Village of CALEDONIA

LEGISLATIVE/LICENSING COMMITTEE MEETING
Monday, October 10, 2022, at 4:45 p.m.
Caledonia Village Hall – 5043 Chester Lane

1. Call to Order
2. Approval of Minutes
3. Code Enforcement Ability to Write to Tickets
4. Ordinance 2022-XX - An Ordinance To Create Section 10-1-9 (D) (26) And To Amend Section 10-1-9 (F) (11) Of The Code Of Ordinances Of The Village Of Caledonia, Racine County, Wisconsin, Relating To Speed Limits On 4 Mile Road
5. Ordinance 2022-XX - An Ordinance To Create Section 10-1-12(P) Of The Code Of Ordinances For The Village Of Caledonia, Racine County, Wisconsin Relating To A Prohibited Parking Zone On Button Bush Drive
6. Adjournment

Dated October 7, 2022

Joslyn Hoeffert
Village Clerk

Only committee members are expected to attend. However, attendance by all Board members (including non-members of the committee) is permitted. If additional (non-committee) Board members attend, three or more Board members may be in attendance. Section 19.82(2), Wisconsin Statutes, states as follows:

> If one-half or more of the members of a governmental body are present, the meeting is rebuttably presumed to be for the purposes of exercising the responsibilities, authority, power or duties delegated to or vested in the body.

To the extent that three or more members of the Caledonia Village Board actually attend, this meeting may be rebuttably presumed to be a "meeting" within the meaning of Wisconsin's open meeting law. Nevertheless, only the committee's agenda will be discussed. Only committee members will vote. Board members who attend the committee meeting do so for the purpose of gathering information and possible discussion regarding the agenda. No votes or other action will be taken by the Village Board at this meeting.

LEGISLATIVE/LICENSING COMMITTEE MEETING
CALEDONIA VILLAGE HALL
5043 CHESTER LANE, RACINE, WI 53402
Monday, September 19, 2022

1. **Call to Order**

Trustee Martin called the meeting to order at 5:15 p.m. In attendance were:

Committee Members: Trustee Martin, Trustee Stillman, and Trustee Folk. Trustee Weatherston, Trustee Wishau, Trustee McManus and President Dobbs were also present.

Absent: None.

Staff/Others Present: Village Administrator Kathy Kasper, HR Manager Michelle Tucker, Village Attorney Elaine Ekes, and Public Services Director Anthony Bunkelman.

2. **Approval of minutes**

Trustee Stillman motioned to approve the minutes as printed from August 8 and August 29, 2022. Seconded by Trustee Folk. Motion carried unanimously.

3. **Ordinance 2022-14 - An Ordinance To Amend Section 9-1-1(E), Section 9-2-1(A)(4), And Section 9-4-1(E) Of Title 9 For Public Utilities To Change References From The Village Utility Director To The Village Public Services Director And To Change Reference To District Manager To Utility Supervisor In Section 9-4-4 In The Code Of Ordinances For The Village Of Caledonia**

Trustee Stillman motioned to approve Ordinance 2022-14 - An Ordinance To Amend Section 9-1-1(E), Section 9-2-1(A)(4), And Section 9-4-1(E) Of Title 9 For Public Utilities To Change References From The Village Utility Director To The Village Public Services Director And To Change Reference To District Manager To Utility Supervisor In Section 9-4-4 In The Code Of Ordinances For The Village Of Caledonia and forward onto the Village Board for final approval. Seconded by Trustee Folk. Motion carried unanimously.

4. **Discussion of Roles and Responsibilities of the Utility District Commission**

Attorney Ekes overviewed the distinction of a Charter Ordinance. Ekes reviewed the Ordinances that were referenced in the packet and how they relate to the Commission. Bunkelman provided a history of the Commission, corrections that have been made to Ordinances and the power this District historically has had.

President Stacy understood Personnel responsibilities are under HR's purview. He struggled with conflicts in the Charter Ordinance that dictates the overseeing power of the Utility. The salary for the Public Services Director is budgeted directly out of the Storm Water budget. Trustee Wishau explained the role of the Public Services Director at the Utility District Commission.

Attorney Ekes further explained the oversight of the districts and the current language used for reporting structure of the Public Services Director. The Organizational Structure Chart only contains employees and does not include Committees or Commissions. It is meant as a tool for the HR Manager. President Stacy clarified the powers of the Commission and how they would function with the authority they are given. He thought those lines needed to be codified as there are many gray areas.

Kasper explained surrounding municipalities and how they structure their Utility Commissions. Villages tend to gravitate towards a Public Works Committee. President Dobbs thought it was important to decide what would best fit for Caledonia.

Trustee McManus felt this was a good opportunity to give the Public Services Director the authority to make decisions, and we should be trusting Village Staff to have that control. She thought the Commission should be an advisory Committee.

5. **Adjournment**

There being no further business, Motion by Trustee Folk to adjourn the meeting at 6:00 p.m. Trustee Stillman seconded. Motion carried unanimously.

Respectfully submitted,
Joslyn Hoeffert
Village Clerk

Ordinance No. 2022-XX

AN ORDINANCE TO CREATE SECTION 10-1-9 (d) (26) AND TO AMEND SECTION 10-1-9 (f) (11) OF THE CODE OF ORDINANCES OF THE VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN, RELATING TO SPEED LIMITS ON 4 MILE ROAD.

The Village Board of the Village of Caledonia, Racine County, Wisconsin, do ordain as follows:

1. That Section 10-1-9 (d) (26) of the Code of Ordinances for the Village of Caledonia be, and herby is, created to read as follows:

> *"*(26) Four Mile Road – from its intersection with County Trunk Highway "V" to its intersection with the East Frontage Road of Interstate Highway "94".

2. That Section 10-1-9 (f) (11) of the Code of Ordinances for the Village of Caledonia be, and herby is, amended to read as follows:

> "(11) Four Mile Road – from its intersection with Short Road to its intersection with County Trunk Highway "V"

3. That this ordinance shall take effect after adoption and publication as provided by law.

Adopted by the Village Board of the Village of Caledonia, Racine County, Wisconsin, this_____day of _____, 2022.

VILLAGE OF CALEDONIA

By:_____
James R. Dobbs, Village President

Attest:_____
Joslyn Hoeffert, Village Clerk

MEMORANDUM

Date: October 5, 2022

To: Public Works Committee

From: Ryan Schmidt, P.E.
Village Engineer

Re: Speed Limit Reduction – 4 Mile Road (CTH V to East Frontage Road)

BACKGROUND INFORMATION

As part of the civil/site review for the Likewise "Pad C" development at 13301 4 Mile Road, the Engineering Department discovered some potential sight distance issues with the proposed eastern access. Engineering Staff made a field visit to determine the validity of the concern and then notified Pinnacle Engineering (Civil Engineer for the development) of the issue at hand. Pinnacle performed some preliminary analysis of the sight distance issue and determined it was worth exploring further.

As background, the newly constructed 4 mile road between the East Frontage Road and CTH V has large grade changes and vertical curves as part of the design. The proposed development had one access located at the top of the hill on the west side of their property and one located at the bottom of the hill on the east side of their property. Vehicles turning onto 4 Mile Road from the east approach would have trouble seeing and/or reacting to vehicles traveling at the posted speed of 45mph (or greater) over the top of the hill.

In order to ensure the safety and welfare of the traveling public, both along 4 Mile Road and from the development, the Village reached out to Pinnacle and requested a sight distance study be performed before any permitted access was allowed on the eastern approach. Pinnacle agreed that this would be an issue and hired T.A.D.I to perform the analysis. The technical report is attached with this memo.

The report summarizes that at a minimum, the posted speed limit would have to be reduced in order to allow the design vehicle (semi truck) to make a turn onto 4 Mile Road safely. Two options are recommended: reduce 4 Mile Road speed limit to 25 mph the entire stretch or to 35mph and require truck traffic to only make left hand turns out of the east approach. As it stands today, truck traffic is primarily traveling westbound along 4 mile from local commercial developments like CSW in order to access the East Frontage Road and get to Interstate 94. Staff would recommend the second alternative of reducing the speed limit to 35mph and restricting truck movements eastbound.

Geometric changes on site were considered with the developer but ultimately the speed limit reduction made the most sense. A speed limit reduction will promote a safer perceived speed for the residential properties along 4 Mile Road, will allow the desired multiple access points for the proposed development, and any future development that may occur on the north side of 4 Mile Road will be benefitted with safer sight distances for any future access point.

In order to make this change, SEC. 10-1-19 (d) and (f) shall be amended and signs are required to be purchased and installed. Signs are recommended to be installed with orange flags behind the newly posted speed limit signs to assist with the general public's view of the newly posted speed.

RECOMENDATION:
Move to recommend to the Legislative and Licensing Committee that Ordinance 10-1-19 (d) (26) is created and that Ordinance 10-1-19 (f) (11) is amended to modify the speed limit along 4 Mile Road between the East Frontage Road and CTH V to 35mph.

Move to recommend to the Village Board that Ordinance 10-1-19 (d) (26) is created and that Ordinance 10-1-19 (f) (11) is amended to modify the speed limit along 4 Mile Road between the East Frontage Road and CTH V to 35mph.

TECHNICAL MEMORANDUM

Date: September 12, 2022

To: Matthew Carey, P.E.
Pinnacle Engineering Group

From: Tammi Czewski, P.E., PTOE
Traffic Analysis & Design, Inc.

Subject: **Sight Distance Analysis**
Deback Farms Lot C: East Site Driveway to 4 Mile Road

Introduction

This technical memorandum was prepared to evaluate the east driveway intersection and stopping sight distance for a proposed light industrial building on Lot C of the Deback Farms development at 13301 Four Mile Road, Caledonia, Wisconsin. The east driveway is located in a "valley" on Four Mile Road with hills to the east and west that impact visibility for turns at the east site driveway. Mitigation measures considered in this report include restricting access for some vehicle types and reducing the speed limit on Four Mile Road to reduce the required sight distance.

The location of the proposed development and site driveways is shown on Exhibit 1. The majority of the development's vehicle and truck trips are expected to access the site to/from the west on Four Mile Road. Four Mile Road connects to the I-94 East Frontage Road, which leads to the I-94 interchange at CTH K. The east driveway on Lot C is currently being graded for buildout and the speed limit on Four Mile Road (two-lane undivided roadway) is posted at

Sight Distance Analysis

The sight distance analysis was conducted according to the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets, 2001* and on procedures identified in Chapter 11 of the Wisconsin Department of Transportation's (WisDOT) Facilities Development Manual (FDM). Per the FDM, a single-unit (SU) truck should be considered the design vehicle at this location unless combination (WB) trucks are significant. The development sight plan (Exhibit 2) shows

truck loading areas on the south side of the proposed building. Therefore, this study evaluates the sight distance requirements for passenger cars, SU trucks, and WB trucks.

TADI took field photos from the east site driveway to the west and east on Four Mile Road to a 3.5-foot target ("object") positioned within the approaching travel lane. The intersection sight distance (ISD) photos were taken from a position 14.5 feet from the southern edge of Four Mile Road at eye heights of 3.5 feet (representing the eye height of a person in a passenger car) and 7.6 feet (representing the eye height of a person in an SU or WB truck). Eye height adjustments were made to account for the proposed grade of the future east driveway with respect to the current elevation at the photo position. Photos to the left of the east site driveway represent the ISD for a vehicle making a right-turn exit (Exhibit 3), and photos to the right of the east site driveway represent the ISD for a vehicle making a left-turn exit (Exhibit 4).

TADI also took field photos from the eastbound travel lane on Four Mile Road to a 2.0-foot target positioned at the east site driveway (Exhibit 5). The stopping sight distance (SSD) photos were taken at a 3.5-foot eye height.

For both the ISD and SSD photos, the targets or photo positions were moved until the maximum visibility was reached. The maximum visibility for each design vehicle was then recorded as shown in Table 1 below.

Table 1. Sight Distance Requirement Matrix & Maximum Visibility

	Intersection Sight Distance						Stopping Sight Dist (EB)
	Right-Turn from East Driveway Design Vehicle			Left-Turn from East Driveway Design Vehicle			
Design Speed	P	SU	WB	P	SU	WB	All
30 mph	290'	375'	465'	335'	420'	510'	200'
35 mph	335'	440'	540'	385'	490'	595'	250'
40 mph	385'	500'	620'	445'	560'	675'	305'
45 mph	430'	565'	695'	500'	630'	760'	360'
50 mph	480'	625'	775'	555'	700'	845'	425'
Max Visibility	400'	500'	500'	>975'	>1125'	>1125'	375'
Eye Height	3.5'	7.6'	7.6'	3.5'	7.6'	7.6'	3.5'
ObjectHeight	3.5'	3.5'	3.5'	3.5'	3.5'	3.5'	2.0'

Notes: ☐ *Indicates that the maximum visibility meets or exceeds the required sight distance for that design speed.*
Design speed is evaluated as five mph over the posted speed limit.

Table 1 also shows the ISD and SSD requirements for each design vehicle and design speed ranging from 30 mph to 50 mph. The design speeds are evaluated at five mph over the posted speed limit, so the 50-mph design speed represents the existing posted speed limit and sight distance requirements on Four Mile Road. As shown, the maximum visibilities for eastbound SSD and right-turn driveway exit ISD are less than what is required for the existing posted speed limit. Lowering the speed limit to 40 mph (design speed of 45 mph) allows the eastbound stopping sight distance requirements to be met. Lowering the speed limit to 35 mph (design speed of 40 mph) allows the right-turn exit ISD to be met for

passenger cars and SU trucks. Lowering the speed limit to 25 mph (design speed of 30 mph) allows the right-turn exit ISD to also be met for WB trucks.

Recommendations

In order to fully mitigate visibility issues for all design vehicles at the east site driveway, it is recommended that the speed limit for eastbound traffic on 4 Mile Road be lowered to 25 mph from the East Frontage Road to east of the east site driveway (Recommendation A). The speed limit for westbound traffic can also be lowered for continuity, but is not necessary for meeting sight distance requirements.

Alternatively, reduce the speed limit on 4 Mile Road to 35 mph (Recommendation B), and post a sign restricting WB trucks from exiting east onto eastbound 4 Mile Road.

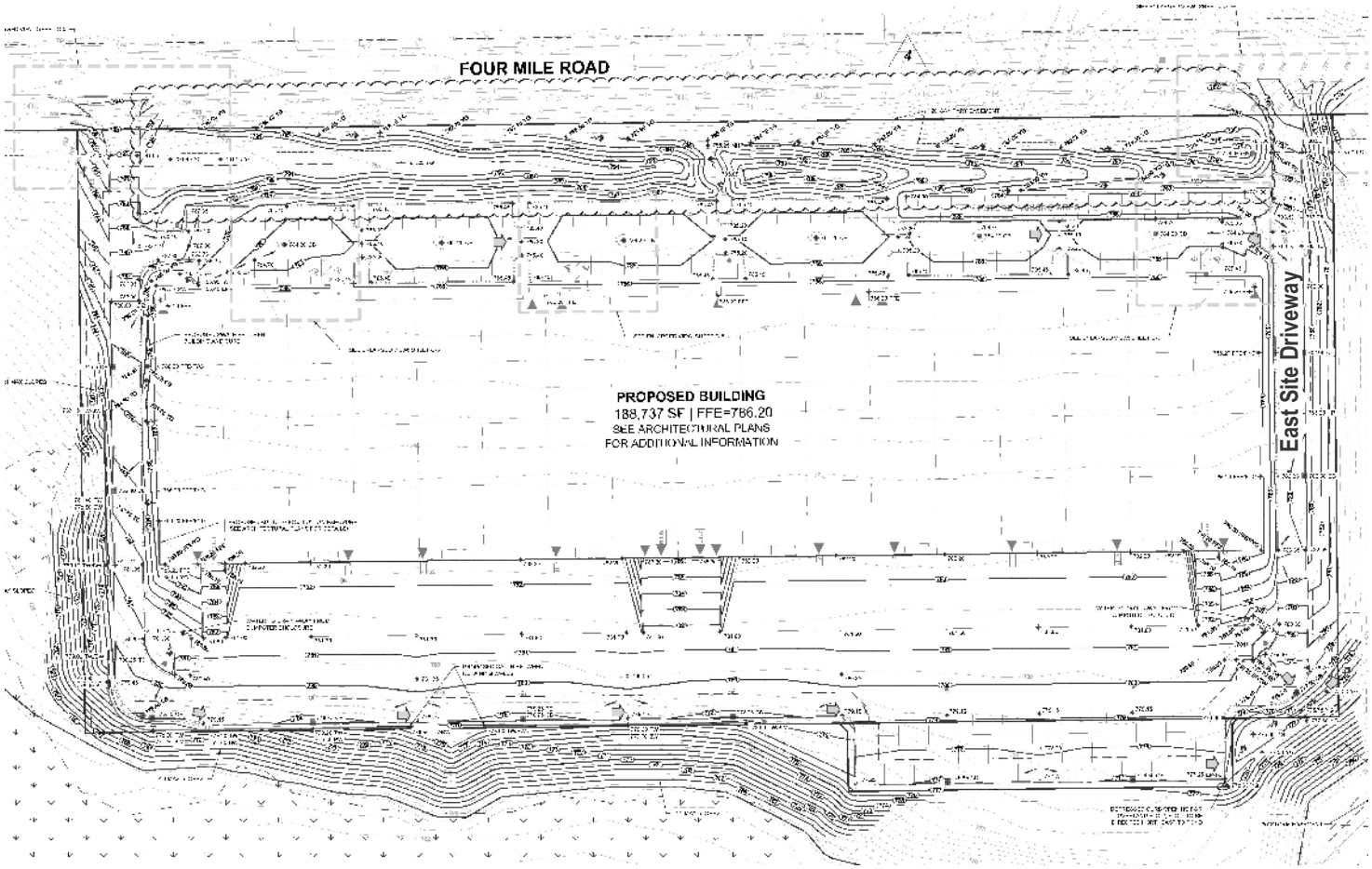
These recommendations are shown on Exhibit 6.

TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2941: 09-12-22

N
NOT TO SCALE

EXHIBIT 1
PROJECT LOCATION MAP

CALEDONIA, WI



TRAFFIC ANALYSIS & DESIGN, INC.
2941: 09-12-22

N

NOT TO SCALE

EXHIBIT 2
SITE PLAN

CALEDONIA, WI

TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2941: 09-12-22

NOT TO SCALE

EXHIBIT 3
INTERSECTION SIGHT DISTANCE
RIGHT-TURN FROM EAST SITE DRIVEWAY (LOOKING LEFT)
CALEDONIA, WI

TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2941: 09-12-22

NOT TO SCALE

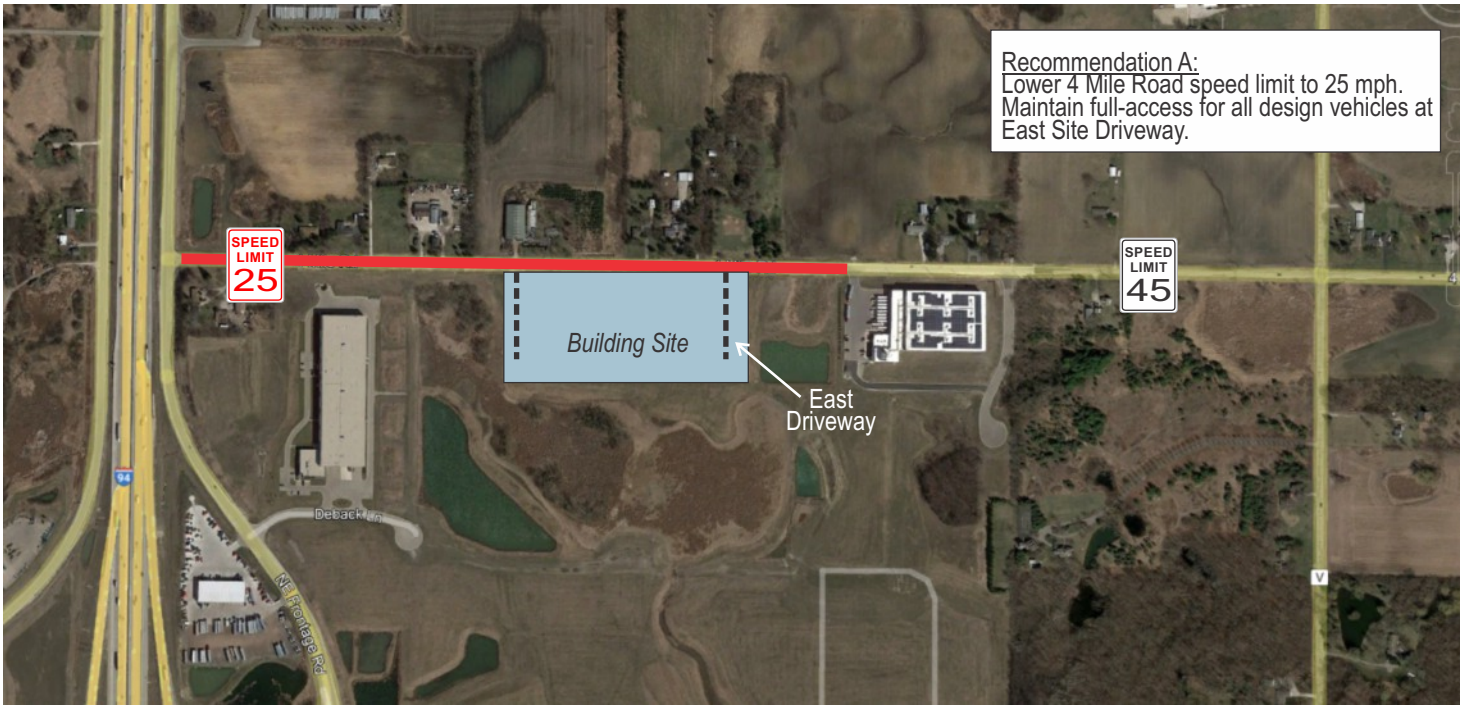
EXHIBIT 4
INTERSECTION SIGHT DISTANCE
LEFT-TURN FROM EAST SITE DRIVEWAY (LOOKING RIGHT)
CALEDONIA, WI

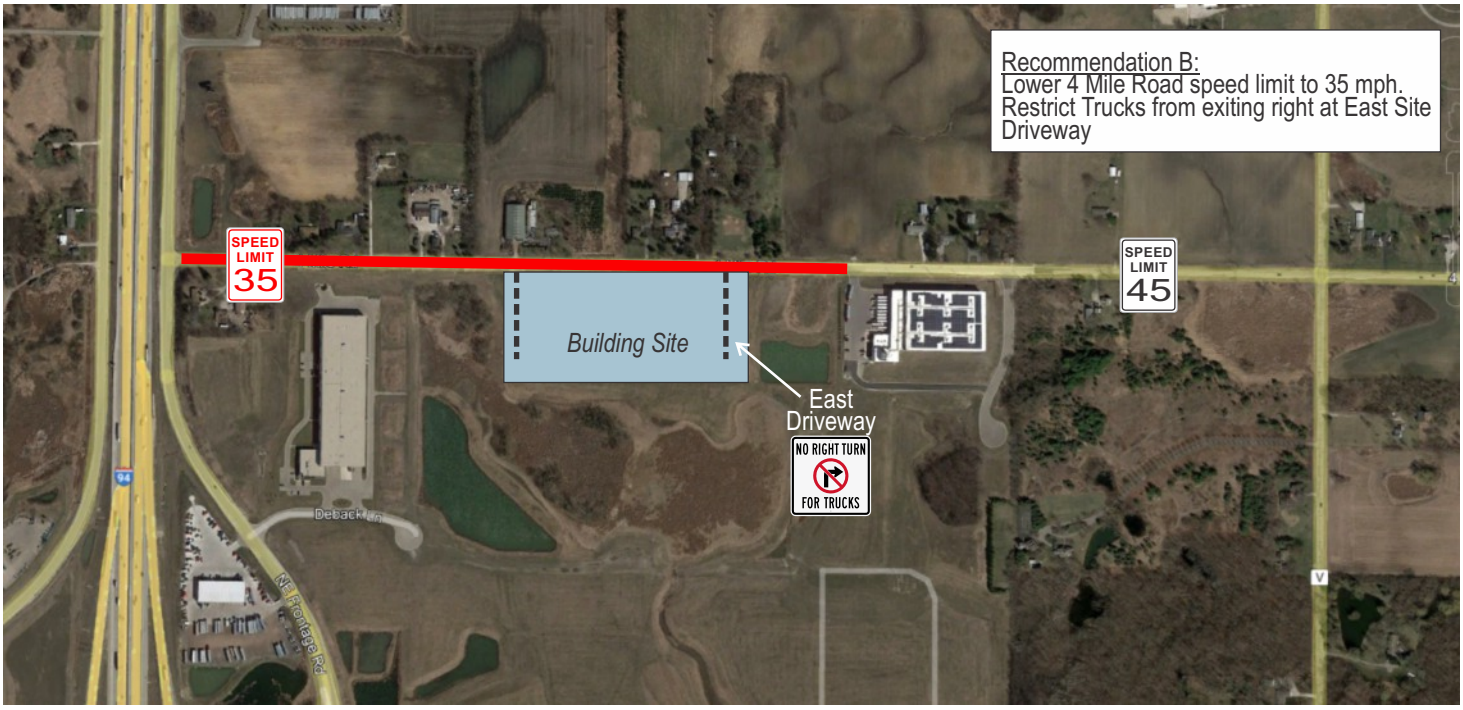
TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2941: 09-12-22

N

NOT TO SCALE

EXHIBIT 5
STOPPING SIGHT DISTANCE
EASTBOUND TRAFFIC ON 4 MILE ROAD
CALEDONIA, WI





TADI
TRAFFIC ANALYSIS & DESIGN, INC.
2941: 09-12-22

N
NOT TO SCALE

EXHIBIT 6
RECOMMENDATION OPTIONS

CALEDONIA, WI

INTERSECTION SIGHT DISTANCE CALCULATIONS

VARYING DESIGN SPEEDS ON 4 MILE ROAD

ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Mainline Name: 4 Mile Road
Sidestreet Name: East Site Driveway

Left-In Allowed?	Yes		P-vehicle Design Length:	19.0	feet (P = 19.0. Overwrite if other design veh)	
Left-Out Allowed?	Yes		SU-vehicle Design Length:	39.5	feet (SU-40 = 39.5. Overwrite if other design veh)	
Right-In Allowed?	Yes		WB-vehicle Design Length:	73.5	feet (WB-67 = 73.5. Overwrite if other design veh)	
Right-Out Allowed?	Yes					
Through-Out Allowed?	No					
Design Speed from Left:	30	mph		P	SU	WB
Design Speed from Right:	30	mph	Design Vehicles:	x	x	X (place an "X")
Median Width:	0	feet				
Minor Street Approach Grade:	0.0%	If a minor street vehicle approaches the major street at greater than 3%, enter grade.				
Number of Near Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
Number of Near Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
AASHTO or WisDOT:	AASHTO					

ISD CASE B1: Left Turn from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Case B1 ISD, feet:	330.0	418.0	506.0	440.0	528.0	572.0
Rounded Case B1 ISD, feet:	*335*	*420*	*510*	*445*	*530*	*575*

ISD CASE B2: Right Turn from Minor Street (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Case B2 ISD, feet:	286.0	374.0	462.0	352.0	440.0	528.0
Rounded Case B2 ISD, feet:	*290*	*375*	*465*	*355*	*445*	*530*

ISD CASE B3a: Crossing from Minor Street Traffic from Left (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Case B3a ISD, feet:	286.0	374.0	462.0	308.0	440.0	572.0
Rounded Case B3a ISD, feet:	*290*	*375*	*465*	*310*	*445*	*575*

ISD CASE B3b: Crossing from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	-6.50	-8.50	-10.50	-7.00	-10.00	-13.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Case B3b ISD, feet:	0.0	0.0	0.0	0.0	0.0	0.0
Rounded Case B3b ISD, feet:	*0*	*0*	*0*	*0*	*0*	*0*

ISD CASE F: Left from Major to Minor (driver looking to left of access towards oncoming traffic)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	N/A	N/A	N/A	N/A	N/A	N/A
Total Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Case F ISD, feet:	242.0	286.0	330.0	352.0	352.0	352.0
Rounded Case F ISD, feet:	*245*	*290*	*335*	*355*	*355*	*355*

ISD CONTROLLING DISTANCES:

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	**SU**	**WB**	**P**	**SU**	**WB**
To Left of Access:	**290'**	**375'**	**465'**	**355'**	**445'**	**575'**
To Right of Access:	**335'**	**420'**	**510'**	**445'**	**530'**	**575'**
Left-Turn from Mainline:	**245'**	**290'**	**335'**	**355'**	**355'**	**355'**

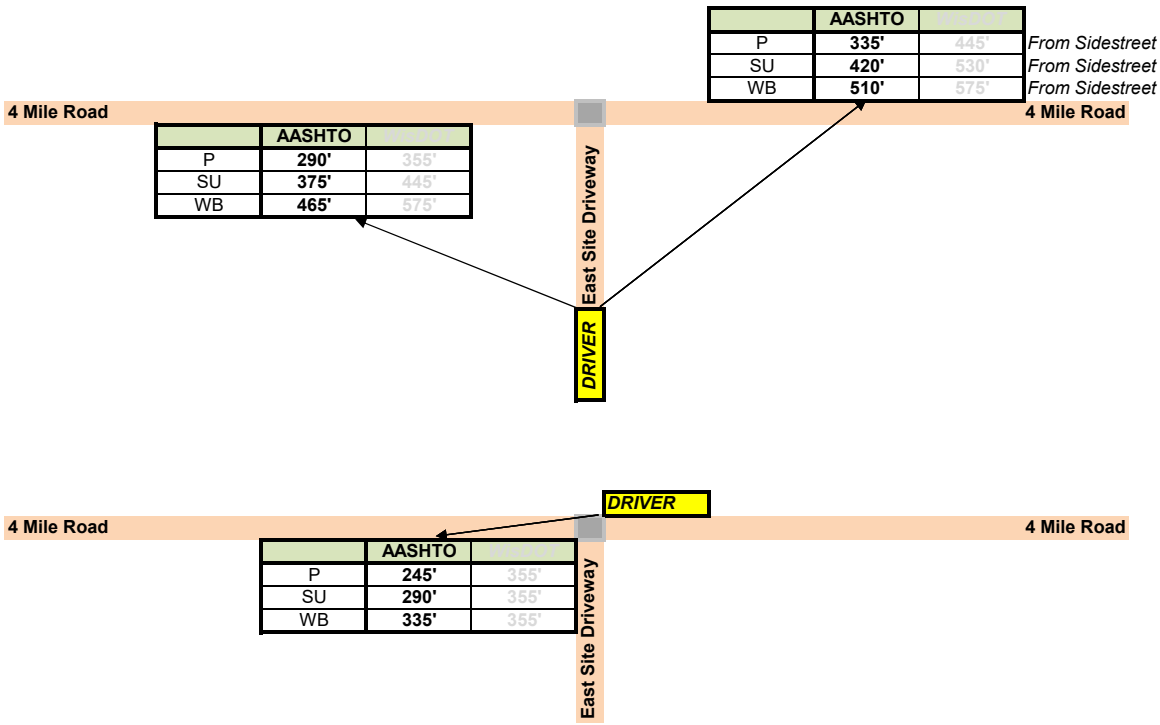
ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Eye Height (start of Arrows): 3.5-ft for P, 7.6-ft for SU & WB
Object Height (head of Arrows): 3.5-ft
Eye Location: 14.5-ft from edge of traveled way

North

Special Instructions



SSD CALCULATIONS

	EB	WB	NB	SB	
Design Speed:	30	30			
Deceleration (ft/s^2):	11.2	11.2	11.2	11.2	*Default rate is 11.2 ft/s^2 per AASHTO GDHS*
Estimated Grade (%):	0.0%	0.0%	0.0%	0.0%	*Positive is uphill, negative is downhill*
Brake Reaction Time (s):	2.5	2.5	2.5	2.5	*Default rate is 2.5s per AASHTO GDHS*
Brake Reaction (ft):	110.0	110.0	0.0	0.0	
Braking Distance (ft):	86.3	86.3	0.0	0.0	
Calculated SSD (ft):	196.3	196.3	0.0	0.0	
Rounded SSD (ft):	**200**	**200**	0	0	

Eye Height (upstream of object to be seen): 3.5-ft
Object Height (downstream of motorist): 2.0-ft

Special Instructions

ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Mainline Name: 4 Mile Road
Sidestreet Name: East Site Driveway

Left-In Allowed?	Yes		P-vehicle Design Length:	19.0	feet (P = 19.0. Overwrite if other design veh)	
Left-Out Allowed?	Yes		SU-vehicle Design Length:	39.5	feet (SU-40 = 39.5. Overwrite if other design veh)	
Right-In Allowed?	Yes		WB-vehicle Design Length:	73.5	feet (WB-67 = 73.5. Overwrite if other design veh)	
Right-Out Allowed?	Yes					
Through-Out Allowed?	No					
Design Speed from Left:	35	mph		P	SU	WB
Design Speed from Right:	35	mph	Design Vehicles:	x	x	X (place an "X")
Median Width:	0	feet				
Minor Street Approach Grade:	0.0%	If a minor street vehicle approaches the major street at greater than 3%, enter grade.				
Number of Near Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
Number of Near Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
AASHTO or WisDOT:	AASHTO					

ISD CASE B1: Left Turn from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Case B1 ISD, feet:	385.0	487.7	590.3	513.3	616.0	667.3
Rounded Case B1 ISD, feet:	*385*	*490*	*595*	*515*	*620*	*670*

ISD CASE B2: Right Turn from Minor Street (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Case B2 ISD, feet:	333.7	436.3	539.0	410.7	513.3	616.0
Rounded Case B2 ISD, feet:	*335*	*440*	*540*	*415*	*515*	*620*

ISD CASE B3a: Crossing from Minor Street Traffic from Left (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Case B3a ISD, feet:	333.7	436.3	539.0	359.3	513.3	667.3
Rounded Case B3a ISD, feet:	*335*	*440*	*540*	*360*	*515*	*670*

ISD CASE B3b: Crossing from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	-6.50	-8.50	-10.50	-7.00	-10.00	-13.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Case B3b ISD, feet:	0.0	0.0	0.0	0.0	0.0	0.0
Rounded Case B3b ISD, feet:	*0*	*0*	*0*	*0*	*0*	*0*

ISD CASE F: Left from Major to Minor (driver looking to left of access towards oncoming traffic)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	N/A	N/A	N/A	N/A	N/A	N/A
Total Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Case F ISD, feet:	282.3	333.7	385.0	410.7	410.7	410.7
Rounded Case F ISD, feet:	*285*	*335*	*385*	*415*	*415*	*415*

ISD CONTROLLING DISTANCES:

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	**SU**	**WB**	**P**	**SU**	**WB**
To Left of Access:	**335'**	**440'**	**540'**	**415'**	**515'**	**670'**
To Right of Access:	**385'**	**490'**	**595'**	**515'**	**620'**	**670'**
Left-Turn from Mainline:	**285'**	**335'**	**385'**	**415'**	**415'**	**415'**

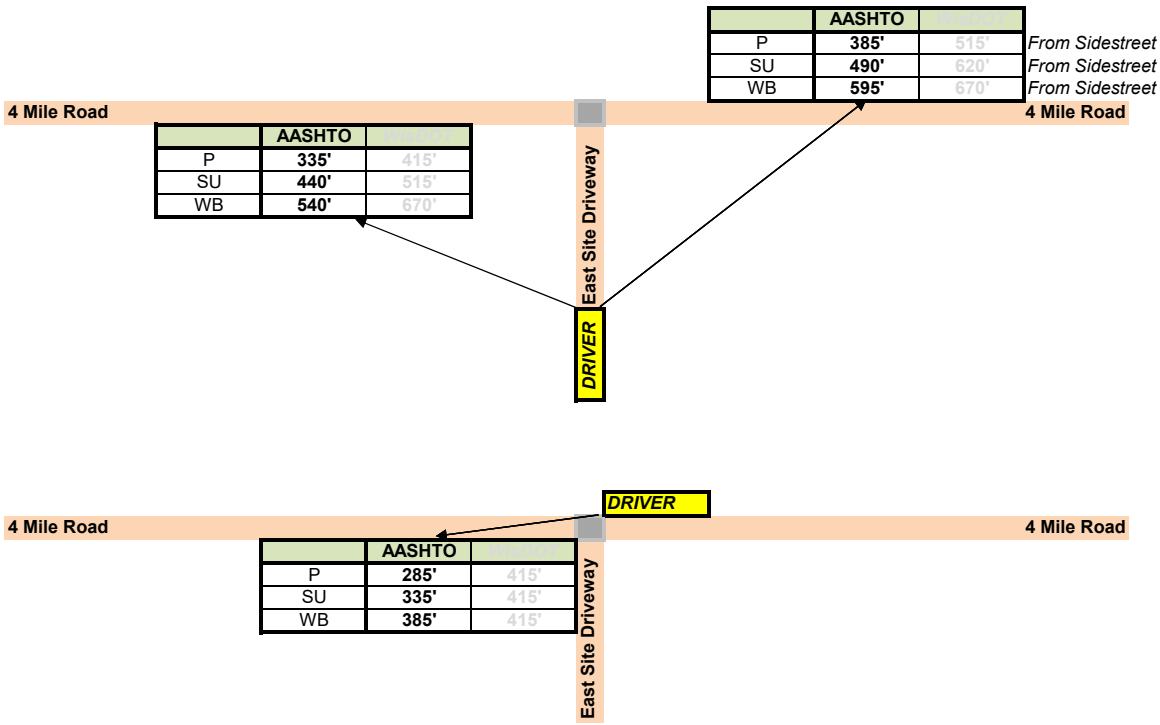
ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Eye Height (start of Arrows): 3.5-ft for P, 7.6-ft for SU & WB
Object Height (head of Arrows): 3.5-ft
Eye Location: 14.5-ft from edge of traveled way

North

Special Instructions



SSD CALCULATIONS

	EB	WB	NB	SB	
Design Speed:	35	35			
Deceleration (ft/s^2):	11.2	11.2	11.2	11.2	*Default rate is 11.2 ft/s^2 per AASHTO GDHS*
Estimated Grade (%):	0.0%	0.0%	0.0%	0.0%	*Positive is uphill, negative is downhill*
Brake Reaction Time (s):	2.5	2.5	2.5	2.5	*Default rate is 2.5s per AASHTO GDHS*
Brake Reaction (ft):	128.3	128.3	0.0	0.0	
Braking Distance (ft):	117.4	117.4	0.0	0.0	
Calculated SSD (ft):	245.7	245.7	0.0	0.0	
Rounded SSD (ft):	**250**	**250**	0	0	

Eye Height (upstream of object to be seen): 3.5-ft
Object Height (downstream of motorist): 2.0-ft

Special Instructions

ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Mainline Name: 4 Mile Road
Sidestreet Name: East Site Driveway

Left-In Allowed?	Yes		P-vehicle Design Length:	19.0	feet (P = 19.0. Overwrite if other design veh)	
Left-Out Allowed?	Yes		SU-vehicle Design Length:	39.5	feet (SU-40 = 39.5. Overwrite if other design veh)	
Right-In Allowed?	Yes		WB-vehicle Design Length:	73.5	feet (WB-67 = 73.5. Overwrite if other design veh)	
Right-Out Allowed?	Yes					
Through-Out Allowed?	No					
Design Speed from Left:	40	mph		P	SU	WB
Design Speed from Right:	40	mph	Design Vehicles:	x	x	X (place an "X")
Median Width:	0	feet				
Minor Street Approach Grade:	0.0%	If a minor street vehicle approaches the major street at greater than 3%, enter grade.				
Number of Near Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
Number of Near Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
AASHTO or WisDOT:	AASHTO					

ISD CASE B1: Left Turn from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Case B1 ISD, feet:	440.0	557.3	674.7	586.7	704.0	762.7
Rounded Case B1 ISD, feet:	*445*	*560*	*675*	*590*	*705*	*765*

ISD CASE B2: Right Turn from Minor Street (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Case B2 ISD, feet:	381.3	498.7	616.0	469.3	586.7	704.0
Rounded Case B2 ISD, feet:	*385*	*500*	*620*	*470*	*590*	*705*

ISD CASE B3a: Crossing from Minor Street Traffic from Left (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Case B3a ISD, feet:	381.3	498.7	616.0	410.7	586.7	762.7
Rounded Case B3a ISD, feet:	*385*	*500*	*620*	*415*	*590*	*765*

ISD CASE B3b: Crossing from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	-6.50	-8.50	-10.50	-7.00	-10.00	-13.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Case B3b ISD, feet:	0.0	0.0	0.0	0.0	0.0	0.0
Rounded Case B3b ISD, feet:	*0*	*0*	*0*	*0*	*0*	*0*

ISD CASE F: Left from Major to Minor (driver looking to left of access towards oncoming traffic)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	N/A	N/A	N/A	N/A	N/A	N/A
Total Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Case F ISD, feet:	322.7	381.3	440.0	469.3	469.3	469.3
Rounded Case F ISD, feet:	*325*	*385*	*445*	*470*	*470*	*470*

ISD CONTROLLING DISTANCES:

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	**SU**	**WB**	**P**	**SU**	**WB**
To Left of Access:	**385'**	**500'**	**620'**	**470'**	**590'**	**765'**
To Right of Access:	**445'**	**560'**	**675'**	**590'**	**705'**	**765'**
Left-Turn from Mainline:	**325'**	**385'**	**445'**	**470'**	**470'**	**470'**

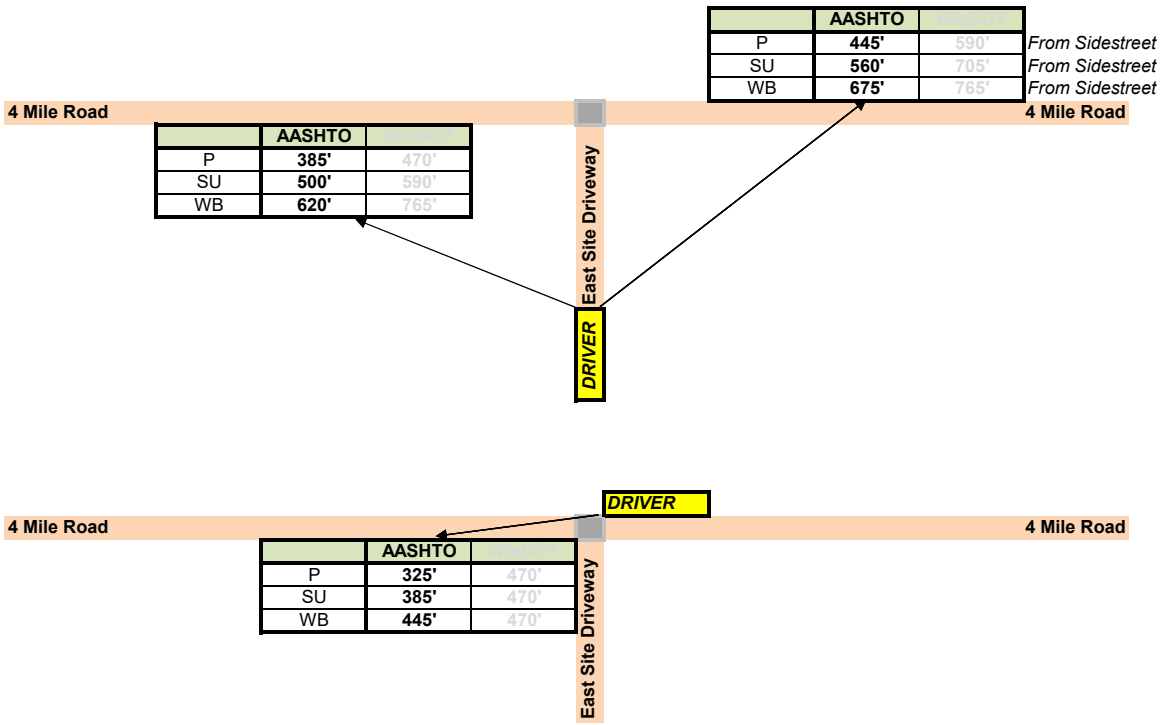
ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Eye Height (start of Arrows): 3.5-ft for P, 7.6-ft for SU & WB
Object Height (head of Arrows): 3.5-ft
Eye Location: 14.5-ft from edge of traveled way

North

Special Instructions



SSD CALCULATIONS

	EB	WB	NB	SB	
Design Speed:	40	40			
Deceleration (ft/s^2):	11.2	11.2	11.2	11.2	*Default rate is 11.2 ft/s^2 per AASHTO GDHS*
Estimated Grade (%):	0.0%	0.0%	0.0%	0.0%	*Positive is uphill, negative is downhill*
Brake Reaction Time (s):	2.5	2.5	2.5	2.5	*Default rate is 2.5s per AASHTO GDHS*
Brake Reaction (ft):	146.7	146.7	0.0	0.0	
Braking Distance (ft):	153.3	153.3	0.0	0.0	
Calculated SSD (ft):	300.0	300.0	0.0	0.0	
Rounded SSD (ft):	**305**	**305**	0	0	

Eye Height (upstream of object to be seen): 3.5-ft
Object Height (downstream of motorist): 2.0-ft

Special Instructions

ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Mainline Name: 4 Mile Road
Sidestreet Name: East Site Driveway

Left-In Allowed?	Yes		P-vehicle Design Length:	19.0	feet (P = 19.0. Overwrite if other design veh)	
Left-Out Allowed?	Yes		SU-vehicle Design Length:	39.5	feet (SU-40 = 39.5. Overwrite if other design veh)	
Right-In Allowed?	Yes		WB-vehicle Design Length:	73.5	feet (WB-67 = 73.5. Overwrite if other design veh)	
Right-Out Allowed?	Yes					
Through-Out Allowed?	No					
Design Speed from Left:	45	mph		P	SU	WB
Design Speed from Right:	45	mph	Design Vehicles:	x	x	X (place an "X")
Median Width:	0	feet				
Minor Street Approach Grade:	0.0%	If a minor street vehicle approaches the major street at greater than 3%, enter grade.				
Number of Near Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
Number of Near Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
AASHTO or WisDOT:	AASHTO					

ISD CASE B1: Left Turn from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			*WISDOT UPPER MINIMUM ISD*		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Case B1 ISD, feet:	495.0	627.0	759.0	660.0	792.0	858.0
Rounded Case B1 ISD, feet:	*500*	*630*	*760*	*665*	*795*	*860*

ISD CASE B2: Right Turn from Minor Street (driver looking left)

	AASHTO MINIMUM ISD			*WISDOT UPPER MINIMUM ISD*		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Case B2 ISD, feet:	429.0	561.0	693.0	528.0	660.0	792.0
Rounded Case B2 ISD, feet:	*430*	*565*	*695*	*530*	*665*	*795*

ISD CASE B3a: Crossing from Minor Street Traffic from Left (driver looking left)

	AASHTO MINIMUM ISD			*WISDOT UPPER MINIMUM ISD*		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Case B3a ISD, feet:	429.0	561.0	693.0	462.0	660.0	858.0
Rounded Case B3a ISD, feet:	*430*	*565*	*695*	*465*	*665*	*860*

ISD CASE B3b: Crossing from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			*WISDOT UPPER MINIMUM ISD*		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	-6.50	-8.50	-10.50	-7.00	-10.00	-13.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Case B3b ISD, feet:	0.0	0.0	0.0	0.0	0.0	0.0
Rounded Case B3b ISD, feet:	*0*	*0*	*0*	*0*	*0*	*0*

ISD CASE F: Left from Major to Minor (driver looking to left of access towards oncoming traffic)

	AASHTO MINIMUM ISD			*WISDOT UPPER MINIMUM ISD*		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	N/A	N/A	N/A	N/A	N/A	N/A
Total Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Case F ISD, feet:	363.0	429.0	495.0	528.0	528.0	528.0
Rounded Case F ISD, feet:	*365*	*430*	*500*	*530*	*530*	*530*

ISD CONTROLLING DISTANCES:

	AASHTO MINIMUM ISD			***WISDOT UPPER MINIMUM ISD***		
	P	**SU**	**WB**	**P**	**SU**	**WB**
To Left of Access:	**430'**	**565'**	**695'**	**530'**	**665'**	**860'**
To Right of Access:	**500'**	**630'**	**760'**	**665'**	**795'**	**860'**
Left-Turn from Mainline:	**365'**	**430'**	**500'**	**530'**	**530'**	**530'**

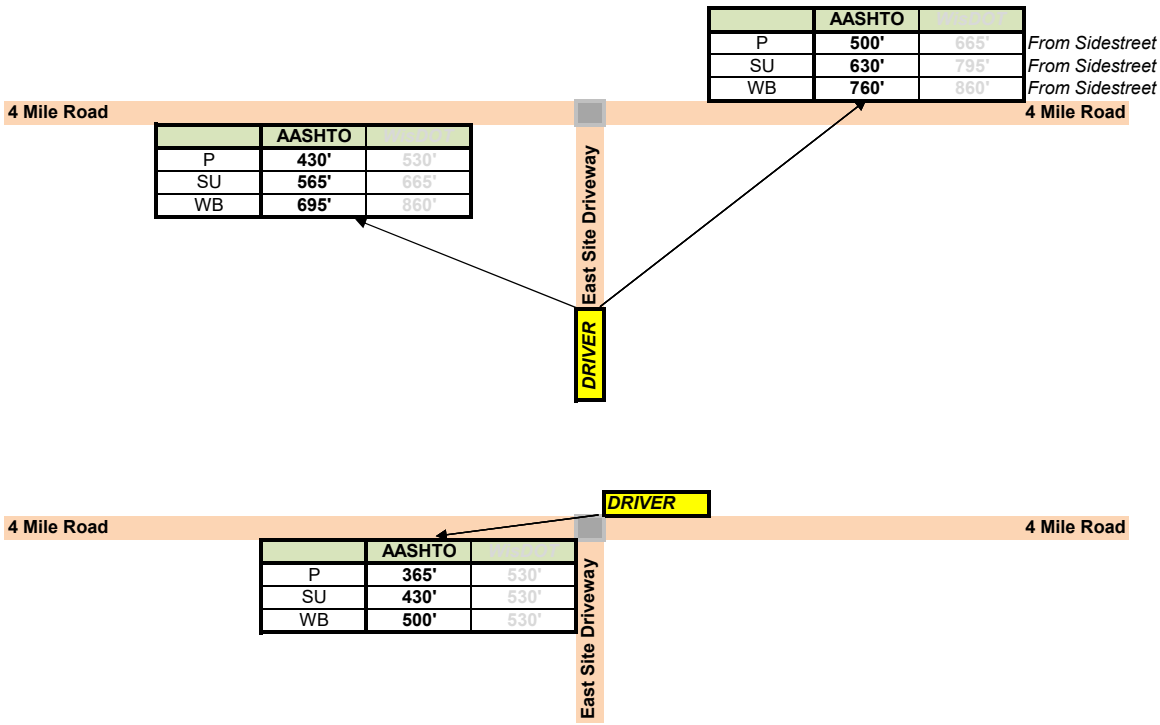
ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Eye Height (start of Arrows): 3.5-ft for P, 7.6-ft for SU & WB
Object Height (head of Arrows): 3.5-ft
Eye Location: 14.5-ft from edge of traveled way

North

Special Instructions



SSD CALCULATIONS

	EB	WB	NB	SB	
Design Speed:	45	45			
Deceleration (ft/s^2):	11.2	11.2	11.2	11.2	*Default rate is 11.2 ft/s^2 per AASHTO GDHS*
Estimated Grade (%):	0.0%	0.0%	0.0%	0.0%	*Positive is uphill, negative is downhill*
Brake Reaction Time (s):	2.5	2.5	2.5	2.5	*Default rate is 2.5s per AASHTO GDHS*
Brake Reaction (ft):	165.0	165.0	0.0	0.0	
Braking Distance (ft):	194.1	194.1	0.0	0.0	
Calculated SSD (ft):	359.1	359.1	0.0	0.0	
Rounded SSD (ft):	**360**	**360**	0	0	

Eye Height (upstream of object to be seen): 3.5-ft
Object Height (downstream of motorist): 2.0-ft

Special Instructions

ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Mainline Name: 4 Mile Road
Sidestreet Name: East Site Driveway

Left-In Allowed?	Yes		P-vehicle Design Length:	19.0	feet (P = 19.0. Overwrite if other design veh)	
Left-Out Allowed?	Yes		SU-vehicle Design Length:	39.5	feet (SU-40 = 39.5. Overwrite if other design veh)	
Right-In Allowed?	Yes		WB-vehicle Design Length:	73.5	feet (WB-67 = 73.5. Overwrite if other design veh)	
Right-Out Allowed?	Yes					
Through-Out Allowed?	No					
Design Speed from Left:	50	mph		P	SU	WB
Design Speed from Right:	50	mph	Design Vehicles:	x	x	X (place an "X")
Median Width:	0	feet				
Minor Street Approach Grade:	0.0%	If a minor street vehicle approaches the major street at greater than 3%, enter grade.				
Number of Near Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
Number of Near Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Thru:	1.00	equivalent 12-ft lanes.				
Number of Far Side Right & Bike:	0.00	equivalent 12-ft lanes. Include tapers, auxiliary lanes, parking lanes, and bicycle accommodations.				
AASHTO or WisDOT:	AASHTO					

ISD CASE B1: Left Turn from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	7.50	9.50	11.50	10.00	12.00	13.00
Case B1 ISD, feet:	550.0	696.7	843.3	733.3	880.0	953.3
Rounded Case B1 ISD, feet:	*555*	*700*	*845*	*735*	*885*	*955*

ISD CASE B2: Right Turn from Minor Street (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	8.00	10.00	12.00
Case B2 ISD, feet:	476.7	623.3	770.0	586.7	733.3	880.0
Rounded Case B2 ISD, feet:	*480*	*625*	*775*	*590*	*735*	*885*

ISD CASE B3a: Crossing from Minor Street Traffic from Left (driver looking left)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Case B3a ISD, feet:	476.7	623.3	770.0	513.3	733.3	953.3
Rounded Case B3a ISD, feet:	*480*	*625*	*775*	*515*	*735*	*955*

ISD CASE B3b: Crossing from Minor Street or Median (driver looking right)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	6.50	8.50	10.50	7.00	10.00	13.00
Additional Time Gap 1, sec:	-6.50	-8.50	-10.50	-7.00	-10.00	-13.00
Additional Time Gap 2, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Total Time Gap, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Case B3b ISD, feet:	0.0	0.0	0.0	0.0	0.0	0.0
Rounded Case B3b ISD, feet:	*0*	*0*	*0*	*0*	*0*	*0*

ISD CASE F: Left from Major to Minor (driver looking to left of access towards oncoming traffic)

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	SU	WB	P	SU	WB
Base Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Additional Time Gap 1, sec:	0.00	0.00	0.00	0.00	0.00	0.00
Additional Time Gap 2, sec:	N/A	N/A	N/A	N/A	N/A	N/A
Total Time Gap, sec:	5.50	6.50	7.50	8.00	8.00	8.00
Case F ISD, feet:	403.3	476.7	550.0	586.7	586.7	586.7
Rounded Case F ISD, feet:	*405*	*480*	*555*	*590*	*590*	*590*

ISD CONTROLLING DISTANCES:

	AASHTO MINIMUM ISD			WISDOT UPPER MINIMUM ISD		
	P	**SU**	**WB**	**P**	**SU**	**WB**
To Left of Access:	**480'**	**625'**	**775'**	**590'**	**735'**	**955'**
To Right of Access:	**555'**	**700'**	**845'**	**735'**	**885'**	**955'**
Left-Turn from Mainline:	**405'**	**480'**	**555'**	**590'**	**590'**	**590'**

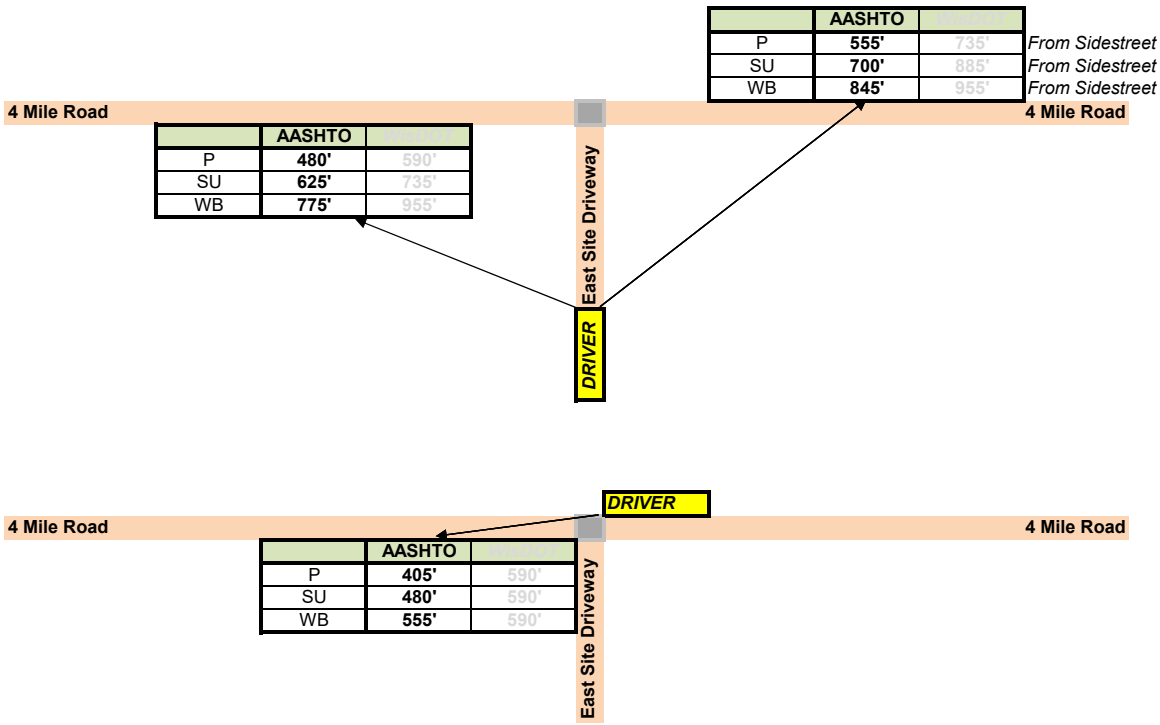
ISD CALCULATIONS (TWSC)

Performed by: TADI - TSC Date: 8/25/2022
Intersection: 4 Mile Road & East Driveway
Community: Caledonia, Racine County, WI

Eye Height (start of Arrows): 3.5-ft for P, 7.6-ft for SU & WB
Object Height (head of Arrows): 3.5-ft
Eye Location: 14.5-ft from edge of traveled way

North

Special Instructions



SSD CALCULATIONS

	EB	WB	NB	SB	
Design Speed:	50	50			
Deceleration (ft/s^2):	11.2	11.2	11.2	11.2	*Default rate is 11.2 ft/s^2 per AASHTO GDHS*
Estimated Grade (%):	0.0%	0.0%	0.0%	0.0%	*Positive is uphill, negative is downhill*
Brake Reaction Time (s):	2.5	2.5	2.5	2.5	*Default rate is 2.5s per AASHTO GDHS*
Brake Reaction (ft):	183.3	183.3	0.0	0.0	
Braking Distance (ft):	239.6	239.6	0.0	0.0	
Calculated SSD (ft):	422.9	422.9	0.0	0.0	
Rounded SSD (ft):	**425**	**425**	0	0	

Eye Height (upstream of object to be seen): 3.5-ft
Object Height (downstream of motorist): 2.0-ft

Special Instructions

Ordinance No. 2022-XX

AN ORDINANCE TO CREATE SECTION 10-1-12(p) OF THE CODE OF ORDINANCES FOR THE VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN RELATING TO A PROHIBITED PARKING ZONE ON BUTTON BUSH DRIVE.

The Village Board of the Village of Caledonia, Racine County, Wisconsin do ordain as follows:

1. That Section 10-1-12(p) of the Code of Ordinances for the Village of Caledonia be, and hereby is, created to read as follows:

> "(p) **Button Bush Drive** The entire outside lane of Button Bush Drive from the intersection with Morris Street (north) to the intersection of Morris Street (south) from November 15th through April 1st of each year."

2. That this ordinance shall take effect upon adoption and publication as provided by law.

Adopted by the Village Board of the Village of Caledonia, Racine County, Wisconsin, this _____ day of _____ 2022.

VILLAGE OF CALEDONIA

By:_____
James R. Dobbs, President

Attest:_____
Joslyn Hoeffert, Clerk

MEMORANDUM

DATE: **Thursday, July 7, 2022**

TO: **Public Works Committee**

FROM: **Anthony A. Bunkelman P.E.**
Public Services Director

RE: **No Parking requested for Button Bush Drive**

BACKGROUND INFORMATION

The construction of Button Bush Drive in Prairie Pathways Phase IV is currently underway. In a recent discussion with the Highway Department, the maintainability of the road was reviewed as far as Winter operations (Snow Plowing) and the signage layout was also reviewed. In looking at the width of the road and pavement (22' of pavement and 27' back of curb to back of curb), it will be difficult in the Winter months to plow snow in the Public Road if there are cars parked on both sides of the road.

With the 19 proposed single-family homes and the short front yard setbacks, it is anticipated that there will be parking of vehicles on Button Bush Drive. This will lead to issues with plowing snow on Button Bush Drive. When vehicles park on both sides of the street, coupled with the width of the snowplows and that it is a narrow road, the road cannot be plowed without property damage to either the Village snow plows or the parked vehicles. This creates an unsafe situation where Public Roads cannot be cleared of snow.

To be proactive, it is being requested that the outside lanes (North side on North road, South side on South road and West side of West road) of Button Bush Drive be posted with No Parking from November 15th through April 1st of each year.

RECOMMENDATION

Move to recommend to the Legislative and Licensing Committee that Ordinance 10-1-12 is amended to add the outside lanes of Button Bush Drive to the Parking Prohibited Zones from November 15th through April 1st of each year.

Move to recommend to the Village Board that Ordinance 10-1-12 is amended to add the outside lanes of Button Bush Drive to the Parking Prohibited Zones from November 15th through April 1st of each year and the Highway Department is directed to install the necessary signs to post No Parking.

CONSTRUCTION SITE SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS AND SEDIMENT TRAPS/BASINS AS NEEDED.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
7. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

   CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

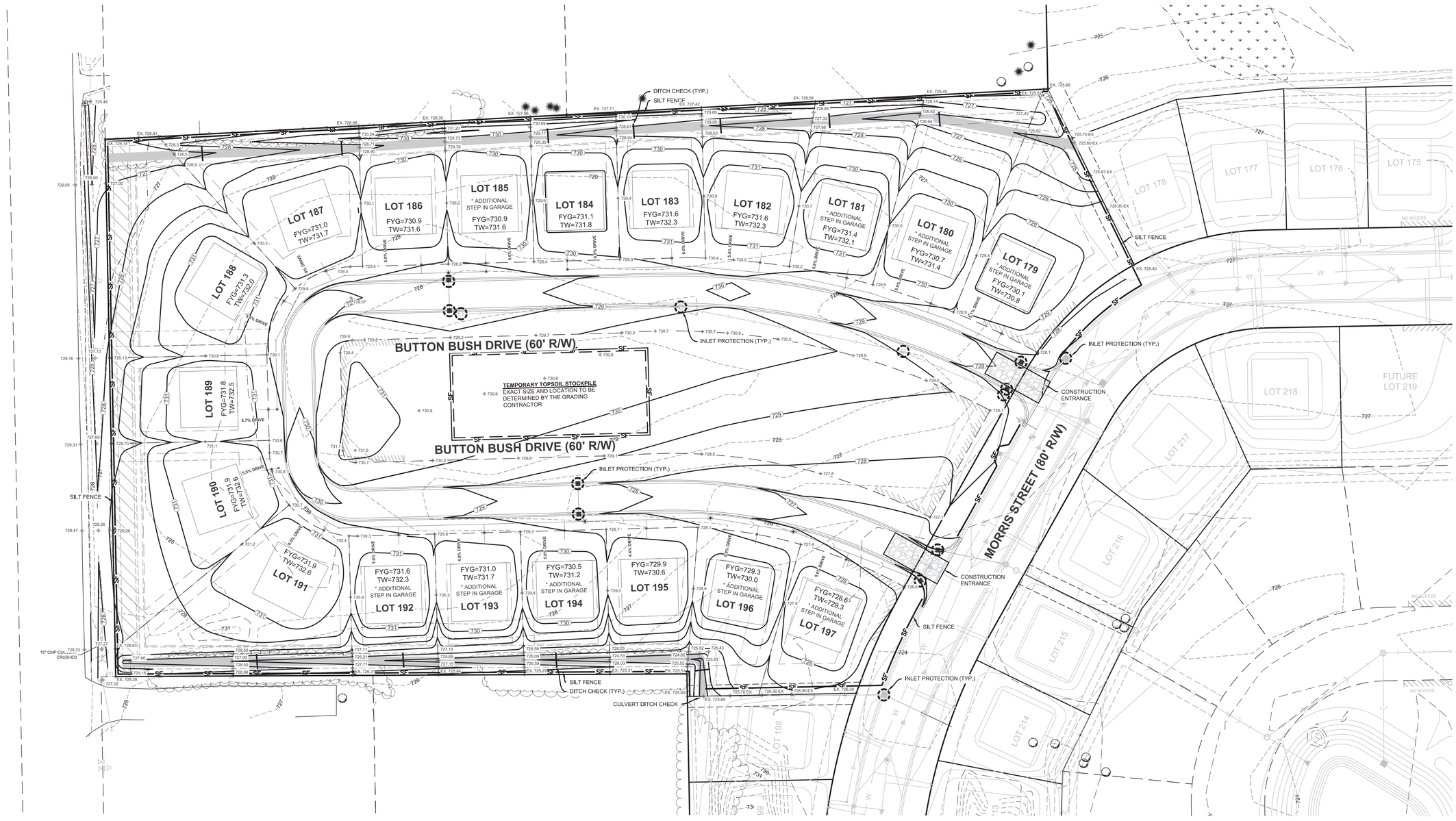
LOTS TO BE LEFT 1.5' TO 2' LOW AND PADS SHALL HAVE POSITIVE DRAINAGE AND SHALL NOT HAVE PONDING WATER

REAR & SIDE YARD SWALES TO BE BUILT TO FINISHED GRADE

ALL LOTS 4" TOPSOIL & HYDROSEED

LEGEND

- STORM SEWER MANHOLE
- STORM STORM CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST FLARED END SECTION
- PROPOSED CONTOUR (740)
- PROPOSED SPOT ELEVATION (750.0)
- WETLANDS
- NORMAL WATER LEVEL (NWL)
- DIRECTION OF SURFACE FLOW (GRADE / PAVEMENT)
- SILT FENCE (SF)
- INLET PROTECTION
- CULVERT PIPE
- DITCH CHECK
- CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET



www.pinnacle-engr.com

FOR CONSTRUCTION

EROSION CONTROL PLAN

DRAFTED: MRG DESIGNED: MAB REVIEWED: AEK

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
20725 WATERTOWN ROAD
BROOKFIELD, WI 53186
(262) 754-9888
CHICAGO | MILWAUKEE | NATIONWIDE

PRAIRIE PATHWAYS
BUTTON BUSH DRIVE
CALEDONIA, WI

EROSION CONTROL PLAN

REVISIONS

1	PER VILLAGE COMMENTS	10/18/21	
2	PER VILLAGE COMMENTS	01/26/22	
3	PER VILLAGE COMMENTS	02/16/22	
4	FOR CONSTRUCTION	04/11/22	

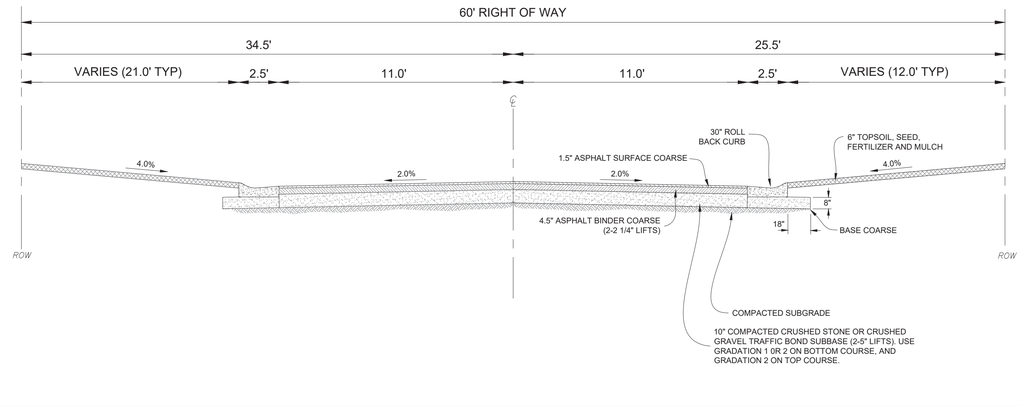
PEG JOB No. 951.10 AEK
PEG PM.
START DATE: 10/16/20
SCALE 1" = 40'

SHEET 4 OF 13

Z:\PROJECTS\2017\951.10-WI\CAD\SHEETS\4 EROSION CONTROL PLAN.DWG

EROSION CONTROL SPECIFICATIONS & REQUIREMENTS

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT (WPDES PERMIT NO. WI-S067831-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMPs). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF AND UNDERSTAND THE BMPs PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. QUALIFIED PERSONNEL: (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH OR MORE PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERNAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH THE GENERAL PERMIT CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
3. POST WNDR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED AND A NOTICE OF TERMINATION IS FILED WITH WDNR.
4. KEEP COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
5. MODIFICATIONS TO THE APPROVED SWAPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMPS, ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
6. OWNER/CONTRACTOR/DESIGN ENGINEER IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER; KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
7. INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
8. WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS). MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE. MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.
9. REFER TO THE WDNR STORMWATER CONSTRUCTION TECHNICAL STANDARDS.
10. INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCES PRIOR TO ANY LAND-DISTURBUNG ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNR TECHNICAL STANDARD STONE TRACKING PAD AND TIRE WASHING #1057 FOR ROCK CONSTRUCTION ENTRANCES.
11. INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1060.
12. WHERE POSSIBLE, STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067.
13. NOTIFY OWNER & ENGINEER IF DEWATERING IS SCHEDULED TO OCCUR IN AREAS OF SOIL AND/OR GROUNDWATER CONTAMINATION OR IF DEWATERING WILL OCCUR FROM A HIGH CAPACITY WELL (70 GPM OR MORE). DEWATERING ONLY AFTER THE APPROPRIATE WDNR DEWATERING DISCHARGE PERMIT HAS BEEN OBTAINED.
14. PUMPS MAY BE USED AS BYPASS DEVICES IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS, PUMP DISCHARGE SHALL BE DIRECTED INTO APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
15. PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. LIMIT PUMPING TO EITHER (A) THE SEDIMENT BASIN/TRAP DESIGN DISCHARGE RATE, OR (B) THE BASIN DESIGN RELEASE RATE WITH THE CORRECTLY-FITTED HOSE AND GEOTEXTILE FILTER BAG. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNR TECHNICAL STANDARD DEWATERING #1061.
16. COMPLETE AND STABILIZE SEDIMENT BASINS/TRAPS OR WET PONDS PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE (REFER TO NR 528). CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WDNR TECHNICAL STANDARD SEDIMENT BASIN #1064 AND SEDIMENT TRAP #1063.
17. CONSTRUCT AND PROTECT THE BIOINFILTRATION BASIN AND VEGETATION FROM RUNOFF AND SEDIMENT DURING CONSTRUCTION. REFERENCE THE WDNR TECHNICAL STANDARD BIORETENTION FOR INFILTRATION #1004. BIOINFILTRATION MAY BE USED AS A SEDIMENT BASIN DURING CONSTRUCTION. DO NOT EXCAVATE FINAL 1' OR INSTALL STONE/ENGINEERED MEDIA UNTIL UPSTREAM AREA IS STABILIZED. WHEN THIS ACCOMPLISHED, REMOVE THE FINAL 1' PLUS ANY SOIL WHICH APPEARS TO BE IMPACTED BY SEDIMENT AND COMPLETE CONSTRUCTION OF BIOINFILTRATION AREA.
18. INSTALL AND MAINTAIN SILT FENCING PER WDNR TECHNICAL STANDARD SILT FENCE #1056. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
19. REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL AND MAINTAIN STRAW BALES PER WDNR TECHNICAL STANDARD DITCH CHECKS #1062.
20. INSTALL AND MAINTAIN FILTER SOCK IN ACCORDANCE WITH WDNR TECHNICAL STANDARD INTERIM MANUFACTURED PERIMETER CONTROL AND SLOPE INTERRUPTION PRODUCTS #1071.
21. IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
22. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE. OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
23. STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
24. SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY THE MUNICIPALITY. SEPARATE SWEPT MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
25. OWNER IS RESPONSIBLE FOR CONTROLLING DUST PER WDNR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES #1068.
26. PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTE OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
27. COORDINATE WITH THE OWNER, ENGINEER AND DNR REPRESENTATIVE TO UPDATE THE LAND DISTURBANCE PERMIT TO INDICATE THE ANTICIPATED OR LIKELY DISPOSAL LOCATIONS FOR ANY EXCAVATED SOILS OR CONSTRUCTION DEBRIS THAT WILL BE HAULED OFF-SITE FOR DISPOSAL. THE DEPOSITED OR STOCKPILED MATERIAL NEEDS TO INCLUDE PERIMETER SEDIMENT CONTROL MEASURES (SUCH AS SILT FENCE, HAY BALES, FILTER SOCKS OR COMPACTED EARTHEN BERMS)
28. FOR NON-CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES, PROVIDE CLASS AND TYPE MATTING FOR THE SPECIFICATIONS UNLESS SPECIFIED OTHERWISE ON THE PLANS. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDOT'S WISDOT PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD NON-CHANNEL EROSION MAT #1052.
29. FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES, PROVIDE CLASS AND TYPE MATTING FOR THE SPECIFICATIONS UNLESS SPECIFIED OTHERWISE ON THE PLANS. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDOT'S WISDOT PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD CHANNEL EROSION MAT #1053.
30. MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
31. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES (SUCH AS TEMPORARY SEDIMENT BASINS, DITCH CHECKS, EROSION CONTROL MATTING, SILT FENCING, FILTER SOCKS, WATTLES, SWALES, ETC) OR AS DIRECTED BY OWNER, MUNICIPALITY, OR DNR REPRESENTATIVE.
32. OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE WDNR REMEDIATION AND WASTE MANAGEMENT REQUIREMENTS FOR HANDLING AND DISPOSING OF CONTAMINATED MATERIALS. SITE-SPECIFIED INFORMATION FOR AREAS WITH KNOWN OR SUSPECTED SOIL AND/OR GROUNDWATER CONTAMINATION CAN BE FOUND ON WNDR'S BUREAU OF REMEDIATION AND REDEVELOPMENT TRACKING SYSTEM PUBLIC DATABASE.
33. MAINTAIN SOIL EROSION CONTROL DEVICE THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS ARE FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
34. NOTIFY THE OWNER IMMEDIATELY IF THERE IS A DISCHARGE OF SEDIMENT AND/OR OTHER CONTAMINANTS.



60' RIGHT OF WAY RESIDENTIAL STREET- URBAN LOCAL ROAD (BUTTON BUSH DRIVE)

DRAFTED: MRG
DESIGNED: MAB
REVIEWED: AEK

PLAN I DESIGN I DELIVER
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20725 WATERTOWN ROAD
BROOKFIELD, WI 53186
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PRAIRIE PATHWAYS
BUTTON BUSH DRIVE
CALEDONIA, WI

CONSTRUCTION DETAILS & SPECIFICATIONS

REVISIONS

1	PER VILLAGE COMMENTS	10/18/21			
2	PER VILLAGE COMMENTS	01/26/22			
3	PER VILLAGE COMMENTS	02/16/22			
4	FOR CONSTRUCTION	04/11/22			

PEG JOB No. 951.10
PEG PM AEK
START DATE 10/16/20
SCALE N.T.S.

SHEET 13 OF 13

FOR CONSTRUCTION
CONSTRUCTION DETAILS & SPECIFICATIONS

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Z:\PROJECTS\2017\951.10-WI\CAD\SHEETS\12 CONSTRUCTION DETAILS & SPECIFICATIONS.DWG