Chapter 2: Impervious Surface Limits

A. NR 115 language including definitions: NR 115.05(1)(e)

(e) Impervious surfaces. Counties shall establish impervious surface standards to protect water quality and fish and wildlife habitat and protect against pollution of navigable waters. County impervious surface standards shall apply to the construction, reconstruction, expansion, replacement or relocation of any impervious surface within 300 feet of the ordinary high-water mark of any navigable waterway, and shall require all of the following:

1. ‘Calculation of percentage of impervious surface.’ Percentage of impervious surface shall be calculated by dividing the surface area of existing and proposed impervious surfaces on the portion of a lot or parcel that is within 300 feet of the ordinary high-water mark by the total surface area of that portion of the lot or parcel that is within 300 feet of the ordinary high-water mark, and multiplied by 100.

2. ‘Impervious surface standard.’ A county may allow up to 15% impervious surface on the portion of a lot or parcel that is within 300 feet of the ordinary high-water mark.

3. ‘Maximum impervious surface.’ A county may allow more than 15% impervious surface but not more than 30% impervious surface on the portion of a lot or parcel that is within 300 feet of the ordinary high-water mark, provided that the county issues a permit that requires a mitigation plan approved by the county and implemented by the property owner by the date specified in the permit. The mitigation plan shall include enforceable obligations of the property owner to establish or maintain measures that the county determines adequate to offset the impacts of the impervious surface on water quality, near-shore aquatic habitat, upland wildlife habitat and natural scenic beauty. The mitigation measures shall be proportional to the amount and impacts of the impervious surface being permitted. The obligations of the property owner under the mitigation plan shall be evidenced by an instrument recorded in the office of the County Register of Deeds.

Note: A property owner may seek a variance to a dimensional standard of the county ordinance and a county board of adjustment may review the request pursuant to s. 59.694 (7) (c), Stats.

4. ‘Existing impervious surfaces.’ For existing impervious surfaces that were lawfully placed when constructed but that do not comply with the standards in subds. 2. and 3., the property owner may do any of the following:
a. maintenance and repair of all impervious surfaces;

b. replacement of existing impervious surfaces with similar surfaces within the existing building envelope;

c. relocation or modification of existing impervious surfaces with similar or different impervious surfaces, provided that the relocation or modification does not result in an increase in the percentage of impervious surface that existed on the effective date of the county shoreland ordinance, and meets the applicable setback requirements in s. NR 115.05 (1) (b).

Note: For example this provision would allow an existing at-grade patio to be removed and replaced with a new building, if the new building meets the shoreland setback requirements.

Note: Nothing in this subsection shall be construed to supersede other provisions in county shoreland ordinances.

NR 115.03(4g)

(4g) “Impervious surface” means an area that releases as runoff all or a majority of the precipitation that falls on it. “Impervious surface” excludes frozen soil but includes rooftops, sidewalks, driveways, parking lots, and streets unless specifically designed, constructed, and maintained to be pervious.
9.4 MAXIMUM IMPERVIOUS SURFACE. (NR 115.05(1)(e)3.) Allow more than 15% impervious surface but not more than 30% impervious surface on the portion of a lot or parcel that is within 300 feet of the ordinary high-water mark.

(1) A permit can be issued for development that exceeds 15% impervious surface but not more than 30% impervious surfaces with a mitigation plan that meets the standards found in section 12.0.

9.5 EXISTING IMPERVIOUS SURFACES. (NR 115.05(1)(e)4.) For existing impervious surfaces that were lawfully placed when constructed but that do not comply with the impervious surface standard in section 9.3 or the maximum impervious surface standard in section 9.4, the property owner may do any of the following:

(1) maintain and repair the existing impervious surfaces;

(2) replace existing impervious surfaces with similar surfaces within the existing building envelope;

(3) relocate or modify an existing impervious surface with similar or different impervious surface, provided that the relocation or modification does not result in an increase in the percentage of impervious surface that existed on the effective date of the county shoreland ordinance, and the impervious surface meets the applicable setback requirements in s. Wis. Admin. Code NR 115.05 (1) (b).

9.51 This section of the ordinance shall not be construed to supersede other provisions in the county shoreland ordinance. Maintenance, reconstruction, relocation and expansion of existing structures must comply with other provisions in the county shoreland ordinance, the shoreland setback standards in sections 6.1 or 6.2 and the nonconforming structure provisions of sections 11.0 through 11.8.

Policy Option: Definitions

(8) “Structure” (choose one)

- Anything constructed or erected, the use of which requires permanent or temporary location on the ground, or attached to something having a permanent or temporary location on the ground, including but not limited to any building, dwelling, manufactured building, manufactured home, mobile home, house trailer, recreational vehicle, boathouse, boat shelter, advertising sign, deck, patios, driveways, fences, retaining walls, or other improvements or any part of
such structure. A structure includes any permanent or temporary appurtenance attached thereto.

- Means any man-made object with form, shape and utility, either permanently or temporarily attached to or placed upon the ground, river bed, stream bed or lakebed. (NR 116.03(45))

It is important to define “structure” specifically so that landowners and zoning staff are clear on what is and is not included. The definitions above do not address:

- walkways
- steps
- sidewalks
- fences
- dog houses
- bird houses
- mail boxes
- flag poles
- fire rings
- wood piles

Counties are advised to sort through the list above and other items that have come up in their county. For each item, either add it to your “structure” definition, or state in the ordinance that the item is not a structure.

C. Additional Resources

Appendix 2 contains the following impervious surface resources recommended by the WCCA shoreland committee:

- 9.0 Impervious surface flow chart
- Impervious surface calculations form
- Impervious surface diagrams showing 15% and 30% IS
Some counties are already regulating impervious surfaces

According to a 2010 inventory, at least 21 counties currently limit impervious surface areas on shoreland lots, including Adams, Bayfield, Calumet, Chippewa, Dane, Door, Fond du Lac, Forest, Green Lake, Langlade, Lincoln, Polk, Price, Rusk, Sawyer, Shawano, Sheboygan, Vilas, Washington, Waukesha, and Waupaca.¹ These existing impervious surface standards are due in part to counties responding to scientific studies which found that impervious surfaces above certain levels do damage to lakes and streams. For example, a study of 47 warm water streams in southeast Wisconsin found that fish and insect populations decline dramatically when impervious surfaces exceed about 8-10% of the watershed. Streams with more than 12% imperviousness have consistently poor fish communities.²

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In a study of 164 Wisconsin lakes, researchers found that both the number of fish species and the number of small-bodied intolerant fishes was lower when there were higher levels of impervious surfaces within 330 ft of the water or within the entire watershed of the lake. Intolerant fish are species that are sensitive to diminished water quality, sedimentation, and other forms of habitat degradation. A county ordinance could reference these studies or make a general statement at the beginning of their impervious standard, as Sawyer County does.

4.422 IMPERVIOUS SURFACE LIMITATIONS
INTRODUCTION: Extensive research shows that shoreland development results in increased quantities and velocities of runoff that may overwhelm infiltration capacity and transport sediment, nutrients and other pollutants directly to surface waters if proper management is not employed.

Options for county flexibility
Counties have the flexibility to reduce the impervious surface standard where mitigation is required to less than 15%. For example a county may require mitigation if impervious surfaces exceed 10%. Another opportunity for county flexibility is to identify a square footage in addition to a percentage impervious surface that may not be exceeded. For instance, a county could limit impervious surfaces on shoreland lots within 300 feet of the OHWM to no more than 4,000 square feet or 15% of the lot area, whichever is less.

Definitions of impervious surfaces may

- leave flexibility, as the NR 115 definition does
- be more restrictive than NR 115
- be more specific than the NR 115 definition and address gravel, specific types of permeable pavers, etc. (DNR will review draft ordinances, and may disagree with a county’s standard of what is pervious and what is not.)
- further clarify with standards like diverting water
- clarify that engineered surfaces that are pervious can be used if at least 51% of the runoff can pass through
- include maintenance agreements related to impervious surfaces

Impervious surface definitions are not subject to soil types.

Types of surfaces to consider when crafting your impervious surface definition

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Some counties considered these surfaces to be impervious and some considered them pervious.

1. **Open decks** with at least a 1/4 inch space between deck boards with a pervious surface below. Many counties considered this to be pervious.

2. **Grass-crete**, pavers with voids that are filled with soil and then planted. If properly installed and vegetated correctly these can be considered pervious. Most counties seem to allow them or consider them pervious.

3. **Gravel**. Typical gravel materials used for roads and parking lots are engineered and compacted to withstand heavy loads. These compacted gravel materials form a seal through which water will not readily infiltrate. Runoff from gravel is similar to paved surfaces with only a slight reduction in runoff. It would be difficult to call a typical gravel driveway pervious. Many counties consider this to be impervious.

4. **Permeable Paver System**. The key word here is system. The pavers are just a cap for the pervious system below. They are expensive and need to be installed properly and maintained. The WCCA shoreland committee has concerns about products that are marketed as pervious and depend on installation, maintenance and long-term compliance. If counties are going to allow the pervious pavers, they should consider an operation and maintenance agreement. Product representatives have recommended that on-site inspections should be required to ensure proper installation, and to ensure proper maintenance is occurring at 5 and 10 years. They require that contractors or product representatives ensure the systems stay pervious. Some counties consider permeable paver systems to be pervious and others do not.

5. **Porous Asphalt**. Expensive. Similar to #3 above.

6. **Porous Concrete**. Expensive. Similar to #3 above.

**Maintenance and repair for pervious surfaces**
Counties may want to have an additional definition for maintenance and repair for purposes of maintaining and repairing existing impervious surfaces. The maintenance and repair definition in the model ordinance, which is optional, is focused on buildings and is not looking at patios or driveways.

**Impervious surface calculations for roads**
The WCCA shoreland committee suggests this approach to calculating the impervious surfaces for roads:

- public roads are not included in impervious surface calculations because landowners have no control over their size or location
• private roads within 300 feet of the OHWM are included in impervious surface calculations if they are impervious

Recommendation to edit “Existing impervious surfaces” which is section 9.5(2) in the model ordinance
To clarify confusion between NR 115.05(1)(g)6 which addresses replacement and relocation of nonconforming principal structure and NR 115.05(1)(e)4 which addresses existing impervious surfaces the WCCA shoreland committee recommends counties edit 9.5(2) in the impervious surface section of the model ordinance from

   a. “replace existing impervious surfaces with similar surfaces within the existing building envelope;”

   to

   b. “replace existing impervious surfaces with similar surfaces that meet applicable setbacks;”

because this would reduce confusion and would be legally allowed.

Note that the recommended language b. will not allow:

• a gravel driveway or portion of the driveway within the shoreland setback to be surfaced in asphalt or concrete, and
• failing sidewalks or patios within the shoreland setback to be replaced, which may lead to debates over what is allowed under the “maintenance and repair” definition.

Counties may adjust the language in b. to not allow replacement of buildings within the shoreland setback but allow replacement of patios, driveways, and sidewalks within the shoreland setback.

Who will measure the impervious surfaces and how will they do it?

There are a number of possible approaches to who will measure impervious surfaces and how they will do it. The following table outlines different approaches and the advantages and disadvantages of each approach including: amount of county zoning staff time needed, accuracy of measurements and potential bias of measurements.
<table>
<thead>
<tr>
<th><strong>Option for measuring impervious surface</strong></th>
<th><strong>County zoning staff time needed</strong></th>
<th><strong>Accuracy of measurements</strong></th>
<th><strong>Potential bias</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveyor, engineer, landscape architect, contractor</td>
<td>Clarify what is and is not impervious. Does initial training on impervious surfaces happen in the office or in the field?</td>
<td>High</td>
<td>Paid by homeowner</td>
</tr>
<tr>
<td>County staff uses GIS</td>
<td>Depends on GIS system and county staff experience using the system.</td>
<td>Based on your county’s impervious surface definition, can you differentiate what is impervious and what is not from aerial photos? How recent are aerial photos? What level of resolution? How accurate are measurements from your GIS systems? Can the OHWM be accurately determined?</td>
<td>Paid by county</td>
</tr>
<tr>
<td>County zoning staff goes to site and does measurements</td>
<td>Time (and gas) for travel, measuring and recording</td>
<td>High</td>
<td>Paid by county</td>
</tr>
<tr>
<td>Applicant</td>
<td>Clarify what is and is not impervious. Does training on impervious surfaces happen in the office or in the field? Training regarding measurement and recording.</td>
<td>Variable</td>
<td>May skew to benefit self</td>
</tr>
</tbody>
</table>
A county could decide to use a combination of these approaches to measure impervious surfaces. For instance, they might begin by relying on measurements by applicants combined with checking aerial photos. If the measurements by the applicant do not match what is seen on the aerial photos, or if the percentage impervious is near the impervious surface threshold, county zoning staff may go to the site to do measurements.

The WCCA shoreland committee strongly recommends that counties seriously consider having a permit for impervious surfaces less than 15% of the lot for tracking and enforcement reasons. NR 115 does not require a permit for impervious surfaces on lots with less than 15% imperviousness. However, counties have the authority under NR 115 to require permits for any impervious surfaces on lots with less than 15% impervious surfaces. It helps to have a baseline of the existing impervious surfaces in order to do calculations when they make a change on their property.

The model ordinance provides the following suggested definitions of “structure”

“Structure” (choose one)

- Anything constructed or erected, the use of which requires permanent or temporary location on the ground, or attached to something having a permanent or temporary location on the ground, including but not limited to any building, dwelling, manufactured building, manufactured home, mobile home, house trailer, recreational vehicle, boathouse, boat shelter, advertising sign, deck, patios, driveways, fences, retaining walls, or other improvements or any part of such structure. A structure includes any permanent or temporary appurtenance attached thereto.

- Means any man-made object with form, shape and utility, either permanently or temporarily attached to or placed upon the ground, river bed, stream bed or lakebed. (NR 116.03(45))

These suggested definitions include driveways, patios, decks, etc. Some impervious surfaces out there that were never considered a structure before are now considered a structure, and therefore may require permits. Counties could adopt a different definition for “structure.” Items defined as structures in a county ordinance, which may include driveways or patios, may be subject to the 10 year statute of limitations, s. 59.692(1t) Wis. Stats.

If a county considers gravel driveways to be impervious as recommended on page 2-7, and a property owner paves or blacktops their driveway, the paving falls under either the replacement provision of the existing impervious surface provisions under NR 115.05(1)(e)4.b. because gravel has a very similar runoff curve to pavement or blacktop, or the paving could fit
under the relocation/modification of an existing impervious surface. If a county considers gravel driveways to be impervious, they could clearly spell out that paving or blacktopping an existing gravel driveway does not require a permit as long as the size of the driveway remains the same.

If a county does not consider gravel driveways to be impervious and a property owner blacktops a gravel driveway he/she will be increasing their impervious surface and will need a permit if they exceed 15% impervious surface.

Permits for impervious surfaces (IS)
According to 115.05(e)3 a permit is required for impervious surfaces between 15-30%. Counties may choose whether this permit is a separate IS permit, or is included in a zoning permit, land use permit, or fill and grade permit. The permit must include a date by which the mitigation plan is required to be implemented by the property owner.

E. Frequently Asked Questions (FAQs)

Q: How do you measure impervious surfaces for wet boathouses or other structures at or near the OHWM?

A: If the boathouse is completely wet, then it does not count toward impervious surface. If the boathouse extends upland beyond the OHWM, count the portion of the boathouse upland of the OHWM as impervious surface.

Q: May an existing accessory structure within the setback be rebuilt at its existing location within its three-dimensional building envelope?

A: DNR legal opinion - Yes, an existing accessory structure, which is located within the setback, could be rebuilt at its existing location within its three-dimensional building envelope under NR 115.05(1)(e)4.b. However, it is important to remember that all other provisions of the county's ordinance still apply to these structures. These nonconforming accessory structures would still be regulated as a nonconforming structure under s. 59.69(10) and a county could limit the reconstruction of these structures within the shoreland zone.
The WCCA shoreland committee strongly recommends not allowing expansion or rebuilding of nonconforming accessory structures. Example language to accomplish this is provided in the nonconforming structure section. In order to avoid repair vs. replacement debates, counties are advised to define in the ordinance how much of a building or structure can be repaired before it is considered replacement. This could be done in the “maintenance and repair” definition or in the nonconforming structure language. Bayfield County ordinance 13-1-40(c)(3)d. addresses this topic in the nonconforming structure language by stating:

*The structure may not be substantially reconstructed by replacement of exterior walls constituting more than twenty-five percent (25%) of the perimeter of the structure over the life of the structure. The owner shall provide documentation of the perimeter of the structure at the time this provision took effect and any reconstruction shall be documented by recorded affidavit.*

Q: Does this mean that a patio could be replaced with a deck or shed?

A: Replacement of an impervious surface is only allowed under NR 115.05(1)(e)4.b if the replacement occurs “within the existing building envelope”. Because “building envelope” is defined at NR 115.03(1p) as a three dimensional space, the deck may and the shed surely would be outside of the original building envelope. However, replacement and modification can occur pursuant to NR 115.05(1)(e)4.c. if the new structure does not increase the percentage of impervious surface and meets applicable setback requirements.

Q: Can an owner keep the existing impervious percentage if greater than 30% lot coverage and the structure is greater than 75’ from the ordinary high water mark?

A: Yes, if it legally existed prior to the adoption of the ordinance. For example, if a property owner has 50% existing impervious area and wishes to relocate a 8’x10’ shed with an 8’x10’ shed, patio, deck, dwelling addition, etc... that is 78 feet from the OHWM he could do so without mitigation.

Q: Can an owner can keep the existing impervious percentage if there is greater than 30% lot coverage and they want to replace an accessory structure that is less than 75 feet from the ordinary high water mark but meets setback averaging?

A: No, setback averaging does NOT apply to accessory structures per NR115.(1)(b)(1) unless specified per NR115.05(1)1m.
Q: Is a deck considered impervious or pervious?

A: NR115.03(4g) provides that the deck is impervious if it releases as runoff all or a majority of the precipitation that falls on it. The county zoning administrator must determine the degree of runoff afforded by the deck's specifications.
Chapter 1:

Appendix
9.0 Impervious Surface

Does the Proposed Activity Take Place Within 300' of O.H.W.M.* of a Navigable Water Way

Yes → 9.0 Impervious Standards Apply

No → Must Meet All Other Provisions of Code

The Existing and Proposed Impervious Surface Total Within 300' of O.H.W.M. Are

< 15% Per 9.3

Permitted Must Meet All Other Provisions

> 15% but < 30% Per 9.4

Is This Project

> 30% Per 9.4

Is This Project

Maintenance Or Repair of Existing Per 9.5(1)

Yes → Allowed No Permit Required *Continue*

No → Replacement of Existing With Similar Three Dimensional Building Envelope Per 9.5(2)

Is This Project

Permit Required Must Meet All Other Provisions Such As Setbacks *Continue*

Yes

Relocation Or Modification With Similar Or Different Surface. Which Does Not Increase Impervious Surface and Meet NR 115.05(1)(b) and Sub Sec 6.0 of Model Per 9.5(3)

No → Prohibited Variance Required

Mitigation Plan Required Per 12.0

Shall Require

i. Permit With Implementation Date

ii. Plan Must Have Enforceable Obligation To Maintain

iii. Proportional Mitigation To Impervious Surface

iv. Obligation on Instrument and Recorded At County Register of Deeds

*O.H.W.M. = Ordinary High Water Mark
These calculations are **REQUIRED** per WI Admin Code NR115.05 (1) (e) and Section ____________ of the ______________ County Ordinance. The undersigned hereby makes application for construction, reconstruction, expansion, replacement or relocation of any impervious surface within 300 feet of the ordinary high water mark and agrees that all activities shall be in accordance with the requirements of the ______________ County General Code of Ordinances and all other applicable ordinances and the laws of the State of Wisconsin.

Pursuant to Chapter _____, Section __________ of the ______________ County Zoning Ordinance, __________________ Department employees assigned to inspect properties shall have access to said properties to make inspections.

Parcel Identification # ________________________

Town of: _______________ 1/4, __1/4, Sec. __, T ___ N ___ R __ E, Lot ____ Block ______ Subdivision _____________________

Owner ______________________________________________________________________________________________________________________________ __

Agent/Contractor ___________________________________________________________ Date_________________ Telephone_______________________

Mailing Address_______________________________________________________________________________________________________________________

Property Address_______________________________________________________________________________________________________________________

Owner/Agent Signature________________________________________________________________________________________________________________

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**Impervious Surface:** An area that releases as runoff all or a majority of the precipitation that falls on it. “Impervious surface” excludes frozen soil but includes rooftops, sidewalks, driveways, parking lots and streets unless specifically designed, constructed and maintained to be pervious.

**Calculation of Impervious Surface:** Percentage of impervious surface shall be calculated by dividing the surface area of existing and proposed impervious surfaces on the portion of a lot or parcel that is within 300 feet of the ordinary high water mark by the total surface area of that portion of the lot or parcel that is within 300 feet of the ordinary high water mark, and multiplied by 100.

**Impervious Surface Standard:** Allow up to 15% impervious surface on the portion of a lot or parcel that is within 300 feet of the ordinary high water mark.

**Maximum Impervious Surface:** Allow more than 15% impervious surface but not more than 30% impervious surface on the portion of a lot or parcel that is within 300 feet of the ordinary high water mark. A permit can be issued for development that exceeds 15% impervious surface but not more than 30% impervious surfaces with a mitigation plan that meets the requirements of the ______________ County Ordinance.

**Existing Impervious Surfaces:** For existing impervious surfaces that were lawfully placed when constructed but that do not comply with the standards in Section(s) ____________, the property owner may do any of the following. A zoning permit and onsite inspection is required pursuant to Section 9.32.

a. Maintenance and repair of all impervious surfaces;
b. Replacement of existing impervious surfaces with similar surfaces within the existing building footprint;
c. Relocation or modification of existing impervious surfaces with similar or different impervious surfaces, provided that the relocation or modification does not result in an increase in the percentage that existed on the effective date of the county shoreland ordinance, and meets the applicable setback requirements in Section 9.94(A).
<table>
<thead>
<tr>
<th>Impervious Surface Item</th>
<th>Dimensions</th>
<th>Area (square footage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing house</td>
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<tr>
<td>Existing accessory building/garage</td>
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<tr>
<td>Existing Sidewalk (s), Patio (s) &amp; Deck (s)</td>
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<tr>
<td>Existing Covered Porch (es), Driveway &amp; Other Structures</td>
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<tr>
<td>Proposed addition/house</td>
<td></td>
<td></td>
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<tr>
<td>Proposed accessory building/garage</td>
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</tr>
<tr>
<td>Proposed Sidewalks (s) &amp; Patio (s)</td>
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<td></td>
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<tr>
<td>Proposed Covered Porch (es) &amp; Deck (s)</td>
<td></td>
<td></td>
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<tr>
<td>Proposed Driveway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Other structures</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Total square footage of lot area located within 300 feet of the ordinary high water mark: _________________

b. Total impervious surface area: ______________________________________________________________________

c. Percentage of impervious surface area: \( 100 \times \frac{b}{a} = \) 

If the proposed impervious surface area is greater than 15% mitigation is required

Total square footage of existing impervious surface being utilized: ________________________________

Total square footage of additional impervious surface allowed: ________________________________

**Inspections**

<table>
<thead>
<tr>
<th>Date</th>
<th>Inspector</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Lot with 15% Impervious Surface within 300 feet of OHWM

House = 30' x 36' = 1080 sq. ft.
Garage = 24' x 30' = 720 sq. ft.
Boathouse = 16' x 20' = 320 sq. ft.
Walkway = 4' x 70' = 280 sq. ft.
Patio = 10' x 20' = 200 sq. ft.
Parking & Turn Around = 20' x 25' = 500 sq. ft.
Driveway = 10' x 140' = 1400 sq. ft.
Total Impervious Surface = 4500 sq. ft.

Total sq. ft. of lot w/in 300 ft. of OHWM
30,000 sq. ft.
15% = 4,500 sq. ft.

Mitigation required to Exceed 15%
Lot with 30% Impervious Surface within 300 feet of OHWM

- House = 36’ x 54’ = 1944 sq. ft.
- Garage = 28’ x 32’ = 896 sq. ft.
- Pole Barn = 32’ x 50’ = 1600 sq. ft.
- Boathouse = 20’ x 26’ = 520 sq. ft.
- Walkway = 4’ x 80’ = 320 sq. ft.
- Patio = 12’ x 32’ = 384 sq. ft.
- Parking A = 34’ x 42’ = 1428 sq. ft.
- Parking B = 20’ x 26’ = 520 sq. ft.
- Driveway = 15’ x 84’ = 1260 sq. ft.
- Covered Porch = 8’ x 16’ = 128 sq. ft.

Total Impervious Surface = 9000 sq. ft.

Total sq. ft. of lot w/in 300 ft. of OHWM 30,000 sq. ft.

30% = 9,000 sq. ft.

Mitigation required to Exceed 30%