City of Mequon

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Office of the City Clerk
Taped and Televised

SPECIAL COMMITTEE OF THE WHOLE
Thursday, September 9, 2021
7:00 PM
or Immediately Following the
Mequon Municipal Water Utility Commission Meeting
Christine Neurnberg Hall

Agenda

1. **Call to Order, Roll Call**

2. **Discussion**
   a. Policy Discussion Related to Wisconsin Department of Transportation Approval of Proposed Pedestrian and Traffic Safety Improvements Along Mequon Road from Buntrock Avenue East Towards Cedarburg Road

3. **RESOLUTION 3876** - A Resolution Approving a State/Municipal Maintenance Agreement (SMMA) and a State/Municipal Financial Agreement (SMFA) for the Installation of a Traffic Signal at County Line Road and Port Washington Road

4. **Adjourn**

Dated: September 9, 2021 */s/ John Wirth, Chair*

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.

City of Mequon

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www.ci.mequon.wi.us **Office of Engineering**

TO: **Committee of the Whole**
FROM: **Kristen Lundeen, Director of Public Works/City Engineer**
DATE: **September 9, 2021**
SUBJECT: **Policy Discussion Related to Wisconsin Department of Transportation Approval of Proposed Pedestrian and Traffic Safety Improvements Along Mequon Road from Buntrock Avenue East Towards Cedarburg Road**

Background

The City of Mequon is requesting Wisconsin Department of Transportation (WisDOT) approval of modifications to the Ozaukee Interurban Trail (OIT) crossing and sign, speed limit and cross section modifications to the Mequon Road corridor between Buntrock Avenue and Cedarburg Road. WisDOT approval is required due to this corridor's designation as a Connecting Highway.

In 2020, the Common Council reviewed several design solutions to a potential public safety issue at the OIT crossing on Mequon Road. The Council ultimately selected a "Danish Crossing" design with a widened sidewalk west to Weston Drive. In addition to the crossing design, the Council requested the installation of flashing beacon signage at the crossing, dynamic speed board, decorative fencing and landscaping within the median, a speed limit reduction, and a narrowed cross section throughout the corridor.

The Council also authorized a traffic impact analysis (TIA) for the design of a traffic signal at Weston Drive and subsequently a design contract for construction plans (the referenced TIA can be read here: <https://www.ci.mequon.wi.us/sites/default/files/fileattachments/public_works/page/19921/weston_drive_traffic_signal_tia.pdf>.

The concept plan (attached) and TIA were submitted to WisDOT, who subsequently provided partial approval of the request. The attached memo from Batterman outlines the status of each aspect of the request.

Analysis

The goal of this memo is to outline the policy decisions that are required prior to authorizing design for the project. The previous concept approved by the Committee of the Whole was not ultimately approved by WisDOT, therefore the City must determine how to proceed. After the policy decisions are made, and pending any further WisDOT or railroad approvals required, Batterman will proceed with the design.

WisDOT approved two options for the Mequon Road and Buntrock Avenue intersection, and the Common Council should designate its preference for design:

1. *Installation of a traffic signal or a restricted median access on Mequon Road at Weston Drive.*

Based upon WisDOT's letter, the following items were not approved and require further

discussion:

2. *Narrowing the cross section of the corridor by 8', with exceptions for turn lanes.*
3. *Requested lengths of the turn lane.*
4. *Installation of Rectangular Rapid-Flashing Beacons (RRFB) at the OIT crossing.*

While not requested, WisDOT also included the following as a condition of approval:

5. *Elimination of the median opening by MTC1.*
6. *"Do Not Stop on Tracks" signage shall be installed east of the railroad crossing for the westbound traffic on the east approach.*

As a note, WisDOT also did not authorize the requested reduction in speed limit. It is staff's understanding that a speed limit reduction would only be considered when the speed of the traveling motorists decreases. In other words, utilizing the engineering standard for speed limits whereby the limit is set at the 85th percentile of the speed of traveling vehicles, the speed limit would only be reduced when the traffic travels at less than 40 miles per hour. Introducing traffic calming elements which require vehicular traffic to slow will assist in that goal. Therefore, the recommended design elements are consistent with those methods that would result in consideration of a speed limit reduction in the future.

1. ***Installation of a traffic signal or a restricted median access on Mequon Road at Weston Drive.***

   Common Council authorized the request for a traffic signal at Weston Drive, which was approved with the condition of specific turn lane lengths. While the turn lane lengths are longer than requested and have the potential to impact private property (see analysis under #2 below), staff continues to advocate for the installation of the traffic signal, which is further supported by the TIA.

   WisDOT also approved an alternate for the construction of a restricted access (not shown on the staff concept, but included as Attachment 2C of the Batterman memo). The restricted median access functions exactly as indicated; it restricts access. While it may provide some additional safety for the pedestrian or bicyclist, it complicates access for vehicles to adjacent businesses. While not analyzed in the TIA, staff is concerned about the potential for vehicles to seek other means to turn around or access/egress for adjacent businesses. For new or infrequent visitors, the lack of access options could prove unsafe, as motorists navigate missed or wrong turns in pursuit of its destination. Staff does not view the restricted access as safer for pedestrians and bicycles. Staff advocates for the median to remain open and provide access to adjacent businesses, in accordance with the traffic impact analysis.

   Staff recommends the installation of the traffic signal, consistent with the initial request and WisDOT approval. Staff further recommends that signals and the infrastructure associated with the traffic signal be designed in conformance to Town Center Design Standards, including fluted posts and decorative finials in all black.

   POLICY DECISION: The Common Council must determine whether the design should include a traffic signal or restricted access at the Weston Drive and Mequon Road intersection.

2. ***Narrowing the cross section of the corridor by 8', with exceptions for turn lanes.***

   Per WisDOT: "The existing eight-foot auxiliary/right-turn lane will be allowed to be

reduced to a five-foot bike accommodation between Buntrock Avenue and WIS 57 (Cedarburg Road). . .”

Staff notes that the intent of the narrowing of the cross section was to serve as traffic calming and slow vehicular flow and advocates for implementation. By bringing the streetscaping and curb line closer to the vehicles for off road pedestrian and bicycle features, but keeping a grade and terrace separation, vehicles typically slow out of caution. It also provides an opportunity for increased greenspace for landscaping and streetscaping.

At the time the concept plan was approved, the Common Council requested the inclusion of a 10’ wide multi-use trail between the OIT crossing and Weston Drive on both the north and south sides of the roadway. The intent was to provide a safe, off-road option for bicyclists to cross at a signalized intersection, in lieu of the Danish Crossing. While WisDOT did not require the path, the result of the required dedicated bicycle lanes results in the multi-use path constructed right at the edge of road, eliminating any terrace or buffer between the road traffic and any room for streetscaping between the path and private property.

Please note that currently there is no buffer or bicycle accommodation between the travel lanes and the auxiliary lane. By WisDOT requiring a dedicated bicycle lane throughout the corridor, the turn lanes would subsequently be pushed out, potentially impacting private property and/or recently installed infrastructure.

Mequon Road to the east and west of this corridor do not have dedicated on street bicycle facilities. The City of Mequon has an ordinance which allows for bicycles to ride on the sidewalk, in lieu of providing on road bike facilities.

POLICY DECISION: As WisDOT approved a narrowing less than the request, the Common Council should consider whether to reduce the width of the requested multi-use path to minimize impact on private property and traffic calming, appeal the determination on the narrowing or request that the existing cross section be maintained.

3. Requested lengths of the turn lane.

“. . .except at locations stated below.”

The exceptions to the allowance for a reduced cross section are for the turn lanes throughout the corridor. Several of the turn lanes were approved at lengths longer than recommended by the TIA or requested by the City. If the Common Council determines the design should include the reduced cross section, staff recommends that it appeal the turn length requirements at the Buntrock Avenue and Weston Drive intersections.

POLICY DECISION: The Common Council should determine whether to appeal the lengths of those designated turn lanes that exceed that of the request and TIA.

4. Installation of Rectangular Rapid-Flashing Beacons (RRFB) at the OIT crossing.

WisDOT denied the installation of the requested signage as follows: Rectangular Rapid Flashing Beacons will not be allowed to be installed at this crossing due to visual conflicts with the railroad crossing signals. Instead, the WisDOT approval includes the requirement to install R1-5 YIELD HERE TO PEDESTRIANS sign with yield pavement markings.

Council previously indicated that this was a strong request. If that is still the case, it should

be included in an appeal to WisDOT.

POLICY DECISION: The Common Council should determine whether to appeal the denial of the RRFB installation.

5. ***Elimination of the median opening by MTC1.***
While not requested or shown in the submittal to WisDOT, the approval indicated that the median opening in the turn lane for eastbound traffic at Cedarburg Road, adjacent to MTC1, would be required to close. Eastbound motorists use this median opening to complete a U-turn to access MTC1 as an alternative to turning northbound on Cedarburg Road and traveling through the City Hall parking lot to access MTC1 from the north. Closing the median eliminates this option and restricts that turning movement.

If Council advocates for the median opening to remain, it would be included in an appeal to WisDOT.

POLICY DECISION: The Common Council should determine whether to appeal the closure of the median adjacent to MTC1.

6. ***"Do Not Stop on Tracks" signage shall be installed east of the railroad crossing for the westbound traffic on the east approach.***
As a part of the project design, staff advocates for a review of existing signage to determine if the signage can be streamlined. Sign "noise", or the introduction of more signage than the motorist can register or react to, is counterproductive. Ensuring that the corridor has the appropriate amount of regulatory signage, meeting Town Center standards, is a priority.

POLICY DECISION: The Common Council should determine whether to appeal the mandate to install the signage.

Fiscal Impact

The Batterman memo outlines the fiscal impact of the basis for design. Please see page 3 of the attached report. The engineer's estimate based upon WisDOT's approval of the total cost for the traffic signal and crosswalks, corridor narrowing and the OIT median streetscape is approximately $1.5M. Please note that as recommended at the Town Center Workshop, the following elements should also be included in the final construction plans at a total of $1.625M:

- Medians between Buntrock Avenue and the Milwaukee River, $13k
- Fence installation at the cemetery, $70k
- Milwaukee River Bridge, $17k
- Mequon Road right-of-way north, $72k
- Mequon Road right-of-way south, $72k
- Entryways, $78.5k
- Overhead utility burial, $1.3M

Recommendation

The approval letter from WisDOT indicates that a permit will not be required from the Department to construct the improvements within the Connecting Highway Limits on WIS 167. Any improvements to be constructed outside of the Connecting Highway Limits on WIS 167 will require a permit from the Department. Plans for areas within and outside of the Connecting Highway Limits shall be submitted to the Department for review and concurrence with the

requirements of this letter prior to construction.

Staff recommends that the City go back to WisDOT to request that the approval include the following:

1. Installation of the RRFBs at the OIT crossing, or installation of alternate enhanced pedestrian signage of the same scale and intent.
2. Permission to leave the median opening at MTC1.
3. If the road narrowing is approved, request for justification and if available, reconsideration of reduced dedicated turn lanes, specifically east and westbound at Buntrock Avenue and Weston Drive.

In addition, staff recommends that the proposed 10-foot multi-use path be removed from the design. The installation of a multi-use path was intended to provide an alternate bicycle access from the OIT to the signalized intersection, without crossing Mequon Road at the uncontrolled location. The ultimate design should balance competing public safety considerations. The review of safety includes those patrons of the adjacent developments, including the outdoor seating area at St. Paul Fish and Café Hollander, pedestrians and bicyclists traveling along Mequon Road, pedestrians and bicyclists traveling on the OIT, and vehicles. Providing a physical separation of the sidewalk/path from the travel or turn lanes through the curb and terrace area is important. If the multi-use trail is constructed on the north side of the road, the result would be similar to the bridge over Mequon Road, where pedestrians and bicycles would travel right against the vehicular traffic. Maintaining the current width of the sidewalk so that a terrace area can be constructed provides a visual separation between the two.

Alternatively, it could be constructed on the south side of the road only, or potentially at 8’ wide, which meets the technical requirements to serve as a multi-use path.

As City ordinances already allow bicycles on sidewalks and with the impact of multi-use path construction on existing development, the path on the north side is not recommended. The construction of a widened path on the south side can still provide the duplicate Mequon Road Crossing and be off-road, as requested by the Council.

Next Steps

If Common Council approves the project’s design in conformance to the letter from WisDOT, staff will issue a Notice to Proceed to Batterman to move forward with design.

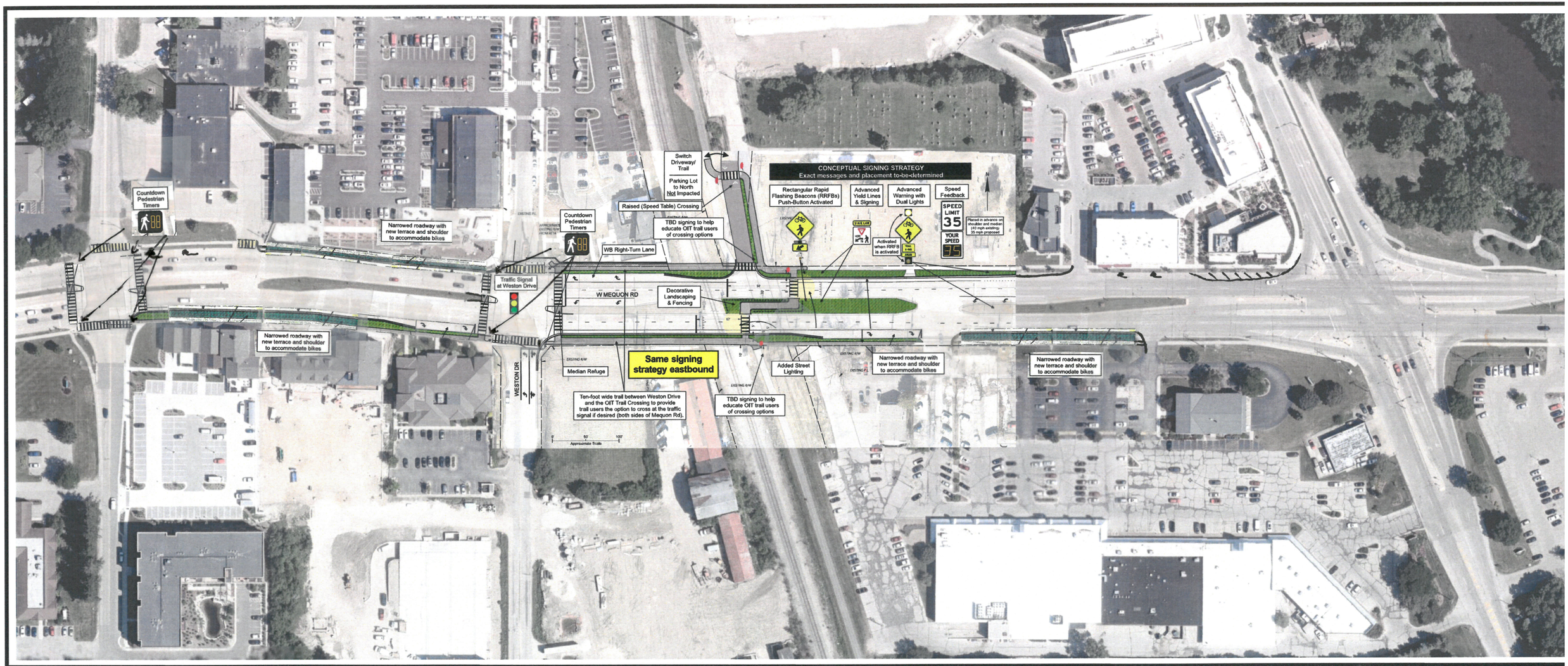
If Common Council approves a project design that does not conform to the letter from WisDOT, a revised concept will be submitted to WisDOT for consideration. Please note that the request could trigger an additional 90-day review period for WisDOT, which will impact the timeline for design.

In addition to these policy initiatives, staff will work with Batterman through the design process to accomplish the following:

- Coordination of this design and construction with the utility burial request through We Energies.
- Incorporation of the sign package review, as included in the Town Center Workshop and per Resolution 3850.
- Design of streetscape elements conforming to Town Center Design standards, specifically sign posts and framing and traffic signal infrastructure.
- Incorporation of additional streetscaping improvements that were contemplated in the May Town Center Workshop.

- Incorporation of pedestrian push buttons and above ground traffic signal infrastructure that complements the aesthetic design of surrounding developments.

Attachments:
Staff Concept for WisDOT (PDF)
Batterman Mequon Road TIA Summary Review Memo (PDF)



TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2479 – 7-02-2020

EXHIBI
CONCEPTUAL MEQUON ROAD OIT CROSSI
STAGGERED OFFSET WITH OPTION TO CROSS AT SIGN
MEQUON, WISCON

Attachment: Staff Concept for WisDOT (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Batterman
engineers surveyors planners

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MEMORANDUM

To	Kristen Lundeen, Director of Public Works/City Engineer	Pages 6 + Attachments
Cc		
Subject	WIS 167 (Mequon Road) Corridor Modifications	
From	Todd Needham, P.E	
Date	September 1, 2021	

This memo provides a summary review of a recently issued WisDOT response dated Jun 17, 2021, to a Traffic Impact Analysis (TIA) prepared by Traffic Analysis & Design (TADI) dated December 7, 2020, for proposed improvements to WIS 167 (Mequon Road) required in part due to improvements the Mequon Town Center & Foxtown Developments. The purpose of the proposed improvements is to increase pedestrian and bicycle safety along the corridor between Buntrock Avenue and Cedarburg Road (WIS 57), The project is also part of the Town Center & Foxtown Development initiatives, including the implementation of Town Center design standards.

Staff Concept Improvements vs. WisDOT Allowable Improvements

The TIA analyzed both Background Traffic (pre-development traffic) as well as Build Traffic, which is traffic generated due to the eventual full buildout of planned improvements to the Mequon Town Center and Foxtown Developments. The study area includes the following eight (8) intersections:

- Mequon Road & Buntrock Avenue
- Mequon Road & Weston Drive
- Mequon Road & parking lot/West River Centre Driveway
- Mequon Road & Center River Centre Driveway
- Mequon Road & East River Centre Driveway
- Mequon Road & MTC I driveway
- Mequon Road & Cedarburg Road
- Mequon Road & Ozaukee Interurban Trail Crossing

The above intersections are identified in corridor over map previously prepared by TADI in Attachment 1 to this memo.

The following summarizes the allowable improvement measures as detailed in the 6/17/21 WisDOT response letter at each of the above intersections, and also notes variations from the Staff Concept Improvements:

- *Mequon Road & Buntrock Avenue*
  - Redesignate the northbound and southbound approach lanes on Buntrock Avenue to include a left-turn lane and shared through/right-turn lane.
    - North Approach – 50’ left turn lane storage
    - South Approach – 100’ left turn lane storage
  - Convert the westbound auxiliary lane at Buntrock Avenue into a right-turn lane.
    - 225’ right turn lane storage (*TIA recommended 130’ right turn lane storage)*

- *Mequon Road & Weston Drive (Traffic Signal Option)*
  - Convert the eastbound auxiliary lane at Weston Drive into a right-turn lane (150’ storage).

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

- Convert the westbound auxiliary lane at Weston Drive into a right-turn lane (125' storage).
- Redesignate the northbound and southbound approach lanes on Weston Drive to include a left-turn lane and shared through/right-turn lane.
  - South Approach – 125' left turn lane storage
  - North Approach – 50' left turn lane storage
- Install actuated traffic signals with westbound protected/permitted left-turn indications, pedestrian countdown timers, and both emergency vehicle preemption and railroad preemption.
- Coordinate the signal with the adjacent signals at Buntrock Avenue and at Cedarburg Road
- Signals to include retroreflective backplates on signal heads along WIS 167

- *Mequon Road & Weston Drive (Restricted Median Option – not considered in TIA)*
  - Convert the eastbound auxiliary lane at Weston Drive into a right-turn lane (150' storage).
  - Convert the westbound auxiliary lane at Weston Drive into a right-turn lane (125' storage).
  - The north approach shall have one exclusive southbound right turn lane
  - The south approach shall have one exclusive northbound right turn lane
  - The median shall be reconstructed to prohibit northbound and southbound through and left-turn movements

- *Mequon Road & public parking lot/West River Centre Driveway*
  - Close the West River Centre Driveway to Mequon Road so that an eastbound right-turn lane can be provided at the Center River Centre Driveway.

- *Mequon Road & Center River Centre Driveway*
  - Convert the eastbound auxiliary lane at the Center River Centre Driveway into a right-turn lane (150' storage)

- *Mequon Road & East River Centre Driveway*
  - Convert the eastbound auxiliary lane at the East River Centre Driveway into a terrace with bicycle lanes.

- *Mequon Road & MTC I driveway*
  - Convert the westbound auxiliary lane at the Center River Centre Driveway into a right-turn lane (150' storage).

- *Mequon Road & Cedarburg Road*
  - Close the Mequon Road median opening located just west of Cedarburg Road and extend the eastbound left-turn lane (275' storage).
  - If feasible, extend the westbound left-turn lane onto the bridge over the river.

- *Mequon Road & Ozaukee Interurban Trail (OIT) Crossing*
  - Reconfigure the existing OIT crossing to a staggered configuration ("Danish Crossing").
  - Rectangular Rapid Flashing Beacons (RRFB) will not be allowed to be installed due to visual conflicts with the railroad crossing signals. I have asked the Department if this decision came from them or the railroad, and if there is a process to review the decision, but have not yet heard back from them.
  - Install multi-use path from OIT crossing west to Weston Drive intersection.
  - Dynamic speed signs may be installed by City if desired however a speed reduction will not be allowed. I have reached out to WisDOT to inquire if there is an avenue to formally revisit or contest this decision but have not yet heard back from them. John Bieberitz of TADI has indicated based on his previous coordination with the Department for this project that a speed reduction is highly unlikely to be granted at this location.
  - Install fencing at new crossing which does not block the view of passenger cars of oncoming trains.

The Staff Concept also requested that the existing 8' wide auxiliary be eliminated and converted to a wider terrace to allow for greater off-road pedestrian and bicycle accommodations. WisDOT will only allow a 3-foot reduction of the existing 8-foot auxiliary lane to allow space for a 5-foot on-road bike lane. It is noted that dedicated on road bicycle lanes are not provided east or west of this study area, however the auxiliary lanes are present in both directions which can accommodate bicycles on the road.

See the Attachments to this memo for illustrations of the Staff Concept, WisDOT Approved Concept, and comparisons of both.

Engineer's Opinion of Probable Costs

Detailed design has not been completed, however conceptual cost estimates for the two main corridor improvement scenarios and the OIT Danish crossing have been developed and are included in Attachment 3. The following provides a summary of the estimated improvement costs:

- Maintain WIS 167 Roadway Width, Add Signals at Weston: $786,900
- Narrow WIS 167 Roadway Width, Add Signals at Weston: $1,170,053
- OIT Danish Crossing: $337,575
- WIS 167 Restricted Median at Weston Drive: $186,248

Please note the above cost estimates assume all improvements will be constructed concurrently without separating into smaller phased projects. Additionally, the above pricing only reflects an estimate of improvements specifically required for the various alternatives of this project, and does not include additional costs such as milling/overlaying the Mequon Road. It is understood WisDOT is in the planning/design stage of a roadway improvement project for WIS 167. Additional coordination with the Department would be prudent once the preferred alternative for the City project is selected.

Phasing Options for Proposed Improvements

Phasing of the proposed overall improvements is possible, however unless required due to fiscal restraints it is not recommended. Work on any portion of the corridor (Buntrock or Weston intersections, OIT crossing, or corridor narrowing) will have an impact on local businesses, patrons, and the traveling public. Breaking up the overall project into smaller phases will ultimately extend the timeframe of interruption for the public, and it will also increase overall costs. Contractors will generally provide more aggressive pricing for a larger project versus a smaller project, and mobilization costs will surely be much higher with a longer time frame/phased project.

Project Schedule Discussion

The city has indicated a potential interest in beginning construction on a portion of the proposed improvements this year; however, given there is approximately only ten weeks left in this year's construction season, there is not ample time for design, review, permitting and soliciting for contractor bids.

That said, the following provides a conceptual design and approval schedule scenario for the City's consideration.

City Authorizes Full Design of Preferred Alternative:	9/9
Batterman Commences Preliminary Design:	9/13
Batterman submits 60% Design to Mequon for Review:	11/5
Design Review Meeting w/ Mequon:	11/10
Batterman Commences Final Design	11/15
Request Utility Work Plans:	11/15
Batterman Submits to City/WisDOT/railroad for Approval:	12/10

Receive City/WisDOT/railroad comments:	1/14
Batterman Completes Revises Design per City/WisDOT/railroad comments:	1/28
Batterman Receives Authorization to Advertise Project for Bid	2/8
First Legal Advertisement in Newspaper:	2/17
Second Legal Advertisement in Newspaper:	2/24
City Receives Bids:	3/4
City Awards Project:	3/8
Contractor Executes Contract and Provides Bonds:	Mid-March
Commence Construction:	April

The above schedule allows approximately one month for WisDOT and railroad review, however there is no way to predict how much time actual reviews will take. This would be the quickest possible schedule, however the railroad can be especially difficult to complete timely coordination with, so the City should be aware this schedule is subject to change. Additionally, if real estate is required, depending on the preferred alternative, additional time may be required to properly secure FEE, Permanent Limited Easements (PLE) or Temporary Limited Easements (TLE). Real estate activities could add three months or more to the project delivery process, depending on the complexity of the acquisitions. The construction schedule could also be delayed depending on the scope of required utility relocations.

Real Estate and Utility Impacts

Several locations have been identified where private property may be impacted by proposed improvements.

Per the WisDOT TIA review memo, although dedicated right turn lanes may be constructed to only 10' wide, they must also include a "slotted" 5' wide bicycle lane in between the turn lane and through lane, making a 15' wide combined lane. Meeting this requirement for the westbound to northbound right turns at both the Buntrock Avenue intersection and the Weston Drive intersection will require the existing curb line to move north into the terrace.

At the Buntrock Avenue intersection, a narrow grass terrace can be reduced to accommodate the new curb line, however improvements to the sidewalk may also be required depending on how much of the terrace will need to be removed. The existing sidewalk appears to meander in and out of the right of way line as shown by GIS linework, and therefore additional survey and possibly a records or title search for the parcel may be required to completely understand private property impacts. Since this parcel is owned by the City of Mequon, it is assumed necessary coordination can be completed to acquire easements if necessary.

A similar scenario exists at the northeast quadrant of the Weston Drive intersection. The proposed 15' wide turn/bike lane will require the existing north curb line be moved further north. There is also a narrow grass terrace at this location which could be reduced or eliminated to accommodate the widened turn/bike lane. However, several utilities are currently located within the terrace, including a fire hydrant, a fiber optic hand hole, and a streetlight, all of which would require relocation. Since the utilities are located within the public right of way, the relocation efforts should not require compensation by the city. Additionally, if the sidewalk is converted to a 10' wide multi-use path to provide an alternate crossing of the OIT trail (through the signalized Weston Drive intersection) in accordance with the WisDOT recommendation, then existing private property impacts may also come into play at the St. Paul Fish Company parcel. Newly constructed (2018/2019) improvements on private property in the form of sidewalks, landscaping and a small retaining wall could be impacted. It is noted that additional right of way in the form of fee or easement may have been acquired as part of the development of the St. Paul Fish Company parcel which may reduce impacts.

Providing an alternate OIT crossing of Mequon Road through the Weston Drive signalized intersection also creates a potential real estate and utility issue along the south side of Mequon Road, east of Weston Drive. The existing terrace between the curb and sidewalk between Weston Drive and the OIT crossing is approximately 10' wide. However, there is also a railroad crossing crossbuck and light foundation between the curb and sidewalk, and overhead electric utility poles immediately behind the existing sidewalk just west of the driveway opening for the parcel. There may not be sufficient room to install the proposed 10' wide

multi-use path without some narrowing of the existing Mequon Road through this area. A possible alternative may include narrowing the path to 8' (minimum width to still be considered a path). I have also reached out to WisDOT to specifically request that a full narrowing (8') be considered through the railroad crossing area due to the complexities associated with constructing a path from the OIT crossing to Weston Drive. This may be a critical decision from WisDOT.

Other areas where real estate impacts may arise are:

- Southwest and southeast corners of Buntrock Avenue intersection
  - Existing sidewalk appears to cross into private property
  - Should sidewalk upgrades be required to meet ADA requirements, a review of the right of way will be required, including the potential to secure permanent easements
- Southwest and southeast corners of Weston Drive intersection
  - Existing sidewalk appears to cross into private property
  - Should sidewalk upgrades be required to meet ADA requirements, a review of the right of way will be required, including the potential to secure permanent easements
- Opitz Cemetery
  - Proposed work associated with swapping the existing driveway along the west side of the cemetery with the OIT multi-use path will require work within the cemetery property. Since this is a city owned property, that will be helpful. However, as part of the WDNR coordination and permitting, we may be required to engage with an archaeology/history subconsultant due to the proximity of the ground disturbance to the graves.

Please note that no right of way research, title policy review, boundary work, platting or real estate was included in the contract. Once a preferred design alternative is agreed upon by the city, a detailed review of additional survey and real estate coordination will be completed, and additional fees will be provided for City review.

Decision Points

Although a significant portion of the Staff Concept requested improvements have been conceptually approved by WisDOT (pending review of final design and securing proper permits), several elements are not being authorized by WisDOT, summarized as follows:

- Eliminating the existing 8' auxiliary lane to provide for a larger terrace and/or bicycle pedestrian accommodations is not being allowed (WisDOT will allow a 3' narrowing of Mequon Road)
- Speed Limit Reduction is not being allowed (although speed limit feedback signs are being allowed)
- Rectangular Rapid Flashing Beacons (RRFB) are not being allowed at the OIT crossing

In addition, WisDOT is requiring that on road bicycles be accommodated throughout the corridor, which will likely impact private property and utilities in some locations as called out on the various exhibits.

Here are several decision points that the city should consider as part of moving this project forward:

- Will the city accept the WisDOT recommendations, or request some decisions be revisited?
  - The schedule included above does allow *some* time for further discussions with WisDOT, however spending additional months coordinating with WisDOT for items prior to commencing design will negatively impact the overall schedule.
  - Real estate, utility coordination, and railroad coordination can be very time consuming, so the sooner full design commences the better the opportunity to bid early in the spring.

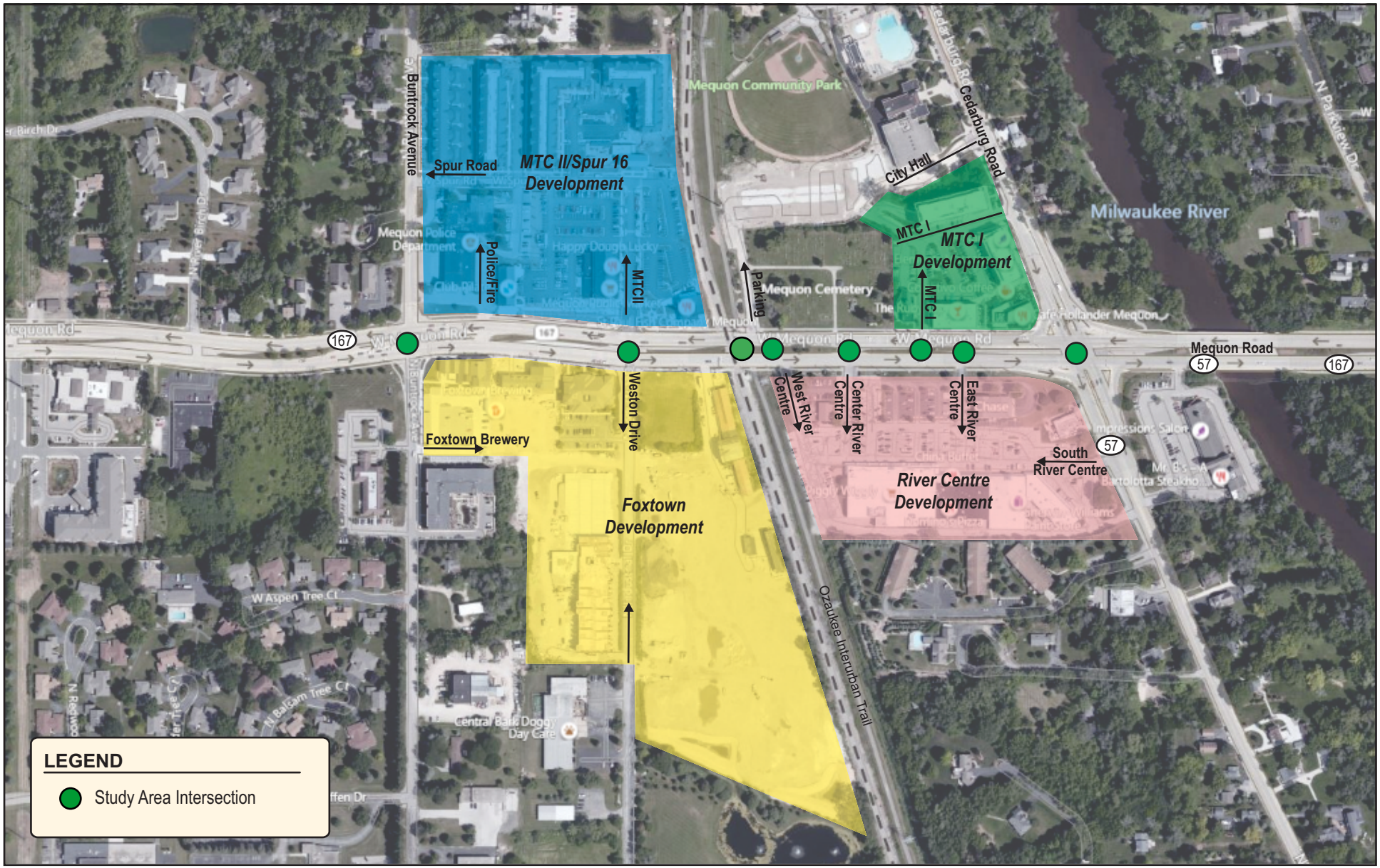
- Is the city fiscally prepared to move ahead with the full buildout of the project in 2022, or will the project require a phasing element be added to it?

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

List of Attachments:

Attachment 1: Project Location Map
Attachment 2: WisDOT Approved Corridor Improvements
Attachment 2A: WisDOT Approved Buntrock Ave Intersection Improvements
Attachment 2B: WisDOT Approved Weston Drive Intersection Improvements (Traffic Signal)
Attachment 2C: WisDOT Approved Weston Drive Intersection Improvements (Restricted Median)
Attachment 3: Staff Concept Corridor Improvements
Attachment 3A: Staff Concept Buntrock Ave Intersection Improvements
Attachment 3B: Staff Concept Weston Drive Intersection Improvements (Traffic Signal)
Attachment 4: Comparison – WisDOT Approved vs. Staff Concept
Attachment 5: WisDOT Approved OIT Crossing (Staggered/Danish Crossing)
Attachment 6: Engineer's Opinion of Probable Costs
Attachment 7: WisDOT Response

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)



TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2479: 12-07-20

N
NOT TO SCALE

ATTACHMENT 1

EXHIBIT 1-1
PROJECT LOCATION MAP

MEQUON ROAD CORRIDOR MODIFICATION STUDY - MEQUON, WISCONSIN

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor -

MEQUON RD & N BUNTROCK AVE IMPROVEMENTS DETAILED ON SHEET ATTACH. 2A

APPROX. EXISTING R/W

POLICE/FIRE STATION DRIVEWAY

APPROX. EXISTING R/W

MTC II DRIVEWAY

APPROX. EXISTING R/W

W MEQUON RD

PROVIDE NEW ORNAMENTAL TRAFFIC SIGNALS AND TEMPORARY SIGNALS DURING CONSTRUCTION

APPROX. EXISTING R/W

N BUNTROCK AVE

APPROX. EXISTING R/W

MEQUON RD & WESTON DR IMPROVEMENTS DETAILED ON SHEET ATTACH. 2B

WESTON DR

0 20 40 80

N

MTC II DRIVEWAY

PROVIDE NEW ORNAMENTAL TRAFFIC SIGNALS

5' BICYCLE LANE

APPROX. EXISTING R/W

MTC I DRIVEWAY

APPROX. EXISTING R/W

CONVERT WESTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

5' BICYCLE LANE

W MEQUON RD

DEDICATED LEFT-TURN LANE (100' STORAGE)

EXTEND CURB AND GUTTER TO CLOSE MEDIAN (EXTEND LEFT-TURN LANE)

MEQUON RD & WESTON DR IMPROVEMENTS DETAILED ON SHEET ATTACH. 2B

APPROX. EXISTING R/W

CLOSE DRIVEWAY ACCESS

CONVERT EASTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

WEST RIVER CENTRE DRIVEWAY

CENTER RIVER CENTRE DRIVEWAY

5' BICYCLE LANE

EAST RIVER CENTRE DRIVEWAY

CLOSE DRIVEWAY ACCESS

5' BICYCLE LANE

WESTON DR

0 20 40 80

N

PLOT DATE: 9/1/2021 3:03 PM

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Batterman engineers surveyors planners

2857 Bartells Drive Beloit, Wisconsin 53511

ISSUANCE

EXHIBITS 2021-06-23

WISDOT IMPROVEMENTS - CORRIDOR

MEQUON ROAD IMPROVEMENTS - CITY OF MEQUON OZAUKEE COUNTY, WISCONSIN

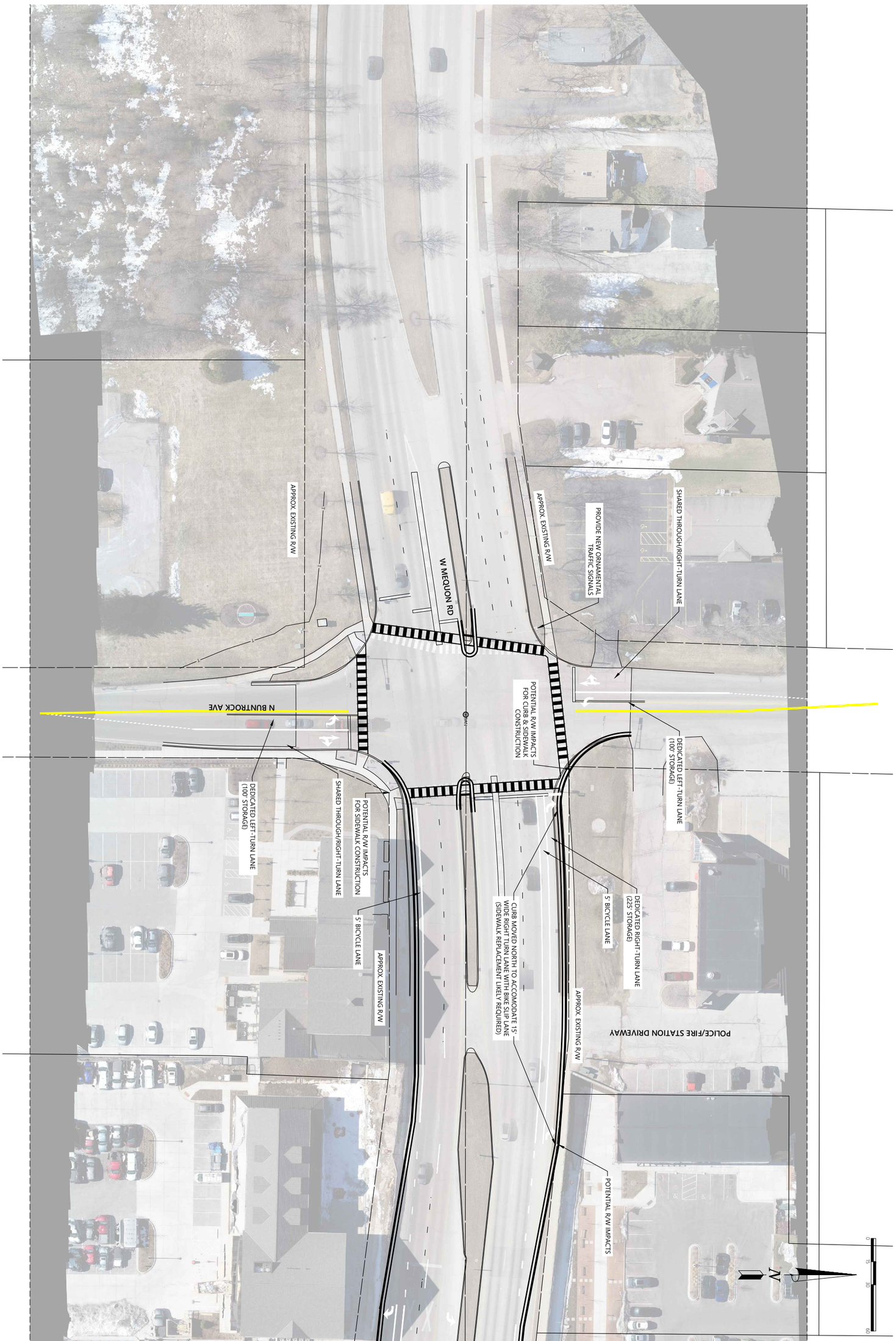
DESIGNED BY: -
DRAWN BY: LC
CHECKED BY: -
APPROVED BY: -

SHEET NO.

ATTACH. 2

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

PLOT DATE: 9/1/2021 3:03 PM



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ATTACH. 2A

SHEET NO.

DESIGNED BY: -
DRAWN BY: LC
CHECKED BY: -
APPROVED BY: -

MEQUON ROAD IMPROVEMENTS
-
CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

WISDOT - MEQUON RD & BUNTROCK AVE

ISSUANCE

EXHIBITS	2021-06-23
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Batterman
engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

POLICE/FIRE STATION DRIVEWAY

MTC II DRIVEWAY

REVISE MEDIAN TO EXPAND LEFT-TURN LANE. LEFT-TURN ONLY LANE (50' STORAGE)

SHARED THROUGH/RIGHT-TURN LANE

POTENTIAL R/W IMPACTS TO CONSTRUCT CURB AND SIDEWALK

5' BICYCLE LANE

APPROX. EXISTING R/W

PROPOSED IMPROVEMENTS IN PRIVATE PROPERTY

CURB MOVED NORTH TO ACCOMODATE RIGHT TURN LANE WITH BIKE SLIP LANE

APPROX. EXISTING R/W

5' BICYCLE LANE

DEDICATED LEFT-TURN LANE (150' STORAGE)

FIRE HYDRANT TO BE RELOCATED

FIBER HANDHOLE MAY REQUIRE RELOCATION

CONVERT WESTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (100' STORAGE)

W MEQUON RD

DEDICATED LEFT-TURN LANE (100' STORAGE)

APPROX. EXISTING R/W

CONVERT EASTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

CURB MOVED SOUTH TO ACCOMODATE RIGHT TURN LANE WITH BIKE SLIP LANE

POTENTIAL R/W IMPACTS TO CONSTRUCT SIDEWALK (IF REQUIRED)

DEDICATED LEFT-TURN LANE (125' STORAGE)

5' BICYCLE LANE

APPROX. EXISTING R/W

POTENTIAL R/W IMPACTS IF SIDEWALK REQUIRES REPLACEMENT

PROVIDE NEW ORNAMENTAL TRAFFIC SIGNALS

WESTON DR

SHARED THROUGH/RIGHT-TURN LANE

0 15 30 60

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NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION

PLOT DATE: 9/1/2021 3:03 PM

Batterman engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511

EXHIBITS	ISSUANCE
-	2021-06-23
-	-
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-	-

WISDOT - MEQUON RD & WESTON DR

MEQUON ROAD IMPROVEMENTS
-
CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

DESIGNED BY:	-
DRAWN BY:	LC
CHECKED BY:	-
APPROVED BY:	-

SHEET NO.

ATTACH. 2B

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

POLICE/FIRE STATION DRIVEWAY

MTC II DRIVEWAY

PROPOSED IMPROVEMENTS IN PRIVATE PROPERTY

RIGHT-TURN ONLY LANE

EXPAND MEDIAN TO ELIMINATE LEFT-TURN LANE

CONVERT WESTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (100' STORAGE)

APPROX. EXISTING R/W

5' BICYCLE LANE

DEDICATED LEFT-TURN LANE (150' STORAGE)

POTENTIAL R/W IMPACTS

W MEQUON RD

DEDICATED LEFT-TURN LANE (100' STORAGE)

CONVERT EASTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

WESTON DR

0 15 30 60

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PLOT DATE: 9/1/2021 3:03 PM

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Batterman
engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511

ISSUANCE 2021-06-23
EXHIBITS

WISDOT - MEQUON RD & WESTON DR - RESTRICTED MEDIAN

MEQUON ROAD IMPROVEMENTS
-
CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

DESIGNED BY: -
DRAWN BY: LC
CHECKED BY: -
APPROVED BY: -

SHEET NO.
ATTACH. 2C

MEQUON RD & N BUNTROCK AVE IMPROVEMENTS DETAILED ON SHEET ATTACH. 3A

APPROX. EXISTING R/W

POLICE/FIRE STATION DRIVEWAY

APPROX. EXISTING R/W

POTENTIAL R/W IMPACTS FOR CURB AND SIDEWALK CONSTRUCTION

MTC II DRIVEWAY

APPROX. EXISTING R/W

W MEQUON RD

PROVIDE NEW ORNAMENTAL TRAFFIC SIGNALS AND TEMPORARY SIGNALS DURING CONSTRUCTION

APPROX. EXISTING R/W

N BUNTROCK AVE

APPROX. EXISTING R/W

MEQUON RD & WESTON DR IMPROVEMENTS DETAILED ON SHEET ATTACH. 3B

WESTON DR

MTC II DRIVEWAY

PROVIDE NEW ORNAMENTAL TRAFFIC SIGNALS

APPROX. EXISTING R/W

MTC1 DRIVEWAY

CONVERT WESTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

APPROX. EXISTING R/W

W MEQUON RD

DEDICATED LEFT-TURN LANE (100' STORAGE)

EXTEND CURB AND GUTTER TO CLOSE MEDIAN (EXTEND LEFT-TURN LANE)

MEQUON RD & WESTON DR IMPROVEMENTS DETAILED ON SHEET ATTACH. 3B

CLOSE DRIVEWAY ACCESS

APPROX. EXISTING R/W

CLOSE DRIVEWAY ACCESS

CONVERT EASTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

WEST RIVER CENTRE DRIVEWAY

CENTER RIVER CENTRE DRIVEWAY

EAST RIVER CENTRE DRIVEWAY

WESTON DR

0 20 40 80

N

NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION

Batterman
engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511

ISSUANCE 2021-06-23

EXHIBITS

STAFF CONCEPT IMPROVEMENTS - CORRIDOR

MEQUON ROAD IMPROVEMENTS
-
CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

DESIGNED BY: -
DRAWN BY: LC
CHECKED BY: -
APPROVED BY: -

SHEET NO.

ATTACH. 3

PLOT DATE: 9/1/2021 3:03 PM

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

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PLOT DATE: 9/1/2021 3:03 PM

Batterman
engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511

EXHIBITS	ISSUANCE
-	2021-06-23
-	-
-	-
-	-
-	-
-	-

STAFF CONCEPT - MEQUON RD & N BUNTROCK AVE

MEQUON ROAD IMPROVEMENTS
-
CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

DESIGNED BY:	-
DRAWN BY:	LC
CHECKED BY:	-
APPROVED BY:	-

SHEET NO.

ATTACH. 3A

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

POLICE/FIRE STATION DRIVEWAY

MTC II DRIVEWAY

APPROX. EXISTING R/W

SHARED THROUGH/RIGHT-TURN LANE

POTENTIAL R/W IMPACTS FOR CURB AND SIDEWALK CONSTRUCTION

REVISE MEDIAN TO EXPAND LEFT-TURN LANE. LEFT-TURN ONLY LANE (50' STORAGE)

CONVERT WESTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (100' STORAGE)

APPROX. EXISTING R/W

DEDICATED LEFT-TURN LANE (150' STORAGE)

EXISTING CURB COULD REMAIN IN PLACE

W MEQUON RD

DEDICATED LEFT-TURN LANE (100' STORAGE)

CONVERT EASTBOUND AUXILIARY LANE INTO DEDICATED RIGHT-TURN LANE (150' STORAGE)

APPROX. EXISTING R/W

APPROX. EXISTING R/W

PROVIDE NEW ORNAMENTAL TRAFFIC SIGNALS

DEDICATED LEFT-TURN LANE (125' STORAGE)

WESTON DR

SHARED THROUGH/RIGHT-TURN LANE

0 15 30 60

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NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION - NOT FOR CONSTRUCTION

Batterman engineers surveyors planners

2857 Bartells Drive Beloit, Wisconsin 53511

ISSUANCE 2021-06-23

EXHIBITS

STAFF CONCEPT - MEQUON RD & WESTON DR

MEQUON ROAD IMPROVEMENTS - CITY OF MEQUON OZAUKEE COUNTY, WISCONSIN

DESIGNED BY: -
DRAWN BY: LC
CHECKED BY: -
APPROVED BY: -

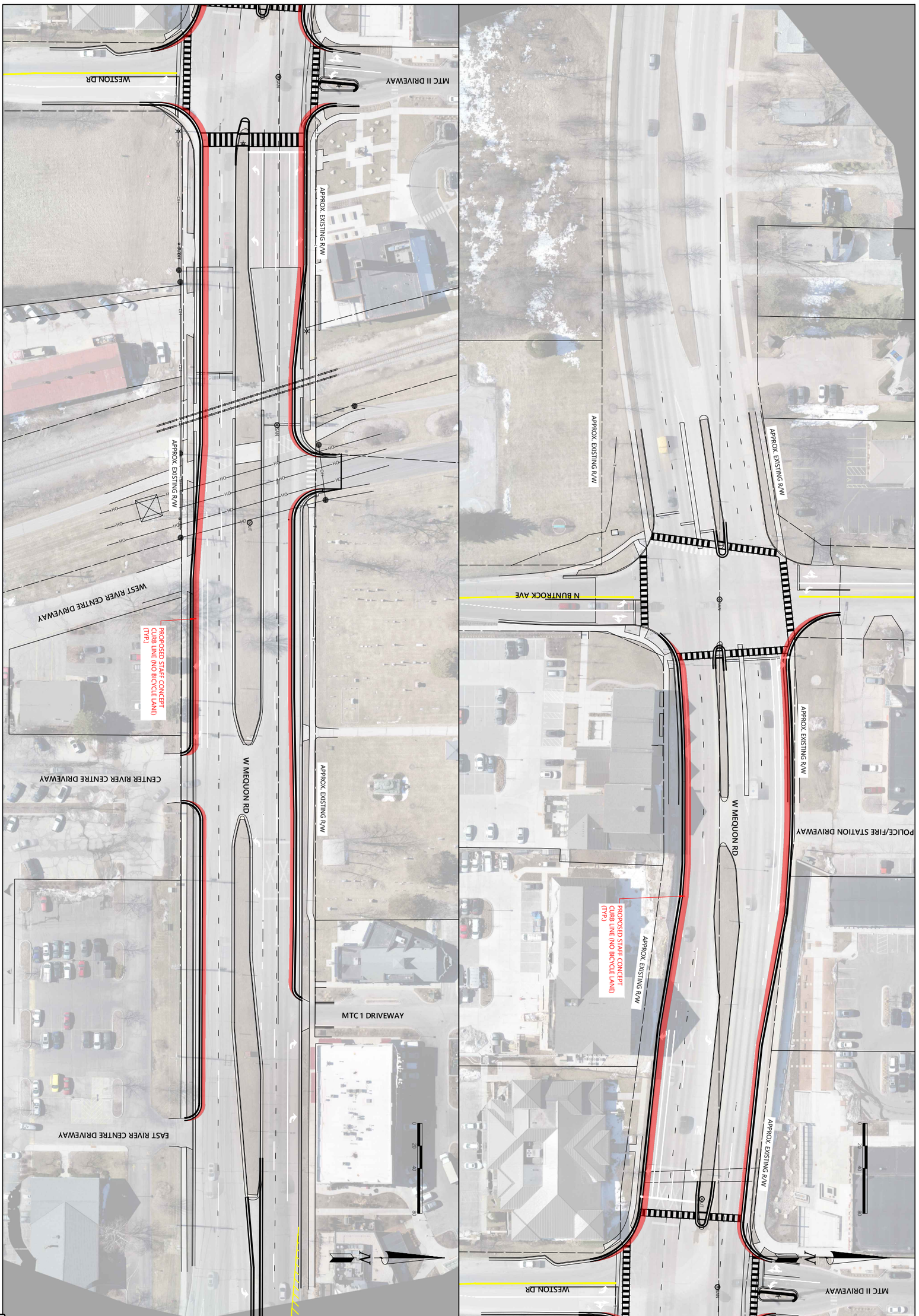
SHEET NO.

ATTACH. 3B

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

PLOT DATE: 9/1/2021 3:03 PM

PLOT DATE: 9/1/2021 3:03 PM



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SHEET NO.

DESIGNED BY: -
DRAWN BY: LC
CHECKED BY: -
APPROVED BY: -

MEQUON ROAD IMPROVEMENTS
-
CITY OF MEQUON
OZAUKEE COUNTY, WISCONSIN

COMPARISION - WISDOT VS. STAFF CONCEPT

ISSUANCE

EXHIBITS	2021-06-23
-	-
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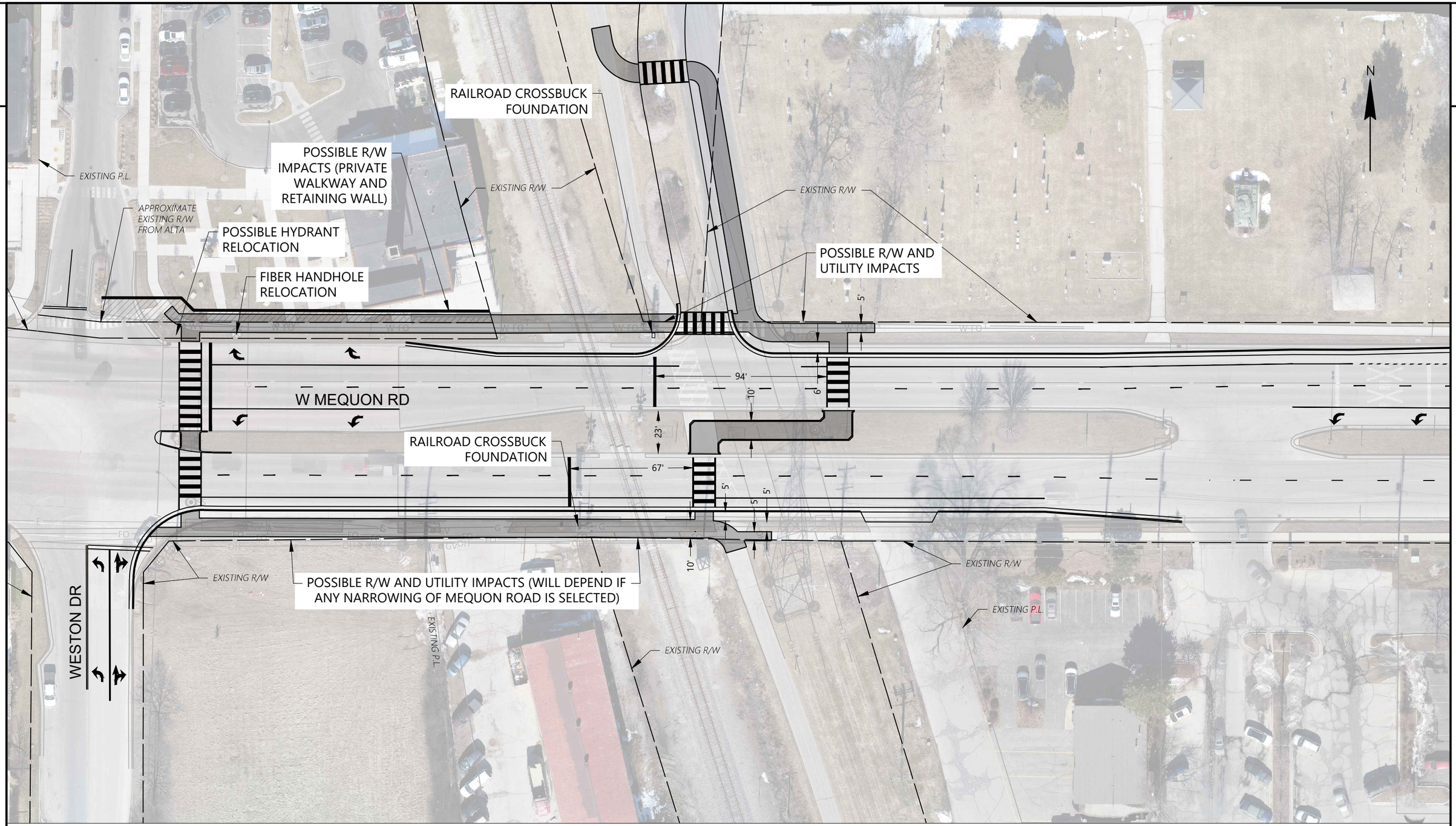
Batterman
engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

2

2



Staggered Crossing Roadway Reduction

PROJECT NO: XXXX-XX-XX	HWY: XXX	COUNTY: XXX	PLAN: XXX	SHEET ATTACH. 5	E

FILE NAME : J:\33500-33599\33520 - TADI - MEQUON TRAFFIC SIGNALS\CONCEPTS-EXHIBITS\OIT ALT-2\33520 - OIT - ALT 2B_5-22-2020.DWG
LAYOUT NAME - OIT Alt 2

PLOT DATE : 9/1/2021 2:50 PM PLOT BY : LUCAS CHASE PLOT NAME : PLOT SCALE : ##########

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Batterman
engineers surveyors planners

R.H. Batterman & Co., Inc.
2857 Bartells Drive
Beloit, WI 53511
p 608.365.4464
f 608.365.1850

August 3, 2021
CONCEPTUAL COST ESTIMATE FOR:
WIS 167 (MEQUON ROAD) CORRIDOR IMPROVEMENTS
MAINTAIN WIS 167 WIDTH, UPDATE BUNTROCK SIGNALS, ADD WESTON DRIVE SIGNALS
BUNTROCK DRIVE TO CEDARBURG ROAD (WIS 57)
MEQUON, WISCONSIN

Item No.	Item	Quantity	Units	Unit Prices Dollars/Cents	Total Amount Dollars/Cents
ROADWAY ITEMS					
1	FULL DEPTH SAW CUT	900	LF	$ 3.00	$ 2,700.00
2	REMOVING CURB AND GUTTER	900	LF	$ 4.50	$ 4,050.00
3	REMOVING PAVEMENT	150	SY	$ 5.00	$ 750.00
4	COMMON EXCAVATION	500	CY	$ 30.00	$ 15,000.00
5	SELECT CRUSH MATERIAL	150	TON	$ 20.00	$ 3,000.00
6	BASE AGGREGATE DENSE 1 1/4-INCH	300	TON	$ 20.00	$ 6,000.00
7	DRILLED TIE BARS	720	EA	$ 15.00	$ 10,800.00
8	30" CURB AND GUTTER	1300	LF	$ 25.00	$ 32,500.00
9	9" CONCRETE PAVEMENT	40	SY	$ 50.00	$ 2,000.00
10	HMA PAVEMENT, 5-INCH	200	TON	$ 100.00	$ 20,000.00
11	6" CONCRETE SIDEWALK	2200	SF	$ 6.00	$ 13,200.00
				ROADWAY SUBTOTAL	$ 110,000.00
MISCELLANEOUS					
12	DRAINAGE / STORM SEWER	20%	LS	% OF ROADWAY	$ 22,000.00
13	TRAFFIC CONTROL / STAGING	15%	LS	% OF ROADWAY	$ 16,500.00
14	EROSION CONTROL / RESTORATION	10%	LS	% OF ROADWAY	$ 11,000.00
15	PAVEMENT MARKING	20%	LS	% OF ROADWAY	$ 22,000.00
16	SIGNING	10%	LS	% OF ROADWAY	$ 11,000.00
17	MOBILIZATION	25%	LS	% OF ROADWAY	$ 27,500.00
18	TEMP TRAFFIC SIGNALS AT BUNTROCK AVE	1	LS	---	$ 25,000.00
19	PERMANENT SIGNALS AT BUNTROCK AVE	1	LS	---	$200,000.00
20	PERMANENT SIGNALS AT WESTON DR	1	LS	---	$200,000.00
				MISCELLANEOUS SUBTOTAL	$ 535,000.00
				ROADWAY + MISC SUBTOTAL	$ 645,000.00
CONTINGENICIES, REAL ESTATE, UTILITIES AND CONSTRUCTION					
21	COST ESTIMATE CONTINGENCIES	10%	LS	% OF ROADWAY + MISC	$ 64,500.00
22	REAL ESTATE AND UTILITIES	5%	LS	% OF ROADWAY + MISC	$ 32,250.00
23	CONSTRUCTION ADMINISTRATION AND INSPECTION	7%	LS	% OF ROADWAY + MISC	$ 45,150.00
				CONTINGENICIES, REAL ESTATE, UTILITIES AND CONSTRUCTION SUBTOTAL	$ 141,900.00
				TOTAL IMPROVEMENTS COST	**$ 786,900.00**

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Batterman
engineers surveyors planners

R.H. Batterman & Co., Inc.
2857 Bartells Drive
Beloit, WI 53511
p 608.365.4464
f 608.365.1850

August 3, 2021
CONCEPTUAL COST ESTIMATE FOR:
WIS 167 (MEQUON ROAD) CORRIDOR IMPROVEMENTS
3' WIDTH REDUCTION 0F WIS 167, UPDATE BUNTROCK SIGNALS, ADD WESTON DRIVE SIGNALS
BUNTROCK DRIVE TO CEDARBURG ROAD (WIS 57)
MEQUON, WISCONSIN

Item No.	Item	Quantity	Units	Unit Prices Dollars/Cents	Total Amount Dollars/Cents
ROADWAY ITEMS					
1	FULL DEPTH SAW CUT	3200	LF	$ 3.00	$ 9,600.00
2	REMOVING CURB AND GUTTER	3200	LF	$ 4.50	$ 14,400.00
3	REMOVING PAVEMENT	900	SY	$ 5.00	$ 4,500.00
4	COMMON EXCAVATION	2500	CY	$ 30.00	$ 75,000.00
5	SELECT CRUSH MATERIAL	400	TON	$ 20.00	$ 8,000.00
6	BASE AGGREGATE DENSE 1 1/4-INCH	800	TON	$ 20.00	$ 16,000.00
7	DRILLED TIE BARS	2400	EA	$ 15.00	$ 36,000.00
8	30" CURB AND GUTTER	3600	LF	$ 25.00	$ 90,000.00
9	9" CONCRETE PAVEMENT	200	SY	$ 50.00	$ 10,000.00
10	HMA PAVEMENT, 5-INCH	200	TON	$ 100.00	$ 20,000.00
11	6" CONCRETE SIDEWALK	2200	SF	$ 6.00	$ 13,200.00
				ROADWAY SUBTOTAL	$ 296,700.00
MISCELLANEOUS					
12	DRAINAGE / STORM SEWER	20%	LS	% OF ROADWAY	$ 59,340.00
13	TRAFFIC CONTROL / STAGING	15%	LS	% OF ROADWAY	$ 44,505.00
14	EROSION CONTROL / RESTORATION	10%	LS	% OF ROADWAY	$ 29,670.00
15	PAVEMENT MARKING	10%	LS	% OF ROADWAY	$ 29,670.00
16	SIGNING	5%	LS	% OF ROADWAY	$ 14,835.00
17	MOBILIZATION	20%	LS	% OF ROADWAY	$ 59,340.00
18	TEMP TRAFFIC SIGNALS AT BUNTROCK AVE	1	LS	---	$ 25,000.00
19	PERMANENT SIGNALS AT BUNTROCK AVE	1	LS	---	$ 200,000.00
20	PERMANENT SIGNALS AT WESTON DR	1	LS	---	$ 200,000.00
				MISCELLANEOUS SUBTOTAL	$ 662,360.00
				ROADWAY + MISC SUBTOTAL	$ 959,060.00
CONTINGENICIES, REAL ESTATE, UTILITIES AND CONSTRUCTION					
21	COST ESTIMATE CONTINGENCIES	10%	LS	% OF ROADWAY + MISC	$ 95,906.00
22	REAL ESTATE AND UTILITIES	5%	LS	% OF ROADWAY + MISC	$ 47,953.00
23	CONSTRUCTION ADMINISTRATION AND INSPECTION	7%	LS	% OF ROADWAY + MISC	$ 67,134.20
				CONTINGENICIES, REAL ESTATE, UTILITIES AND CONSTRUCTION SUBTOTAL	$ 210,993.20
				TOTAL IMPROVEMENTS COST	**$ 1,170,053.20**

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Batterman
engineers surveyors planners

R.H. Batterman & Co., Inc.
2857 Bartells Drive
Beloit, WI 53511
p 608.365.4464
f 608.365.1850

August 3, 2021
CONCEPTUAL COST ESTIMATE FOR:
WIS 167 (MEQUON ROAD) CORRIDOR IMPROVEMENTS
OZAUKEE INTERURBAN TRAIL (OIT) "DANISH" CROSSING
MEQUON, WISCONSIN

Item No.	Item	Quantity	Units	Unit Prices Dollars/Cents	Total Amount Dollars/Cents
ROADWAY ITEMS					
1	FULL DEPTH SAW CUT	300	LF	$ 3.00	$ 900.00
2	REMOVING CURB AND GUTTER	250	LF	$ 4.50	$ 1,125.00
3	REMOVING PAVEMENT	60	SY	$ 5.00	$ 300.00
4	COMMON EXCAVATION	1000	CY	$ 30.00	$ 30,000.00
5	SELECT CRUSHED MATERIAL	100	TON	$ 20.00	$ 2,000.00
6	BASE AGGREGATE DENSE 1 1/4-INCH	1300	TON	$ 20.00	$ 26,000.00
7	DRILLED TIE BARS	100	EA	$ 15.00	$ 1,500.00
8	30" CURB AND GUTTER	160	LF	$ 25.00	$ 4,000.00
9	9" CONCRETE PAVEMENT	50	SY	$ 50.00	$ 2,500.00
10	HMA PAVEMENT, 4-INCH	260	TON	$ 100.00	$ 26,000.00
11	6" CONCRETE SIDEWALK	2200	SF	$ 6.00	$ 13,200.00
				ROADWAY SUBTOTAL	$ 107,525.00
MISCELLANEOUS					
12	DRAINAGE / STORM SEWER	20%	LS	% OF ROADWAY	$ 21,505.00
13	TRAFFIC CONTROL / STAGING	15%	LS	% OF ROADWAY	$ 16,128.75
14	EROSION CONTROL / RESTORATION	15%	LS	% OF ROADWAY	$ 16,128.75
15	PAVEMENT MARKING	10%	LS	% OF ROADWAY	$ 10,752.50
16	SIGNING	10%	LS	% OF ROADWAY	$ 10,752.50
17	MOBILIZATION	25%	LS	% OF ROADWAY	$ 26,881.25
18	ORNAMENTAL FENCE THROUGH MEDIAN	1	LS	---	$ 25,000.00
19	DECORATIVE LANDSCAPE	1	LS	---	$ 25,000.00
				MISCELLANEOUS SUBTOTAL	$ 152,148.75
				ROADWAY + MISC SUBTOTAL	$ 259,673.75
CONTINGENCIES, REAL ESTATE, UTILITIES AND CONSTRUCTION					
20	COST ESTIMATE CONTINGENCIES	10%	LS	% OF ROADWAY + MISC	$ 25,967.38
21	REAL ESTATE AND UTILITIES	5%	LS	% OF ROADWAY + MISC	$ 12,983.69
22	ARCH/HISTORY REVIEW NEAR CEMETARY	5%	LS	% OF ROADWAY + MISC	$ 12,983.69
23	CONSTRUCTION ADMINISTRATION AND INSPECTION	10%	LS	% OF ROADWAY + MISC	$ 25,967.38
				CONTINGENCIES, REAL ESTATE, UTILITIES AND CONSTRUCTION SUBTOTAL	$ 77,902.13
				TOTAL IMPROVEMENTS COST	**$ 337,575.88**

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Batterman
engineers surveyors planners

R.H. Batterman & Co., Inc.
2857 Bartells Drive
Beloit, WI 53511
p 608.365.4464
f 608.365.1850

September 1, 2021
CONCEPTUAL COST ESTIMATE FOR:
WIS 167 (MEQUON ROAD) CORRIDOR IMPROVEMENTS
RESTRICTED MEDIAN ACCESS AT WESTON DRIVE
BUNTROCK DRIVE TO CEDARBURG ROAD (WIS 57)
MEQUON, WISCONSIN

Item No.	Item	Quantity	Units	Unit Prices Dollars/Cents	Total Amount Dollars/Cents
ROADWAY ITEMS					
1	FULL DEPTH SAW CUT	500	LF	$ 3.00	$ 1,500.00
2	REMOVING CURB AND GUTTER	200	LF	$ 4.50	$ 900.00
3	REMOVING PAVEMENT	450	SY	$ 5.00	$ 2,250.00
4	COMMON EXCAVATION	500	CY	$ 30.00	$ 15,000.00
5	SELECT CRUSH MATERIAL	150	TON	$ 20.00	$ 3,000.00
6	BASE AGGREGATE DENSE 1 1/4-INCH	200	TON	$ 20.00	$ 4,000.00
7	DRILLED TIE BARS	100	EA	$ 15.00	$ 1,500.00
8	30" CURB AND GUTTER	300	LF	$ 50.00	$ 15,000.00
9	9" CONCRETE PAVEMENT	270	SY	$ 50.00	$ 13,500.00
10	HMA PAVEMENT, 5-INCH	100	TON	$ 100.00	$ 10,000.00
11	6" CONCRETE SIDEWALK	200	SF	$ 6.00	$ 1,200.00
				ROADWAY SUBTOTAL	$ 67,850.00
MISCELLANEOUS					
12	DRAINAGE / STORM SEWER	25%	LS	% OF ROADWAY	$ 16,962.50
13	TRAFFIC CONTROL / STAGING	30%	LS	% OF ROADWAY	$ 20,355.00
14	EROSION CONTROL / RESTORATION	15%	LS	% OF ROADWAY	$ 10,177.50
15	PAVEMENT MARKING	15%	LS	% OF ROADWAY	$ 10,177.50
16	SIGNING	10%	LS	% OF ROADWAY	$ 6,785.00
17	MOBILIZATION	30%	LS	% OF ROADWAY	$ 20,355.00
				MISCELLANEOUS SUBTOTAL	$ 84,812.50
				ROADWAY + MISC SUBTOTAL	$ 152,662.50
CONTINGENICIES, REAL ESTATE, UTILITIES AND CONSTRUCTION					
18	COST ESTIMATE CONTINGENCIES	10%	LS	% OF ROADWAY + MISC	$ 15,266.25
19	REAL ESTATE AND UTILITIES	5%	LS	% OF ROADWAY + MISC	$ 7,633.13
20	CONSTRUCTION ADMINISTRATION AND INSPECTION	7%	LS	% OF ROADWAY + MISC	$ 10,686.38
				CONTINGENICIES, REAL ESTATE, UTILITIES AND CONSTRUCTION SUBTOTAL	$ 33,585.75
				TOTAL IMPROVEMENTS COST	**$ 186,248.25**

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

WisDOT Division of Transportation System Development
Southeast Regional Office
141 N.W. Barstow Street
P.O. Box 798
Waukesha, WI 53187-0798

Governor Tony Evers
Secretary Craig Thompson
wisconsindot.gov
Telephone: (262) 548-5903
FAX: (262) 548-5662
Email: waukesha.dtd@dot.wi.gov

June 17, 2021

KRISTEN LUNDEEN
CITY OF MEQUON
11333 NORTH CEDARBURG ROAD
MEQUON, WI 53092

Subject: Log #3443 – Development Submittal
Mequon Town Center & Foxtown Developments, OIT Crossing
WIS 167
Ozaukee County

Dear Ms. Lundeen:

The traffic impact analysis (TIA) performed by Traffic Analysis and Design Inc covering the Mequon Town Center & Foxtown Developments in the City of Mequon has allowed the Department to understand the impacts of the subject development and identify the necessary improvements. The attached lists the improvements that are to be constructed as a result of this development.

A permit will not be required from the Department to construct the improvements within the Connecting Highway Limits on WIS 167. Any improvements to be constructed outside of the Connecting Highway Limits on WIS 167 will require a permit from the Department. **Plans for areas within and outside of the Connecting Highway Limits shall be submitted to the Department for review and concurrence with the requirements of this letter prior to construction.**

If you have any questions regarding traffic issues, please contact the undersigned at (262) 548-6707. Please direct any questions regarding the Trans 233 process to Patricia Reikowski at (262) 548-6704. Kevin Koehnke, Permit Coordinator (262) 548-5891, will process any necessary permits. Also, please reference the identification log number (#3443) when forwarding all correspondence.

Sincerely,

Art Baumann, P.E.
Traffic Operations Engineer

Attachment

Cc: Tony Barth / Robert Elkin / Don Berghammer, DOT
Cindy Vande Leest / Tom Heydel / Rebecca Klein, DOT
Susan Voight / Kevin Koehnke / Patty Reikowski, DOT
Chris Squires / Dave Brantner / Dan Malicki, DOT
Joshua Lee, DOT
Tammi Czewski, TADi

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

Project: Log #3443 – Mequon Town Center & Foxtown Developments, OIT Crossing
WIS 167, Ozaukee County
Review Unit: Traffic Operations
Reviewer: Art Baumann/MSA – SE Region
Date: June 17, 2021

Improvement Measures

General Notes

Design

1) Contact the WisDOT permit coordinator (Kevin Koehnke at 262-548-5891) prior to plan submittal to identify the plans that are required and obtain any supplemental design guidelines. Incomplete submittals will be returned without review.
2) The design for the improvements at all intersections on WIS 167 shall be prepared in accordance with the FDM requirements for design and plan preparation. The design shall accommodate the appropriate design and check vehicles per the FDM. All lanes are to be a minimum of 12 feet in width on WIS 167, unless otherwise specified (final width to be determined during design). Exclusive ***right-turn lanes shall be a minimum of 10 feet in width plus the required bicycle accommodation width.*** All left turn lanes *should* be opposing. All necessary drainage, utility, signage and pavement marking improvements shall be provided. The signing plan (separate plan sheets from other roadway improvement plan sheets) shall include sign details and signs that require moving.
3) ***The existing eight foot auxiliary/right-turn lane will be allowed to be reduced to a five foot bike accommodation between Buntrock Avenue and WIS 57 (Cedarburg Road) except at locations stated below.***
4) For questions regarding signing or pavement marking, please contact Tom Heydel at tom.heydel@dot.wi.gov or (262) 548-6763.
5) For questions regarding work zone traffic control plans please contact Rebecca Klein (rebecca.klein@dot.wi.gov) or the permit coordinator.

Multimodal Accommodations

1) Bike and pedestrian accommodations shall be provided in accordance with the FDM and ADA requirements as listed below. Please contact Chris Squires, WisDOT Pedestrian/Bicycle Facilities Coordinator, at (262) 521-4417 or christopher.squires@dot.wi.gov with questions regarding pedestrian/bicycle accommodations.
2) Any sidewalks and curb ramps impacted by road improvements shall be restored. Improvements that meet the Americans with Disabilities Act (ADA) definition of an “alteration” will require curb ramp improvements. This includes sidewalks at intersections and those adjacent to roadways.
3) All impacted multimodal accommodations (bike, pedestrian, transit, etc.) shall be restored with the reconstruction of any intersection radii.
4) Bicycle accommodations shall be installed along all travel lanes where the existing shoulder is proposed to be eliminated.
5) Install bicycle accommodations five feet in width between the travel lane and all new exclusive right turn lanes. Install bicycle accommodations along all new bypass lanes. Bicycle accommodations shall also be installed along all travel lanes that are being reconstructed and have shoulders 6 feet in width or greater.

Right of Way

1) A party other than the WisDOT shall acquire any required right-of-way for the improvements.

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Utilities

1) Utility coordination is the responsibility of the municipality/developer consultant representative constructing the work.
2) Utility relocations that occur as a result of this work may not be covered under Wisconsin Administrative Rule TRANS 220. The municipality/developer (or their consultant representative) requesting the work shall be responsible for all costs associated with the needed relocation of any utility facility as a result of the work.

Access

1) The West River Centre driveway access to WIS 167 (Mequon Rd) shall be removed as a part of this improvement. No additional access points to WIS 167 will be allowed.
2) **The municipality/developer (or their consultant representative) shall be responsible for notifying any offsite property or business owners whose access or operations will be impacted as a result of the proposed development. The municipality/developer shall provide the department with written documentation verifying that all impacted property or business owners have been contacted prior to permit submittal.**

Traffic Signals

1) Traffic signal plans shall be prepared in accordance with MUTCD, FDM and TSDM (Traffic Signal Design Manual) standards for all signalized intersections (current or proposed) whose design and/or operational improvements will conflict with the location of existing traffic signal system infrastructure (including, but not limited to: conduit, pull boxes, cabinets, signal poles, hardwire, and loop detectors), require readjustments to the current timing or phasing plans, or require the installation of additional or new signal infrastructure or hardware. **Plans shall be submitted for review by WisDOT Signal Operations.** Please contact Dave Brantner at (262) 548-8736 to coordinate the review of the traffic signal plans. If further verification of signal infrastructure or timing impacts based on recommended improvements is needed, questions or concerns should be directed to the WisDOT Signal Operations team (Dave Brantner) prior to permit issuance.

2021 Background Improvements

The following improvements shall be designed, constructed and paid for by the City of Mequon.

WIS 167 (Mequon Road) & Buntrock Avenue

1) The north approach shall be striped to have two southbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). The southbound left turn lane shall have a storage length of 50 feet with a proper taper.
2) The south approach shall maintain the two existing northbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). The northbound left turn lane shall maintain a storage length of 100 feet and proper taper.
3) Maintain existing lane configuration for eastbound and westbound approaches.

The following improvements are the responsibility of WisDOT

WIS 57 (Cedarburg Road) & WIS 167 (Mequon Road)

1) Traffic signals timing will be investigated to determine if adding additional green time to the northbound and southbound left turn phases is appropriate.

2021 Build Improvements

The following improvements shall be designed, constructed and paid for by the City of Mequon/Developer.

WIS 167 (Mequon Road) & Buntrock Avenue

Traffic signal timing shall be optimized (cycle length, splits, offsets, sequencing) as part of a coordinated signal system that includes all intersections along WIS 167 between Buntrock Ave and WIS 57 (Cedarburg Road) if the traffic signal option at Weston Drive is selected.

1) The east approach shall maintain the four existing westbound lanes (one exclusive left-turn lane, two through lanes and one right-turn auxiliary lane). The westbound left-turn lane shall maintain the existing storage length of 160 feet and existing taper. The westbound right-turn auxiliary lane shall remain in place with a minimum storage length of 225 feet with proper taper.
2) The south approach shall maintain the two existing northbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). The northbound left-turn lane shall maintain the existing storage length of 100 feet and the existing taper.
3) The west approach shall maintain the four existing eastbound lanes (one exclusive left-turn lane, two through lanes and one right-turn auxiliary lane). The eastbound left-turn lane shall maintain the existing storage length of 155 feet.
4) The north approach shall be restriped to provide two southbound lanes (one exclusive left-turn lane and one shared through/right-turn lane). The exclusive left-turn lane shall have a storage length of 50 feet and a proper taper.

WIS 167 (Mequon Road) & Weston Drive

Traffic Signal Option

Install traffic signals with westbound protected/permitted left turn phasing, pedestrian countdown timers, emergency vehicle preemption, and railroad preemption. Coordinate the signal with the signals at Buntrock Avenue and WIS 57 (Cedarburg Road).

The City shall obtain a permanent easement, if needed, on the north approach of the intersection to allow for maintenance of the vehicle detection equipment needed on the approach for the traffic signal.

1) The east approach shall have four westbound lanes (one exclusive left-turn lane, two through lanes and one exclusive right-turn lane). The westbound left-turn lane shall maintain its existing storage length of 125 feet and the existing taper. The westbound right-turn auxiliary lane shall be converted to an exclusive right-turn lane with a minimum storage length of 125 feet with proper taper.
2) The south approach shall maintain the two northbound lanes. Restripe the existing lanes to designate an exclusive left-turn lane with a minimum storage length 125 feet and a shared through/right-lane.
3) The west approach shall have four eastbound lanes (one exclusive left-turn lane, two through lanes and one exclusive right-turn lane). The eastbound left-turn lane shall maintain its existing storage length of 200 feet and the existing taper. The eastbound right-turn auxiliary

Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

lane shall be converted to an exclusive right-turn lane with a minimum storage length of 150 feet with proper taper.

4) The north approach shall maintain the two southbound lanes. Restripe the existing lanes to designate an exclusive left-turn lane with a minimum storage length of 50 feet and a shared through/right-lane.
5) Retroreflective backplates shall be installed on the traffic signals heads along WIS 167 to improve visibility and help to distinguish them from the railroad crossing signal heads.
6) "Do Not Stop on Tracks' signage shall be installed east of the railroad crossing for the westbound traffic on the east approach.

Restricted Median Option

1) The east approach shall maintain the four existing westbound lanes (one exclusive left-turn lane, two through lanes and one right-turn auxiliary lane). The westbound left-turn lane shall maintain its existing storage length of 125 feet and the existing taper. The westbound right-turn auxiliary lane shall remain in place and provide a minimum of 125 feet of storage with proper taper.
2) The south approach shall have one exclusive northbound right-turn lane.
3) The west approach shall maintain the four existing eastbound lanes (one exclusive left-turn lane, two through lanes and one right-turn auxiliary lane). The eastbound left-turn lane shall maintain its existing storage length of 200 feet and the existing taper. The eastbound right-turn auxiliary lane shall remain in place and provide a minimum storage length of 150 feet with proper taper.
4) The north approach shall have one exclusive southbound right-turn lane.
5) The median shall be reconstructed to prohibit northbound and southbound through and left-turn movements.

WIS 167 & Ozaukee Interurban Trail Crossing

1) Rectangular Rapid Flashing Beacons will not be allowed to be installed at this crossing due to visual conflicts with the railroad crossing signals.
2) Install the new crossing, bump outs, bike path relocation on the north and addition of bike paths along WIS 167 from the crossing to the Weston Drive intersection.
3) Dynamic speed signs may be installed if desired by the City. Sign detail shall follow WisDOT sign plate R2-1C. Smaller size is acceptable.
4) Install R1-5 YIELD HERE TO PEDESTRIANS sign with yield pavement markings.
5) Install fencing in median subject to approval by the railroad. Fencing must be of a height that does not block the view of passenger cars on WIS 167 of the railroad line so that they can see any oncoming trains. The fencing and landscaping must also not obstruct visibility between drivers and those in the crosswalk.

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Attachment: Batterman Mequon Road TIA Summary Review Memo (6560 : OIT Xing/Mequon Rd Corridor - Policy decision re: WisDOT approval)

WIS 167 (Mequon Road) & Public Parking Driveway/West River Centre Driveway

1) The west approach shall maintain the two existing eastbound through lanes.
2) The east approach shall maintain the two existing westbound through lanes.
3) Remove the existing West River Centre Driveway on the south approach.

WIS 167 (Mequon Road) & Center River Centre Driveway

1) The east approach shall maintain the three existing westbound lanes (one exclusive left-turn lane and two through lanes). The westbound left-turn lane shall maintain its existing storage length of 130 feet and the existing taper.
2) The west approach shall maintain the three existing eastbound lanes (two through lanes and one right-turn auxiliary lane). The eastbound right-turn auxiliary lane shall remain in place and provide a minimum storage length of 150 feet with proper taper.

WIS 167 (Mequon Road) & MTC I Driveway

1) The west approach shall maintain the two existing eastbound through lanes.
2) The east approach shall maintain the three existing westbound lanes (two through lanes and one right-turn auxiliary lane). The westbound right-turn auxiliary lane shall remain in place and provide a minimum a storage length of 150 feet with proper taper.

WIS 167 (Mequon Road) & East River Centre Driveway

1) The west approach shall maintain two existing eastbound through lanes. The eastbound right-turn auxiliary lane can be converted to an exclusive bike accommodation.

WIS 57 (Cedarburg Road) & WIS 167 (Mequon Road)

Traffic signal timing shall be optimized (cycle length, splits, offsets, sequencing) as part of a coordinated signal system that includes all intersections along WIS 167 between Buntrock and WIS 57 if the traffic signal option at Weston Drive is selected.

1) The west approach shall maintain the four existing eastbound lanes (one exclusive left-turn lane, two through lanes and one exclusive channelized right-turn lane). Close the median opening within the eastbound left-turn lane and extend the eastbound left-turn lane to provide a storage length of 275 feet with proper taper. The eastbound right-turn lane shall maintain its existing storage length of 170 feet.
2) No other improvements are required at this intersection.

City of Mequon

11333 N. Cedarburg Road
Mequon, WI 53092
Phone: 262-236-2934
Fax: 262-242-9655

www.ci.mequon.wi.us **Office of Engineering**

TO: **Committee of the Whole**
FROM: **Kristen Lundeen, Director of Public Works/City Engineer**
DATE: **September 9, 2021**
SUBJECT: **RESOLUTION 3876 A Resolution Approving a State/Municipal Maintenance Agreement (SMMA) and a State/Municipal Financial Agreement (SMFA) for the Installation of a Traffic Signal at County Line Road and Port Washington Road**

Background

Residents and property owners near the County Line Road and Port Washington Road intersection have appealed to the City on multiple occasions over the past 10 years to request the installation of a traffic signal. Motorists on County Line Road express concerns over the ease and safety of turning onto Port Washington Road, given the higher volume of traffic. Residents have reported near misses of school buses and concerns for bicycle traffic.

At the August Common Council meeting, the Wisconsin Department of Transportation (WisDOT) made a presentation on the upcoming I-43 North/South Corridor Project. The project includes the installation of a full interchange at County Line Road and the subsequent reconstruction of Port Washington Road. An alderman inquired as to whether a traffic signal at the County Line Road and Port Washington Road intersection could be included, at the City's request.

When introduced in 2014, the project included a traffic signal at this location. As recently as 2015, the traffic signal was included in public documents, and City correspondence with WisDOT indicated its support of a traffic signal at this location. After the project was postponed, the warrants for the traffic signal were updated, indicating that the traffic signal was no longer required based upon projected traffic volumes (see attached email and warrant summary). In addition, Milwaukee County was no longer committing to the maintenance responsibility.

The intersection spans the jurisdictions of three municipalities: Mequon, Bayside and River Hills, and two counties: Ozaukee and Milwaukee. Initially, Milwaukee County indicated that it would take operation and maintenance responsibility for the traffic signal, if supported by local sponsors. Due to the postponement, the City never formalized it's support with a resolution, and when the project resumed in 2019, the traffic signal had been eliminated from the project.

At the August Common Council meeting, the Council approved a resolution accepting maintenance responsibility for sidewalk on Port Washington Road and the County Line Road bridge, in addition to other locations. An exhibit showing the sidewalk locations is attached.

Analysis

With the construction of a full interchange at County Line Road and the introduction of a new interchange at Highland Road, improvements to the Brown Deer Road interchange for vehicular efficiency, as well as improvements for traffic flow on I-43 due to the increased capacity of 6 lanes, it is anticipated that the volume of traffic on Port Washington Road will decrease. The geometry of Port Washington Road will change significantly, with the introduction of additional ramps for the interchange and improved intersection construction. The controlled operation at several intersections will change, be that with stop signs or traffic signals.

Given the amount of change, it is difficult to visualize what the County Line Road and Port Washington Road intersection will look like five years or more from now, when construction is complete, traffic has equalized, and motorists have found their new travel paths. WisDOT has worked with SEWRPC to generate modeling to anticipate what usage will look like post-construction, including analyzing the warrants for a traffic signal at the County Line Road and Port Washington Road intersection.

Typically, traffic signals are considered when the intersection meets certain warrants for installation. The warrant analyzes the volume of traffic on both the primary and secondary roadways, as well as the distribution of through traffic and turning movements. It also considers the pedestrian traffic, school crossings, whether it is a part of a larger traffic signal system, frequency of accidents and road geometry. Based upon the initial analysis completed for the project in 2014-2015, the intersection met warrants for a traffic signal. Subsequently in April 2019, WisDOT provided a study to the City indicating that the intersection did not meet warrants for a traffic signal (see attached).

Please note that the warrants were evaluated based upon 2019 traffic volumes, then analyzed again for 2025 (post construction) and 2045 (design year). The intersection did not meet the warrants for a traffic signal in any year of the analysis.

If the intersection meets warrants for a traffic signal in a future year, it would be an obligation of one of the local jurisdictions to install the traffic signal, be that Mequon, River Hills, Bayside Ozaukee or Milwaukee County.

In connection with this analysis, the Police Department has provided a 5-year accident history for the intersection. There were six Mequon accidents at this intersection in the last five years (see attached). There were two “non-reportable accidents” (NRPT) (damage estimated at less than $1,000), two “property damage only accidents” (PDO), and two injuries related (PI) accidents. As a reference, the City had 422 total accidents in all three categories in 2020, 604 in 2019, and 617 in 2018. Given the magnitude of change with the project, the Police Department did not have a strong recommendation regarding a traffic signal.

At the August meeting, WisDOT indicated that the traffic signal could be included in the project bid package. Please note that the design was completed absent the traffic signal, so WisDOT had to renotify all of the impacted utilities of the potential design change. As the County Line Road interchange project is scheduled to be bid later this fall, WisDOT requires the City’s decision to determine whether it should be included in the bid package.

If constructed, the cost for installation and long-term operation and maintenance costs will be the City's responsibility. Operation and maintenance costs include energy bills for the power source, the replacement and repair of any parts over time including the cameras installed in lieu of loop detectors and push buttons for the cross walks, and any repairs for damage or wear. It is also likely that installation will result in additional streetlights, for which the City is also responsible for operation and maintenance. It is difficult to quantify the energy costs, as We Energies does not bill exclusive to each traffic signal. Repairs costs range dependent on the specific repair, but service calls can range from $500 - $5,000.

WisDOT indicates that the City's financial obligation is $309,050, pending final design and construction costs.

Fiscal Impact

As outlined, the City would be responsible for ongoing operation and maintenance costs. Initially, the impact will be to the Electric - Street Lights account in the Highway Division. Ongoing maintenance costs will impact the Maintenance and Repair account in the Highway Division.

WisDOT would bill the City for the design and installation cost. There is no dedicated source of funding for the traffic signal at this time. If authorized, the traffic signal could be funded by either:

- Including the $309,050 in a future borrowing. Pending future budget and strategic planning discussions, staff anticipates that the City will initiate a 'transportation' bond in early 2022 to include the Highland Road Interchange and City Road Program funding.
- FY2022 and beyond capital budget. As capital requests typically exceed capital funding, and the budget process is not yet complete, it is difficult to determine the impact of financing the traffic signal with 'pay-as-you-go' capital funding that is included each year in the City's annual operating budget.

Recommendation

From an engineering perspective, the low number of accidents per traffic volume, the road geometry improvements and the fact that the intersection does not meet warrants indicate that a traffic signal should not be installed at the County Line Road and Port Washington Road intersection. Should the Common Council determine that a traffic signal should be installed as a part of the I-43 project, a resolution approving two state/municipal agreements to pay for and maintain the subject improvement is attached.

Attachments:
WisDOT Warrant Analysis (PDF)
2015 WisDOT Exhibit (PDF)
City PIM Comments (WisDOT Signal Email) Sept 13 2019 (PDF)
Accident History Port and County Line (PDF)
SMMA 1229-04- IH 43 Mequon (PDF)
SMFA 1229-04-74 IH43 CMequon (PDF)

Sidewalk Exhibit (PDF)

COMMON COUNCIL
OF THE
CITY OF MEQUON

RESOLUTION 3876

A Resolution Approving a State/Municipal Maintenance Agreement (SMMA) and a State/Municipal Financial Agreement (SMFA) for the Installation of a Traffic Signal at County Line Road and Port Washington Road

RECITALS

A. The Wisconsin Department of Transportation (WisDOT) is planning to reconstruct the Interstate 43 corridor from 4 lanes to 6 lanes, which includes construction to change roadway profiles at Highland Road, Donges Bay Road, County Line Road and Port Washington Road.

B. WisDOT has several packages for bidding, each with a unique project number, resulting in the requirement for individual agreements per project number.

C. WisDOT will include a traffic signal at the intersection of County Line Road and Port Washington Road at the request of the City of Mequon as a part of the County Line Road Interchange project at a total financial obligation of $309,050, which will be funded by a bond-financed borrowing or operating capital funds budgeted in 2022.

D. WisDOT is requesting approval of an agreement obligating the City to the long-term maintenance of the traffic signal including operating costs for the power to the infrastructure and maintenance and repairs over time.

E. The Committee of the Whole approved entering into a State/Municipal Maintenance Agreement and a State/Municipal Financial Agreement for traffic signal installation, operation and maintenance at County Line Road and Port Washington Road as a part of the project at its meeting on September 9, 2021.

BASED UPON THE FOREGOING RECITALS, IT IS RESOLVED by the Common Council of the City of Mequon, Wisconsin that:

1. Staff is authorized to enter into State/Municipal Maintenance Agreement and a State/Municipal Funding Agreement for traffic signal installation, operation and maintenance, subject to any clerical, technical and/or legal changes deemed necessary and appropriate by the City Attorney.

2. The Director of Public Works/City Engineer, Mayor and the City Clerk are authorized and directed to execute and deliver the same.

Approved by: John Wirth, Mayor

Date Approved: September 9, 2021

I certify that the foregoing Resolution was adopted by the Common Council of the City of Mequon, Wisconsin, at a meeting held on September 9, 2021.

_____

Caroline Fochs, City Clerk

Kristen Lundeen

From: Hoff, Steve - DOT <Steve.Hoff@dot.wi.gov>
Sent: Friday, February 7, 2020 11:51 AM
To: Jon Edgren; Kristen Lundeen
Subject: County Line Rd / Port Washington Rd Signal Warrants
Attachments: CountyLine-PortWash_Apr2019Warrant.pdf; CountyLine-PortWash_Apr2025Warrant.pdf; CountyLine-PortWash_Apr2045Warrant.pdf

Hi, Jon and Kristen-

Using current existing traffic volumes and the updated traffic forecast information from SEWRPC, we've rerun the signal warrant analysis at the County Line Rd / Port Washington Rd intersection. They're attached above (current year, open to traffic year and design year). As you can see, this intersection does not meet warrants in any of these years.

We had previously checked warrants for this intersection during the I-43 Corridor Study. At that time, the existing traffic volumes we used were from March of 2010. For this analysis, we used existing volumes from April of 2019. Volumes entering the intersection have decreased since 2010, which affected the analysis.

For the 12 hours from 6 AM to 6 PM, there were a total of 13,000 vehicles that entered the intersection in 2010. The same 12 hour time period in 2019 totaled 11,350 vehicles. Here's a table that shows how it varies from hour to hour:

Hour Starting	2010 I/S Total	2019 I/S Total	Difference
6:00 AM	307	302	5
7:00 AM	1161	917	244
8:00 AM	1122	912	210
9:00 AM	821	784	37
10:00 AM	825	803	22
11:00 AM	1036	918	118
12:00 PM	1163	948	215
1:00 PM	1054	1010	44
2:00 PM	1213	961	252
3:00 PM	1396	1211	185
4:00 PM	1342	1267	75
5:00 PM	1560	1317	243

Another factor in the warrants not being met is that SEWRPC now expects slightly lower growth rates, which are reflected in their forecast. When it was applied to the already-lower 2019 base year volumes, the forecasted volumes for this intersection are lower than they previously were.

If you have questions on the analysis, let me know.

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Steve Hoff, P.E.

Project Manager
WisDOT Southeast Region
Phone - o: (262)548-6718 / *c: (414)750-0514*
email: steve.hoff@dot.wi.gov

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: County Line Road & CTH W (Port Washington Rd)
County: Milwaukee/Ozaukee
Village: Bayside

Major Street: CTH W/Port Washington RD
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: County Line RD
Critical Approach Speed: 35 mph
Lanes: 1 lane

% Right Turns Included
From North (SB) 100%
From East (WB) 0%
From South (NB) 100%
From West (EB) 0%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on EXISTING volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
4/9/2019	Tuesday	6	AM	7	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:
Name: REB
Agency: HNTB
Date: 1/28/2020

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	150	120
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	75	60
Number of Hours	0	0

Satisfied? No

Condition C: Combination of A & B at 80%

Satisfied? No

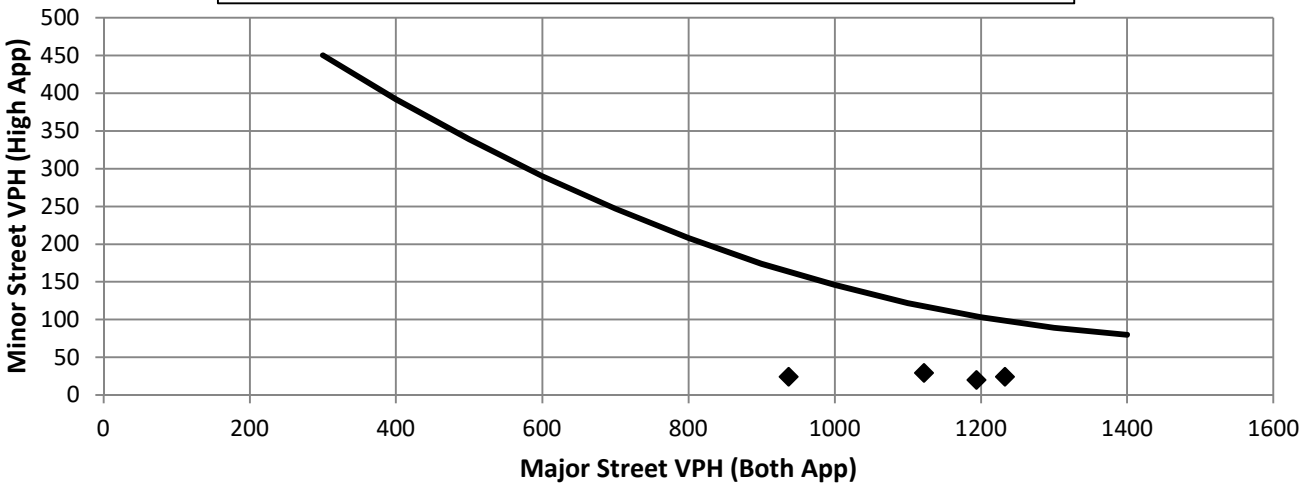
6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	269	25	294
2	7:00	8:00	797	30	827
3	8:00	9:00	818	33	851
4	9:00	10:00	713	26	739
5	10:00	11:00	751	24	775
6	11:00	12:00	848	19	867
7	12:00	13:00	903	19	922
8	13:00	14:00	937	24	961
9	14:00	15:00	883	21	904
10	15:00	16:00	1122	29	1151
11	16:00	17:00	1194	20	1214
12	17:00	18:00	1233	24	1257
13	18:00	19:00	868	30	898
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	17:00	16:00	15:00	13:00
Major Road Vol.	1233	1194	1122	937
Minor Road Vol.	24	20	29	24

Figure 4C-1 Warrant 2, Four-Hour Vehicular Volume



Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 3: Peak Hour Volume 100%

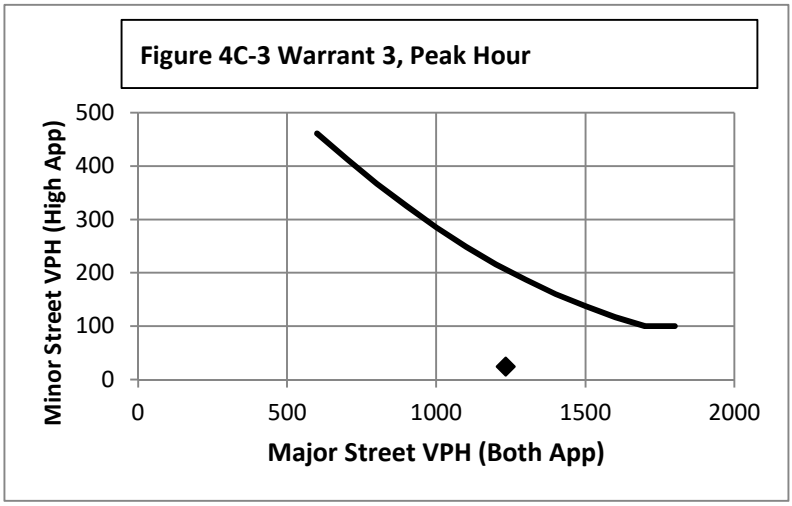
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	
Volume on Minor Approach	100	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
17:00	1233	24



Warrant 4: Pedestrian Volume 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

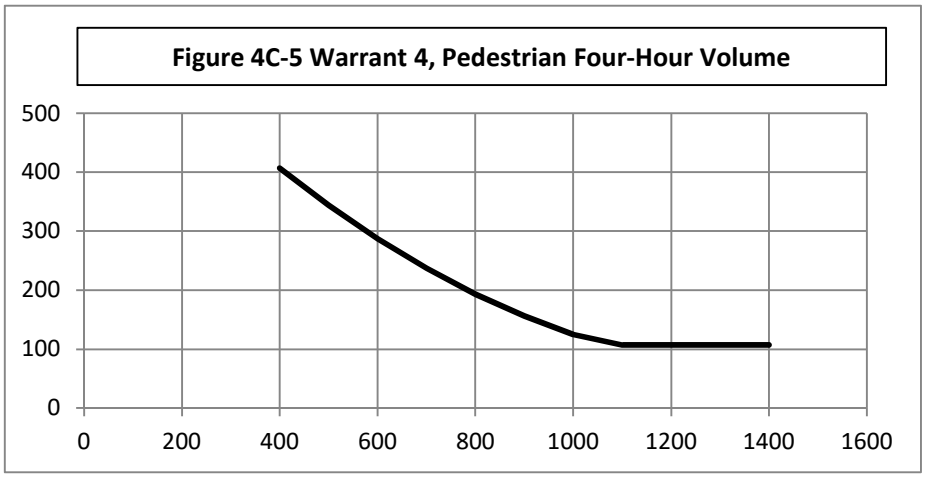
Criterion A: Four Hour

Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

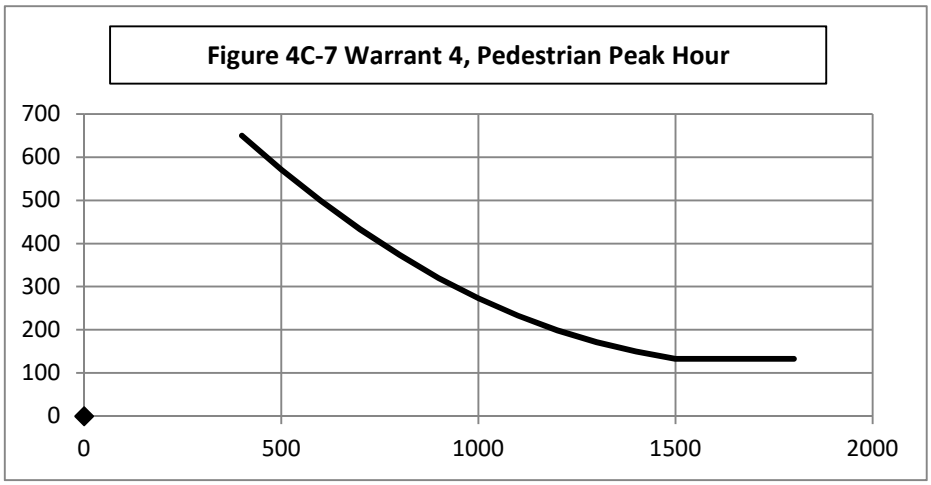
Criterion A Satisfied?



Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?



Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 5: School Crossing 100%

Warrant Evaluated? **Warrant Satisfied? N/A** **Manually Set To:**

Criteria		Fulfilled?
1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria		Fulfilled?
1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria			Met?	Fulfilled?
1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months		
3	Warrant 1, Condition A (80%)		No	No
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		No	

Warrant 8: Roadway Network 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria					Met?	Fulfilled?
1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour			1257	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.				No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)					
	Hour					
	Volume					

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic		Fulfilled?
1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 9: Intersection Near a Grade Crossing 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	17:00	1233	24	8.04

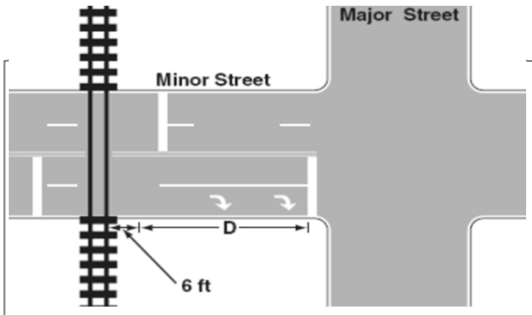
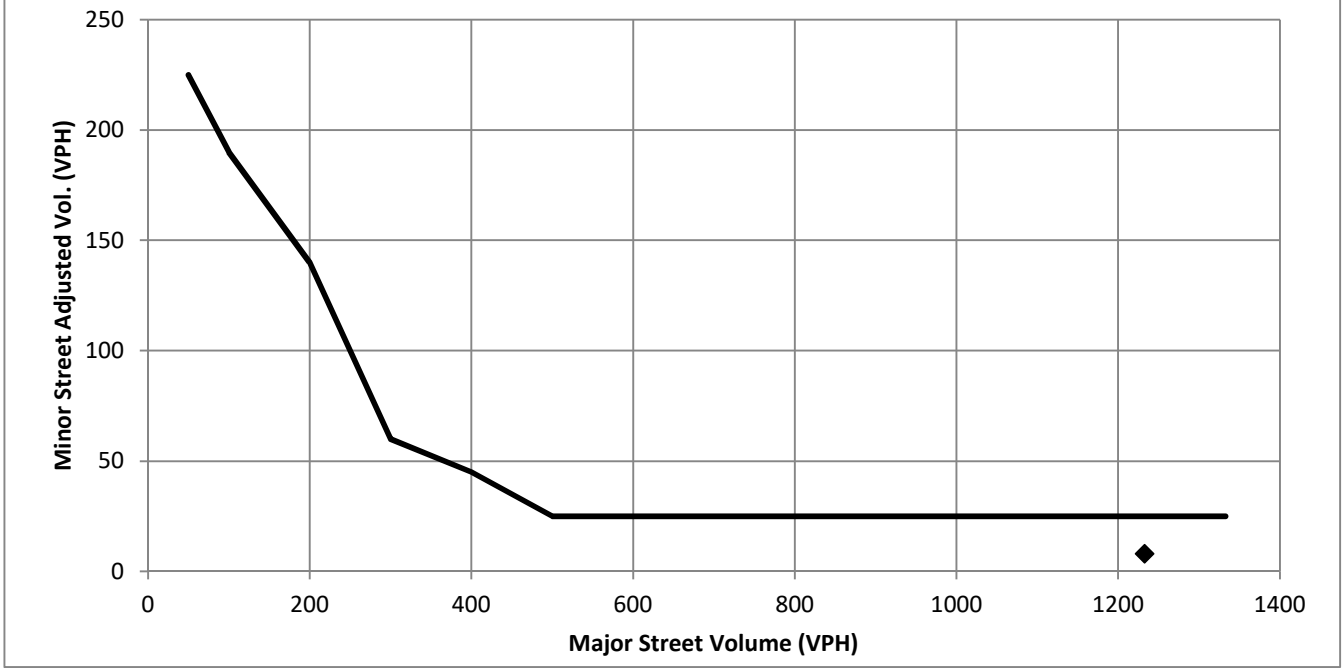


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: County Line Road & CTH W (Port Washington Rd)
County: Milwaukee/Ozaukee
Village: Bayside

Major Street: CTH W/Port Washington RD
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: County Line RD
Critical Approach Speed: 35 mph
Lanes: 1 lane

% Right Turns Included
From North (SB) 100%
From East (WB) 0%
From South (NB) 100%
From West (EB) 0%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on PROJECTED volume data.

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
4/9/2025	Wednesday	6	AM	7	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: REB
Agency: HNTB
Date: 1/28/2020

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	150	120
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	75	60
Number of Hours	3	5

Satisfied? No

Condition C: Combination of A & B at 80%

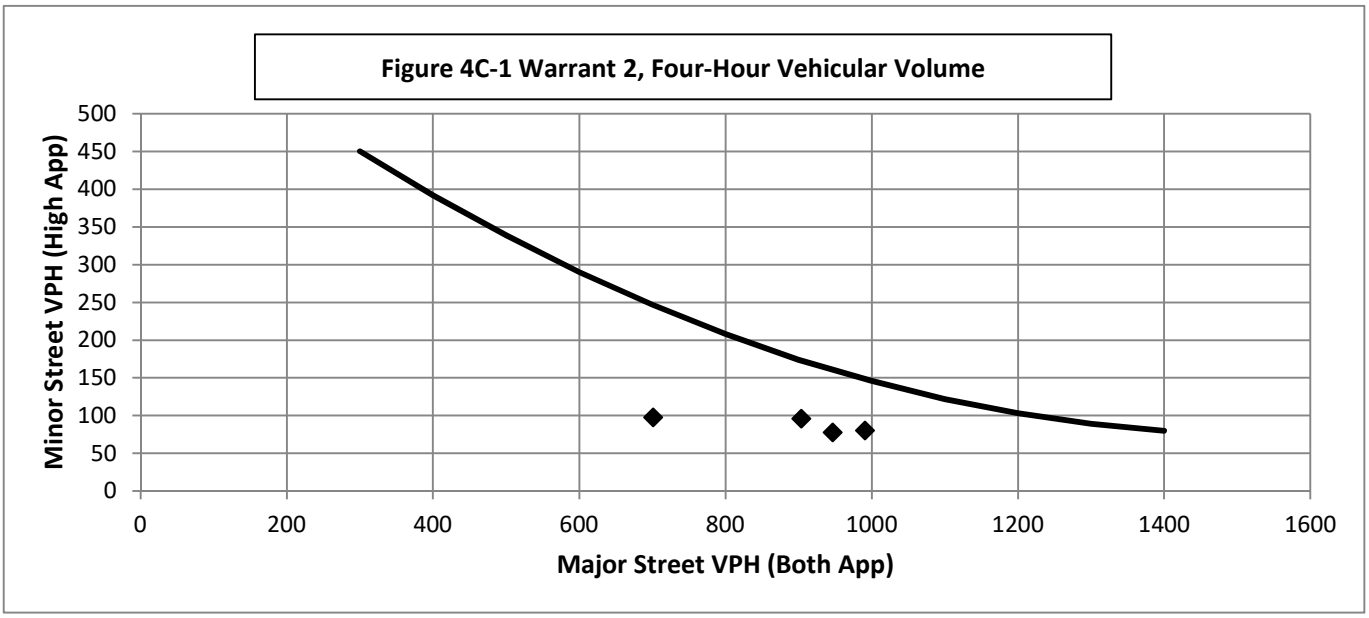
Satisfied? No

6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	237	22	258.329
2	7:00	8:00	713	26	739.08
3	8:00	9:00	677	50	727.809
4	9:00	10:00	579	63	641.858
5	10:00	11:00	605	37	641.604
6	11:00	12:00	699	33	731.854
7	12:00	13:00	745	24	769.394
8	13:00	14:00	766	67	832.882
9	14:00	15:00	729	68	796.505
10	15:00	16:00	904	96	999.262
11	16:00	17:00	947	78	1024.23
12	17:00	18:00	991	80	1071
13	18:00	19:00	701	97	798.369
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	17:00	15:00	16:00	18:00
Major Road Vol.	991	903.651	946.631	700.958
Minor Road Vol.	80	95.6105	77.6	97.4105



Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 3: Peak Hour Volume 100%

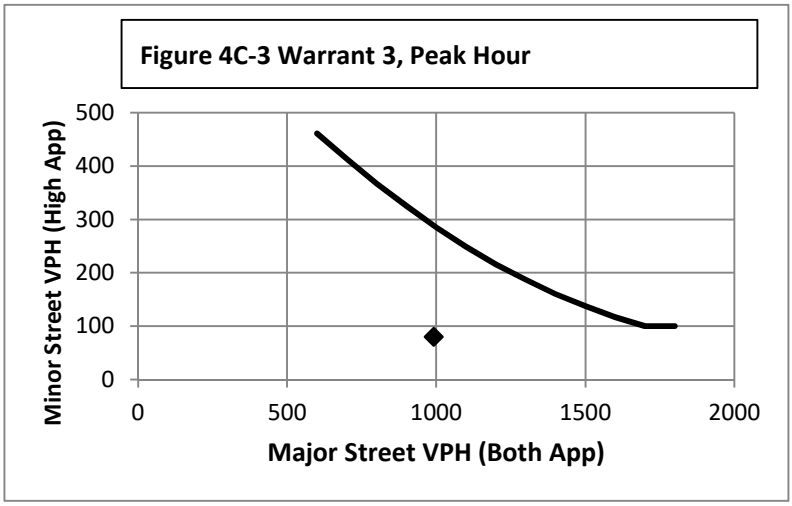
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	
Volume on Minor Approach	100	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
17:00	991	80



Warrant 4: Pedestrian Volume 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

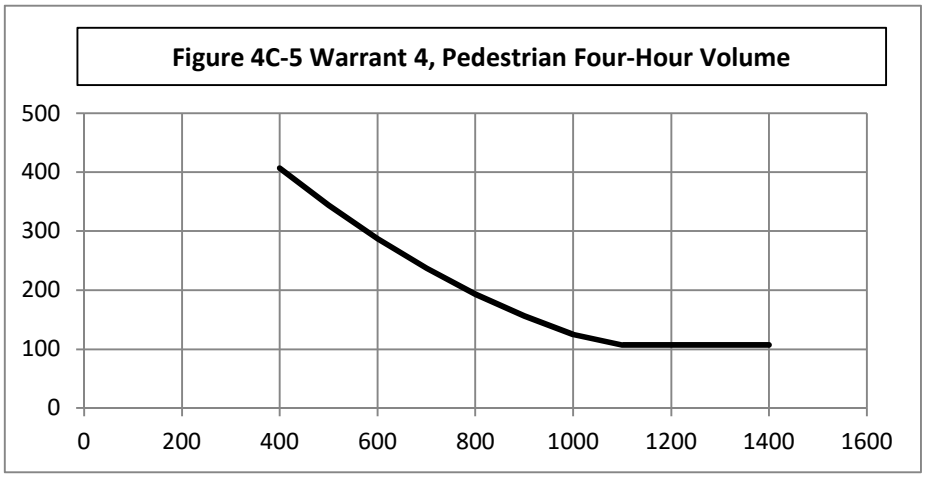
Criterion A: Four Hour

Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

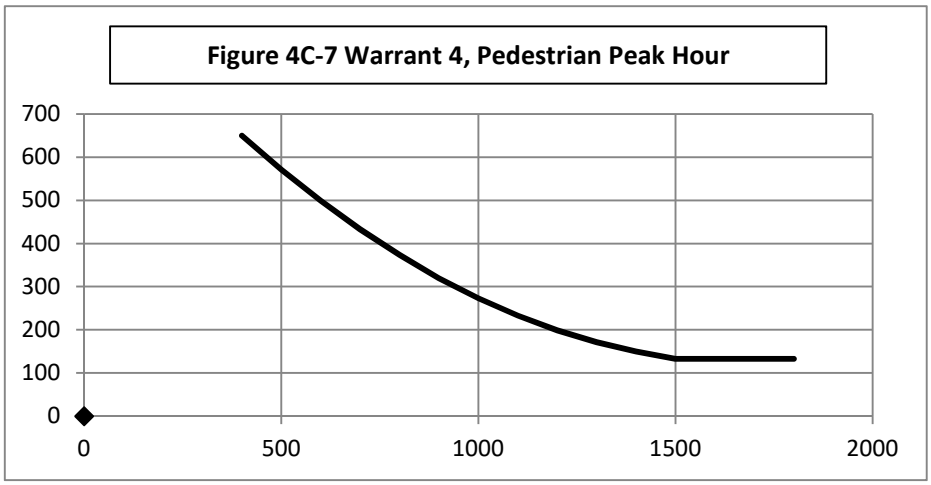
Criterion A Satisfied?



Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?



Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 5: School Crossing 100%

Warrant Evaluated? **Warrant Satisfied? N/A** **Manually Set To:**

Criteria		Fulfilled?
1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria		Fulfilled?
1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria			Met?	Fulfilled?
1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months		
3	Warrant 1, Condition A (80%)		No	No
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		No	

Warrant 8: Roadway Network 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria					Met?	Fulfilled?
1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour			1071	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.				No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)					
	Hour					
	Volume					

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic		Fulfilled?
1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 9: Intersection Near a Grade Crossing 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	17:00	991	80	26.8

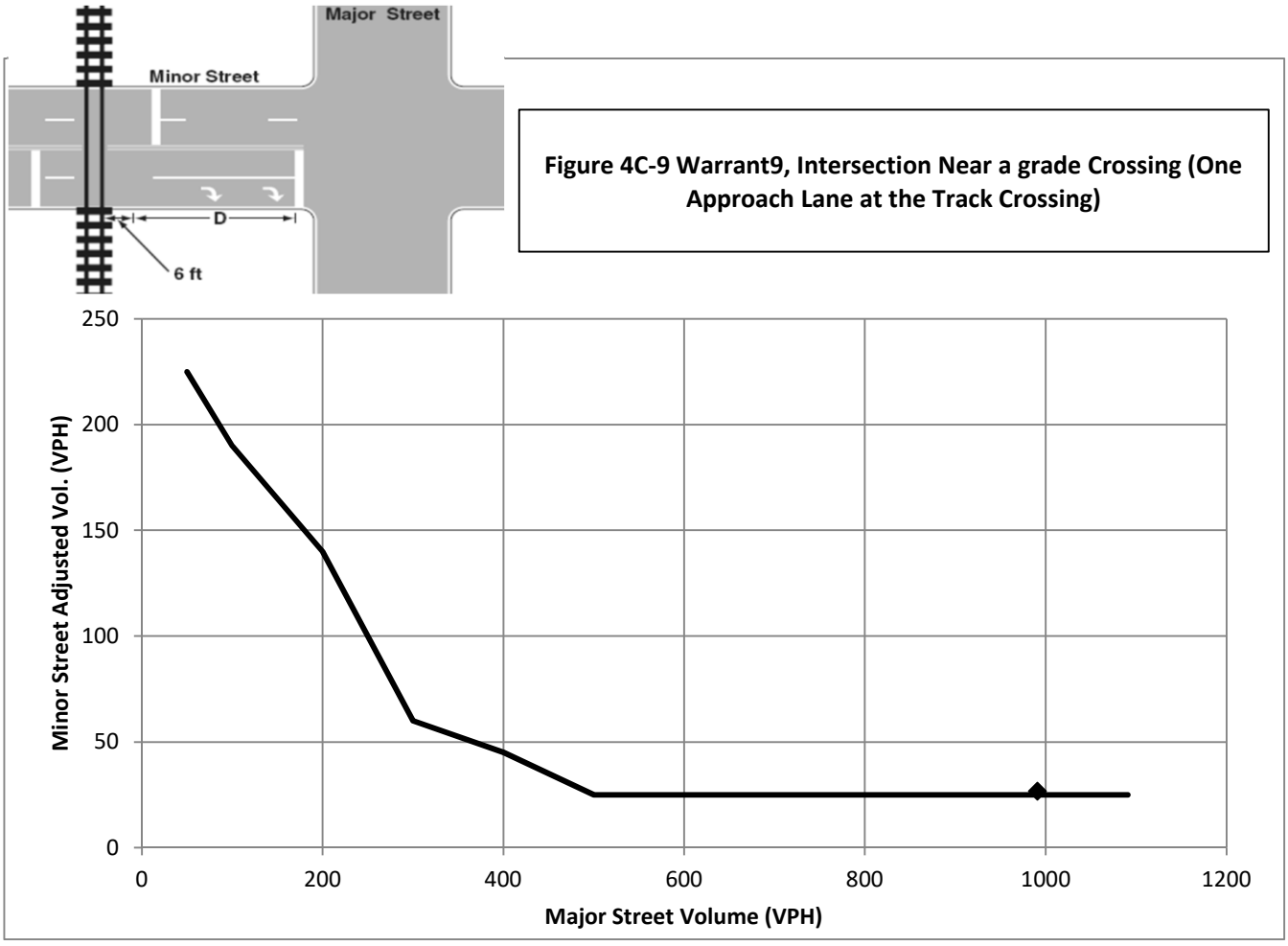


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)

Conclusions/Comments:

Updated: 12/6/2017

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: County Line Road & CTH W (Port Washington Rd)
County: Milwaukee/Ozaukee
Village: Bayside

Major Street: CTH W/Port Washington RD
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: County Line RD
Critical Approach Speed: 35 mph
Lanes: 1 lane

% Right Turns Included
From North (SB) 100%
From East (WB) 0%
From South (NB) 100%
From West (EB) 0%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on PROJECTED volume data.

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
4/5/2045	No	6	AM	7	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: REB
Agency: HNTB
Date: 1/28/2020

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	150	120
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	75	60
Number of Hours	3	6

Satisfied? No

Condition C: Combination of A & B at 80%

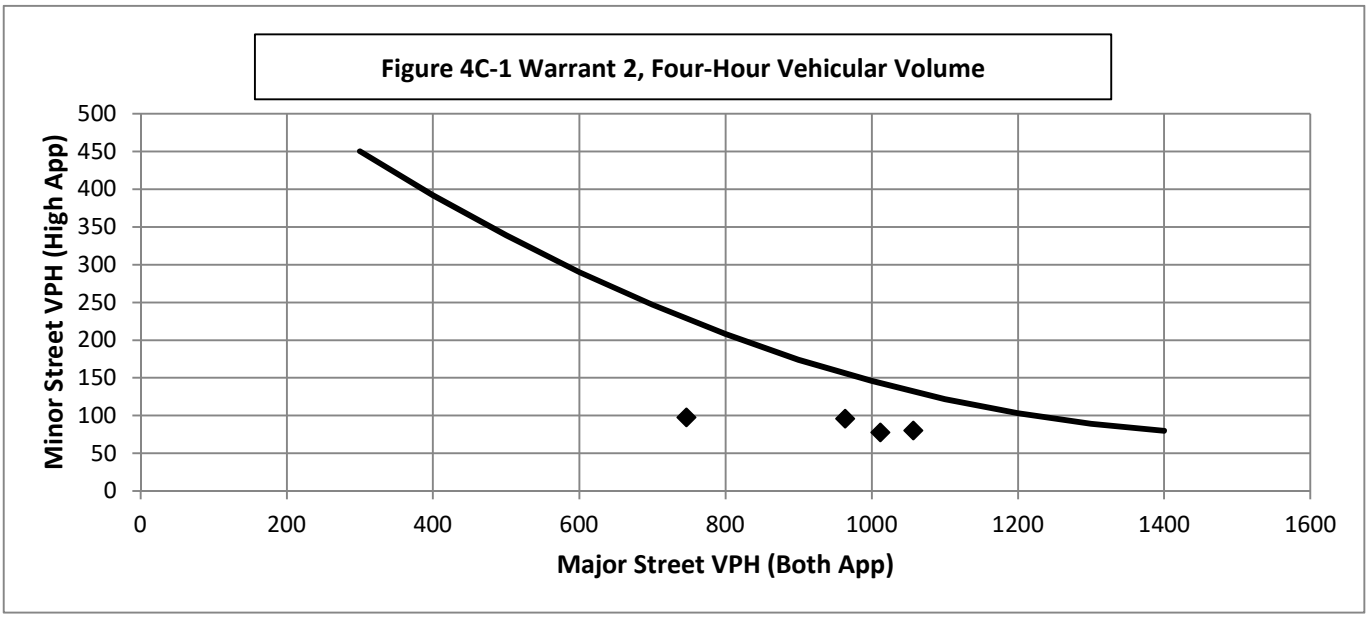
Satisfied? No

6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	249	22	270.593
2	7:00	8:00	750	26	775.974
3	8:00	9:00	719	50	769.161
4	9:00	10:00	617	63	679.765
5	10:00	11:00	646	37	683.033
6	11:00	12:00	745	33	777.614
7	12:00	13:00	794	24	818.772
8	13:00	14:00	815	67	882.56
9	14:00	15:00	776	68	843.708
10	15:00	16:00	964	96	1059.13
11	16:00	17:00	1012	78	1089.47
12	17:00	18:00	1057	80	1137
13	18:00	19:00	747	97	844.173
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	17:00	15:00	16:00	18:00
Major Road Vol.	1057	963.521	1011.87	746.762
Minor Road Vol.	80	95.6105	77.6	97.4105



Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 3: Peak Hour Volume 100%

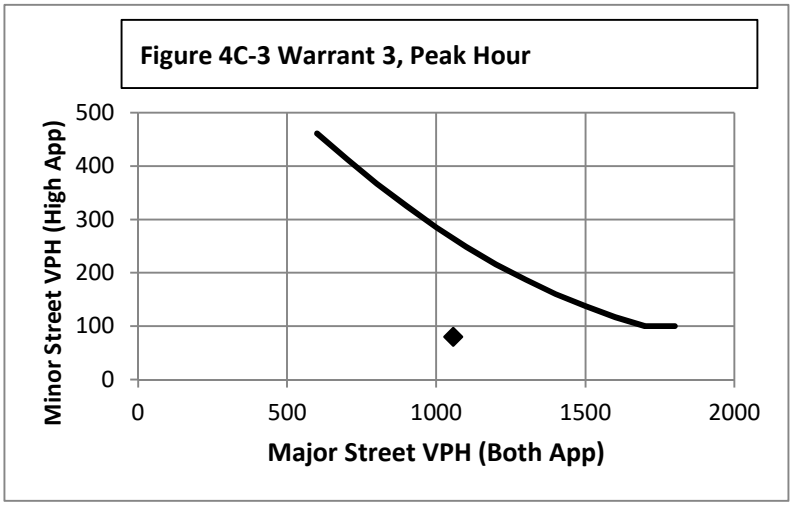
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	
Volume on Minor Approach	100	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
17:00	1057	80



Warrant 4: Pedestrian Volume 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

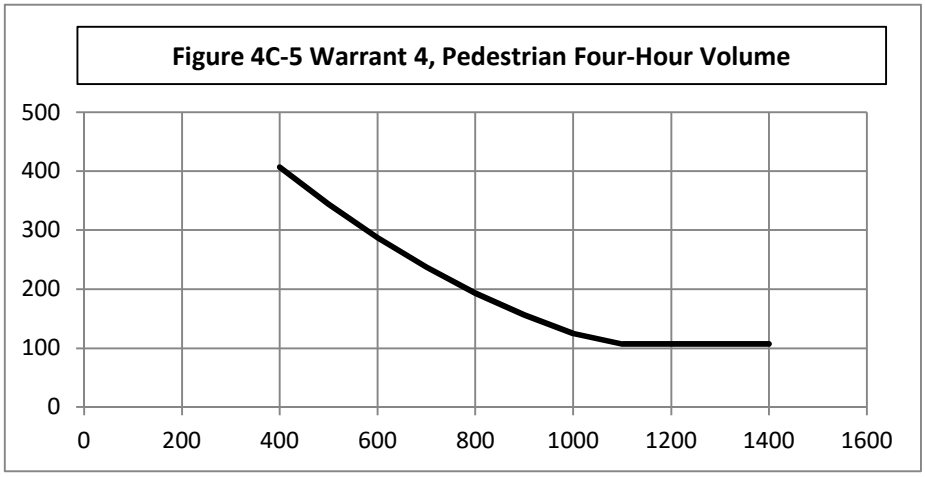
Criterion A: Four Hour

Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

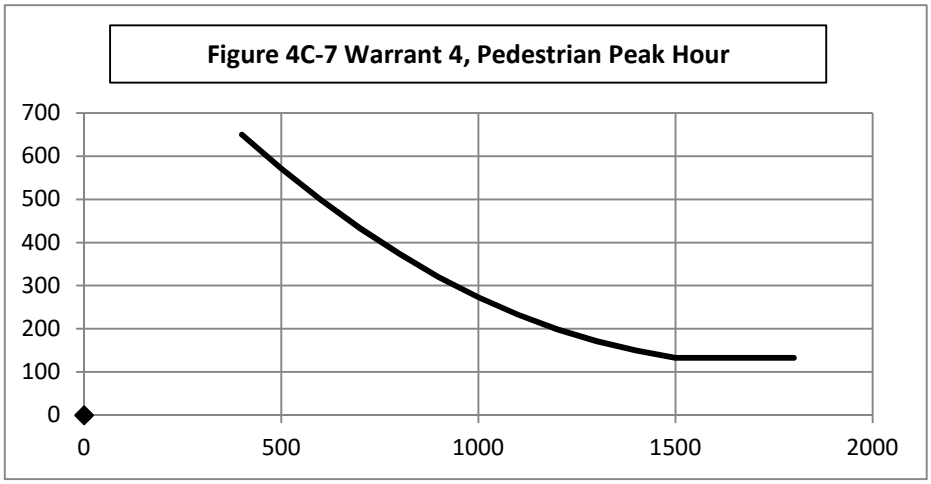
Criterion A Satisfied?



Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?



Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 5: School Crossing 100%

Warrant Evaluated? **Warrant Satisfied? N/A** **Manually Set To:**

Criteria		Fulfilled?
1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria		Fulfilled?
1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria			Met?	Fulfilled?
1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months		
3	Warrant 1, Condition A (80%)		No	No
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		No	

Warrant 8: Roadway Network 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Criteria					Met?	Fulfilled?
1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour			1137	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.				No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)					
	Hour					
	Volume					

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic		Fulfilled?
1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington

Warrant 9: Intersection Near a Grade Crossing 100%

Warrant Evaluated? No **Warrant Satisfied? N/A** **Manually Set To:**

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	17:00	1057	80	26.8

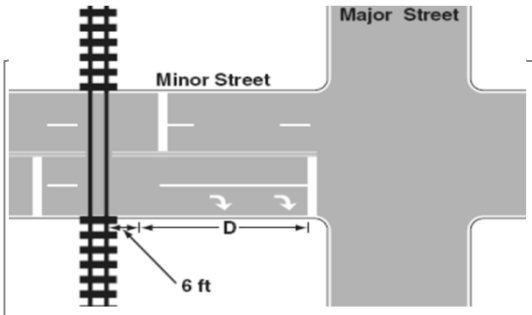
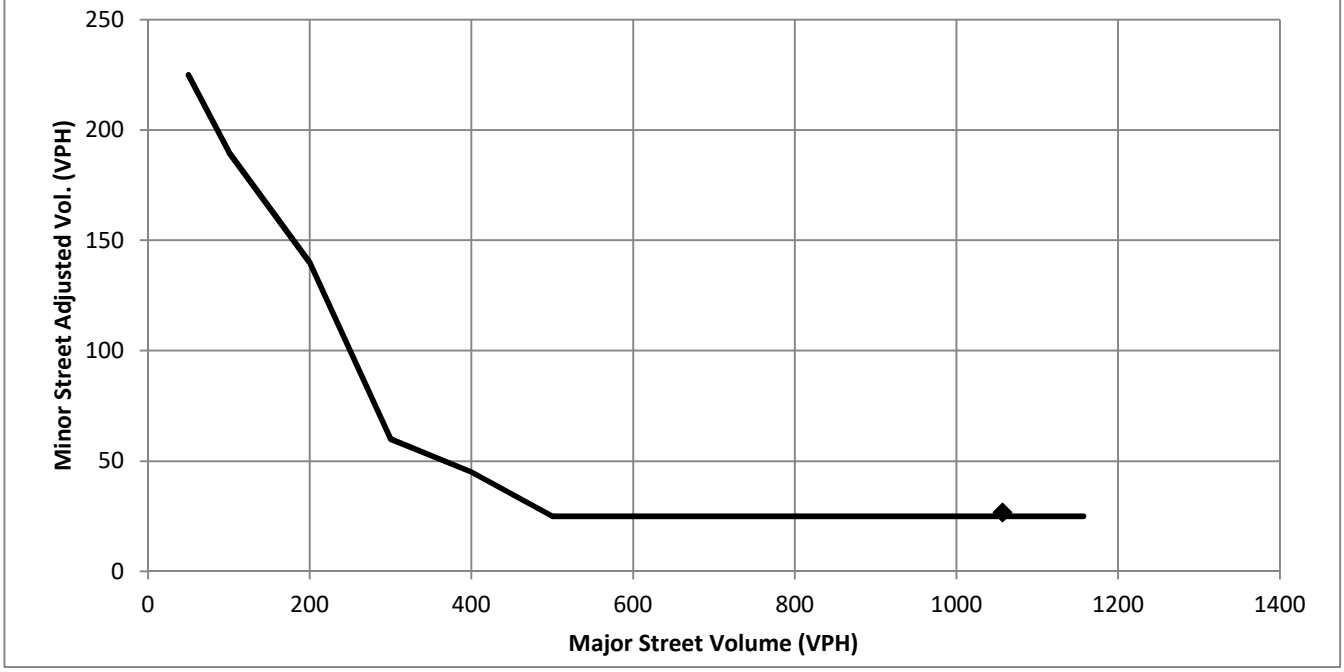


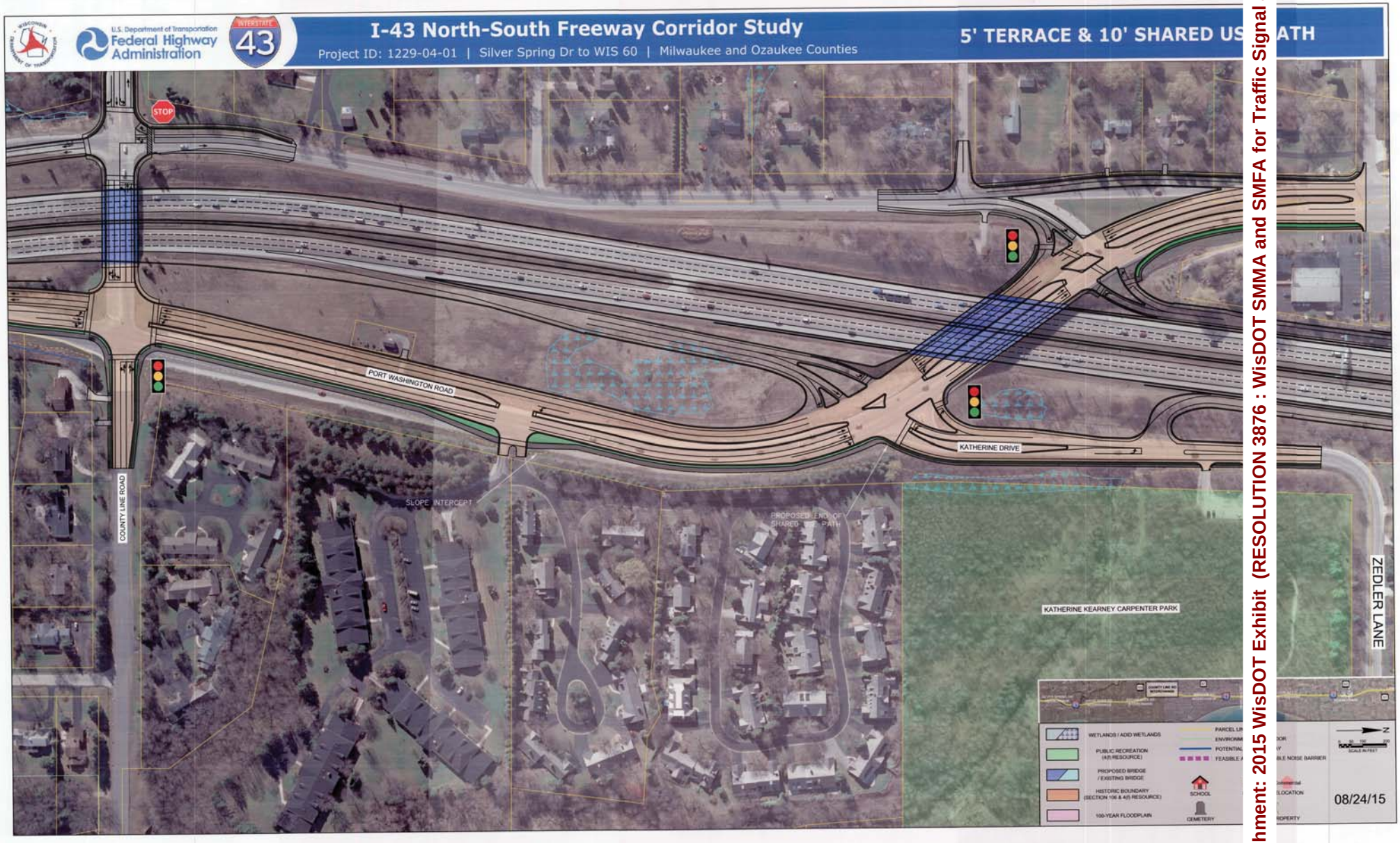
Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Attachment: WisDOT Warrant Analysis (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port Washington



Attachment: 2015 WisDOT Exhibit (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at

Kristen Lundeen

From: Kristen Lundeen
Sent: Friday, September 13, 2019 2:41 PM
To: Hoff, Steve - DOT
Cc: Nag, Manojoy - DOT
Subject: RE: WisDOT Files to download: I-43 NS Project

Steve,

At its September 10 meeting, the City discussed the items of which WisDOT requested feedback. A summary of the discussion follows:

- It passed a resolution affirming the request for a partial interchange at County Line Road. Once the resolution is signed by the Mayor, I will forward a scanned copy.
- It supports the installation of a traffic signal at County Line Road/Port Washington Road, with Milwaukee having maintenance jurisdiction.
- In general, it supports paved/widened shoulders to accommodate bicycle traffic.
- It supports a separated path on Port Washington Road from Milwaukee County to the existing sidewalk north of the interchange.
- It supports a sidewalk at the Mequon Road interchange extending east to San Marino Drive.
- It does not support bicycle/pedestrian facilities at the Pioneer Road interchange.

I believe those were the items of which WisDOT requested feedback. If I missed anything, please let me know.

Thank you,
Kristen

Kristen Lundeen
Director of Public Works/City Engineer
City of Mequon
11333 N. Cedarburg Road
Mequon, WI 53092
klundeen@ci.mequon.wi.us
262-236-2938

From: Hoff, Steve - DOT [mailto:Steve.Hoff@dot.wi.gov]
Sent: Friday, August 30, 2019 8:36 AM
To: Kristen Lundeen
Cc: Nag, Manojoy - DOT
Subject: RE: WisDOT Files to download: I-43 NS Project

Good morning, Kristen-

The two signed SMA's are attached above.

Have a good weekend!

Steve Hoff, P.E.

Attachment: City PIM Comments (WisDOT Signal Email) Sept 13 2019 (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at

Juris	Date	Call#	CFS	Location	Unit	Officer	Disposition
ME	11/28/18 19:02	18.032237	NRPT	W County Line Rd/N Port Washington Rd;ME, Mequon, WI 53092	923	4063	FIN
ME	12/13/17 17:46	17.032325	NRPT	9600BLK N Port Washington Rd;ME, Mequon, WI 53092	945	4044	CIT
ME	01/11/21 12:42	21.000964	PDO	W County Line Rd/N Port Washington Rd;ME, Mequon, WI 53092	918	4080	ACR
ME	02/03/17 12:53	17.002604	PDO	W County Line Rd/N Port Washington Rd;ME	929	2243	ACR
ME	11/07/19 20:01	19.027325	PI	W County Line Rd/N Port Washington Rd;ME, Mequon, WI 53092	919	4069	ACR
ME	08/16/17 10:41	17.021409	PI	9600BLK N Port Washington Rd;ME;ME	922	2220	ACR

Attachment: Accident History Port and County Line (RESOLUTION 3876 : WisDOT SMMA and SMFA for

STATE/MUNICIPAL **MAINTENANCE** **AGREEMENT**	Date: August 26 2021 ID: 1229-04-74, 1229-04-75, 1229-04-76 Road Name: IH 43 Limits: W County Line Rd Interchange to STH 60 County: Milwaukee

The signatory City of **Mequon**, hereinafter called the Municipality, through its undersigned duly authorized officers or officials, hereby requests the State of Wisconsin Department of Transportation, hereinafter called the State, to initiate and affect this agreement to include the associated maintenance responsibilities hereinafter described.

The authority for the Municipality to enter into this agreement with the State is provided by Section 84.07(1) of the Statutes. Wisconsin statutes, Wisconsin Administrative Code, and State policy serve as the defining documents for State Highway maintenance responsibilities.

DESCRIPTION OF FACILITY:

Facility description upon completion of State project – As determined by project ID 1229-04-74, 1229-04-75, 1229-04-76

Facility description upon signature – The proposed roadway improvement is a reconstruction of IH 43 and surrounding roadways.

This request shall constitute agreement between the Municipality and the State; is subject to the terms and conditions that follow (pages [2] – [4]); is made by the undersigned under proper authority to make such request for the designated Municipality and upon signature by the State, delivery to the Municipality and upon fully executed signature of associated, applicable State Municipal Financial Agreement for project 1229-04-74, 1229-04-75 & 1229-04-76. The initiation and signature of the agreement will be subject to all the applicable federal and state regulations. No term or provision of neither the State/Municipal Maintenance Agreement nor any of its attachments may be changed, waived or terminated orally but only by an instrument in writing executed by both parties to the State/Municipal Maintenance Agreement.

Signed for and in behalf of the **City of Mequon** (Please sign in blue ink)	
Name (print)	Title
Signature	Date
Signed for and in behalf of the **State** (Please sign in blue ink)	
Name Brian Roper	Title **WisDOT SE Region Maintenance Chief**
Signature	Date

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

TERMS AND CONDITIONS:

1. In order to guarantee the Municipality's foregoing agreements to maintain the facility to State standards, the Municipality, through its above duly authorized officers or officials, agrees and authorizes the State to set off and withhold General Transportation Aids or monies otherwise due and payable by the State to the municipality, as determined by the State, for any maintenance the State must perform to the facility should the Municipality fail to comply with the agreement.

2. The State will not install any additional items, not necessitated for the safe and efficient flow of traffic, to a state highway facility without the Municipality agreeing to maintain those items. The State is responsible for maintaining the through travel way of any given highway facility under the State's jurisdiction including:

   (a) The energy, operation, repair and replacement of traffic signals and associated street lighting required for the signalized intersections within the limits of this agreement for:

      1. Signalized intersections at County Line Rd/Port Washington Rd Interchange, Mequon Rd Interchange, CTH C (Pioneer Rd) interchange, STH 60 Interchange.

   (b) Signing and pavement marking necessitated for the safe and efficient flow of traffic except those items listed in #3.

   (c) Permitting authority of utilities and access control on all State Trunk, US and Interstate Highways.

3. The Municipality shall at its own cost and expense maintain all portions within the specified limits of this agreement that lie within its jurisdiction for such maintenance through statutory requirements in a manner satisfactory to the State and shall make ample provision for such maintenance each year to include:

   (a) Maintain all items outside, and under, the travel way to include, but not limited to, parking lanes, curb and gutter, drainage facilities, sidewalks, multi-use paths, retaining walls, pedestrian refuge islands and landscaping features.

   (b) Remove snow and ice from sidewalks, multi-use paths, and pedestrian refuge islands along N Port Washington Road, N Port Washington Ln, W County Line Rd, N. Katherine Dr, Donges Bay Rd, Mequon Rd (including on off Ramps at IH 43), and Highland Rd. Reference Attachment 1 appended to this document for sidewalk locations and Attachment 2 letter from Ozaukee County appended to this document for N Port Washington Road.

   (c) Implement a street sweeping program to help prevent the accumulation of dirt, sand, leaves, paper, or other clogging debris.

   (d) Maintain and accept responsibility for the energy, operation, maintenance, repair, and replacement of the street lighting system along Port Washington Road.

      i. The Municipality shall accept responsibility for locating utilities for Digger's Hotline.

      ii. If at any time the Municipality should choose to turn off or remove street lighting, in part or in whole, funded with federal/state dollars, the State will determine potential conflicts and approve/disapprove such request. If removal is approved by the State, the Municipality will reimburse to the State an amount determined by Federal and State coordination.

   (e) Maintain clear right-of-way of all encroachments.

   (f) Maintain crosswalk pavement markings. The municipality shall obtain a permit with the State (contact Traffic Operations Unit (signing and marking)).

   (g) Maintain signs and pavement markings not necessary for the safe and efficient movement of traffic (no parking signs, wayfinding signs, etc.). The municipality shall obtain a permit with the State (contact Traffic Operations Unit (signing and marking)).

   (h) Maintain and accept responsibility for the following as applicable to this agreement:

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

1. Water utilities underneath and adjacent to N Port Washington Rd, N Port Washington Ln, N Katherine Dr and Highland Rd.

2. Sanitary Sewer. Underneath and adjacent to County Line Rd, N Port Washington Ln, N Port Washington Rd, Donges Bay Rd, Mequon Rd and Highland Rd.

3. Traffic Signals at N. Port Washington Road and W County Line Road east of IH 43.

4. The Municipality, within the specified limits, agrees to:

   (a) Prohibit angle parking along Mequon Rd (STH 167/STH57).

   (b) Regulate parking along the highway. The Municipality will file a parking declaration with the State.

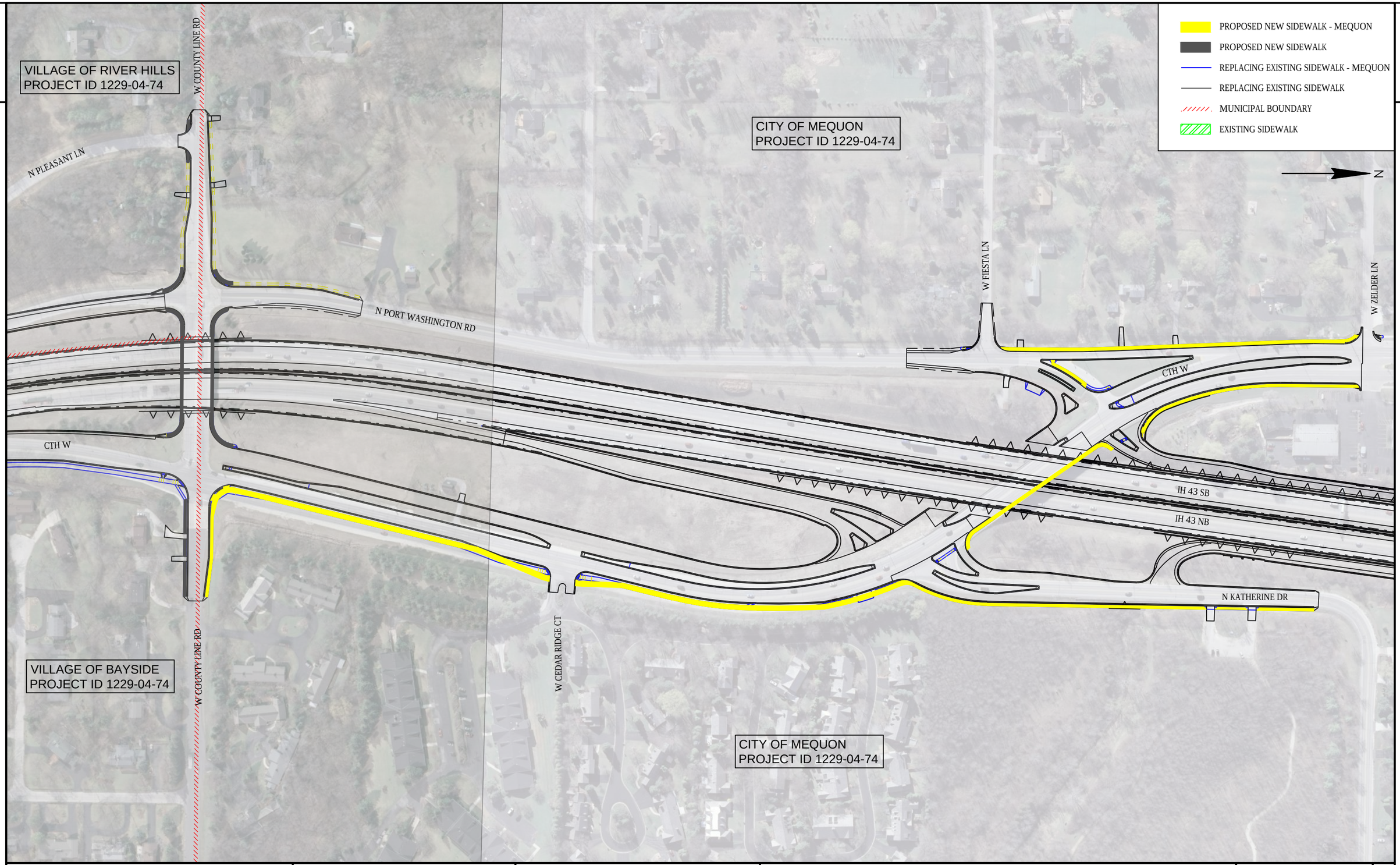
   (c) The Municipality will coordinate with the State to obtain any necessary Work on Right-of-Way Permits for maintenance performed on or within the state highway facility or state right-of-way.

5. This agreement does not remove the current municipal maintenance responsibility.

6. The State or Municipality may request an amendment to this agreement to include specific features later requested by the Municipality throughout the design process.

7. Upon completion of each construction project, 1229-04-74, 1229-04-75 and 1229-04-76 the Municipality will assume all afore mentioned maintenance responsibilities.

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

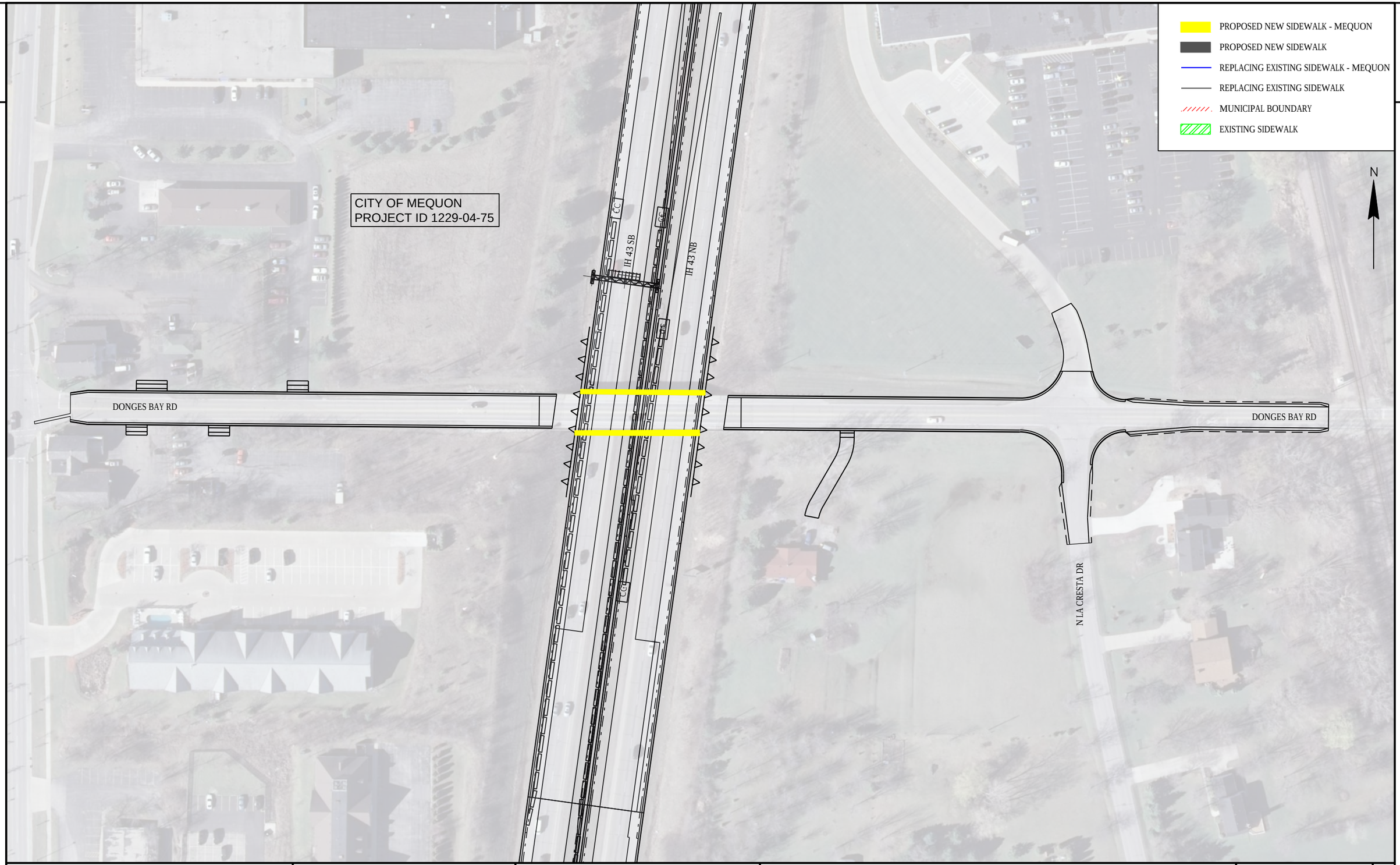


PROJECT NO: 1229-04-74	HWY: IH 43	COUNTY: MILWAUKEE/OZAUKEE	PROPOSED SIDEWALK - VILLAGE OF BAYSIDE / VILLAGE OF RIVER HILLS / CITY OF MEQUON	SHEET	E

FILE NAME : C:\CADDLIB\PW\CRKASTEN\GREATLAKES\D0280611\SIDEWALK EXHIBIT.DWG
LAYOUT NAME - PORT WASHINGTON RD

PLOT DATE : 8/26/2021 8:23 AM PLOT BY : CECELIA KASTEN PLOT NAME : PLOT SCALE : ##########

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port



PROJECT NO: 1229-04-75	HWY: IH 43	COUNTY: OZAUKEE	PROPOSED SIDEWALK - CITY OF MEQUON	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_NARGUELLES\GREATLAKES\D0280611\SIDEWALK EXHIBIT.DWG
LAYOUT NAME - DONGES BAY

PLOT DATE : 8/12/2021 2:47 PM PLOT BY : NICOLE ARGÜELLES PLOT NAME : PLOT SCALE : 1 IN:100 FT

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

2

2

PROPOSED NEW SIDEWALK - MEQUON
PROPOSED NEW SIDEWALK
REPLACING EXISTING SIDEWALK - MEQUON
REPLACING EXISTING SIDEWALK
MUNICIPAL BOUNDARY
EXISTING SIDEWALK

CITY OF MEQUON
PROJECT ID 1229-04-75

N

CTH W

BUS STOP #2746

IH 43 SB

IH 43 NB

RAILROAD

MEQUON RD

MEQUON RD

PROJECT NO: 1229-04-75	HWY: IH 43	COUNTY: OZAUKEE	PROPOSED SIDEWALK - CITY OF MEQUON	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_NARGUELLES\GREATLAKES\D0280611\SIDEWALK EXHIBIT.DWG
LAYOUT NAME - MEQUON RD

PLOT DATE : 8/12/2021 2:50 PM PLOT BY : NICOLE ARGÜELLES PLOT NAME : PLOT SCALE : 1 IN:100 FT

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

2

2

PROPOSED NEW SIDEWALK - MEQUON
PROPOSED NEW SIDEWALK
REPLACING EXISTING SIDEWALK - MEQUON
REPLACING EXISTING SIDEWALK
MUNICIPAL BOUNDARY
EXISTING SIDEWALK

CITY OF MEQUON
PROJECT ID 1229-04-75

CONCORDIA
UNIVERSITY

N

CTH W

IH 43 SB

IH 43 NB

N LAKE SHORE DR

HIGHLAND RD

HIGHLAND RD

BUS STOP #2748

BUS STOP #2749

PROJECT NO: 1229-04-76	HWY: IH 43	COUNTY: OZAUKEE	PROPOSED SIDEWALK - CITY OF MEQUON	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_NARGUELLES\GREATLAKES\D0280611\SIDEWALK EXHIBIT.DWG
LAYOUT NAME - HIGHLAND RD

PLOT DATE : 8/12/2021 2:48 PM PLOT BY : NICOLE ARGÜELLES PLOT NAME : PLOT SCALE : 1 IN:200 FT

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

Ozaukee County Highway Department
410 South Spring Street
Port Washington, Wisconsin 53074-0994
Jon E. Edgren, P.E. – Director of Public Works
Phone 262-238-8335 Fax 262-238-8343

July 29, 2021

Mr. Steve Hoff
Wisconsin Department of Transportation
141 N.W. Barstow Street
Waukesha, WI 53188
VIA E-MAIL: Steve.Hoff@dot.wi.gov

RE: Sidewalk Construction along CTH W (N. Port Washington Rd)
I-43 Expansion Project (ID 1229-04-74)

Dear Mr. Hoff:

The Wisconsin Department of Transportation (WisDOT) has notified the Ozaukee County Highway Department of their intent to construct sidewalks in various locations adjacent to County Trunk Highway (CTH) W (N. Port Washington Road), which is under Ozaukee County jurisdiction, as part of WisDOT's I-43/County Line Road Interchange project (ID 1229-04-74). (See attached map for approximate locations.)

Ozaukee County has no objections to the construction of sidewalk along CTH W, but we do not accept maintenance responsibilities for sidewalk. Therefore, any future sidewalk maintenance, repairs, snow removal, etc..., would need to be designated to the local municipality, which should be the City of Mequon for the given locations.

Please feel free to contact me at 262-238-8335 if you have any questions, comments, or concerns.

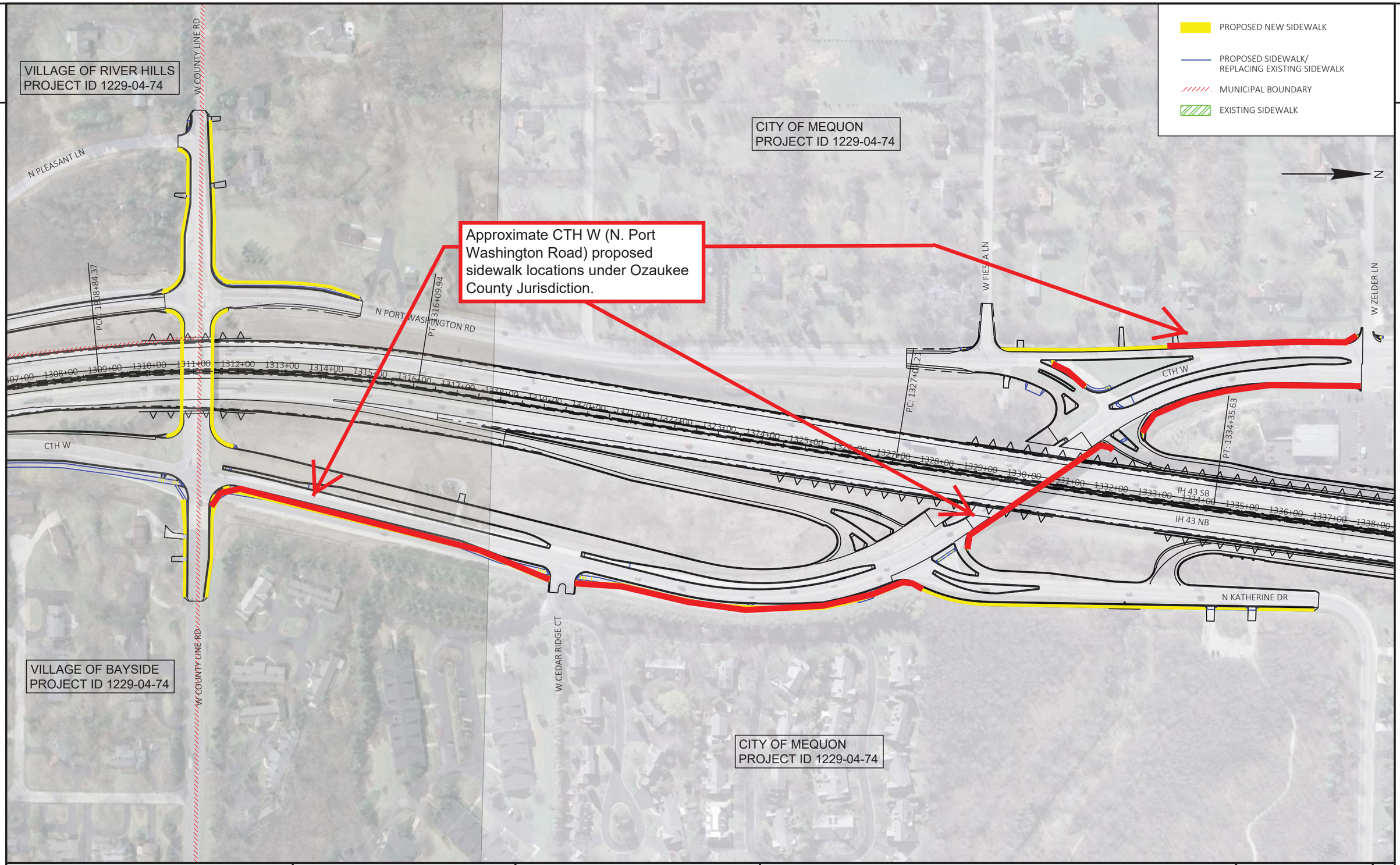
Sincerely,

Jon E. Edgren, P.E.
Ozaukee County Director of Public Works

Cc: Warren Guettel, Ozaukee County's Construction Superintendent,
wguettel@co.ozaukee.wi.us

N:\State Highways\I-43\Projects\Expansion Project\I-43 - County Line Rd Interchange\Hoff_JEE^I-43 Expansion Sidewalk on CTH W.docx

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port



PROJECT NO: 1229-04-74	HWY: IH 43	COUNTY: MILWAUKEE/OZAUKEE	PROPOSED SIDEWALK - VILLAGE OF BAYSIDE / VILLAGE OF RIVER HILLS / CITY OF MEQUON	SHEET	E

FILE NAME : C:\CADDLIB\PW\HNTB_NARGUELLES\GREATLAKES\D0280611\SIDEWALK EXHIBIT.DWG
LAYOUT NAME - PORT WASHINGTON RD

PLOT DATE : 7/15/2021 2:37 PM PLOT BY : PLOT NAME : PLOT SCALE : ##########

Attachment: SMMA 1229-04- IH 43 Mequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

STATE/MUNICIPAL FINANCIAL AGREEMENT FOR A STATE- LET HIGHWAY PROJECT	Date: August 26, 2021 I.D.:1229-04-02/07/74 Road Name: IH 43 Title: I-43 NORTH SOUTH FREEWAY Limits: W COUNTY LINE RD INTERCHANGE County: Ozaukee Roadway Length: 1.22 Miles

The signatory **City of Mequon**, hereinafter called the Municipality, through its undersigned duly authorized officers or officials, hereby requests the State of Wisconsin Department of Transportation, hereinafter called the State, to initiate and affect the highway or street improvement hereinafter described.

The authority for the Municipality to enter into this agreement with the State is provided by Section 86.25(1), (2), and (3) of the Statutes.

NEEDS AND ESTIMATE SUMMARY:

Existing Facility - Describe and give reason for request: Improvement

Proposed Improvement - Nature of work: As determined by project scoping.

Describe non-participating work included in the project and other work necessary to finish the project completely which will be undertaken independently by the municipality: A nominal amount is included to cover items in paragraph 4 (to be adjusted in the final plan).

TABLE 1: SUMMARY OF COSTS

Phase	Total Est. Cost	Federal/State Funds	%	Municipal Funds	% *
Preliminary Engineering:					
Plan Development (corridor design-Silver Spring to STH 60; 1229-04-02)	$ 24,000,000	$ 24,000,000	100%	$ -	0%
Plan Development (signal design 1229-04-07)	$ 36,000	$ -	0%	$ 36,000	100%
[1]Construction:					
Participating	$ 66,690,000	$ 66,690,000	100%	$ -	0%
Signals (Port Washington/County Line Rd)	$ 270,000		0%	$ 270,000	100%
Utility (Sanitary)	$ 30,500	$ 27,450	90%	$ 3,050	10%
Total Cost Distribution	**$ 91,026,500**	**$ 90,717,450**		**$ 309,050**	

1 Estimates include construction engineering

This request shall constitute agreement between the Municipality and the State; is subject to the terms and conditions that follow (pages [2] – [3]); is made by the undersigned under proper authority to make such request for the designated Municipality, upon signature by the State, upon fully executed signature of applicable State Municipal Maintenance Agreement and delivery to the Municipality. The initiation and accomplishment of the

Attachment: SMFA 1229-04-74 IH43 CMequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

improvement will be subject to the applicable federal and state regulations. No term or provision of neither the State/Municipal Financial Agreement nor any of its attachments may be changed, waived or terminated orally but only by an instrument in writing executed by both parties to the State/Municipal Financial Agreement.

Signed for and in behalf of the **City of Mequon** (please sign in blue ink)	
Name (print)	Title
Signature	Date
Signed for and in behalf of the **State** (please sign in blue ink)	
Name **Tony Barth**	Title **WisDOT SE Region Planning Chief**
Signature	Date

TERMS AND CONDITIONS:

1. The Municipality shall pay to the State all costs incurred by the State in connection with the improvement which exceeds federal/state financing commitments or are ineligible for federal/state financing. Local participation shall be limited to the items and percentages set forth in the Summary of Costs table, which shows Municipal funding participation. In order to guarantee the Municipality's foregoing agreements to pay the State, the Municipality, through its above duly authorized officers or officials, agrees and authorizes the State to set off and withhold the required reimbursement amount as determined by the State from General Transportation Aids or any moneys otherwise due and payable by the State to the Municipality.

2. Funding of each project phase is subject to inclusion in an approved program and per the State's Facility Development Manual (FDM) standards. Federal aid and/or state transportation fund financing will be limited to participation in the costs of the following items as specified in the Summary of Costs:

   (a) Design engineering and state review services.

   (b) Real Estate necessitated for the improvement.

   (c) Compensable utility adjustment and railroad force work necessitated for the project.

   (d) The grading, base, pavement, curb and gutter, and structure costs to State standards, excluding the cost of parking areas.

   (e) Storm sewer mains, culverts, laterals, manholes, inlets, catch basins, and connections for surface water drainage of the improvement; including replacement and/or adjustments of existing storm sewer manhole covers and inlet grates as needed.

   (f) Construction engineering incidental to inspection and supervision of actual construction work, except for inspection, staking, and testing of sanitary sewer and water main.

   (g) Signing and pavement marking necessitated for the safe and efficient flow of traffic, including detour routes.

   (h) Replacement of existing sidewalks necessitated by construction and construction of new sidewalk at the time of construction. Sidewalk is considered to be new if it's constructed in a location where it has not existed before.

   (i) Replacement of existing driveways, in kind, necessitated by the project.

   (j) New installations or alteration resulting from roadway construction of standard State street lighting and traffic signals or devices. Alteration may include salvaging and replacement of existing components.

Attachment: SMFA 1229-04-74 IH43 CMequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port

3. Work necessary to complete the improvement to be financed entirely by the Municipality or other utility or facility owner includes the following items:

   (a) New installations of or alteration of sanitary sewers and connections, water, gas, electric, telephone, telegraph, fire or police alarm facilities, parking meters, and similar utilities.

   (b) New installation or alteration of signs not necessary for the safe and efficient flow of traffic.

   (c) Roadway and bridge width in excess of standards.

   (d) Construction inspection, staking, and material testing and acceptance for construction of sanitary sewer and water main.

   (e) Provide complete plans, specifications, and estimates for sanitary sewer and water main work. The Municipality assumes full responsibility for the design, installation, inspection, testing, and operation of the sanitary sewer and water system. This relieves the State and all of its employees from the liability for all suits, actions, or claims resulting from the sanitary sewer and water system construction.

   (f) Parking lane costs.

   (g) Coordinate, clean up, and fund any hazardous materials encountered for city utility construction. All hazardous material cleanup work shall be performed in accordance to state and federal regulations.

4. As the work progresses, the Municipality will be billed for work completed which is not chargeable to federal/state funds. Upon completion of the project, a final audit will be made to determine the final division of costs.

5. If the Municipality should withdraw the project, it shall reimburse the State for any costs incurred by the State in behalf of the project.

6. The work will be administered by the State and may include items not eligible for federal/state participation.

7. The Municipality shall, in cooperation with the State, assist with public relations for the project and announcements to the press and such outlets as would generally alert the affected property owners and the community of the nature, extent, and timing of the project and arrangements for handling traffic within and around the project.

8. Basis for local participation:

   (a) Funding for preliminary engineering for roadway construction (1229-04-02) 100% State

   (b) Funding for preliminary engineering for signal installation (1229-04-07) 100% Municipal

   (c) Funding for construction of standard roadway items – 100% State.

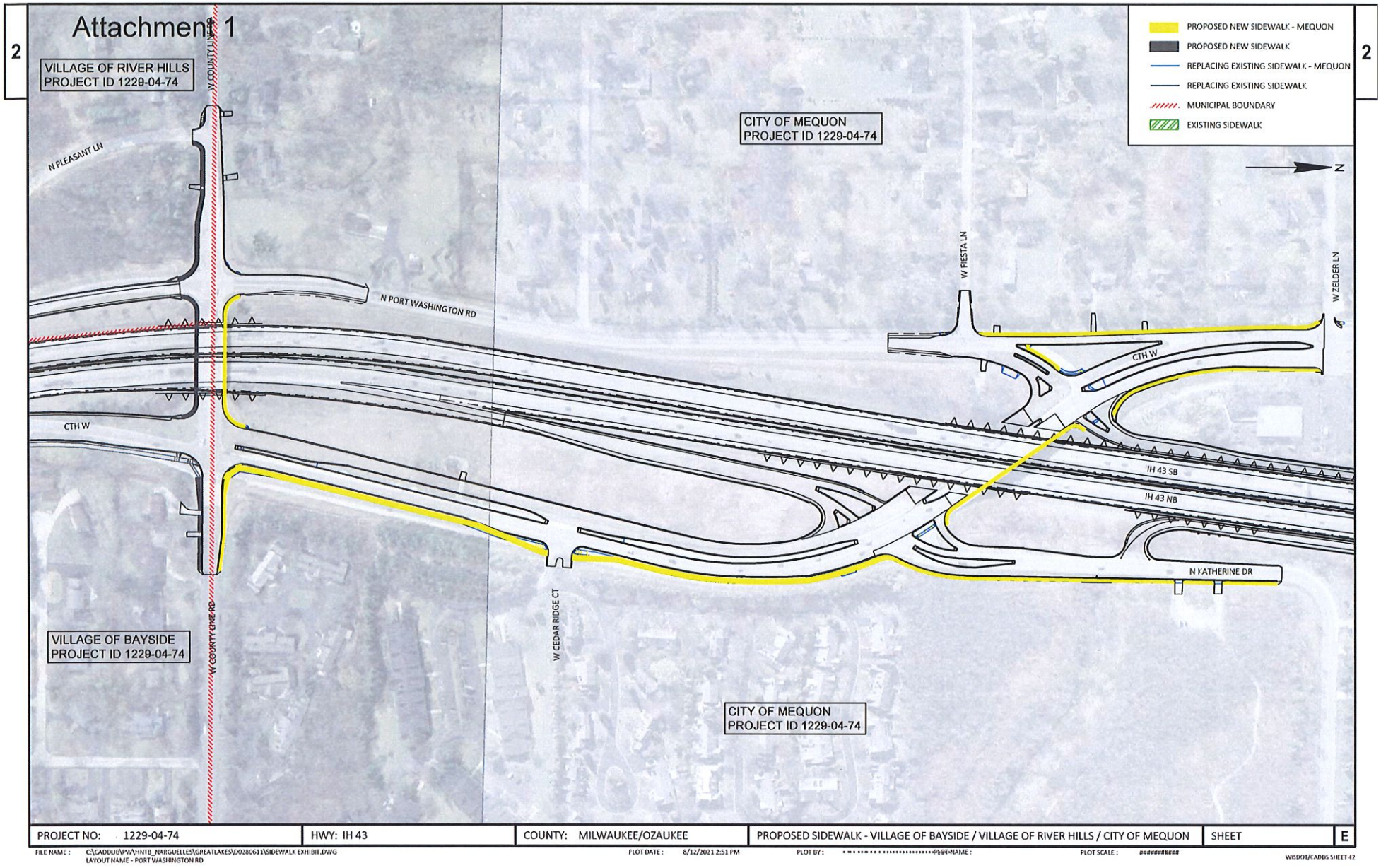
   (d) Funding for utilities 90% State, 10% Municipal, per chapter 84.295, State Statute

   (e) Funding for signals at Port Washington Road and County Line Rd, 100% Municipal

   (f) Funding for non-participating items 100% Municipality.

Comments and Clarification: This agreement is an active agreement that may need to be amended as the project is designed. It is understood that these amendments may be needed as some issues have not been fully evaluated or resolved. The purpose of this agreement is to specify the local and state involvement in funding the project. A signed agreement is required before the State will prepare or participate in the preparation of detailed designs, acquire right-of-way, or participate in construction of a project that merits local involvement.

Attachment: SMFA 1229-04-74 IH43 CMequon (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County Line and Port



PROJECT NO: 1229-04-74	HWY: IH 43	COUNTY: MILWAUKEE/OZAUKEE	PROPOSED SIDEWALK - VILLAGE OF BAYSIDE / VILLAGE OF RIVER HILLS / CITY OF MEQUON	SHEET E

FILE NAME : C:\CADDUB\PW\HNTB_NARGUELLES\GREATLAKES\D0280611\SIDEWALK EXHIBIT.DWG
LAYOUT NAME - PORT WASHINGTON RD
PLOT DATE : 8/12/2021 2:51 PM
PLOT BY : [redacted]
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

Attachment: Sidewalk Exhibit (RESOLUTION 3876 : WisDOT SMMA and SMFA for Traffic Signal at County