



FAX 810-231-4295  
PHONE 810-231-1000

P.O. Box 157  
10405 Merrill Road  
Hamburg, Michigan 48139

**APPLICATION FOR A ZONING BOARD OF APPEALS (ZBA)  
VARIANCE/INTERPRETATION  
(FEE \$500 plus \$50 each additional)**

1. Date Filed: 12/04/23\_\_\_\_\_
2. Tax ID #: 15-27-401-037 -----Subdivision: Bob White Beach \_\_\_\_\_ Lot No.: 35\_\_\_\_\_
3. Address of Subject Property: 10910 Bob White Beach
4. Property Owner: Scott Greenhalgh\_\_\_\_\_ Phone: (H) 614-496-8581\_\_\_\_\_
- Email Address: [scottgreenhalgh@spectrum.net](mailto:scottgreenhalgh@spectrum.net) (W)\_\_\_\_\_
- Street: 10910 Bob White Beach\_\_\_\_\_ City: Whitmore Lake State MI
5. Appellant (If different than owner): Same as Owner \_\_\_\_\_ Phone: (H)\_\_\_\_\_
- E-mail Address: \_\_\_\_\_ (W)\_\_\_\_\_
- Street: \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_
6. Year Property was Acquired: 2023\_\_\_\_\_ Zoning District: WFR \_\_\_\_\_ Flood Plain No \_\_\_\_\_
7. Size of Lot: Front 50' \_\_\_\_\_ Rear 50' \_\_\_\_\_ Side 1 90' Side 2 90' \_\_\_\_\_ Sq. Ft. 4500\_\_\_\_\_
11. Dimensions of Existing Structure (s) 1st Floor \_\_\_\_\_ 2nd Floor \_\_\_\_\_ Garage 20'7" x 22'6" \_\_\_\_\_
12. Dimensions of Proposed Structure (s) 1st Floor \_\_\_\_\_ 2nd Floor \_\_\_\_\_ Garage 24' x 40' \_\_\_\_\_
13. Present Use of Property: Personal Residence \_\_\_\_\_
14. Percentage of Existing Structure (s) to be demolished, if any 100 \_\_\_\_\_ %
15. Has there been any past variances on this property? Yes \_\_\_\_\_ No X \_\_\_\_\_
16. If so, state case # and resolution of variance application \_\_\_\_\_
17. Please indicate the type of variance or zoning ordinance interpretation requested:  
Variance to build garage within 50 ft of regulated wetlands, with a variance of 160 sq ft larger than allowed 800 sq ft.

18. Please explain how the project meets each of the following standards:

- a) That there are exceptional or extraordinary circumstances or conditions applicable to the property involved that do not apply generally to other properties in the same district or zone.

See Attachment

- b) That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same zone and vicinity. The possibility of increased financial return shall not be deemed sufficient to warrant a variance.

See Attachment

- c) That the granting of such variance or modification will not be materially detrimental to the public welfare or materially injurious to the property or improvements in such zone or district in which the property is located.

See Attachment

- d) That the granting of such variance will not adversely affect the purpose or objectives of the master plan of the Township.

See Attachment

- e) That the condition or situation of the specific piece of property, or the intended use of said property, for which the variance is sought, is not of so general or recurrent a nature.

See Attachment

- f) Granting the variance shall not permit the establishment with a district of any use which is not permitted by right within the district;

See Attachment

- g) The requested variance is the minimum necessary to permit reasonable use of the land.

See Attachment

- I hereby certify that I am the owner of the subject property or have been authorized to act on behalf of the owner(s) and that all of the statements and attachments are true and correct to the best of my knowledge and belief.
- I acknowledge that approval of a variance only grants that which was presented to the ZBA.
- I acknowledge that I have reviewed the Hamburg Township Zoning Ordinance, The ZBA Application and the ZBA Checklist and have submitted all of the required information.
- I acknowledge that filing of this application grants access to the Township to conduct onsite investigation of the property in order to review this application.
- I understand that the house or property must be marked with the street address clearly visible from the roadway.
- I understand that there will be a public hearing on this item and that either the property owner or appellants shall be in attendance at that hearing.
- I understand that a Land Use Permit is required prior to construction if a variance is granted.

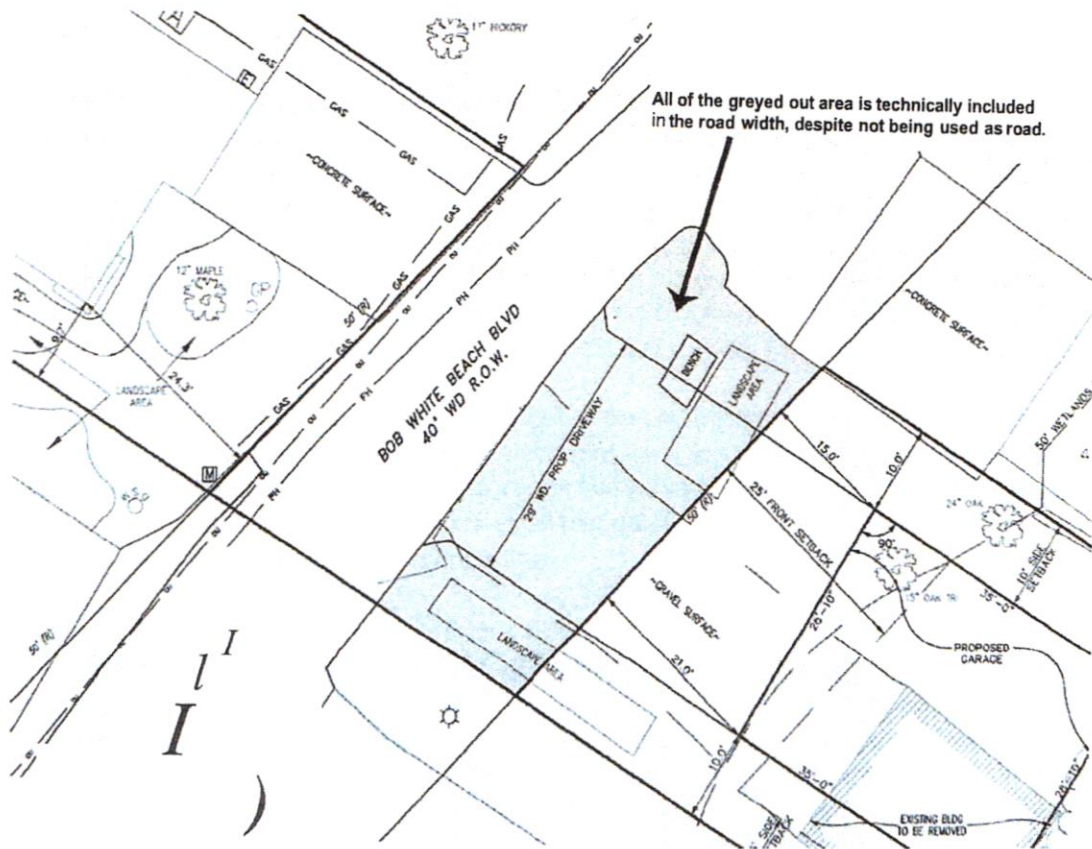
Owner's Signature \_\_\_\_\_ Date \_\_\_\_\_

Appellant's Signature \_\_\_\_\_ Date \_\_\_\_\_

18. a) That there are exceptional or extraordinary circumstances or conditions applicable to the property involved that do not apply generally to other properties in the same district or zone.

On the southern half of Bob White Beach, lakefront homes have their garages in back, across the street. Our lot happens to have what may be the smallest piece of land for its garage; 50 by 90 foot. Normally, that would allow for the construction of a 30 by 40-foot garage. However, because the lot is in the shape of a slanted rectangle (parallelogram), that is not possible. The practical difficulty of building an asymmetric parallelogram shaped structure to follow the shape of this lot would render conformity unnecessarily burdensome.

By allowing the garage to encroach the 50-foot setback of wetlands, it would allow for a rectangular garage of the same allowable 40-foot depth which would otherwise be permitted, if the lot was rectangular.



The survey data records the road as being 40 feet wide. In actuality, the literal paved road is between 17 to 19 feet wide. The remaining 21 to 23 feet of "road" is actually a lawn and a gravel driveway. It's entirely on one side of the road - the same side as the garage lot.

For the existing garage, new garage, as well as neighboring garages, these all sit closer than 50 feet from regulated wetlands. Due to the particularly small lot size, it would not be possible to construct a garage that sat 50+ feet away. The average distance from the wetlands for the new garage is no closer than that of the existing neighbor's garages.

**b) That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same zone and vicinity. The possibility of increased financial return shall not be deemed sufficient to warrant a variance.**

On the east side of Bob White Beach Blvd, where the houses' garages are located, others enjoy having a 2-car (or larger) garage, with depth and storage for watercraft, etc.

While it is true our property currently has a 2-car garage, it's made of old rotted logs, dilapidated, and is subject to wind, rain, and snow getting in. Remains unsafe to park cars inside and as such, is only being used as a very large storage shed. As a result, we are unable to enjoy the benefit of having a garage which is customary for the neighborhood.

Nearby properties have built garages which are 40+ feet in depth to accommodate storing boats on trailers. For example, the direct neighboring garages on both the left and right side of us are approximately 47 and 41 feet deep, respectively. Our replacement is at 40 feet. Our new garage will be comparable to that of our neighboring garages.

**c) That the granting of such variance or modification will not be materially detrimental to the public welfare or materially injurious to the property or improvements in such zone or district in which the property is located.**

The granting of such variance will be an improvement to the neighboring properties.

The existing garage sits barely 2 feet from the southern property line. The new garage abides by the 10-foot required setbacks on both sides. Hence, it conforms to current standards and eliminates the crowding next to my neighbor's garage.

Wetland protection has been thoughtfully considered. Gutters will be used on the roof with downspout runoff designed to flow away from the direction of the wetlands. On the existing garage, at its closest point is 15'8" to wetlands, which is its southern corner, the new garage distance is 14 feet from wetlands. The average distance for the new garage is no closer than that. The rest of the rear garage is at a greater distance than 14 away from wetlands.

Jeff Pierce is the Environmental Quality Analyst assigned to our region from the Michigan Department of Environment, Great Lakes, and Energy (EGLE). He reviewed our wetland delineation report, as well as the site plot showing the locations of the existing and proposed garages. He said this plan "would not have direct impacts on the wetland." His letter is attached. This letter was provided by previous owner.

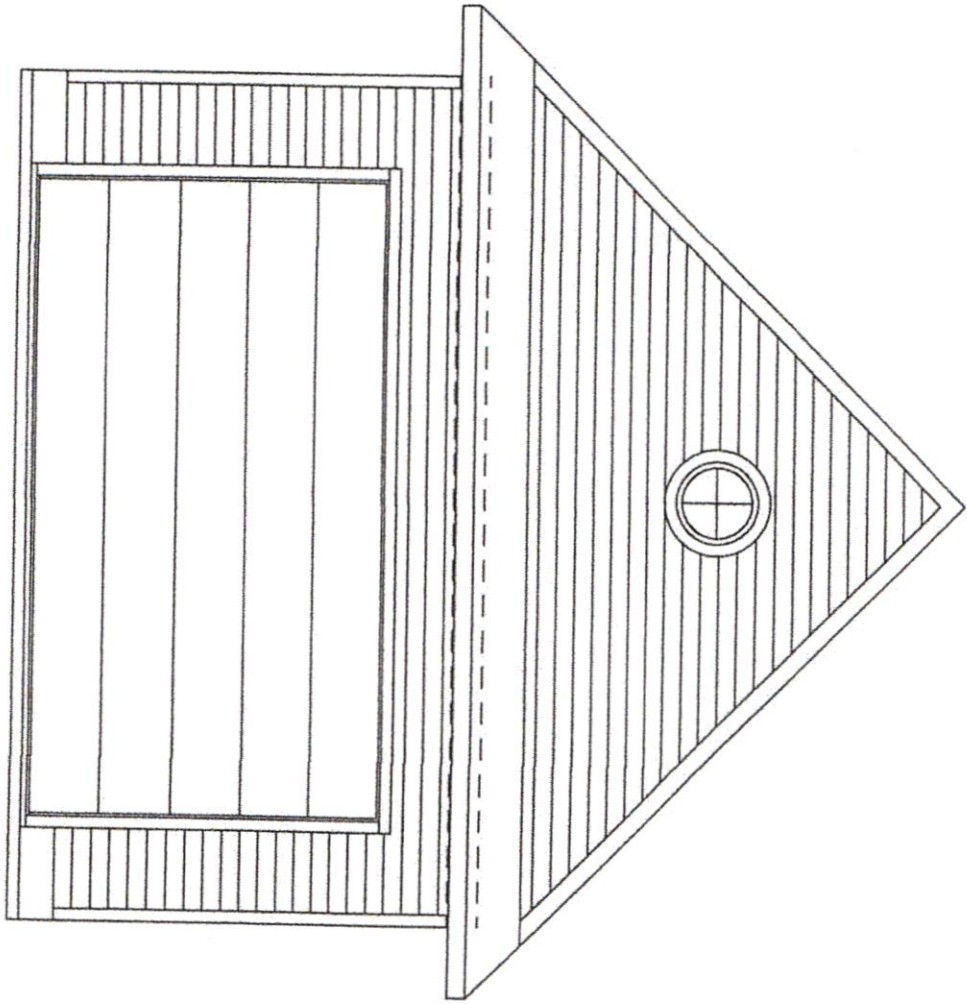


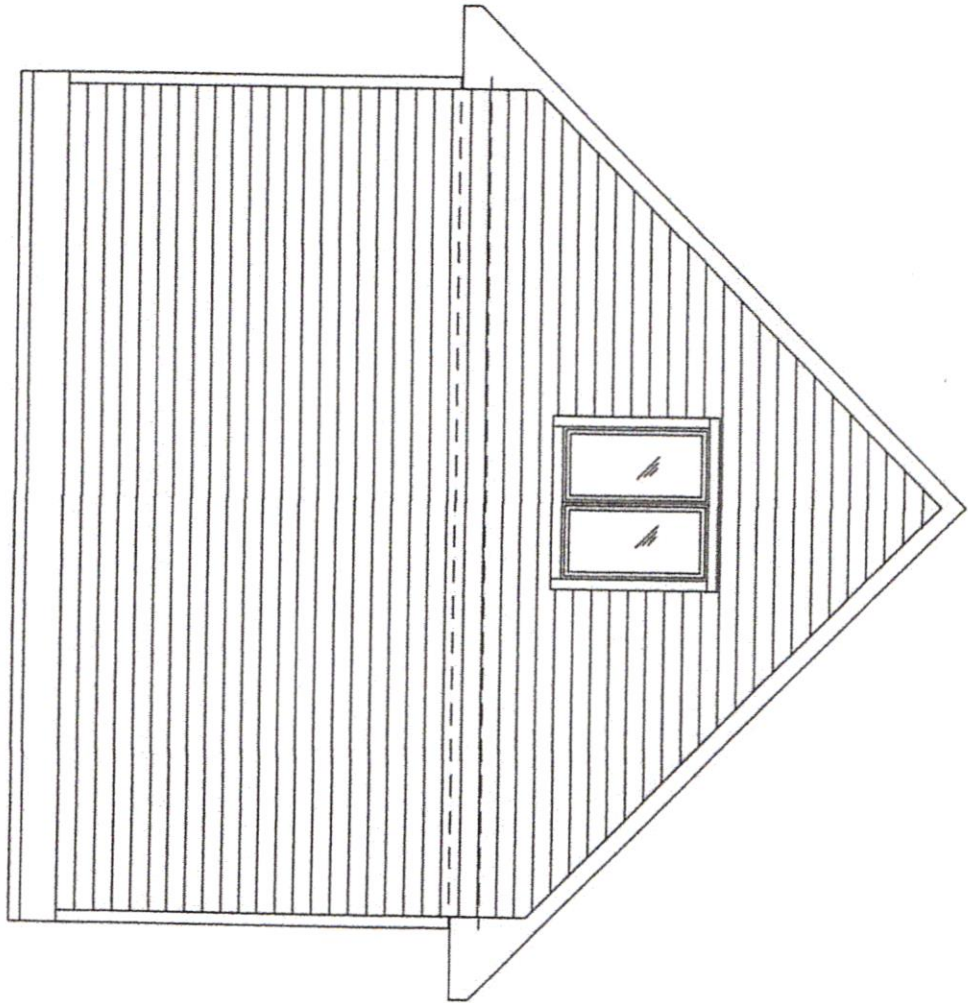
**f) Granting the variance shall not permit the establishment with a district of any use which is not permitted by right within the district.**

With the granting of the variance, the use of the property does not change. It remains a Single-Family Residence with detached 2-car garage.

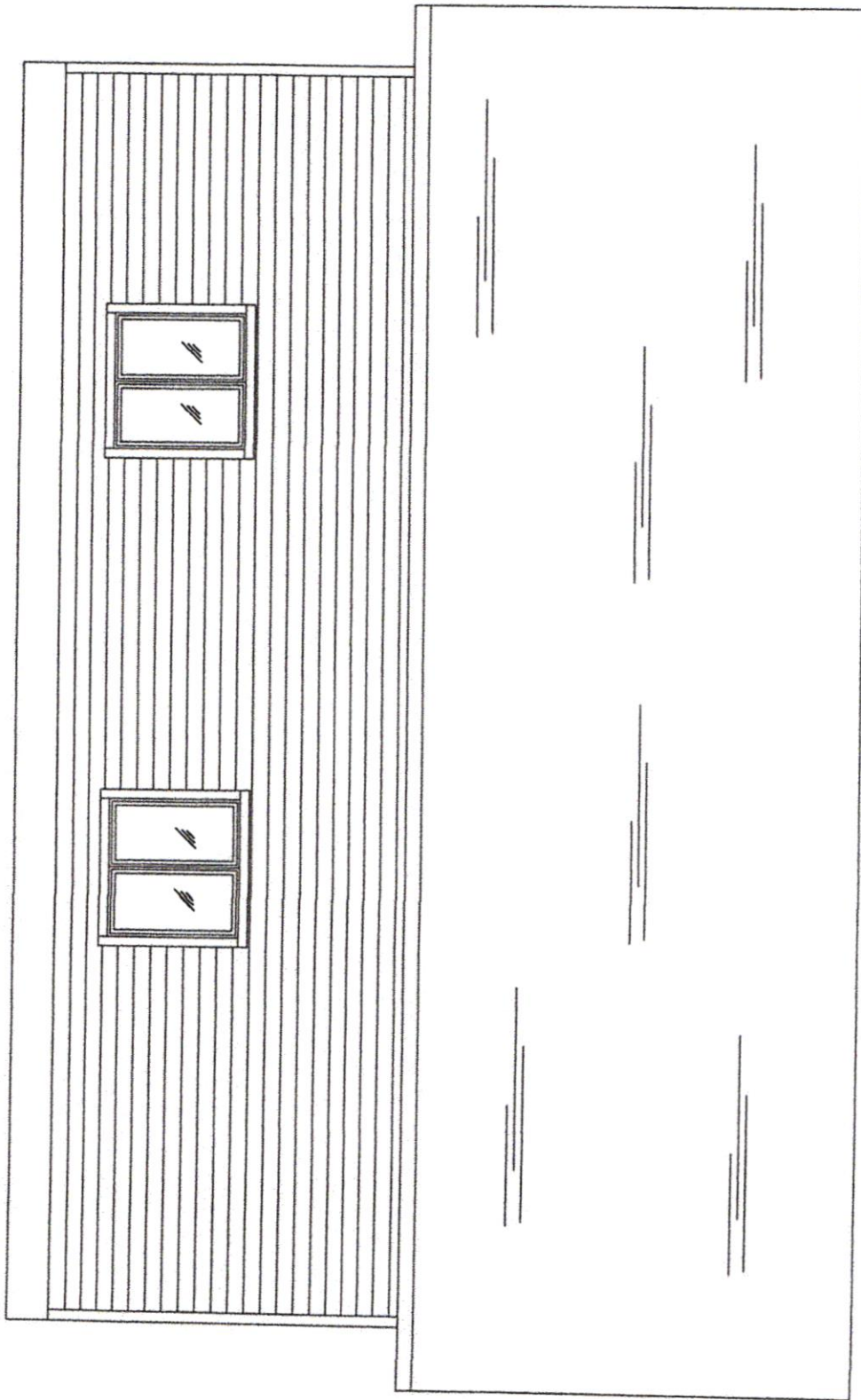
**g) The requested variance is the minimum necessary to permit reasonable use of the land.**

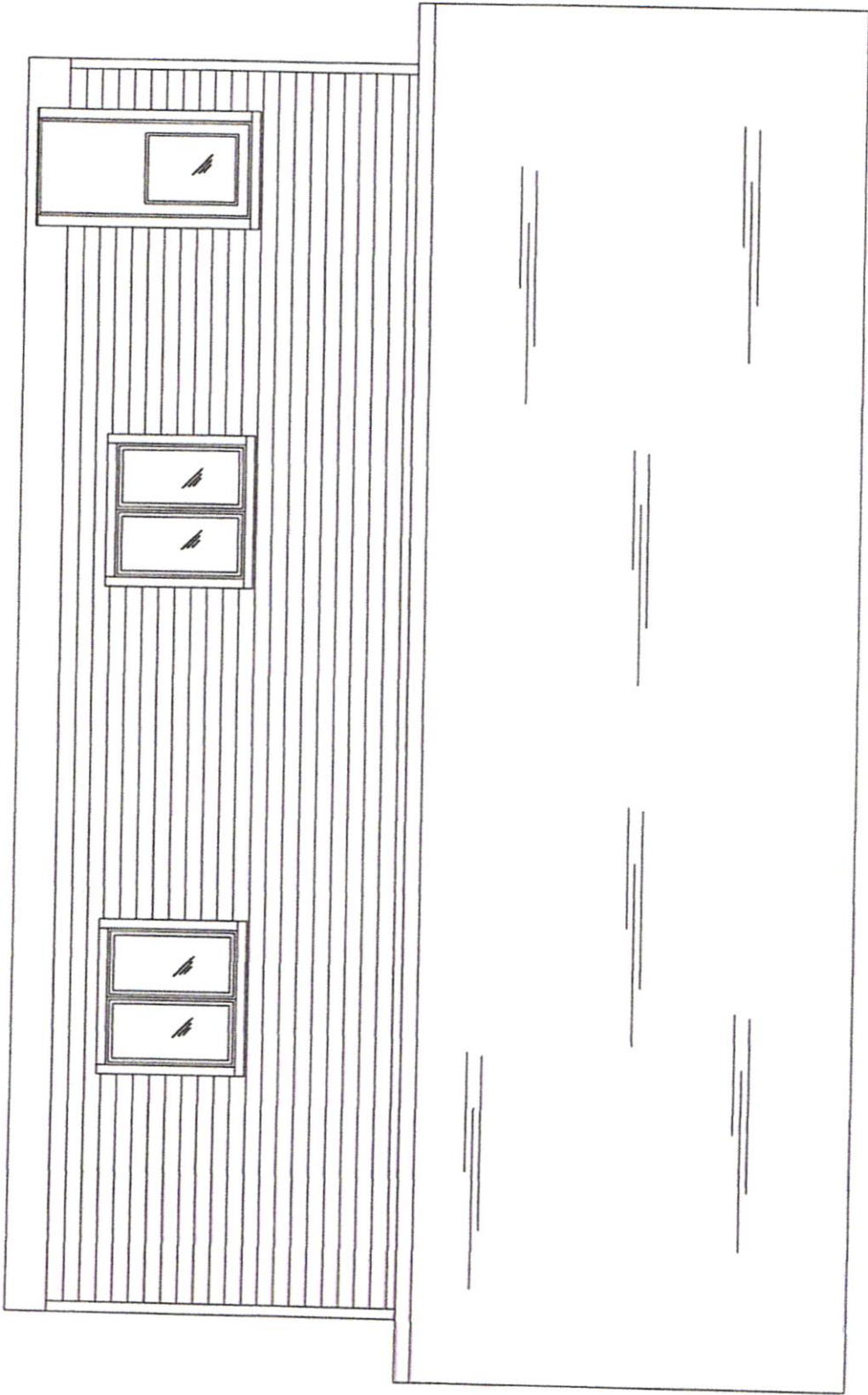
The partial encroachment of the 50-foot wetlands setback as required by ordinance is reasonable, given that its average distance to the wetlands is approximately 1'6" closer than that of the existing garage.

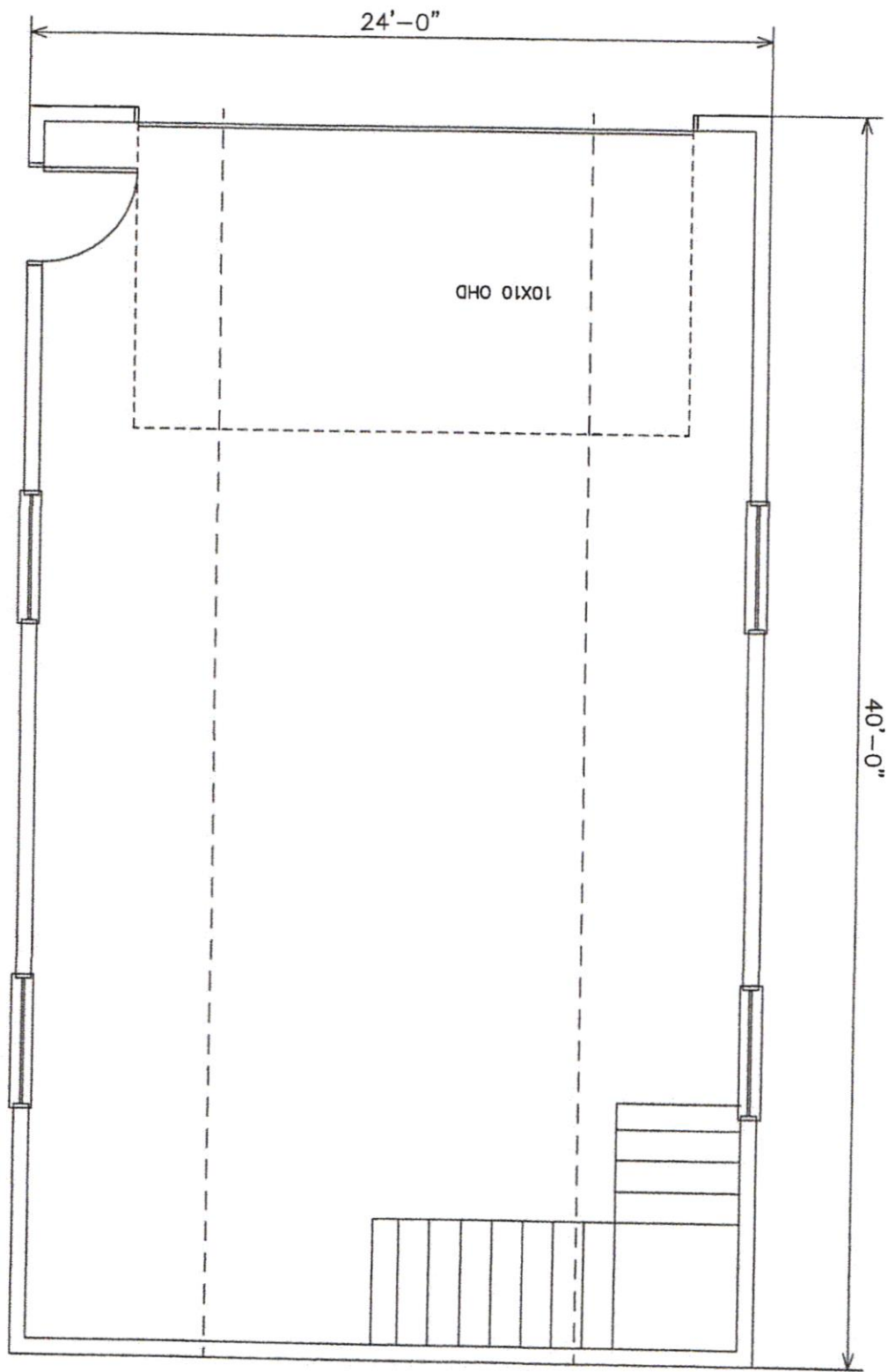


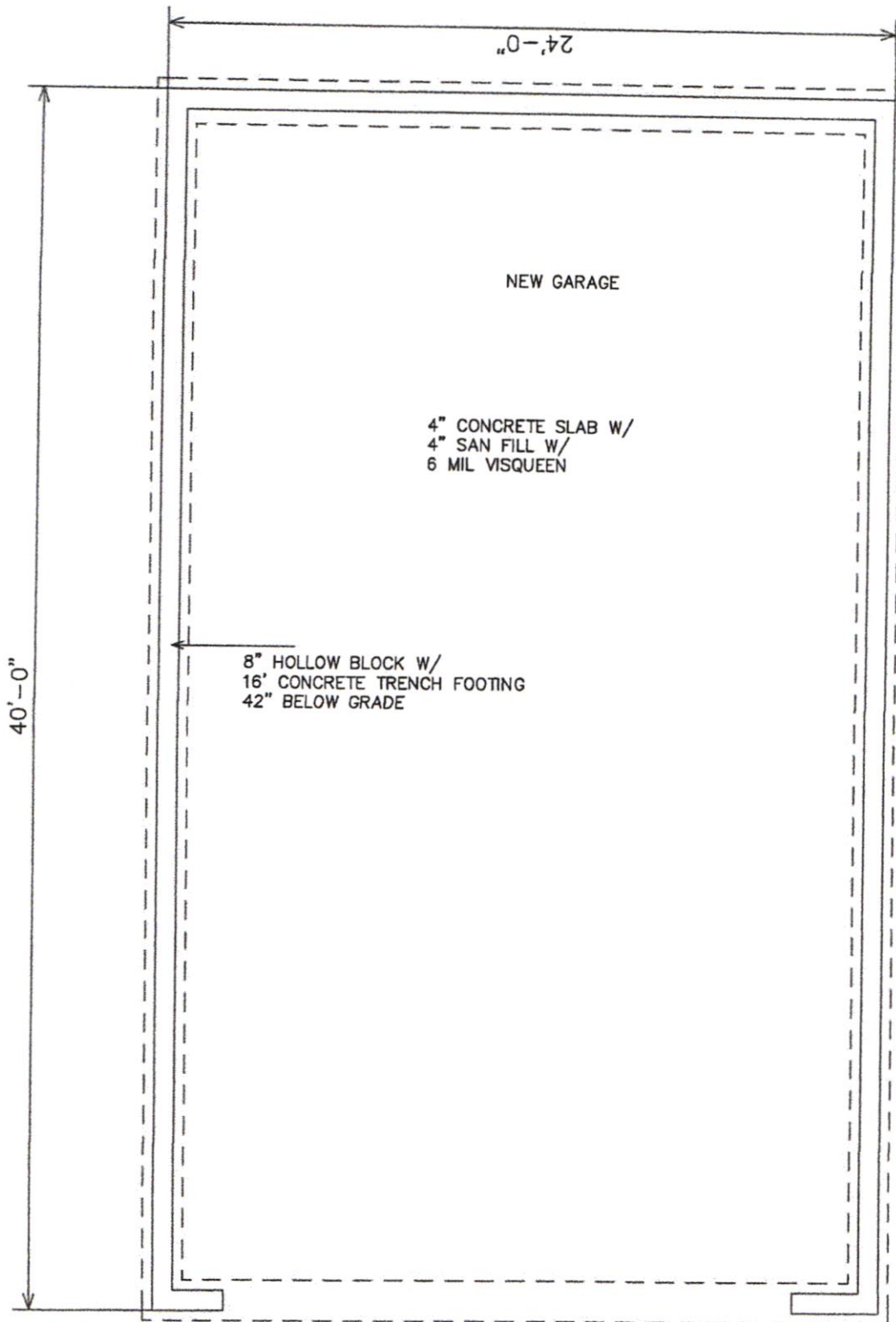












FOUNDATION 1/4" = 1'-0"

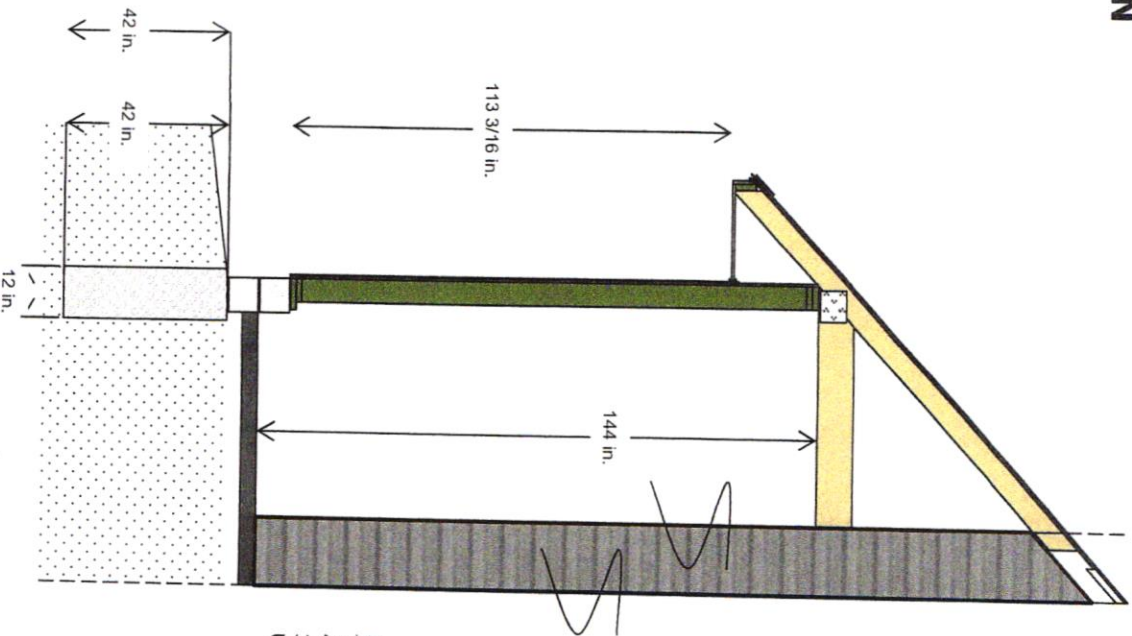


# GABLE1 CROSS SECTION

ROOF LAYER 1: 1/2 IN. X 4 FT. X 8 FT. ORIENTED STRAND BOARD  
 ROOF LAYER 2: CUSTOM PROFELT 30 VAPOR BARRIER  
 ROOF LAYER 3: G A F/ELK TIMBERLINE 30 STANDARD COLOR SHINGLES

SUB FACIA: 2 X 6 SPF-PREMIUM  
 DRIP FLASHING: ROLLEX STANDARD COLOR 10 FT  
 DRIPEGE WHITE 10 FT  
 FACIA COVERING: PRIMED MIRATEC 1 X 6  
 UNDEREAVE: 4X8 PRIMED SMART SOFFIT NO GROOVE

FRAMING: SPF-PREMIUM 2 X 6 16 IN. O.C. STUDS  
 BOTTOM PLATE: SPF-PREMIUM 2 X 6  
 WALL LAYER 1: 1/2 IN. X 4 FT. X 8 FT. ORIENTED STRAND BOARD  
 WALL LAYER 2: 10 X 150 TYVEK HOUSE WRAP  
 WALL LAYER 3: LP LAP SIDING 6 IN EXPOSE .375 IN X 6 IN X 16 FT



12/12 PITCH TRUSS SYSTEM WITH A STANDARD HEEL  
 (HEEL HEIGHT: 0-7-11 OR 7 11/16 IN.)  
 TRUSS SPACING: 24 IN. O.C.  
 TRUSS LOADING INFORMATION:  
 TCU/TCDL/BCL/BCDL 35-7-0-10  
 TOTAL TRUSS LOADING = 52 P.S.F.  
 BRACE PER TRUSS MANUFACTURERS  
 RECOMMENDATIONS

INTERIOR FINISHED FLOOR HT. WILL BE 8 IN. BELOW  
 THE TOP OF THE FOUNDATION  
 4 IN. CONCRETE FLOOR W/STRUCTURAL STRENGTH -  
 3500 P.S.I.  
 UNDISTURBED SOIL OR COMPACTED SAND FILL







Michael Dolen &lt;michaeldolen@gmail.com&gt;

---

**Fw: Wetlands Delineation - 10910 Bob White Beach Blvd, Whitmore Lake, MI 48189**

---

**Michael Ackermann** <mjackermann@yahoo.com>  
To: "michaeldolen@gmail.com" <michaeldolen@gmail.com>

Mon, Jun 22, 2020 at 1:41 PM

----- Forwarded Message -----

**From:** Pierce, Jeff (EGLE) <piercej2@michigan.gov>  
**To:** Michael Ackermann <mjackermann@yahoo.com>  
**Sent:** Monday, June 22, 2020, 01:01:49 PM PDT  
**Subject:** RE: Wetlands Delineation - 10910 Bob White Beach Blvd, Whitmore Lake, MI 48189

Hi Michael,

Thank you for providing the wetland delineation and project plans for your proposed garage construction. Based on my review of the materials you provided, the proposed construction of the garage would not involve construction or filling within regulated wetland and would not have direct impacts on the wetland. Therefore, a permit would not be required under Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for the construction of the garage as proposed.

IF you have any additional questions regarding your project please contact me by phone or email.

Jeff Pierce

Environmental Quality Analyst

Water Resources Division, Lansing District Office

Michigan Department of Environment, Great Lakes, and Energy

517-416-4297 | piercej2@Michigan.gov

[Follow Us | Michigan.gov/EGLE](https://www.michigan.gov/EGLE)

**Due to temporary layoffs of State employees, I will not be working every Friday through July 24. I will not be able to respond to emails or phone calls on those days. Thank you.**

**From:** Michael Ackermann <mjackermann@yahoo.com>  
**Sent:** Friday, June 19, 2020 3:50 PM  
**To:** Pierce, Jeff (EGLE) <PierceJ2@michigan.gov>  
**Subject:** Fw: Wetlands Delineation - 10910 Bob White Beach Blvd, Whitmore Lake, MI 48189



Mailing Address:  
P.O. Box 2160  
Brighton, MI 48116-2160800 395-ASTI  
Fax: 810.225.3800[www.asti-env.com](http://www.asti-env.com)

June 2, 2020

Mr. Michael Dolen  
10910 Bob White Beach Road  
Whitmore Lake, MI 48189

*RE: Wetland Delineation and Jurisdictional Assessment with GPS Survey  
10910 Bob White Beach Road  
Sidwell No. 4715-27-401-037  
Hamburg Township, Livingston County, Michigan  
ASTI File No. 11501*

Dear Mr. Dolen:

A site investigation was completed on May 22, 2020 by ASTI Environmental (ASTI) to delineate wetland boundaries on the above-referenced property located at 10910 Bob White Beach Road (Parcel No. 4715-27-401-037), Hamburg Township, Livingston County, Michigan (Property). The Property includes frontage along Strawberry Lake and is separated into two (east and west) by Bob White Beach Road: the home is located lakeside on the west side of Bob White Beach Road and a garage is located on the east side of Bob White Beach Road. One waterbody (Strawberry Lake) regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) was found on the Property and one wetland also regulated by EGLE was found adjacent to the Property (see Figure 1 – *GPS-Located Wetland Boundaries*). Waterbody and wetland boundaries, as depicted on Figure 1, were located by ASTI using a professional grade, hand-held global positioning system unit (GPS).

**SUPPORTING DATA**

The United States Geological Survey (USGS) Hamburg, Michigan 7.5' Quadrangle Map, the USDA Web Soil Survey (WSS), the National Wetland Inventory Map (NWI), the EGLE Wetlands Map Viewer web site, and digital aerial photographs were all used to support the wetland delineation and subsequent regulatory status determination. The EGLE map indicated the presence of wetland in the eastern portion of the Property. No other data indicated the presence of wetland on the Property. All reviewed data indicated Strawberry Lake adjacent to the northern portion of the Property.

The WSS indicates the Project Area is comprised of the soil map units of Warners loam and Carlisle muck (0-2% slopes). Both soil units are hydric soils according to the WSS.

## **FINDINGS**

ASTI investigated the Project Area for the presence of lakes, ponds, wetlands, and watercourses. This work is based on MCL 324 Part 301, Inland Lakes and Streams and Part 303, Wetlands Protection.

The delineation protocol used by ASTI for this delineation is based on the US Army Corps of Engineers' *Wetland Delineation Manual*, 1987, the *Regional Supplement to the Corps of Engineer Wetland Delineation Manual: Midwest Region*, and related guidance/documents, as appropriate. Wetland vegetation, soils, and hydrology indicators were used to determine wetland boundaries.

### Wetland A

Wetland A is a forested wetland located adjacent to the eastern property boundary line (Figure 1). Dominant vegetation found within Wetland A included silver maple (*Acer saccharinum*), green ash (*Fraxinus pennsylvanica*), and American elm (*Ulmus americana*). Soils within Wetland A were comprised of mucky sands and are considered hydric because the hydric soil criteria of sandy mucky mineral were met. Indicators of wetland hydrology observed within Wetland A included observations of water stained leaves, sparsely vegetated concave surfaces, and saturated soils.

Vegetation in the upland adjacent to Wetland A was dominated by Kentucky blue grass (*Poa pratensis*) and silver maple. Soils in the upland adjacent to Wetland A were comprised of loamy sands that did not exhibit hydric soils characteristics. No indicators of wetland hydrology were observed.

It is ASTI's opinion that Wetland A is regulated by EGLE under Part 303 because it is a portion of a wetland complex that is greater than five acres in size and is directly connected to Strawberry Lake to the west. Strawberry Lake exhibits an area of permanent open water greater than five acres in size and thus, meets the definition of an inland lake under Part 301.

Additionally, Hamburg Township requires a 50-foot setback from regulated wetlands per the Hamburg Township Zoning Ordinance, Article 9.9.3, Setback Standards. ASTI has indicated the location of this setback on Figure 1 as it applies to Wetland A.

### Strawberry Lake

The northern portion of the Property includes Strawberry Lake frontage. As stated above, Strawberry Lake meets the definition of an inland lake under Part 301.

### On-Site Flagging

On-site Strawberry Lake boundaries were marked in the field with day-glo pink pin flags stamped "WETLAND DELINEATION." All flagging was located with GPS and numbered as follows:

Strawberry Lake = B-1 through B-2

Off-site wetland boundaries (Wetland A) were not flagged, but were located with GPS and numbered as follows:

Wetland A = A-1 through A-7

**SUMMARY**

Based upon the data, criteria, and evidence noted above, it is ASTI's professional opinion that the Property includes one inland lake (Strawberry Lake) regulated by EGLE. It is also ASTI's professional opinion a wetland adjacent to the southeastern boundary (Wetland A) is also regulated by EGLE. However, EGLE has the final authority on the extent of regulated wetlands, lakes, and streams in the State of Michigan.

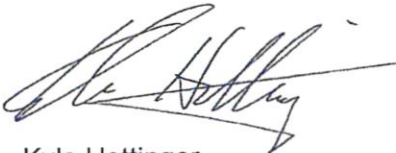
Attached are Figure 1, which shows the GPS-surveyed inland lake boundaries within the Project Area, adjacent off-site wetland boundaries, and completed US Army Corps of Engineers (ACOE) Wetland Data Forms.

Please note that Hamburg Township requires a setback of 50 feet from any EGLE-regulated wetlands for site development purposes.

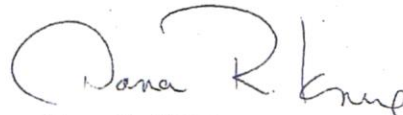
Thank you for the opportunity to assist you with this project. Please let us know if we can be of any further assistance in moving your project forward.

Cordially,

ASTI ENVIRONMENTAL



Kyle Hottinger  
Wetland Ecologist  
Professional Wetland Scientist #2927



Dana R. Knox  
Wetland Ecologist  
Professional Wetland Scientist #213

Attachments: Figure 1 – GPS-Located Wetland Boundaries  
Completed ACOE Wetland Data Forms



- Legend**
- GPS-located Inland Lake Points, Flags
  - GPS-located Off-Site Wetland Boundary Points, No Flags
  - - Hamburg Township 50 ft Wetland Setback
  - - GPS-located Off-Site Wetland Boundary
  - - Off-Site Strawberry Lake Boundary
  - - Strawberry Lake Boundary
  - Approximate Property Boundary

It is ASTI's opinion that the natural feature is likely to be regulated by EQL. This map does not imply an official opinion by EQL nor is it legally binding.  
 Wetland Delineation Completed: May 22, 2020

10910 Bob White Beach Road  
 Sidwell No. 4715-27-401-037

Hamburg Twp.,  
 Livingston Co., MI



Client: Michael Dolen  
 Created by: RMH, June 2, 2020, ASTI Project 11501  
 Imagery: SEMCOG, Maxar

Figure 1 - GPS-Surveyed Wetland Boundaries

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 10910 Bob White Beach City/County: Hamburg Twp.-Livingston Co. Sampling Date: 5-22-20

Applicant/Owner: Michael Dolen State: MI Sampling Point: UP-A4

Investigator(s): ASTI- KAH Section, Township, Range: Sec 27 T1N R5E

Landform (hillside, terrace, etc.): slight slope Local relief (concave, convex, none): slope

Slope (%): 2-3 Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_

Soil Map Unit Name: Carlisle muck (0-2% slopes) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Upland adjacent to Wetland A at flag A4 (on-site)	

### VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
(Plot size: <u>30'</u> )																				
1. <u>Acer saccharinum</u>	25	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)																
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
4. _____																				
5. _____																				
	25	=Total Cover																		
<b>Sapling/Shrub Stratum</b>																				
(Plot size: <u>15'</u> )																				
1. <u>Lonicera tatarica</u>	5	Yes	FACU	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>85</u></td> <td>x 3 = <u>255</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>385</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.96</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>85</u>	x 3 = <u>255</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u> (A)	<u>385</u> (B)	Prevalence Index = B/A = <u>2.96</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>25</u>	x 2 = <u>50</u>																			
FAC species <u>85</u>	x 3 = <u>255</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>130</u> (A)	<u>385</u> (B)																			
Prevalence Index = B/A = <u>2.96</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
	5	=Total Cover																		
<b>Herb Stratum</b>																				
(Plot size: <u>5'</u> )																				
1. <u>Poa pratensis</u>	80	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Alliaria petiolata</u>	5	No	FAC																	
3. <u>Glechoma hederacea</u>	10	No	FACU																	
4. <u>Taraxacum officinale</u>	5	No	FACU																	
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
	100	=Total Cover																		
<b>Woody Vine Stratum</b>																				
(Plot size: <u>15'</u> )																				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																
2. _____																				

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: UP-A4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Sandy	
3-18	10YR 4/3	70	10YR 6/3	30	C	M	Sandy	Faint redox concentrations with gravel and coarse sand

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: <u>                  </u> none Depth (inches): <u>                  </u>	Hydric Soil Present?      Yes <u>      </u> No <u>  X  </u>
--	---

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present?    Yes <u>      </u> No <u>  x  </u> Depth (inches): <u>          </u> Water Table Present?      Yes <u>      </u> No <u>  x  </u> Depth (inches): <u>          </u> Saturation Present?        Yes <u>      </u> No <u>  x  </u> Depth (inches): <u>          </u> (includes capillary fringe)	Wetland Hydrology Present?    Yes <u>      </u> No <u>  X  </u>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 10910 Bob White Beach City/County: Hamburg Twp.-Livingston Co. Sampling Date: 5-22-20

Applicant/Owner: Michael Dolen State: MI Sampling Point: UP-B1

Investigator(s): ASTI - KAH Section, Township, Range: Sec 27 T1N R5E

Landform (hillside, terrace, etc.): slight slope Local relief (concave, convex, none): slope

Slope (%): 2-3 Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_

Soil Map Unit Name: Warners loam NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

### VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer platanoides</u>		10	Yes	UPL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____																					
3. _____																					
4. _____																					
5. _____																					
		10 =Total Cover																			
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )																				
1. _____					<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>95</u></td> <td>x 3 = <u>285</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>355</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.23</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>95</u>	x 3 = <u>285</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>110</u> (A)	<u>355</u> (B)	Prevalence Index = B/A = <u>3.23</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>0</u>	x 2 = <u>0</u>																				
FAC species <u>95</u>	x 3 = <u>285</u>																				
FACU species <u>5</u>	x 4 = <u>20</u>																				
UPL species <u>10</u>	x 5 = <u>50</u>																				
Column Totals: <u>110</u> (A)	<u>355</u> (B)																				
Prevalence Index = B/A = <u>3.23</u>																					
2. _____																					
3. _____																					
4. _____																					
5. _____																					
		=Total Cover																			
Herb Stratum	(Plot size: <u>5'</u> )																				
1. <u>Poa pratensis</u>		95	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Taraxacum officinale</u>		5	No	FACU																	
3. _____																					
4. _____																					
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
		100 =Total Cover																			
Woody Vine Stratum	(Plot size: <u>15'</u> )																				
1. _____					<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>																
2. _____																					
		=Total Cover																			
Remarks: (Include photo numbers here or on a separate sheet.)																					

**SOIL**

Sampling Point: UP-B1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 4/3	100					Sandy	
5-18	10YR 4/3	70	10YR 6/3	30	C	M	Sandy	Faint redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Gleyed Matrix (S4)   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Dark Surface (S7)          |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> 2 cm Muck (A10)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)      | <input type="checkbox"/> Redox Depressions (F8)     |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

**Remarks:**

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                  |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> True Aquatic Plants (B14)                  |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Gauge or Well Data (D9)                    |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   | <input type="checkbox"/> Other (Explain in Remarks)                 |

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No x Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No x Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No x Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**



## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 10910 Bob White Beach City/County: Hamburg Twp.-Livingston Co. Sampling Date: 5-22-20

Applicant/Owner: Michael Dolen State: \_\_\_\_\_ Sampling Point: WET-A4

Investigator(s): ASTI-KAH Section, Township, Range: Sec 27 T1N R5E

Landform (hillside, terrace, etc.): slight depression Local relief (concave, convex, none): concave

Slope (%): 1-2 Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_

Soil Map Unit Name: Carlisle muck (0-2% slopes) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																	
1. <u>Acer saccharinum</u>	60	Yes	FACW			<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>155</u></td> <td>x 2 = <u>310</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>175</u> (A)</td> <td><u>360</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.06</u></td> </tr> </tbody> </table>		Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>155</u>	x 2 = <u>310</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>175</u> (A)	<u>360</u> (B)
Total % Cover of:	Multiply by:																				
OBL species <u>10</u>	x 1 = <u>10</u>																				
FACW species <u>155</u>	x 2 = <u>310</u>																				
FAC species <u>0</u>	x 3 = <u>0</u>																				
FACU species <u>10</u>	x 4 = <u>40</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>175</u> (A)	<u>360</u> (B)																				
Prevalence Index = B/A = <u>2.06</u>																					
2. <u>Ulmus americana</u>	20	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
3. <u>Fraxinus pennsylvanica</u>	20	Yes	FACW			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____															
4. _____								Remarks: (Include photo numbers here or on a separate sheet.)													
5. _____																					
100 =Total Cover																					
_____																					
Sapling/Shrub Stratum (Plot size: <u>15'</u> )																					
1. <u>Lonicera tatarica</u>	10	No	FACU																		
2. <u>Frangula alnus</u>	20	Yes	FACW																		
3. <u>Fraxinus pennsylvanica</u>	20	Yes	FACW																		
4. <u>Ribes americanum</u>	5	No	FACW																		
5. _____																					
55 =Total Cover																					
Herb Stratum (Plot size: <u>5'</u> )																					
1. <u>Symplocarpus foetidus</u>	5	Yes	OBL																		
2. <u>Impatiens capensis</u>	10	Yes	FACW																		
3. <u>Iris versicolor</u>	5	Yes	OBL																		
4. _____																					
5. _____																					
20 =Total Cover																					
Woody Vine Stratum (Plot size: <u>15'</u> )																					
1. _____																					
2. _____																					
_____																					
_____ =Total Cover																					

**SOIL**

Sampling Point: WET-A4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-22	10YR 2/1	100					Mucky Sand	22' + mucky sand

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> ? Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input checked="" type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>	<b>Hydric Soil Present?</b>
Type: <u>none</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Depth (inches): _____	

Remarks:  
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u>	
(includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: