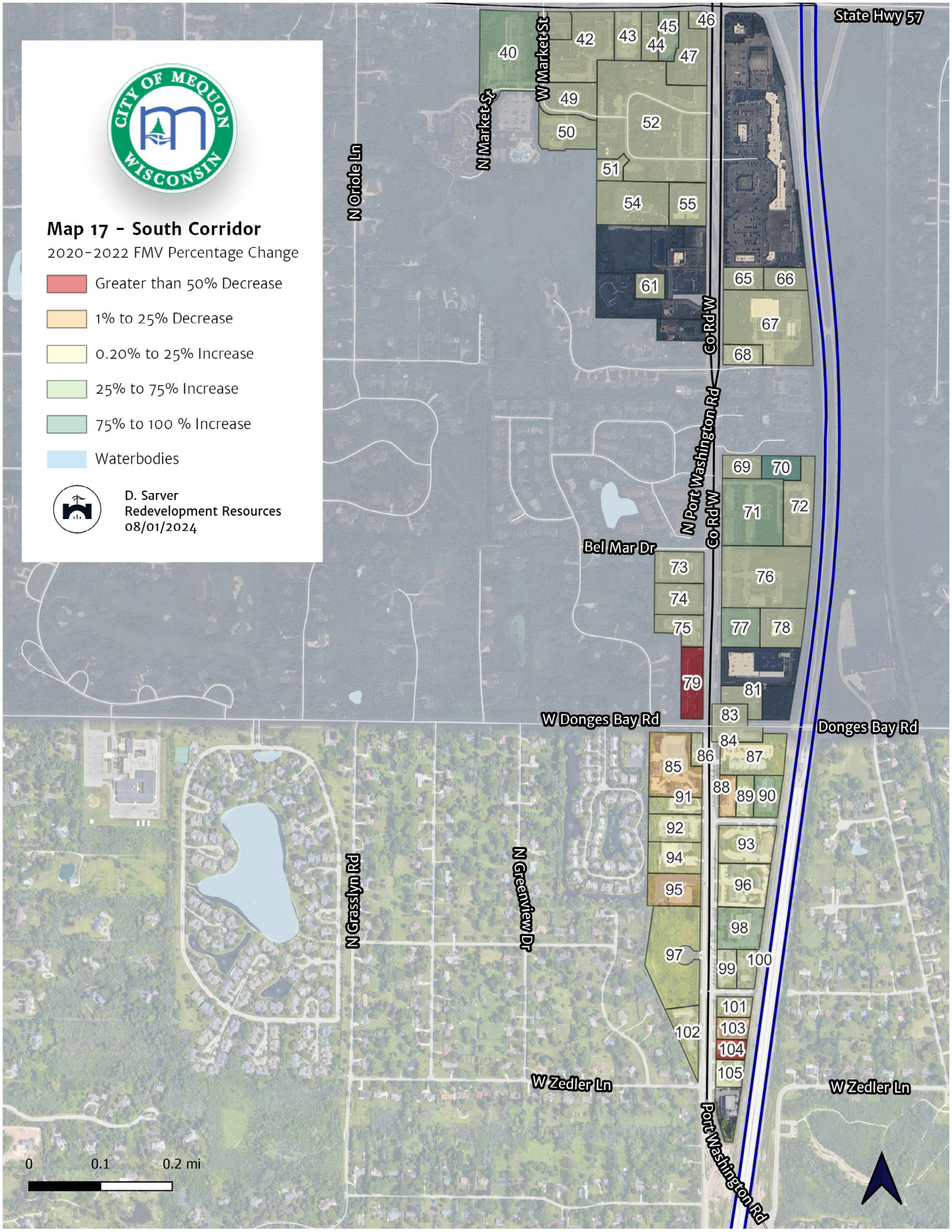
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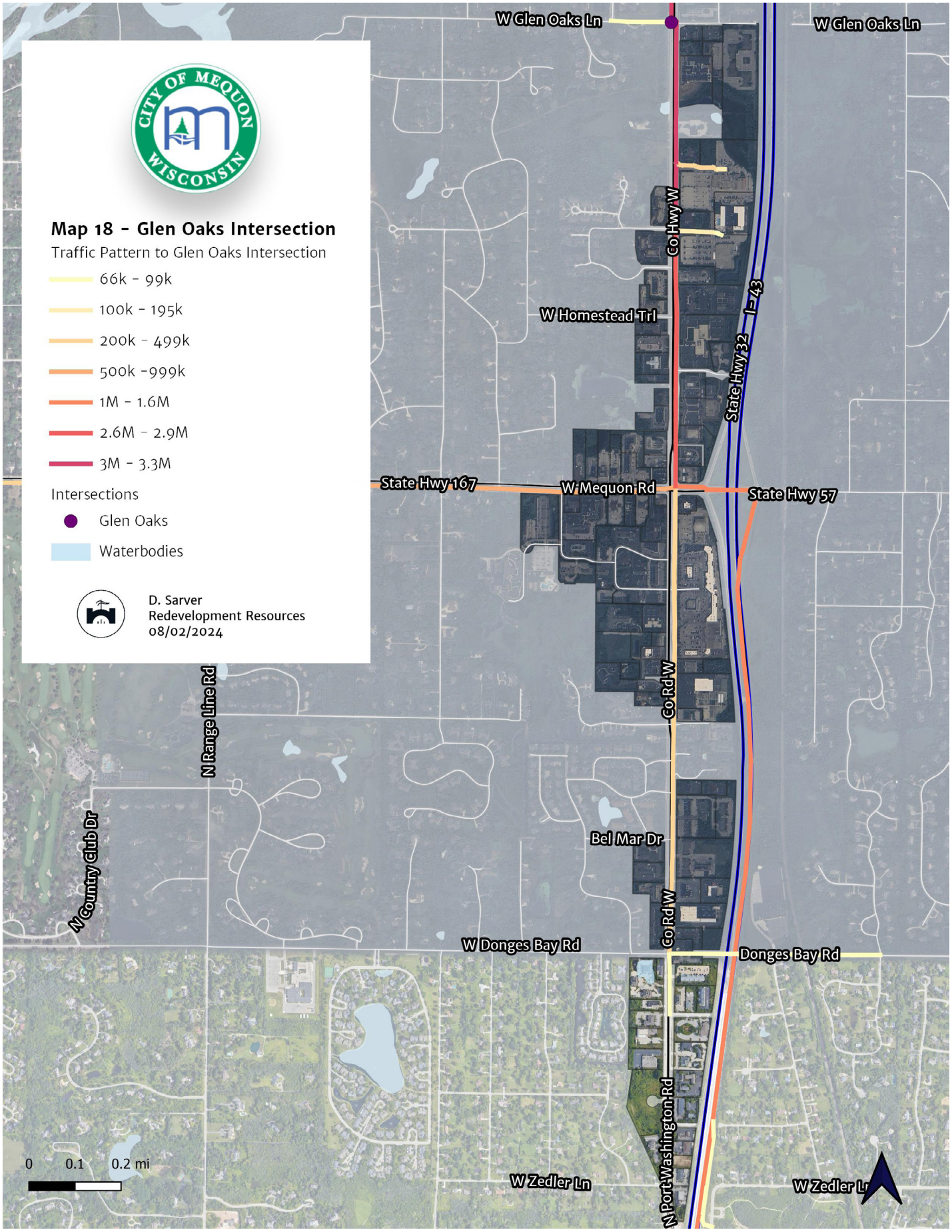
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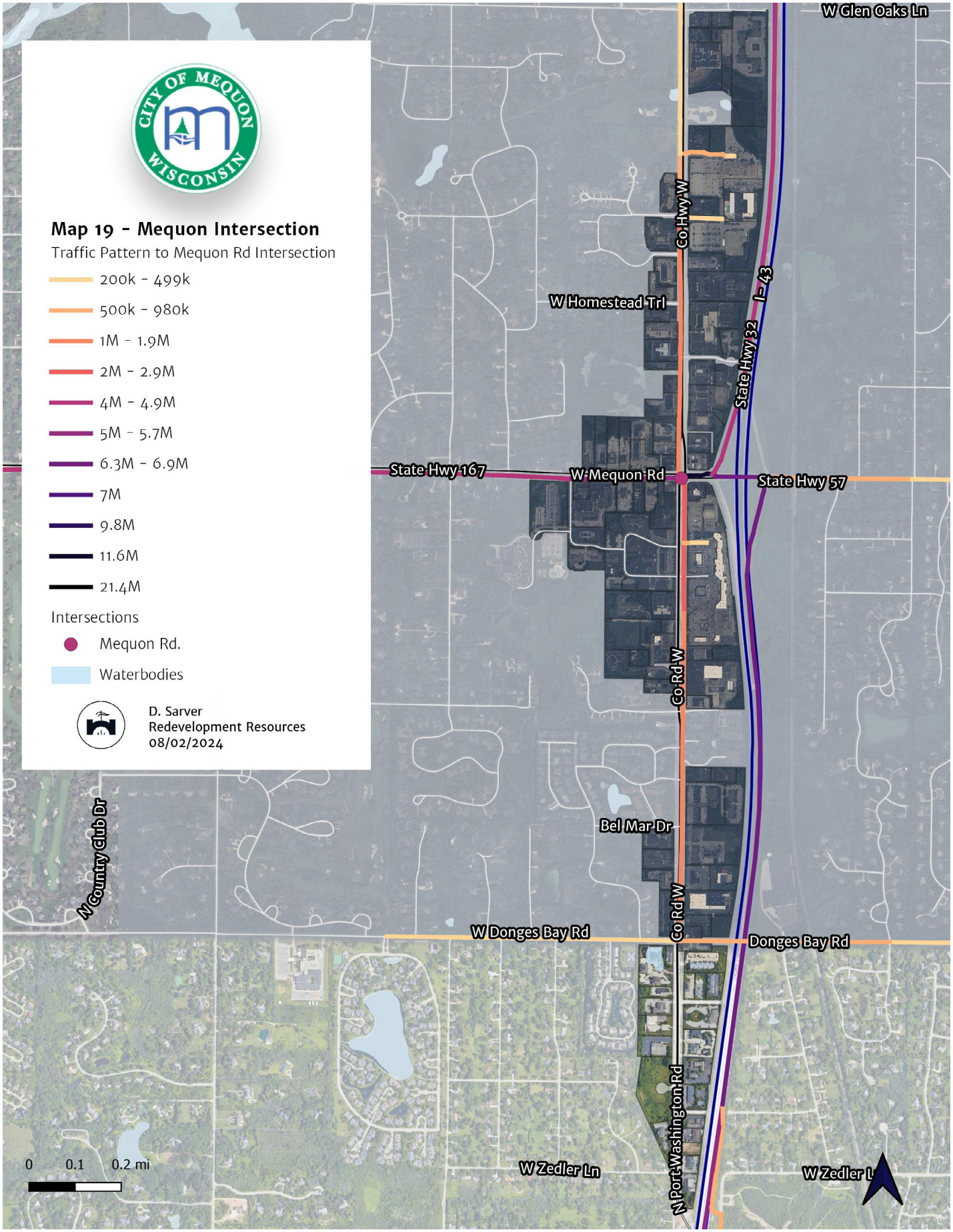
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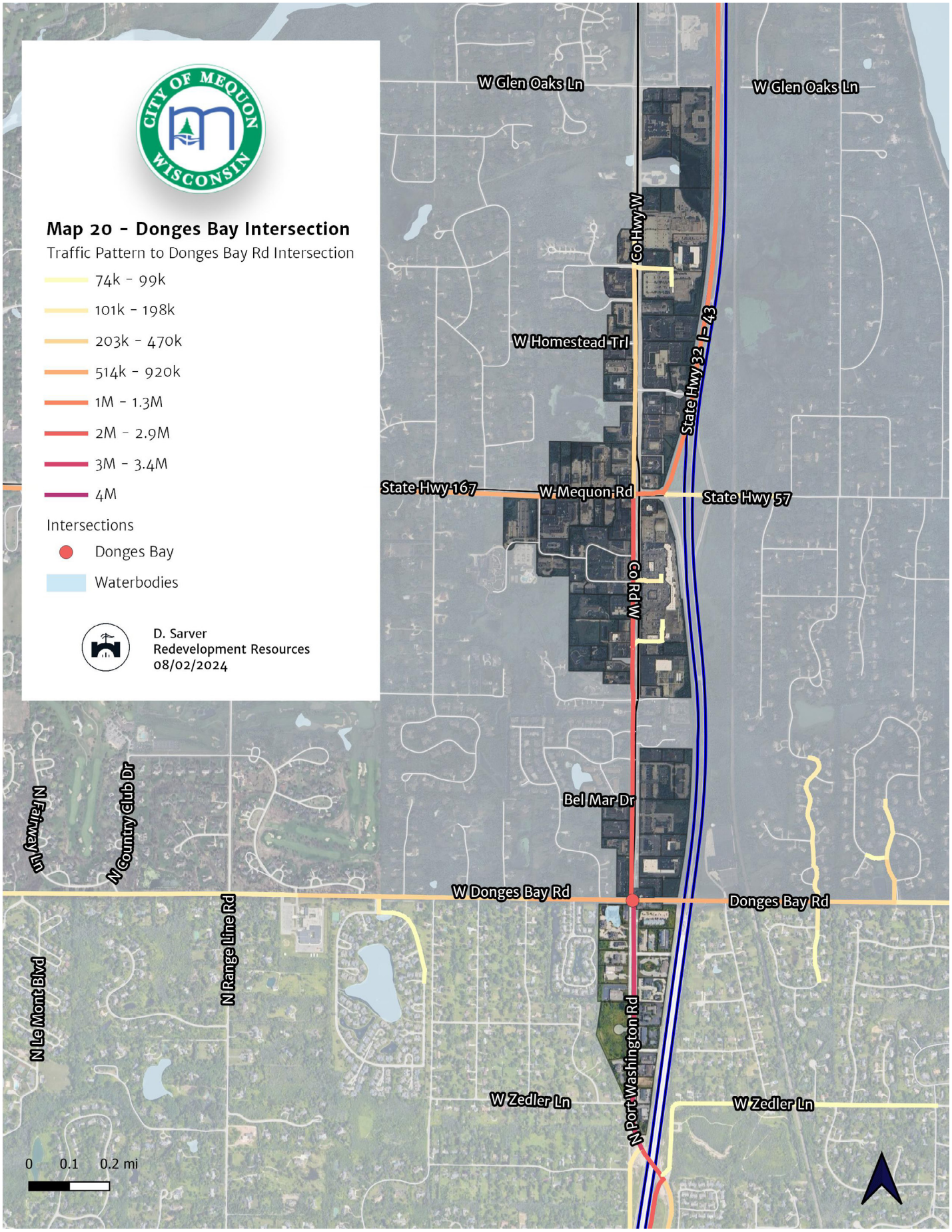
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Attachment: PHASE II Mequon Corridor Market Study (9568 : PW Road Market Analysis)

11333 N. Cedarburg Road
Mequon, WI 53092-1930
Phone: 262-242-3100
Fax: 262-242-9655

www.ci.mequon.wi.us **Office of Community Development**

TO: **Committee of the Whole**
FROM: **Kim Tollefson, Director of Community Development**
DATE: **August 14, 2024**
SUBJECT: **Review and Discussion of Revised Town Center Neighborhood Signage Designs**

Background

As part of the Town Center Neighborhood improvements that are currently underway along Mequon Road between Buntrock Avenue and Cedarburg Road, a series of gateway signs are to be installed at various locations. The signs are one of many design elements signaling the sense of arrival to a unique location within the City. The signs bid at the time of the project were subsequently rejected by WisDOT during permitting. Since that time, staff have explored options for implementation. The following objectives have guided planning for the development of a revised sign package:

- WisDOT requires four of the five signs to be breakaway signs, due to their location with the right-of-way.
- The original stone base of each sign does not meet WisDOT's criteria for breakaway.
- All five sign designs should match and reflect the design of the M-T gateway promenade.
- Construction is to be completed in 2024.

Analysis

Innovative Signs has developed the necessary structural elements to ensure compliance as a breakaway feature as well as assessing the original sign designs and the distinct features of the gateway. The result of this analysis and achievement of the above objectives is a new sign design for fabrication and installation. Planning Division staff supports and recommends the revised design. Staff also consulted with, and received concurrence from, Groth Design, the architects of the M-T gateway promenade, that the design achieves cohesion and compatibility.

Exhibit A represents the original sign designs. Exhibit B represents the revised sign designs. Exhibit C represents the locations of the signs throughout the neighborhood.

Fiscal Impact

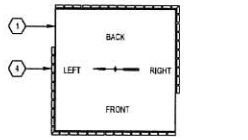
There is adequate funding for the sign package as previously approved by the Common Council in connection with the Town Center TID Public Improvement Project. The sign design, fabrication and installation will be funded through TID No. 3.

Recommendation

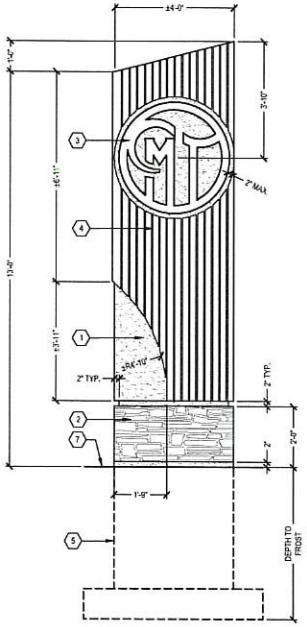
Prior to fabrication, the Common Council's review is desired, to address any questions and/or additional interests related to the final proposed designs.

Attachments:
Town Center Sign Package (PDF)

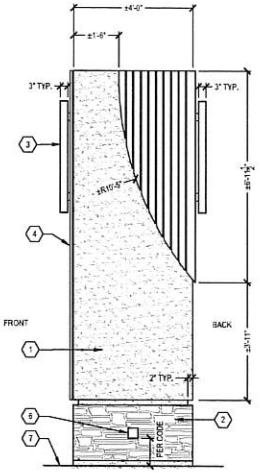
Exhibit A: Original Sign Designs



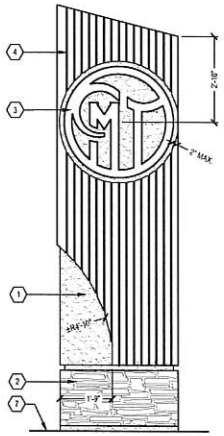
PLAN REFERENCE



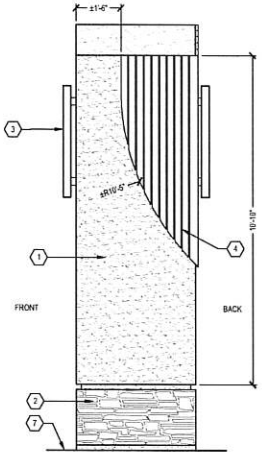
FRONT ELEVATION



RIGHT ELEVATION



BACK ELEVATION



LEFT ELEVATION

1. REINFORCED CIP CONCRETE
2. STONE VENEER
3. HALO LIT CITY OF MEQUON LOGO
4. WOOD CLADDING ATTACHED TO FRAME
5. REINFORCED CIP CONCRETE FOOTING
6. JUNCTION BOX & ELECTRICAL OUTLET
7. FINISH GRADE

NOTES:

A. SIGN DESIGN, LAYOUT, MATERIALS AND DIMENSIONS ILLUSTRATE DESIGN INTENT. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED FINAL DESIGN SHOP DRAWINGS FOR APPROVAL BY ENGINEER. FINAL DESIGN SHOP DRAWINGS SHALL INCLUDE DESCRIPTIONS AND LABELS FOR ALL MATERIALS, COLORS, AND FINISHES AND DESCRIBE STRUCTURAL REINFORCEMENT, ATTACHMENTS AND FASTENINGS.

B. BASIS OF DESIGN FOR STONE VENEER, WOOD CLADDING, AND CITY OF MEQUON METAL LOGO SHALL BE THE EXISTING SIGN AT THE INTERSECTION OF W MEQUON RD AND N CEDARBURG RD AND AS FURTHER DESCRIBED BELOW.

C. ALL PORTIONS OF THE ABOVE GROUND REINFORCED CIP CONCRETE MONUMENT SHALL BE AS-CAST CONCRETE TEXTURE IMPARTED BY FORM-FACING MATERIAL, ARRANGED IN AN ORDERLY AND SYMMETRICAL MANNER WITH A MINIMUM OF SEAMS. REMOVE SURFACE FINS, PROJECTIONS, OR OTHER IRREGULARITIES CAUSED BY FORMS AND REPAIR AND PATCH TIE HOLES AND DEFECTS IN THE SURFACE. FINISHED SURFACE SHALL BE SMOOTH-RUBBED OF UNIFORM COLOR AND TEXTURE, WITHOUT JOINT MARKS, SAND STREAKS, HONEYCOMBING, GRAIN, POCKETS AND OTHER DEFECTS. EDGES SHALL BE UNIFORM, STRAIGHT, AND SHARP. ALL CORNERS TO HAVE MINIMUM 1/8" CHAMFER TO PREVENT CHIPPING. COLOR SHALL BE WARM GRAY WITHOUT VARIATION OR BLOTCHING. COLOR TO BE APPROVED BY ENGINEER. CONCRETE SHALL BE SEALED TO MAINTAIN NATURAL LOOK WITHOUT GLAZING, GLOSS, OR COLOR CHANGE.

D. STONE VENEER TO MATCH SIZE, PATTERN, JOINTING, AND COLOR OF BASIS OF DESIGN.

E. WOOD CLADDING ATTACHED TO FRAME SHALL BE 1X3 INCHES (21X73 MM) KEBONY CLEAR, COLOR AND FINISH TO MATCH BASIS OF DESIGN, TREATED WITH UV PROTECTANT SEALER TO SLOW GRAYING. CLADDING SHALL BE FASTENED FROM BEHIND; FASTENERS SHALL NOT BE VISIBLE FROM THE FACE OF THE SIGN.

F. CITY OF MEQUON LOGO SHALL BE METAL, COLOR AND FINISH TO MATCH BASIS OF DESIGN. SIGN SHALL BE 3'10" DIAMETER, BACKLIT.



BASIS OF DESIGN - EXISTING SIGN AT INTERSECTION OF W MEQUON RD AND N CEDARBURG RD

1 GATEWAY MONUMENT SIGN

SCALE: 1/2" = 1'-0"

MEQUON ROAD & OIT CROSSING

CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

Owner:
CITY OF MEQUON

SMITHGROUP

44 EAST MIFFLIN STREET
SUITE 500
MADISON, WI 53703
608.251.1177
www.smithgroup.com

ISSUED FOR	REV	DATE
Bid Set		12/06/2022

SEALS AND SIGNATURES

KEY PLAN

DRAWING TITLE
SITE DETAILS

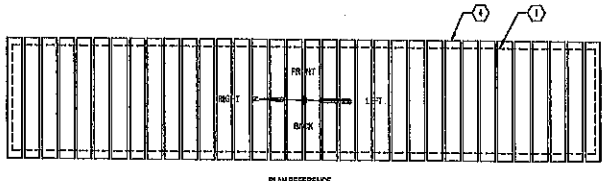
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SCALE

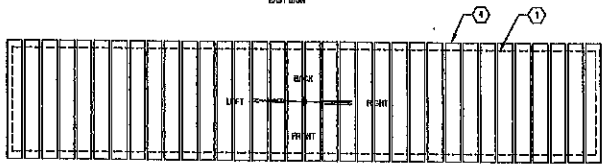
PROJECT NUMBER
1399

DRAWING NUMBER
CS50

Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)



PLAN REFERENCE
EAST SIGN



PLAN REFERENCE
WEST SIGN

1. REINFORCED CIP CONCRETE
2. FINISH GRADE
3. MAKO LIT CITY OF MEQUON LOGO
4. WOOD CLADDING ATTACHED TO FRAME
5. REINFORCED CIP CONCRETE FOOTING, DEPTH TO FROST
6. JUNCTION BOX & ELECTRICAL OUTLET
7. SLOPE TO DRAIN

NOTES:

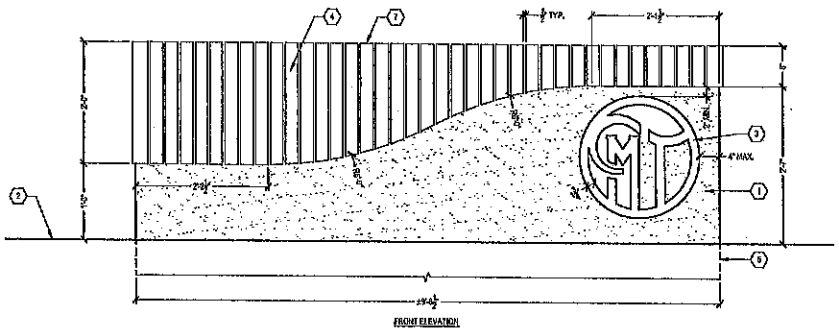
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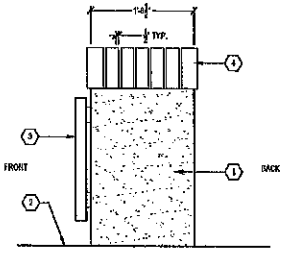
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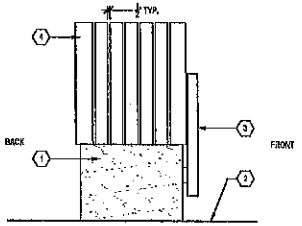
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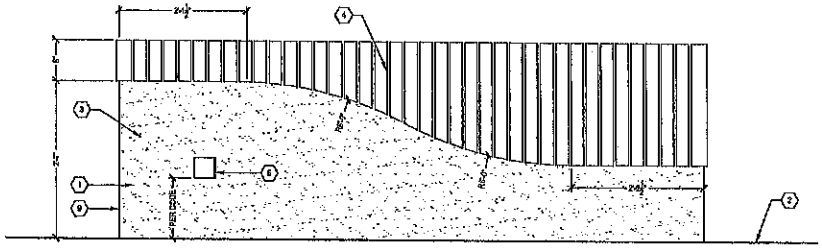
D. WOOD CLADDING ATTACHED TO FRAME SHALL BE 1X3 INCHES (25X73 MM) KEBONY CLEAR. COLOR AND FINISH TO MATCH BASIS OF DESIGN. TREATED WITH UV PROTECTANT SEALER TO SLOW GRAYING. CLADDING SHALL BE FASTENED FROM BEHIND; FASTENERS SHALL NOT BE VISIBLE FROM THE FACE OF THE SIGN.

E. CITY OF MEQUON LOGO SHALL BE METAL, COLOR AND FINISH TO MATCH BASIS OF DESIGN. SIGN SHALL BE 2'0" DIAMETER, BACKLIT.









1 MONUMENT SIGN TYPE 1

SCALE: 1" = 1'

MEQUON ROAD &
OIT CROSSING

CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

Owner:
CITY OF MEQUON

SMITHGROUP

44 EAST MIFFLIN STREET
SUITE 900
MADISON, WI 53703
608.251.1177
www.smithgroup.com

ISSUED FOR	REV	DATE
Bid Set		12/06/2022

SEALS AND SIGNATURES

KEY PLAN

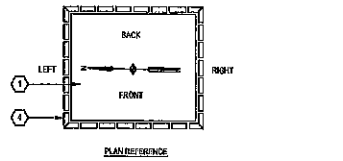
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SITE DETAILS

SCALE AS INDICATED

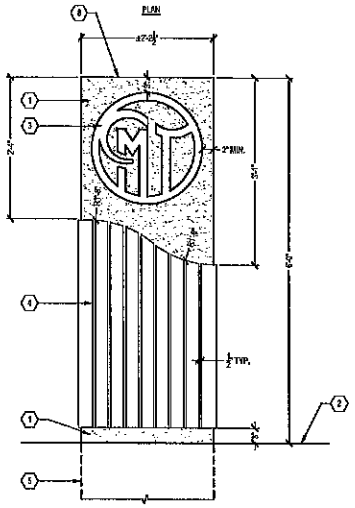
SCALE
PROJECT NUMBER 13999

DRAWING NUMBER CS502

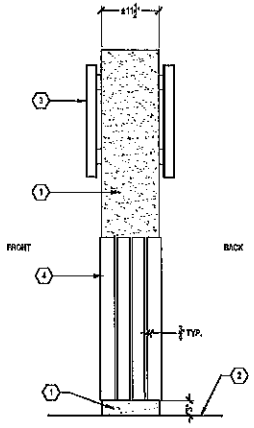
Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)



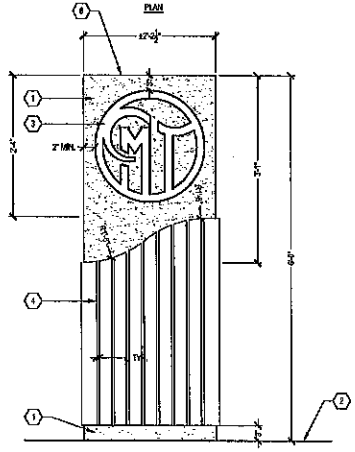
PLAN REFERENCE



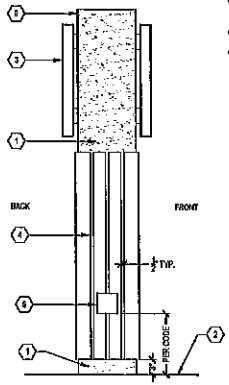
FRONT ELEVATION



RIGHT ELEVATION



LEFT ELEVATION



BACK ELEVATION

1. REINFORCED CIP CONCRETE
2. FINISH GRADE
3. HALO lit CITY OF MEQUON LOGO, HORIZONTALLY CENTERED
4. WOOD CLADDING ATTACHED TO FRAME
5. REINFORCED CIP CONCRETE FOOTING. DEPTH TO FROST
6. JUNCTION BOX & ELECTRICAL OUTLET
7. SLOPE TO DRAIN

NOTES:

A. SIGN DESIGN, LAYOUT, MATERIALS AND DIMENSIONS ILLUSTRATE DESIGN INTENT. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED FINAL DESIGN SHOP DRAWINGS FOR APPROVAL BY ENGINEER. FINAL DESIGN SHOP DRAWINGS SHALL INCLUDE DESCRIPTIONS AND LABELS FOR ALL MATERIALS, COLORS, AND FINISHES AND DESCRIBE STRUCTURAL REINFORCEMENT, ATTACHMENTS AND FASTENERS.

B. BASIS OF DESIGN FOR WOOD CLADDING AND CITY OF MEQUON METAL LOGO SHALL BE THE EXISTING SIGN AT THE INTERSECTION OF W MEQUON RD AND N CEDARBURG RD AND AS FURTHER DESCRIBED BELOW.

C. ALL PORTIONS OF THE ABOVE GROUND REINFORCED CIP CONCRETE MONUMENT SHALL BE AS-CAST CONCRETE TEXTURE IMPARTED BY FORM-FACING MATERIAL, ARRANGED IN AN ORDERLY AND SYMMETRICAL MANNER WITH A MINIMUM OF SEAMS. REMOVE SURFACE FINS, PROJECTIONS, OR OTHER IRREGULARITIES CAUSED BY FORMS AND REPAIR AND PATCH TIE HOLES AND DEFECTS IN THE SURFACE. FINISHED SURFACE SHALL BE SMOOTH-RUBBED OF UNIFORM COLOR AND TEXTURE, WITHOUT JOINT MARKS, SAND STREAKS, HONEYCOMBING, GRAIN, POCKETS AND OTHER DEFECTS. EDGES SHALL BE UNIFORM, STRAIGHT, AND SHARP. ALL CORNERS TO HAVE MINIMUM ¼" CHAMFER TO PREVENT CHIPPING. COLOR SHALL BE WARM GRAY WITHOUT VARIATION OR BLOTCHING. COLOR TO BE APPROVED BY ENGINEER. CONCRETE SHALL BE SEALED TO MAINTAIN NATURAL LOOK WITHOUT GLAZING, GLOSS, OR COLOR CHANGE.

D. WOOD CLADDING ATTACHED TO FRAME SHALL BE 1X3 INCHES (2 IX73 MM) KESONY CLEAR, COLOR AND FINISH TO MATCH BASIS OF DESIGN. TREATED WITH UV PROTECTANT SEALER TO SLOW GRAYING. CLADDING SHALL BE FASTENED FROM BEHIND; FASTENERS SHALL NOT BE VISIBLE FROM THE FACE OF THE SIGN.

E. CITY OF MEQUON LOGO SHALL BE METAL, COLOR AND FINISH TO MATCH BASIS OF DESIGN. SIGN SHALL BE 2'0" DIAMETER, BACKLIT.

1 MONUMENT SIGN TYPE 2

SCALE: 1" = 1'

MEQUON ROAD &
OIT CROSSING

CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

Owner:
CITY OF MEQUON

SMITHGROUP

44 EAST MIFFLIN STREET
SUITE 500
MADISON, WI 53703
608.251.1177
www.smithgroup.com

ISSUED FOR	REV	DATE
Bid Set		12/06/2022

SEALS AND SIGNATURES

KEY PLAN

DRAWING TITLE
SITE DETAILS

SCALE AS INDICATED

SCALE

1399

PROJECT NUMBER

CS503

DRAWING NUMBER

Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

R:\D:\Jobs\Active\SmithGroup Companies and WSI - 1399 - SmithGroup - Smithgroup\Jobs\103 GMV\1399-CS503.dwg, USER: jhart, DATE: Dec. 09, 2022, TIME: 04:12 pm

Exhibit B: Revised Sign Designs

Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

City of Mequon

INNOVATIVE SIGNS

21700 DORAL ROAD
WAUKESHA WI 53186
262.432.1330
www.innovative-signs.com

All Sides Rendering

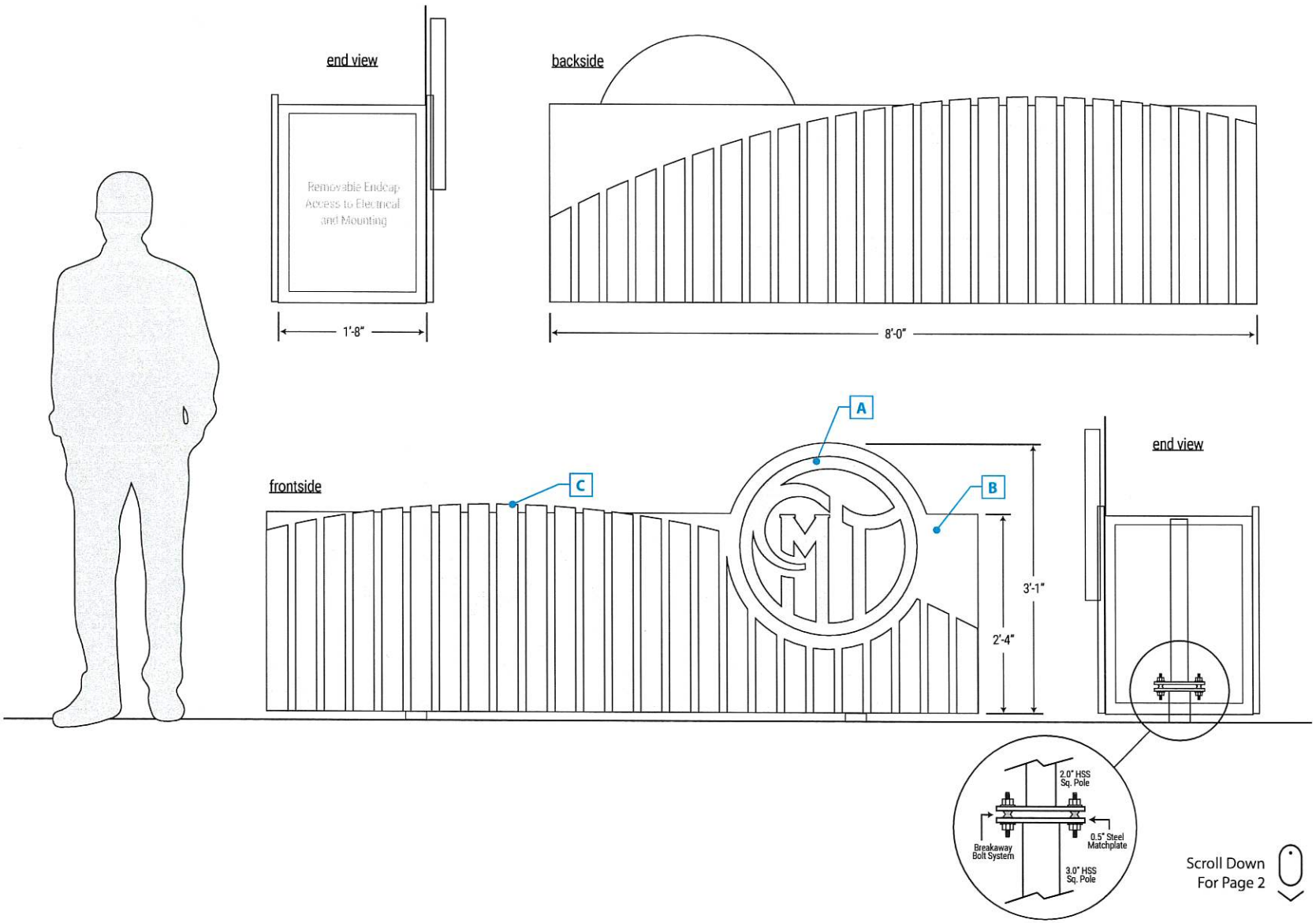
INNOVATIVE SIGNS

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Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

Front Elevation



Scroll Down For Page 2

INNOVATIVE SIGNS

www.Innovative-Signs.com

Customer

City of Mequon
Gateway Signage

Date	Project Manager
8/02/2024	Emerson M.
Order #	**Designer**
EST - 00000	Nick M.

Materials & Specifics

Custom Monument Tower
- 0.080" Aluminum Construction
- 7/8" x 3" Cedar Wood Details
- Halo Lit City Logo (customer provided)

A Halo-Lit LED Logo (Existing)

B 0.080 Aluminum - Painted Finis

C 7/8" Cedar Wood Details - Stair (blind Mounted)

Colors

Logo (Existing)
Matthews Paint - Winter Slush

Cedar Stain (match close to existi

Approval Signature: _____

Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

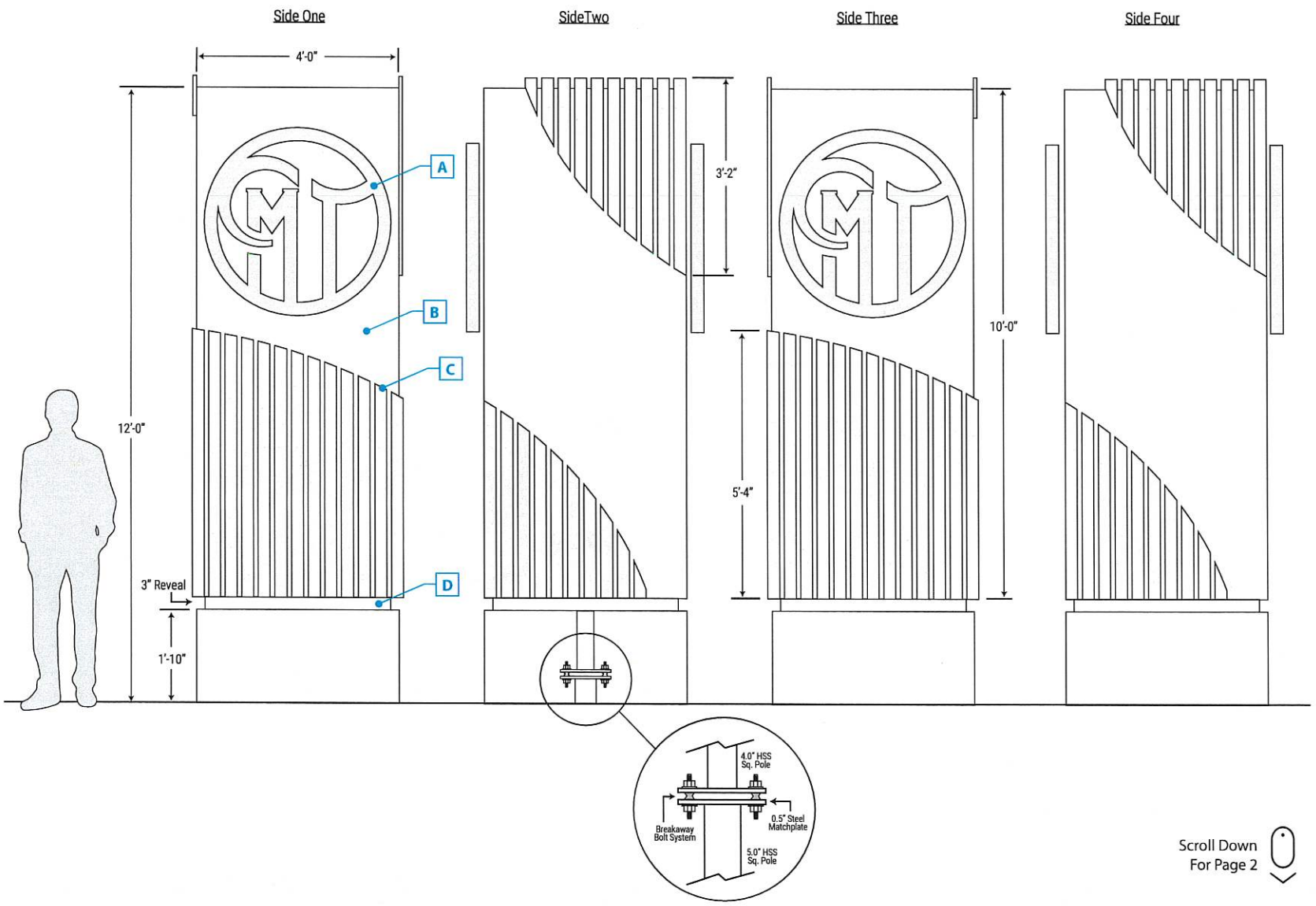
All Sides Rendering

www.Innovative-Signs.com



Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

Front Elevation



INNOVATIVE SIGNS

www.Innovative-Signs.com

Customer

City of Mequon
Gateway Signage

Date	Project Manager
8/02/2024	Emerson M.
Order #	**Designer**
EST - 00000	Nick M.

Materials & Specifics

Custom Monument Tower
- 0.080" Aluminum Construction
- 7/8" x 3" Cedar Wood Details
- Halo Lit City Logo (customer provided)

- A Halo-Lit LED Logo (Existing)
- B 0.080 Aluminum - Painted Finis
- C 7/8" Cedar Wood Details - Stair (blind Mounted)
- D 3" Reveal - Painted Finish

Colors

- Logo (Existing)
- Matthews Paint - Winter Slush
- Matthews Paint - Dark Warm Gra
- Cedar Stain (match close to exist

Approval Signature: _____

Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

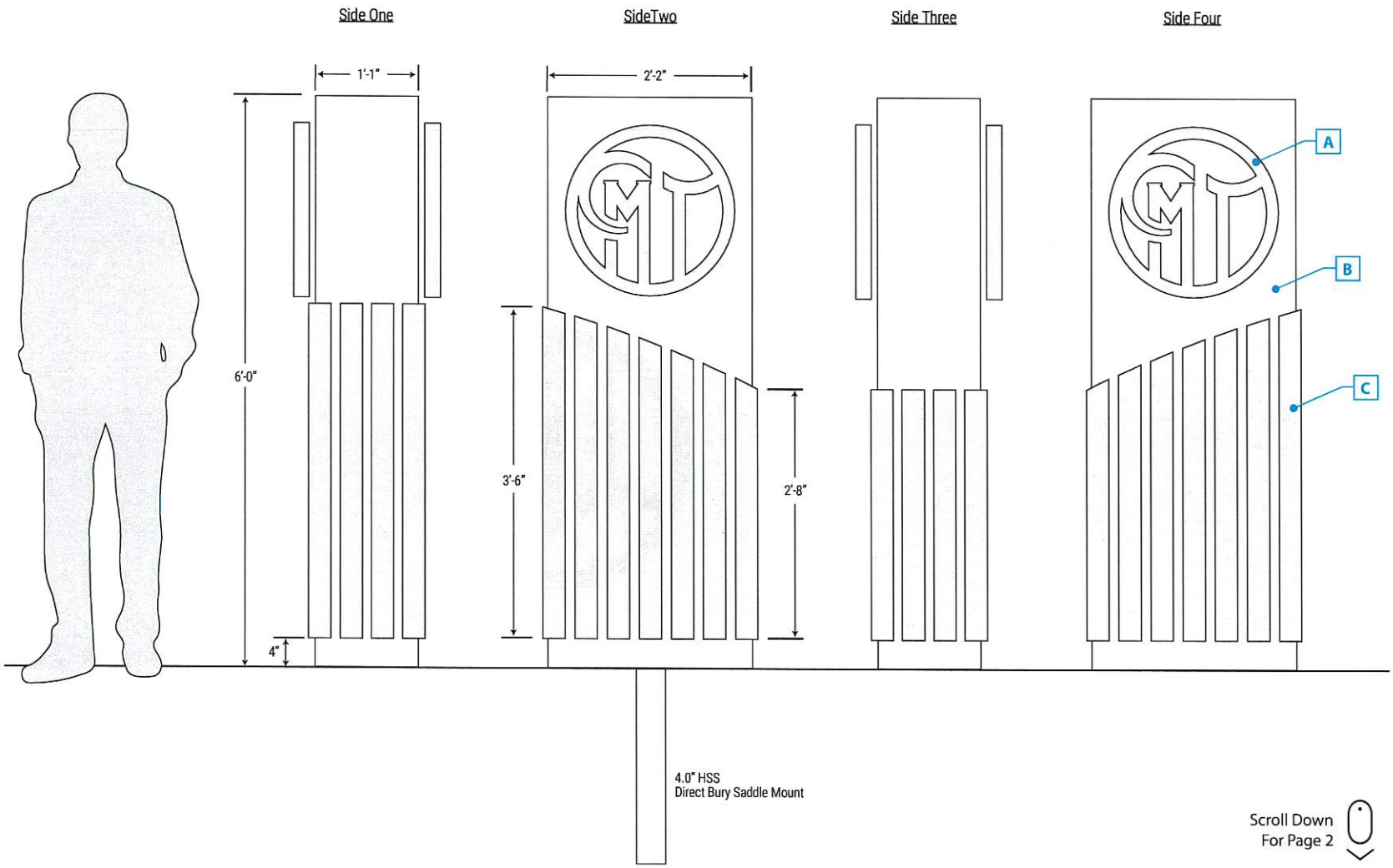
All Sides Rendering

www.Innovative-Signs.com



Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

Front Elevation



Scroll Down
For Page 2

www.Innovative-Signs.com

Customer

City of Mequon
Gateway Signage

Date	Project Manager
8/02/2024	Emerson M.
Order #	**Designer**
EST - 00000	Nick M.

Materials & Specifics

Custom Monument Tower
- 0.080" Aluminum Construction
- 7/8" x 3" Cedar Wood Details
- Halo Lit City Logo (customer provided)

A Halo-Lit LED Logo (Existing)

B 0.080 Aluminum - Painted Finis

C 7/8" Cedar Wood Details - Stair (blind Mounted)

Colors

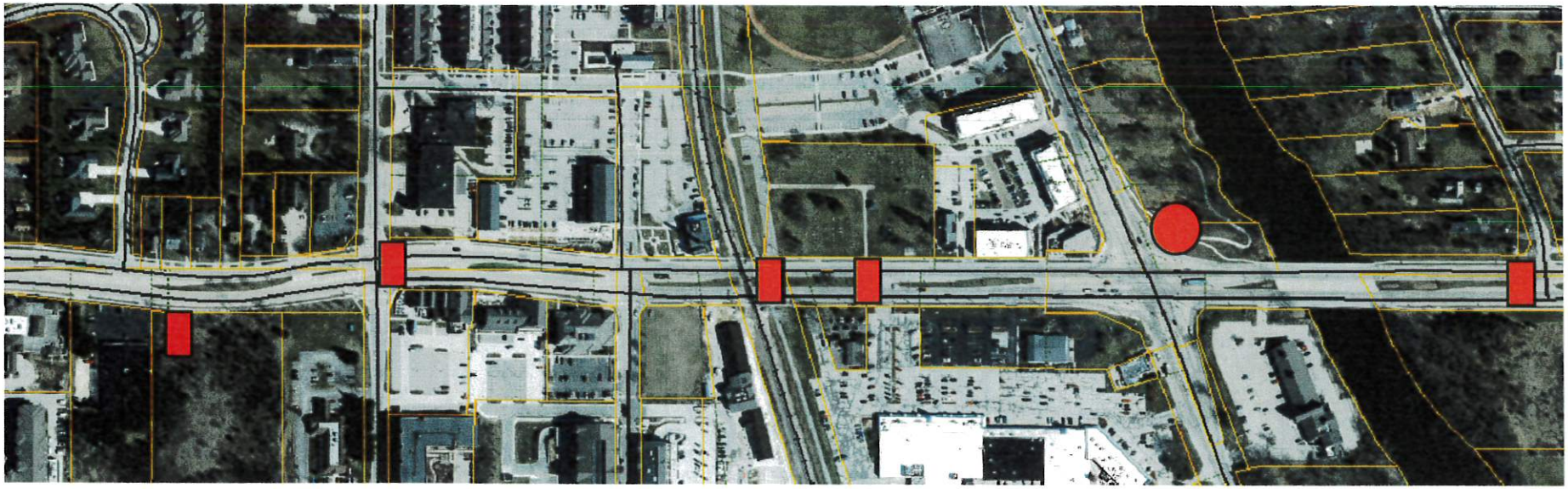
Logo (Existing)
Matthews Paint - Winter Slush

Cedar Stain (match close to existi

Approval
Signature: _____

Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

Exhibit C: Locations of Signs Throughout Neighborhood



Attachment: Town Center Sign Package (9569 : TC Neighborhood Signs)

11333 N. Cedarburg Road
Mequon, WI 53092-1930
Phone: 262-236-2913
Fax: 262-242-9655

www.ci.mequon.wi.us **Office of Public Works**

TO: **Committee of the Whole**
FROM: **Tim Weyker, Deputy Director of Public Works**
DATE: **August 5, 2024**
SUBJECT: **Discussion Regarding Brush Site Automation Project**

Background

In 2021, the City of Mequon embarked upon a comprehensive long-range strategic planning process. The deliverables of the process included a full Strategic Plan document with a Vision, Mission, Values, Strategic Goals, Outcomes and Key Focus Areas. On July 10, 2022, the Common Council adopted the City's Strategic Plan for 2022-2025.

Quality of Life is one of the Key Focus Areas of the Strategic Plan, and one of the identified projects within this focus area is “City Brush Site Automation”.

Over the years, residents have requested more access to the brush site. Brush site users would like it to be open earlier and later in the year, open more hours per day, and open more days per week. An automated gate would allow the City flexibility to greatly expand the availability of the brush site.

Additionally, the quantity of brush and other collected materials has grown over the years and, at times, gets close to exceeding the available space at the brush site. In conjunction with installing an automated gate at the brush site, staff recommends expansion of the lot, improvements to the driveway, and the addition of an equipment storage building to seasonally house a loader and other equipment.

At the June 11, 2024, Common Council meeting the Design Services for Improvements to the City Brush Site contract was awarded to the Sigma Group of Milwaukee.

Analysis

Following is an enumerated list of key decision points that need to be addressed in advance of bidding the project out for contract award this year, and construction in 2025.

1. SEASON DATES AND HOURS OF OPERATION

Existing Dates & Hours of Operation:
April through August
Wednesdays 7:30 AM - 7:00 PM
Saturdays 8:00 AM - 4:00 PM
&
September through November
Wednesdays & Saturdays 8:00 AM - 4:00 PM

Proposed Dates & Hours of Operation:
1st Tuesday of March through 2nd Saturday of December
(Tuesday - Friday) 7:30 AM - 7:30 PM
Weekends 8:00 AM - 5:00 PM
Closed on Mondays for Site Management

2. CONSOLIDATION OF MATERIAL & STORAGE BUILDING

Currently during the season, DPW crews drive a loader to the brush site twice a week to push collected material into piles, so as to accommodate additional waste. With an automated gate and the brush site being open longer and more often, staff anticipates having to consolidate the dropped off material more often, possibly four times per week, which is why staff is proposing an on-site storage building for a loader. If there is a loader on-site, then any time a DPW employee takes tree branches to the bush site from their normal operations, they could use the loader to clean up any of the dropped off material at the same time. In addition to housing a loader, the building would include a small office for the required automated gate and security camera electronics, as well as an enclosure for an on-site restroom. Collection of electronics for recycling has also been contemplated as an additional public service at the brush site. An overhang on the building could accommodate collection bins and keep them out of the rain until materials are collected.

3. ENVIRONMENTAL-RELATED BUDGETARY COST ESTIMATES

Task 1 of the Sigma Group design contract was "Agency Approvals and Utility Coordination". Because the brush site is on a historic landfill, the approval process with the Wisconsin Department of Natural Resources (WDNR) is very involved and time consuming, typically requiring a 90-day review process by the WDNR. Sigma Group has been working with the DNR to determine what options are available on this site. A DNR concern with allowing a building on-site is the release of methane gas from buried landfill material into the building.

While staff would prefer a building on site to avoid running a loader back and forth from the DPW building; the automated gate, cameras, and parking lot expansion could be constructed and operated without a building. Electronics would be housed in a heated control cabinet mounted on a pole and the cameras would also have to be mounted on poles. Consequently, staff asked the Sigma Group to compare the environmental-related cost impacts of improvements with a building versus without a building.

Based on meetings with the DNR, the budgetary estimates from Sigma Group for required environmental-related costs to prepare the former landfill site for construction of improvements is as follows: (see attached proposal update from Sigma Group)

- Scenario 1 - Development of the Site with a Building - $164,950
- Scenario 2 - Development of the Site without a Building - $20,250

A major factor in the high cost of development of the site with a building is excavation of the building footprint to a depth of approximately 6' to remove the old landfill waste material, haul the material to a currently licensed landfill, and backfill the excavated area with structural fill.

4. BRUSH PERMIT FEES, QUANTITY RESTRICTIONS & PENALTIES

Currently, the brush site attendant checks residents permits as they enter the brush site. The attendant also monitors what is being dropped off at the site to verify brush site regulations are being followed. Landscape contractors are not allowed to bring material to the brush site unless accompanied by a resident permit holder.

With an automated gate, there is no need for an on-site brush attendant to check brush permits as the permits will be scanned with the card reader at the automated gate, however brush site regulations will still need to be enforced. The use of security cameras and license plate readers in conjunction with the card reader will allow the City to determine if anyone violated the brush site's regulations. In addition to cameras, staff proposes each permit allow a limit of 150 uses per year. If the number of visits is exceeded, an additional permit would have to be purchased. This would help eliminate brush site permit sharing and/or landscape contractors using a residential permit for their business.

The current brush site annual permit fee is $25. Based on comparisons from other communities and the additional cost for card reader permits, staff proposes an initial permit fee of $35, with annual renewal or additional use permit fees of $25. All fees are non-refundable.

Penalties for violating any brush site regulations would be enforced as follows:

- First Violation - Written Warning
- Second Violation - Suspension of Permit for the Remainder of the Year
- Third Violation - Permanent Revocation of Brush Site Privileges

Fiscal Impact

City Brush Site Automation was identified as one of the projects included in the City's spending plan for available funds awarded to the City of Mequon in the American Rescue Plan Act of 2021 (ARPA). $250,000 in ARPA funding is allocated for this project. Staff expects to fully utilize the ARPA funding for the design and automation aspects of this project from account 250870-691922 Misc Expense - ARPA Grant; however, it is anticipated that parking lot expansion and paving will utilize additional funding from the City's Right-of-Way Assets Accounts, including 410780-720012-10001 (Demo/Grading) and 410780-720013-10001 (Paving/Resurfacing).

Recommendation

This information is being provided for discussion and consideration of which environmental-related strategy to move forward with.

Because staff does not have the full design completed at this time as it works through soil investigations, related DNR requirements, and environmental strategies, the design firm will assemble the construction contract bidding documents to provide the City the option of awarding a construction contract with or without a storage building and office.

Presently, it is anticipated that award of a construction contract will come back before the Common Council in November or December of this year.

Attachments:
2024.07_Proposal_Update_22820 (002) (PDF)

THE SIGMA GROUP
Single Source. Sound Solutions.

July 29, 2024 Project Reference #22820

Email: tweyker@ci.mequon.wi.us

Mr. Timothy J. Weyker
Deputy Director of Public Works
City of Mequon
11333 North Cedarburg Road
Mequon, WI 53092

Re: Updated Project Approach and Budgetary Estimate for City Brush Site Improvement Project
5880 West Bonniwell Road, Mequon, Wisconsin

Dear Mr. Weyker:

The Sigma Group, Inc. (Sigma) has prepared this updated project approach and cost estimates to obtain Wisconsin Department of Natural Resources (WDNR) approvals for the improvements proposed for the City of Mequon's (City) Brush and Yard Waste Disposal Site (Brush Site). This updated project approach is based on information provided by WDNR during a July 16, 2024, conference call and a request from the City for and updated cost estimate to complete the requisite regulatory process and environmental-related budgetary estimates for two development scenarios. The following provides a project background, the proposed regulatory approach, and two cost estimates, one for site improvements with construction of a new 2,400 SF building and one for site improvements without a building.

PROJECT BACKGROUND

The Site is an approximately 7-acre parcel historically used by the City as a landfill (Landfill Site #429). and currently used by the City as a Brush and Yard Waste disposal site. The City intends to improve the Brush Site by reconstructing 57,000 square feet of existing pavement, adding an additional 20,000 square feet of new pavement, removal and replacement of the Site's security fencing and gate to include new fencing and an automated gate system for issuing access cards/permits to residents, installation of both broad view security cameras and a license plate reader, stormwater drainage, yard waste material dividers, security lighting, and a portable restroom facility enclosure.

In addition, the City is considering construction of a new combined approximately 2,400 square foot vehicle and equipment storage facility (unheated) and approximately 150 square foot office space (heated) to house the necessary computer and control systems for the automated gate and security cameras. If the building is not constructed, it is assumed the computer and controls systems will be housed in a signal cabinet installed onsite near the gate. The project scope and design are intended to facilitate the Site being open year-round, improve access for large equipment, and provide good traffic flow.

Based on our review of the Request for Proposal, and available information related to the historic landfill, a scope and associated cost estimate for an environmental assessment was developed and submitted in the May 1, 2024, proposal with the assumption the WDNR Remediation and Redevelopment (R&R) program would have jurisdiction over the project. The proposed environmental assessment scope included reviewing available WDNR landfill permit and site environmental documentation associated with the historic landfill in preparation for a meeting with WDNR to clarify

Attachment: 2024.07_Proposal_Update_22820 (002) (9576 : Brush Site Project Overview)

which WDNR program, R&R or Solid Waste, would have lead jurisdiction over the Site and solicit WDNR input on the proposed development project.

Review of the available files related to the historic landfill and WDNR feedback during the July 16, 2024, conference call, WDNR indicated the Solid Waste program will have lead jurisdiction. Therefore, following revised scope of work and construct-related environmental budgetary cost estimates are based on the WDNR required tasks under the NR 500 regulations.

REQUSITE REGULATORY PROCESS

The applicable WDNR regulations require the preparation and submittal of an Exemption to Construction on a Historic Fill site which requires the completion of methane monitoring and a *Soil Management Plan*. The methane assessment and exemption request will be prepared in accordance with WDNR Ch. NR 500 and guidance documents *Development at Historic Fill Sites and Licensed Landfills: What You Need to Know (*RR-683), *Development at Historic Fill Sites and Development on Landfills: Guidance for Investigation* (RR-684), and Development *at Historic Fill Sites and Licensed Landfills: Considerations and Potential Problems* (RR-685).

The following outlines the activities and assumptions associated with the two proposed development scenarios.

Scenario 1 – Development with a Building:

A 2,400 square foot building with a 150 square foot office will be constructed within the limits of the landfill.

- One composite sample of historic fill/waste will be collected and analyzed by an offsite laboratory to characterize the historic fill/waste for profiling and disposal at a licensed landfill.
- Methane monitoring will be completed within the footprint of the proposed building in accordance with NR 507.22.
- WDNR approval of an exemption to construct on a historic fill site and a closure modification request will be required prior to the start of site improvement.
    - Wisconsin Administrative Code, Chapter NR 506.085 prohibits removal of existing caps and the placement of structures or other development on buried waste unless exempted in writing by the WDNR.
- The proposed building will be constructed over a portion of the site containing 6 feet of buried historic fill material that must be completely removed below the building footprint and disposed of off-site at a licensed landfill in accordance with NR 500 regulations. An estimated 540 cubic yards/855 tons of waste will require off-site management. Assumes PFAS/PFOA sampling and analysis is not required by the landfill.
- Assumes the WDNR will approve construction with an active sub-slab methane mitigation system installed below the building floor during building construction.
- Existing pavement will be removed and replaced.
- An additional 20,000 square feet of new pavement will be installed.
- Site access and security will be upgraded including a new gate and associated fencing and security cameras.
- WDNR document review fees are included.

Attachment: 2024.07_Proposal_Update_22820 (002) (9576 : Brush Site Project Overview)

Scenario 2 – Development Without a Building:
A building will not be constructed, and the security controls system will be installed within a cabinet mounted on a pole.

- One composite sample of historic fill/waste will be collected and analyzed by an offsite laboratory to characterize the historic fill/waste for profiling and disposal at a licensed landfill.
- Methane monitoring will be completed within the area of the proposed additional paved area, fence, and underground utility installation in accordance with NR 507.22.
- WDNR approval of an exemption to build on a historic fill site and a closure modification request will be required.
    - Wisconsin Administrative Code, Chapter NR 506.085 prohibits removal of existing caps and the placement of structures or other development on buried waste unless exempted in writing by the WDNR.
- Site access and security will be upgraded including a new gate and associated fencing and security cameras.
- The existing pavement will be removed and replaced.
- An additional 20,000 square feet of new pavement will be installed.
- Security control systems will be installed in an above ground signal cabinet mounted on a pole meeting control system manufacturer specifications.
- Installation of the signal cabinet and security systems will generate less than 20 tons of historic fill/waste material.
- A sub-slab methane mitigation system will be required.
- WDNR document review fees are included.

ENVIREONMENTAL-RELATED BUDGETARY COST ESTIMATES
Itemized details of the environmental cost estimates are attached. In summary,

Scenario 1 - Development **with** a Building	$164,950
Scenario 2 - Development **without** a Building	$20,250

We would appreciate the opportunity to discuss the regulatory process and assumptions for these estimates at your earliest convenience. We will contact you to arrange a time.

Respectfully Submitted,

THE SIGMA GROUP, INC.

Paul Rohde, P.G.
Geoscience Group Leader
(414) 643-4134
prohde@thesigmagroup.com

Kristin Kurzka, P.E. P.G.
Vice President
(414) 643-4127
kkurzka@thesigmagroup.com

Attachments – Budgetary Cost Estimates
Cc: John Edelbeck, Sigma

Attachment: 2024.07_Proposal_Update_22820 (002) (9576 : Brush Site Project Overview)

Budgetary Estimate - With Construction of a 2,400 Square Foot Building
City of Mequon Brush Site
5800 Bonniwell Road
Sigma Project 22820
July 19, 2024

Site Characterization Sampling - Waste thickess determination, NR 500 Exemption to Construct on a Historic Fill Site and Waste Characterization Sampling Task includes advancing 2 borings in the footprint of the proposed 2,400 SF building to determine the thickness of waste material from the former landfill, collection of 1 composite waste/soil sample from 2 soil borings advanced in footprint of the proposed building to support preparation of waste profile to faciliate disposal of waste generated during building construction and gate installation or pavement replacement. Also includes 2 soil borings for installation of methane monitoring points in footprint of the proposed building. Includes drilling costs, laborartory analytical, methane monitoring point installation, methane monitoring, associated project management and correspondence. Assumes any waste generated during drilling will be containerized onsite for disposal during building construction.	***Subtotal***	***$ 9,500***
Reporting - NR 500 Exemption to Construct on a Historic Fill Site Prepare an NR 500 compliant exmption request to construct on a historic fill site utilizing available historical information on the landfill and data collected during site characterization sampling	***Subtotal***	***$ 5,000***
Reporting - WDNR 4400-237 Closure Modification Request Prepare and submit WDNR Form 4400-237 for a closure modification request due to changes to the site cap.	***Subtotal***	***$ 3,000***
Construction Support - Waste Excavation and Offsite Disposal Includes preparation of a waste profile for offsite disposal of waste buried beneath the footprint of the 2,400 SF building. Excavation and offsite disposal is required by the WDNR solid waste division. Includes oversight of waste exacation, transportation, and offsite disposal for documentation in a Remediation Action Documentation Report (RADR). Assumes waste below the building footprint is 6 feet thick and can be disposed of as non-hazardous. Includes import and placement of structual backfill below the building footprint. ***PFAS/PFOA analytical testing (if required)***		$ 600
	Subtotal	***$ 113,000***
Construction Support - Methane Mitigation System Design, Installation, Comissioning and Reporting Based on the historical site use as a landfill it is assumed that elevated methane is present in the subsurface and a methane mitigation system under the proposed building is recommended. The budgetary estimate includes the design, installation, oversight during the installation, and three quarters of testing/sampling as required by the WDNR for system commissioning. Details of the waste excavation and the methane mitigation system would be presented to WDNR in a Remedial Action Documentation Report (RADR).	***Subtotal***	***$ 33,700***
Field Task - NR 141 Methane Monitoring Probe Abandonment The 2 methane monitoring points will be abandoned in accordance with NR 141.25, this includes preparation of WDNR Form 3300-005.	***Subtotal***	***$ 750***
	TOTAL BUDGETARY ESTIMATE	**$ 164,950**

Notes and Assumptions

The budgetary estimate is based on professional judgment, similar project experience, and current knowledge of the existing Site conditions and current conceptual design plan.

Estimate is based on conceptual site plan of adding 20,000 square feet of pavement, repaving existing asphalt areas, installation of upgraded site security and access gate and associated components.

Estimate assumes construction of a 2,400 SF building including a 150 SF climate controlled office.

Assumes WDNR solid waste (NR 500) division regulations apply and does not include costs for WDNR remediation and redevelopment (NR 700) requirements.

Assumes WDNR approves construction of the building.

Assumes drilling for installation of all geotechnical and environment borings and methane monitoring points are completed on the same day (10 hours) for cost savings.

Assumes 4 methane monitoring events using hand held instrument.

Geotechnical drilling contractor costs are included in the May 1, 2024, proposal but are not included in this environmental cost estimate.

Excavated waste material will be disposed of offsite at a licensed landfill. Cost includes excavaiton, transportation and landfill tipping fees.

Assumes a maximum of 6 feet of waste material is present below the building footprint.

Assumes the total volume of waste material requiring off-site disposal is approximatley 620 cubic yards/955 tons. Includeing a 15% contingency.

Backfill costs to based of methane system included.

includes 4-inches of clean and washed stone placed below building floor for installation of methane mitigation system.

Does not include development-realted (including building) construction costs.

Does not include costs for geotechnical improvements to soil.

Waste disposal costs assume waste is non-hazardous and does not contain PFAS/PFOA.

Attachment: 2024.07_Proposal_Update_22820 (002) (9576 : Brush Site Project Overview)

Budgetary Estimate - Improvements Without Building
City of Mequon Brush Site
5800 Bonniwell Road
Sigma Project 22820
July 19, 2024

Site Characterization Sampling - NR 500 Exemption to Construct on a Historic Fill Site and Waste Characterization Sampling			
Task includes collection of 1 composite waste/soil sample from 2 soil borings advanced in area of new fence/gate to support preparation of waste profile to faciliate disposal of waste generated during fence and gate installation or pavement replacement. Also includes 2 soil borings for installation of methane monitoring points in area of gate, fencing and utility installation. Includes drilling costs, laborartory analytical, methane monitoring point installation, methane monitoring, associated project management and correspondence. Includes an allowance of $2,000 for offsite disposal of waste			
PFAS/PFOA analytical testing (if required)		$	600
	Subtotal	***$***	***9,500***
Reporting - NR 500 Exemption to Construct on a Historic Fill Site			
Prepare an NR 500 compliant exmption request to construct on a historic fill site utilizing available historical information on the landfill and data collected during site characterization sampling			
	Subtotal	***$***	***5,000***
Reporting - WDNR 4400-237 Closure Modification Request and Remedial Action Documentation Report			
Prepare and submit WDNR Form 4400-237 for a closure modification request and an NR 724 compliant remedial action documentation report (RADR).			
	Subtotal	***$***	***5,000***
Field Task - NR 141 Methane Monitoring Probe Abandonment			
The 2 methane monitoring points will be abandoned in accordance with NR 141.25, this includes preparation of WDNR Form 3300-005.			
	Subtotal	***$***	***750***
	TOTAL BUDGETARY ESTIMATE		**$20,250**

Assumptions

The budgetary estimate is based on professional judgment, similar project experience, and current knowledge of the existing Site conditions and current conceptual design plan.

Estimate is based on conceptual site plan of adding 20,000 square feet of pavement, repaving existing asphalt areas, installation of upgraded site security and access gate and associated components.

Estimate assumes no building will be constructed.

Assumes WDNR solid waste division (NR 500) regulations apply and does not include costs for WDNR remediation and redevelopment (NR 700) requirements.

Assumes 1 day of drilling for installation of all geotechnical and environment borings and methane monitoring points (10 hours)

Assumes 4 methane monitoring events using hand held instrument.

Does not include development-related improvement costs.

Does not include costs for geotechnical improvements to soil.

Geotechnical drilling costs not included in this estimate.

Waste disposal cost assumes waste is non-hazardous and waste does not contain PFAS/PFOA

Attachment: 2024.07_Proposal_Update_22820 (002) (9576 : Brush Site Project Overview)

COMMITTEE OF THE WHOLE PLANNING CALENDAR - 2024

ITEM	PRINCIPAL	TIME
January 9		
Community Development Operational Analysis	Tollefson	30
February 13		
South Central Zoning Options	Tollefson	45
March 12		
Updated FEMA Floodplain Maps & DNR Model Floodplain Ordinance	Zader	60
April 9		
2022 Compensation Analysis Implementation	Schoenemann	40
Updated FEMA Floodplain Maps & DNR Model Floodplain Ordinance	Zader	20
May 14		
Port Washington Road Streetscape Design Update	Tollefson	30
Port Washington Road Real Estate Market Analysis Update	Tollefson	30
June 11		
SOFD Update	Bialk	30
July 9		
Financial Policies Update/Fund Balance Discussion	Jones	45

Attachment: COTW PLANNING CALENDAR (9595 : COTW calendar)

COMMITTEE OF THE WHOLE PLANNING CALENDAR - 2024

ITEM	PRINCIPAL	TIME
August 13		
Lakeshore Bluff Construction	Tollefson	30
Port Washington Road Real Estate Market Analysis Update	Tollefson	30
Mequon Town Center Public Improvements/Signage	Tollefson	10
Brush Site Project Overview	Lundeen	20
September 10		
2025 Community Survey	Schoenemann	45
Land Management System Update	Project Team	30
October 8		
Right-of-Way Asset Management Study Update	Lundeen	45
Electronic Poll Books	Fochs	15
November 12		
Parks Master Plan Update	Gies	45
American Recovery Plan Act Update	Jones	15
December 10		
Facilities Study Update	Lundeen	60
Future/Other Policy Items for Discussion/Consideration/Analysis		
Employee Handbook; Fleet Study Update, 5-Year CIP; SW Industrial, I-43 Update		

Attachment: COTW PLANNING CALENDAR (9595 : COTW calendar)