



Permeable Hard Surface Fact Sheet

Purpose: This fact sheet serves to establish how the city treats permeable hard surfaces such as pervious pavers and vegetated roofs when calculating maximum impervious surface area allowed per lot.

Background: The Lake Stevens Municipal Code (LSMC) defines “Hard Surfaces” as “all impervious surfaces (asphalt, concrete pavement, compacted gravel areas, buildings, driveways, parking lots, sidewalks, etc.) and permeable surfaces like pervious pavements or vegetated roofs”. Pervious (or permeable) hard surfaces are “porous allowing water to pass through” while an impervious hard surface is a surface that “either prevents or retards the entry of water into the soil as it enters under natural conditions prior to development, and/or a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development”.¹

Residential lots developed prior to the April 1, 2020 adoption of [Ordinance 1080](#) have a maximum allowable impervious surface area of 40 percent of the total lot size². Lots developed (developed means any new construction or improvement on the property, including utilities, that was permitted by the City and reviewed under the Stormwater Management Manual for Western Washington under the definitions of new development³ or redevelopment⁴) after the adoption of Ordinance 1080 are regulated by LSMC [Chapter 14.48 \(DENSITY AND DIMENSIONAL REGULATIONS\)](#), which specifies the maximum impervious area allotment for each residential zoning district in Table 14.48-I. If you don’t know your property’s zoning designation, the citywide zoning map is available on the City website at: <https://www.lakestevenswa.gov/187/City-Maps>.

¹ [LSMC 14.08.010](#) definitions for “Hard Surface”, “Impervious Surface”, and “Pervious Hard Surface”.

² Unless otherwise stated on the face of the plat recorded with Snohomish County for the lot or analyzed and approved in the final drainage plan for the subdivision.

³ New development is defined as “Land disturbing activities, including Class IV-general forest practices that are conversions from timberland to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development.”

⁴ Redevelopment is defined as “On a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.”



Permeable **hard surfaces** (e.g., permeable pavers) contribute to the total allowed impervious surface on a lot at a 50% permeable surface credit. The City interprets permeable pavers and other permeable hard surfaces as 50% impervious based on the classification of permeable hard surfaces in the Stormwater Water Management Manual for Western Washington, as amended in December of 2014 (SWMMWW).

Implementation of permeable pavers **must** follow the design guidelines and criteria as outlined in the SWMMWW, these guidelines have been included as part of this handout. The feasibility for the use of permeable pavers on your lot must be evaluated based on the feasibility criteria outlined in the SWMMWW before you can install them.

You will use the existing impervious surface calculation to determine if you have additional square footage of impervious or permeable hard surface areas that can be added to your lot.

Example 1: Your lot has been constructed at 40% impervious surface and that is the maximum allowed impervious surface area for your lot. An existing concrete (impervious) patio is 10 ft. x 10 ft. = 100 sq ft. If you **replaced** your existing patio with permeable pavers and constructed them as outlined above, you could increase your patio space to 200 sq. ft and remain in compliance with LSMC 14.48.

Example 2: Your lot falls under the requirement for 40% impervious surface allowed on the lot. Your lot is 5,000 square feet. You calculate that the development of your lot resulted in 1,500 square feet of impervious surface, or 30% impervious. This means you can add 500 square feet of impervious surface to the lot or 10% of the total allowed impervious surface.

How Do I Calculate the Existing Impervious Surface on My Lot?

1. To find out the existing amount of impervious surface, start by going to the Snohomish County's Assessors website at <https://www.snohomishcountywa.gov/5167/Assessor> and enter your address in the House Number box (field) on the Property Summary Search, which looks like this:



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Property Summary Search

Parcel No.

OR

House Number*

Street Name*

* Do not put the House Number in the Street Name field and avoid using directionals (e.g. SE, NW, St., AVE)

- Click on your parcel number that is associated with your address and you will see the Property Account Summary page on your screen, which looks like this:

Snohomish County Washington Online Government Information & Services

[Home](#) [Other Property Data](#) [Help](#)

[Property Search](#) > [Search Results](#) > Property Summary

Property Account Summary

1/11/2022

Parcel Number	00553800002200	Property Address	1820 MAIN ST , LAKE STEVENS, WA 98258
General Information			
Property Description	RENAS ADD TO LAKE STEVENS BLK 000 D-00 LOTS 22 & 23 & W 15FT OF LOT 24		
Property Category	Land and Improvements		
Status	Active, Locally Assessed		
Tax Code Area	00408		
Property Characteristics			
Use Code	671 Executive, Legislative & Judicial Functions		
Unit of Measure	Acre(s)		
Size (gross)	0.55		



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3. Find your lot size (circled above in red).

4. Scroll to the bottom of the page and click on the "[View Detailed Structure Information](#)" hyper link and you will see "Structure Information" for your lot. You will see a floor plan and square footages for what is constructed on your lot. This should be reflective of what is built. If the floor plan shown is not accurate, you will want to contact the Assessor to provide an update. You will use the listed "Base SF" (circled below in red) and add in any additional structure(s) square footage listed, or existing but not listed, such as a detached garage, attached deck or a porch, patio, extra parking space, etc. Add the area for all impervious surfaces together and divide by the lot size square footage to calculate your impervious surface coverage.



Structure Information

[Close Window](#)

General Description

Parcel Number **00553800002200** (C02)

Structure Class **Commercial**

Structure Use **General Office**

Structure Type **GOVT - LAKE STEVENS**

Year Built **2007**

Features

Roof Cover **BuiltUp**

Units **0**

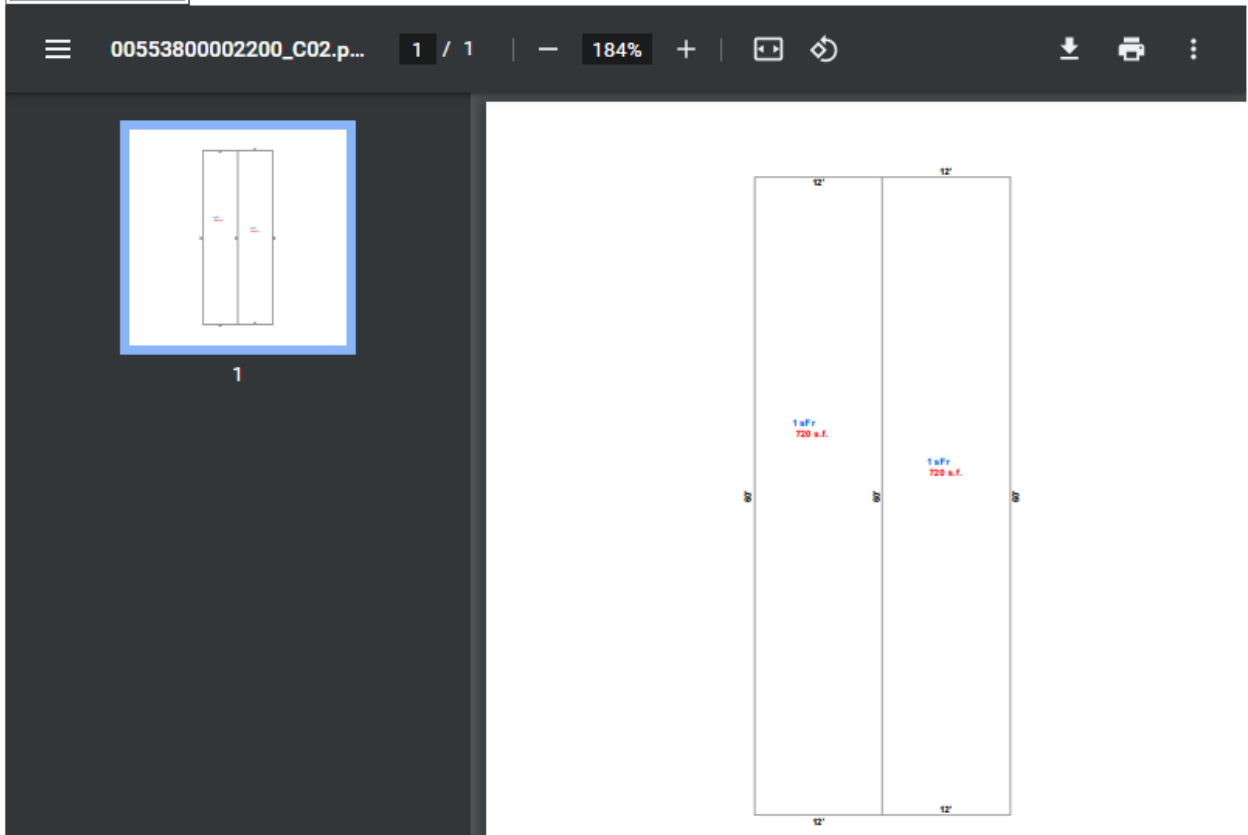
Floor Area

Floor **1** **Base SF 1,440** Sprinkler SF **0** Heated SF **1,440** Air Cond SF **0**

Garage(s), Carport(s) and major outbuilding(s)

None

Photo not yet available





Structure Information

[Close Window](#)

General Description

Parcel Number **00553800002200** (C03)

Structure Class **Commercial**

Structure Use **Government Building**

Structure Type **GOVT - LAKE STEVENS**

Year Built **2017**

Features

Roof Cover **BuiltUp**

Units **0**

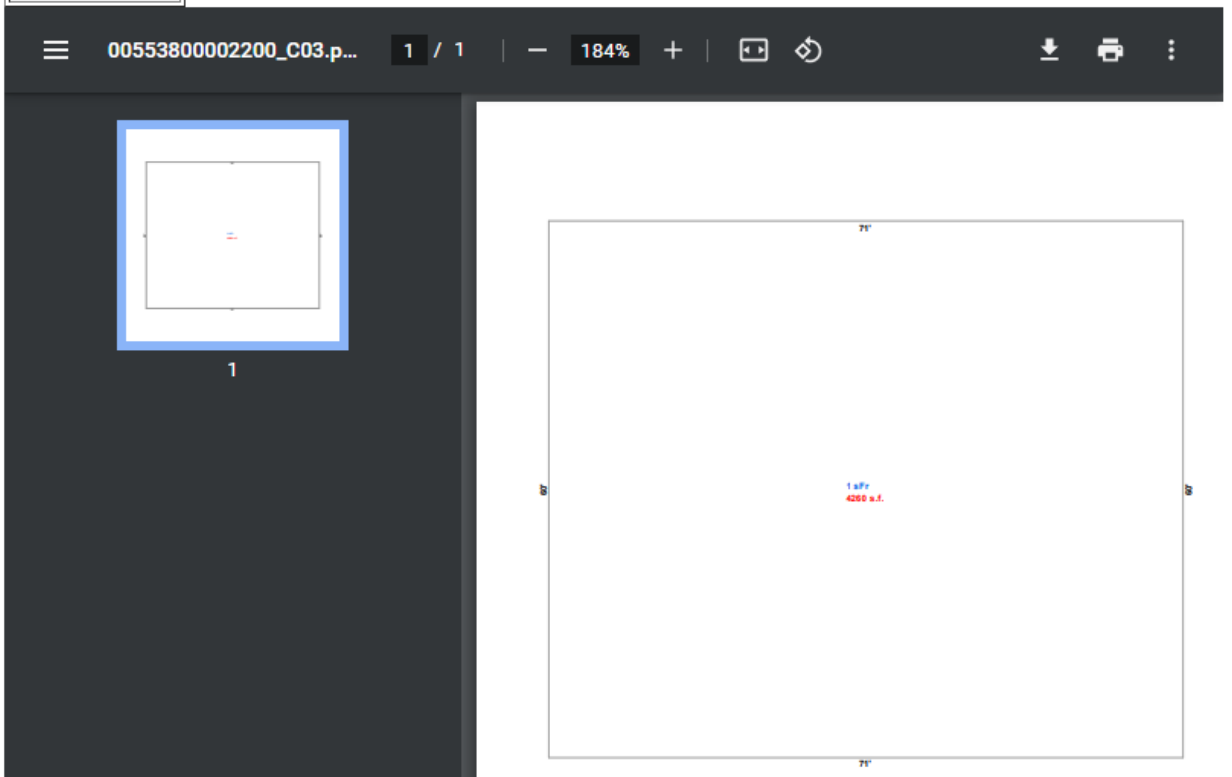
Floor Area

Floor 1 **Base SF 4,260** Sprinkler SF 0 Heated SF 0 Air Cond SF 0

Garage(s), Carport(s) and major outbuilding(s)

None

Photo not yet available





5. The example below is using the information from the City Hall parcel shown above and is as follows:

The zoning for your property allows 50% maximum impervious area.

Structure(s) – two buildings: 1,440 + 4,260 = 5,700 square feet

Other Impervious Areas (paved driveways, walkway, porch, and parking areas) = 4,900 square feet

✓ Tip: If you have paved or other impervious surfaces not listed on the Assessor's property information page you are responsible for measuring and providing the square footage.

Total impervious area is the sum of structures + other impervious areas = 5,700 square feet + 4,900 square feet = 10,600 square feet

Lot size = 23,958 square feet or 0.55 acres (to convert acres to square feet multiply the acreage 0.55 x 43,560 square feet (square feet in an acre) = 23,958 square foot lot size)

Calculation of % of Impervious Lot Coverage = square feet of structure plus other impervious areas divided by the lot size in square feet = $10,600/23,958 = 0.44\%$

Results: You have an additional 6% or 1,379 square feet of impervious surface you could add to your site to meet the 50% maximum impervious area. Or you could use an approved permeable hard surface which would allow you an additional 2,758 square feet (see below).

Other Requirements

- If more than 50 Cubic Yards (CY) of soil is disturbed, you will need a land disturbance permit.
- During construction you must ensure no loose soil or construction material contamination is washed into the stormwater drain on or off your property. Please review this section of the SWMMWW for [stormwater pollution prevention mechanisms](#) that could be implemented while construction is taking place to ensure stormwater is not polluted at the time of ground disturbance (excess sediment in the stormwater that drains off your property or to the storm drain is considered pollution).
- Retaining walls 4ft and greater will require a separate building permit as they are regulated as a structure by the City's adopted International Building Code.
- Other LSMCs or permitting requirements may pertain to your project.



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Attachments

- Permeable paver feasibility criteria and guidelines
- Construction detail of permeable pavers

Please contact the City of Lake Stevens with any questions at (425) 622-9400.