

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercerisland.gov



INTAKE SCREENING REQUEST FORM

TO INITIATE AN INTAKE SCREENING

Step One: Upload all Application Submittal Documents (including this form) to the [Mercer Island File Transfer Site](#).

Detailed instructions for the upload are available on the next page.

Step Two: Upon Receipt of the Submittal Documents, City Staff will schedule the Screening and Request the Intake Screening deposit of \$726.00, via email. The deposit covers 5 hours of staff time, if additional time is required more fees will be requested. If less than 5 hours of staff time are used on your Screening, you will be issued a refund for the remaining deposit.

PROJECT INFORMATION

Name of Owner _____ Owner Address _____

Owner Email _____ Owner Phone _____

Project Address _____ Parcel # _____

Project Description _____

Will you be expanding the building footprint by 500 square feet or more? YES _____ sq. ft NO

Will there be a net increase of the impervious surface by 500 square feet or more? YES NO

Will you be altering within a critical area or buffer? YES NO

Will you be modifying more than 40% of the existing exterior wall? YES NO

Are you applying concurrently for a Land Use action? YES NO

If so what is your project #(s) and type(s)? _____

PROJECT CONTACT

Name _____ Phone _____

Email _____

Please note that there are no longer in person Intake screenings

SIGNATURE OF OWNER OR REPRESENTATIVE _____

FOR CITY USE ONLY

FEE PAID \$ _____ DATE PAID _____ PERMIT # _____

WEEK OF SCHEDULED SCREENING _____

INTAKE SCREENING INFORMATION

WHAT IS AN INTAKE SCREENING?

An Intake Screening is a completeness check for Building and Site Development permit applications. Applications are screened by a Land Use Planner, a Development Engineer (civil), the City Arborist, a Building Plans Examiner, and the Fire Marshal. It is an opportunity to find out if there is anything significant missing from your submittal and to identify issues that may cause a delay in the processing of the application. All Intake Screenings are now conducted electronically. (Ref. MICC 19.09.010)

DO I NEED AN INTAKE SCREENING?

City Staff conduct intake screenings for the following types of projects:

- A. New Single-Family Residences or Demo/Rebuilds**
- B. Substantial Residential Addition/Remodel Projects:**
 - Projects that net \geq 500 square feet of additional impervious surface;
 - Projects that result in \geq 500 square feet additional footprint;
 - Projects that alter more than 40% of the existing exterior wall;
 - Upper level addition projects with a valuation greater than \$100,000
- C. Projects that require stormwater improvements:**
 - Projects that net \geq 500 square feet additional impervious surface
 - Projects with a land disturbing activity of 7,000 sq. ft or greater
 - Projects that result in \geq 2,000 sq. ft of new plus replaced hard surface area
- D. Projects that alter a critical area or critical area buffer such as:**
 - A steep slope, wetland, or watercourse.
- E. New Commercial Buildings and Large Commercial Tenant Improvements**
- F. Site Development/Plat Improvement Permits**

WHAT IS THE SCREENING PROCESS?

1. Applicant initiates the Intake Screening by submitting Intake Screening Request Form, paying the fee, then uploading all required submittal documents to the Mercer Island File Transfer Site.
2. City Staff review the electronic submittal for completeness. Each of the five review disciplines will determine if enough information has been provided to complete the first plan review.
3. An Intake Screening Packet with the screening results is provided to the applicant via email. If the application is incomplete, the Intake Packet will detail the information required to complete the submittal.

SUBMITTAL INSTRUCTIONS

- A.** Review [Submittal requirements](#) on the City website. Prepare your plans, forms, and documents
- B.** Please upload to the File Transfer Site <https://sftp.mercergov.org> (user name: guest, password: eplan)
- C.** Click on the inbox to open
- D.** Create a new folder (use your permit number or project address as the folder name)
- E.** Click on your new folder to open
- F.** Upload the files into the new folder

NEED A PRE-APPLICATION MEETING WITH CITY STAFF?

Applicants are encouraged to set up a Pre-Application Meeting prior to their Intake Screening. This is an opportunity to meet with staff in-person to discuss your project. Understanding the City's residential development standards, stormwater, tree protection, and fire access requirements early on can avoid costly re-design delays later in the project. For more information see our [Pre-Application Meeting Request Form](#).

****Please note that there are no longer in person Intake screenings****

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PERMIT APPLICATION

A P P L I C A N T	SITE ADDRESS*		PROJECT VALUATION (REQUIRED)*		PERMIT #	
	PROPERTY OWNER: *		ADDRESS*		PHONE	
	TENANT NAME:				E-MAIL*	
	APPLICANT CONTACT NAME*		ADDRESS		PHONE	
					E-MAIL*	
	ARCHITECT / DESIGNER (Company/Name)		ADDRESS		PHONE	
				E-MAIL*		
STRUCTURAL ENGINEER (Company/Name)		ADDRESS		PHONE		
				E-MAIL*		
CONTRACTOR(Company/Name)		ADDRESS		PHONE		
				E-MAIL*		
STATE CONTRACTOR LICENSE #*:		MI BUSINESS LICENSE #*:				
ELECTRICAL CONTRACTOR (Company/Name)		ADDRESS		PHONE		
				E-MAIL*		
STATE CONTRACTOR LICENSE #*:		MI BUSINESS LICENSE #*:				
PLUMBING CONTRACTOR (Company/Name)		ADDRESS		PHONE		
				E-MAIL*		
STATE CONTRACTOR LICENSE #*:		MI BUSINESS LICENSE #*:				
<i>*Required</i>						
PERMIT TYPE	<input type="checkbox"/> Building	<input type="checkbox"/> Low Voltage	OCCUPANCY TYPE	<input type="checkbox"/> SINGLE FAMILY	WORK TYPE	<input type="checkbox"/> ADDITION
	<input type="checkbox"/> Demolition	<input type="checkbox"/> Mechanical		<input type="checkbox"/> MULTI FAMILY		<input type="checkbox"/> ALTERATION
	<input type="checkbox"/> Electrical	<input type="checkbox"/> Plumbing		<input type="checkbox"/> COMMERCIAL		<input type="checkbox"/> NEW
	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> Stormwater		<input type="checkbox"/> MIXED USE		<input type="checkbox"/> REPAIR
	<input type="checkbox"/> Fuel Tank	<input type="checkbox"/> Site Development		<input type="checkbox"/> CHRUCH/SCHOOL		
	<input type="checkbox"/> Grading					

Briefly Describe Proposed Scope of Work (REQUIRED):

Will your project result in (all questions must be answered):

A change of use	YES <input type="checkbox"/>	NO <input type="checkbox"/>
New Single Family dwelling	YES <input type="checkbox"/>	NO <input type="checkbox"/>
A reduction in any existing side yard setback	YES <input type="checkbox"/>	NO <input type="checkbox"/>
An increase in lot coverage by more than 100 square feet	YES <input type="checkbox"/>	NO <input type="checkbox"/>
An increase in the gross floor area of more than 500 square feet	YES <input type="checkbox"/>	NO <input type="checkbox"/>
An increase in the maximum building height above the highest point of the building	YES <input type="checkbox"/>	NO <input type="checkbox"/>

Continued on next page

NOTICE TO APPLICANT

Applications for which no permit is issued within 18 months shall expire. Once issued, building permits shall expire if work is not completed within two years from date of issue. Electrical, mechanical, and plumbing permits shall expire at the same time as the associated building permit except that if no associated building permit is issued, the electrical, mechanical and/or plumbing permit shall expire 180 days from issuance.

All work shall be done in accordance with the approved plans, except where such approval is in conflict with other codes. The approved plans shall not be changed or modified without the prior approval of the Building Official. It is the responsibility of the permittee to obtain the required inspections. Failure to notify this department that work is ready for inspection may necessitate the removal of some of the construction materials at the owner's expense in order to perform such inspections. All provisions of laws and ordinances governing this type of work will be met whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction of the performance of construction.

I hereby certify that I am the owner of the subject property or I have been authorized by the owner(s) of the subject property to represent this application, and that I have read and examined this application and know the same to be true and correct. Also, I have received authorization to utilize all contractor license information provided within this application and have been informed about contractor license laws (RCW 18.27, RCW 18.106, etc.), and the potential risks and monetary liability to the homeowner for using an unregistered contractors (general, plumbing, electrical, etc.). Further information can be obtained at 1-800-647-0982.

Signature of Owner/Contractor/Authorized Agent

DATE

Printed Name of Owner/Contractor/Authorized Agent

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



INSPECTION REQUESTS:

online:



voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

CONTACT INFORMATION:

Applicant is to complete the following information.

Applicant Contact information prior to permit issuance: Name, Address, Phone, Email
Applicant Contact information post permit issuance: Name, Address, Phone, Email

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:

It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below.

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR): Engineer of Record, Company, Phone, General Conformance to Construction Documents, Other

SOILS / GEOTECHNICAL: Special Inspector, Company, Phone, Erosion control measures, Shoring installation and monitoring, Observe and monitor excavation, Verification of soil bearing, Other

REINFORCED CONCRETE: Special Inspector, Company, Phone, Concrete strength, Reinforcing steel and concrete placement, Shotcrete placement, Other

STRUCTURAL STEEL: Special Inspector, Company, Phone, Fabrication and shop welds, Structural steel erection, field welds and bolting, Other

STRUCTURAL MASONRY: Special Inspector, Company, Phone, Mortar strength, Masonry unit strength, Other

WOOD: Special Inspector / Engineer of Record, Company, Phone, Lateral resisting system construction, High strength diaphragm construction, Other

OTHER SPECIAL INSPECTIONS: Special Inspector, Company, Phone, Epoxy grout installations, Expansion anchor installations, Other post installed anchors, Alternative construction methods, Alternative construction materials, Other

DEFERRED SUBMITTALS:

The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

Connector plate wood trusses, Metal joist / metal trusses, Premanufactured structures (stairs, etc.), Precast concrete elements, Other, Post tension layout, Exterior cladding, Window wall / curtain wall construction, Other

ENERGY CODE COMPLIANCE INFORMATION:

Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

Building envelope, Whole house ventilation, Energy Credit Information, RECPC Form Information, Air Leakage Testing, Duct Leakage Testing, Postconstruction Test, Rough-in Test

PROJECT ALERTS:

Construction of the project shall be from approved plans only. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island. Approved plans must be kept on site and maintained in good condition.

Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Site Considerations, Hours of Work, Construction Vehicle Parking Restrictions, Access Road Requirements, ROW restrictions, Drainage Requirements, Sewer Requirements, Water Service Requirements, Additional Fire Code Requirements, Planning Requirements, Noise Abatement Certification, Tree Requirements

TREE PROTECTION REQUIREMENTS:

Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project. No trees shall be cut without a City of Mercer Island tree permit.

FIRE PROTECTION REQUIREMENTS:

Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

Fire Sprinkler, NFPA 13D, Plus, NFPA 13R, NFPA 13, Approved Fire Code Alternatives: FCA1, FCA2, FCA3, FCA4, Monitored Household Fire Alarm per NFPA 72, Monitored Sprinkler Water Flow Alarm, Other

WATER SUPPLY REQUIREMENTS:

Fire sprinkler design calculations must be provided prior to determining water supply system requirements. Water Supply system upgrade required, City Installation, Applicant Installation, Required Service Line Size, Required Supply Line Size, Required Meter Size, Abandonment of existing service and meter required at main, Pressure reducing valve required if pressure exceeds 80 psi, Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply (private wells or lake irrigation), Additional water supply requirements

DRAINAGE REQUIREMENTS:

On site detention system required, On site infiltration system required, As-built Utility drawings required, Full Size drawings required, Direct discharge into the lake, No Storm Water permit required, Connection to public storm drainage conveyance system req'd, Other

SIDE SEWER REQUIREMENTS:

Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties. Video tape of existing sewer required (see standard details), New connection, Connect to existing, Disconnect permit required, Reconnect permit required, Other

APPROVED CODE ALTERNATIVES:

Code alternatives must be inspected. Refer to the Inspection Checklist. CA1, CA2

SURVEY REQUIREMENTS (The following survey information must be submitted when checked):

Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy.

Surveyor, Building height survey, Building setback survey, Impervious surface survey, Other, MAXIMUM 40 PERCENT ALTERATION INSPECTION: A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered.

GEOTECHNICAL INFORMATION:

Land clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times.

SEASONAL DEVELOPMENT LIMITATION RESTRICTION:

Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1. Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit.

REQUIRED CONSTRUCTION INSPECTIONS:

It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) in advance of desired inspection. Be specific as to type of inspection.

Inspector shall initial and date appropriate inspection only if approved. Note: Items marked with an "*" require a separate permit. It is the applicants responsibility to apply for and obtain all City of Mercer Island permits.

INSPECTIONS: (Listed in order of typical sequencing) Pre-construction Meeting to Review Conditions of Permit Approval, Tree protection, Erosion control, Sewer disconnect and cap, Right-of-way use or work / easement, material delivery, etc., Land clearing, grading and demolition, Temporary power, Piling / Shoring / Shotcrete, Footings, setbacks, UFER ground, Foundation walls / concrete columns, Roof and footing drains, Foundation damproofing, Storm drainage, Connections to storm main in ROW, Detention systems, Infiltration systems, Catch basins including oil-water separator tees, Retaining wall drainage, Water Service, Water Supply, Water as-built drawings, Side sewer installation, Connections to side sewer main, Connections to existing side sewer, Driveway / Access road, Underslab electrical / mechanical / plumbing, Underslab insulation / vapor barrier / reinforcing, Underfloor framing, Nailing-Roof sheathing, Nailing-Exterior wall and Shearwall, Rough hydronic installation, Rough electric installation, Rough fire alarm (wiring inspection), Rough plumbing installation (DWV, water), Rough mechanical, Gas Piping, Rough fire sprinkler / hydrostatic and flow (bucket) test, Framing and glazing, Masonry construction (fireplace / walls / veneer / etc.), Insulation installation, Stucco (paper and lath), Shower pan (or tub), Miscellaneous, Code Alternative CA1, Code Alternative CA2, Impact Fees Paid (If applicable)

Final Inspection: Tree Restoration, Final Inspection: Fire protection, including (but not limited to): Sprinkler, Access Road, Fire Code Alternatives (see below), FCA1, FCA2, FCA3, FCA4, Final Inspection: Water supply protection, including (but not limited to) backflow devices for: Waterfront property, Fire / lawn sprinkler, Well water on property, Boiler, Final Inspection: Site and utility: includes landscape, utilities and ROW. Site restoration complete and as-built drawings ready for submittal. Final Inspection: Building, including electrical / mechanical / plumbing. If applicable, provide closeout (summary) letters from Engineer, Special Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS).

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):

Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.

Approved, Start Date, End Date

ADDITIONAL REQUIRED CITY INSPECTIONS:

Call the appropriate contact to arrange the inspection. Required Inspection(s), Contact, Phone, Scheduling

Impact Fees: If applicable, Impact fees apply and are due prior to Final Inspection or on Date, whichever occurs first. PLAN REVIEW APPROVALS: Not all review disciplines may be required to review the documents.

Building, Planning, Engineering, Tree, Fire

TO BE COMPLETED BY APPLICANT

TO BE COMPLETED BY APPLICANT

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

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TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG



CERTIFICATE OF OCCUPANCY issued after all required inspections have been performed and approved.

PROJECT NAME: PROJECT ADDRESS:

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES REVIEWED FOR CODE COMPLIANCE

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SITE DEVELOPMENT INFORMATION

Worksheet for single family residential development

PROJECT INFORMATION

Permit Number: _____ Parcel Number: _____
Site Address: _____ Phone Number: _____
Owner Name: _____ Date: _____
Signature & phone number of Individual who completed this worksheet: _____

Signature

Phone Number

GENERAL INFORMATION

Will any large trees be removed as a result of this development activity? Yes No

Large tree- trees with diameter of greater than or equal to 10 inches.

Do you have an Accessory Dwelling Unit? New ADU Existing ADU No

Will you be adding air conditioning to the proposed development? Yes No

What is the total square footage of all proposed decks
(covered and uncovered) on the property? _____ Square Feet

This is a worksheet and is not a substitute for the Mercer Island Development Regulations. Please consult the Mercer Island City Code. The City may require additional information to be supplied to document compliance with regulations.

LOT SLOPE

According to the Mercer Island City Code, slope is a measurement of the average incline of the lot or other piece of land calculated by subtracting the lowest elevation of the property from the highest elevation and dividing the resulting number by the shortest horizontal distance between these two points. The resulting product is multiplied by 100.

LOT SLOPE CALCULATIONS

Highest Elevation Point of Lot: _____ Feet
Lowest Elevation Point of Lot: _____ Feet
Elevation Difference: _____ Feet
Horizontal Distance Between High and Low Points: _____ Feet
Lot Slope* _____ %

**Lot slope is the elevation difference divided by horizontal distance multiplied by 100.*

Lot slope calculations shown on Sheet # _____

LOT COVERAGE

For single family residential development, “lot coverage” is the area of a lot that may be covered by a combination of the buildings and vehicular driving surfaces. Lot coverage is based on “net lot area”. Net lot area is the size of the lot minus the area within any access easements on the property that do not provide access to the home on the subject lot. The maximum lot coverage for a specific lot is based upon the lots slope (see above). The area of the lot that cannot be used for lot coverage is “required landscaping area”; the landscaping area is typically improved with either hardscape (see below) or softscape.

Please note: Lot coverage is not the same as impervious surface calculations used for drainage review.

Lot Slope	Maximum Lot Coverage (House, driving surfaces, and accessory buildings)	Required Landscaping Area
Less than 15%	40%	60%
15% to less than 30%	35%	65%
30% to 50%	30%	70%
Greater than 50% slope	20%	80%

ADJUSTMENTS

A one-time reduction in the required landscaping area and an increase in the allowed maximum lot coverage is allowed if:

- A. The total reduction in required landscaping area shall not exceed 5%, and the total increase in maximum lot coverage shall not exceed 5%; and
- B. The reduction in required landscaping area is associated with:
 - 1. A development proposal that will result in a single-story dwelling with wheelchair accessible entry, and may also include a single-story accessory building; or
 - 2. A development proposal on a flag lot that, after optimizing driveway routing and minimizing driveway width, requires a driveway that is more than the 25% of the allowed lot coverage. The allowed reduction in the required landscaping area and increase in the maximum lot coverage shall not exceed 5% or the area of the driveway in excess of 25% of the lot coverage, whichever is less. For example, a development proposal with a driveway that occupies 27% of the allowed lot coverage, may increase the total lot coverage by 2%
- C. A recorded notice on title, covenant, easement, or other documentation in a form approved by the city, shall be required. The notice on title or other documentation shall describe the basis for the reduced landscaping area an increase in lot coverage.

Does this project include a proposed adjustment? Yes No

LOT COVERAGE CALCULATIONS

- A. Gross Lot Area _____ Square Feet
- B. Net Lot Area _____ Square Feet
- C. Allowed Lot Coverage Area _____ Square Feet
- D. Allowed Lot Coverage _____ % of Lot
- E. Existing Lot Coverage:
 - 1. Main Structure Roof Area _____ Square Feet
 - 2. Accessory Building Roof Area _____ Square Feet
 - 3. Vehicular Use (driveway, paved access easements [portion used by the lot for access], parking _____ Square Feet
 - 4. Covered Patios and Covered Decks _____ Square Feet

5. Total Existing Lot Coverage Area (E1+E2+E3+E4)	_____	Square Feet
F. (Total Lot Coverage Area Removed)	_____	Square Feet
G. Proposed Adjustment for Single Story (Area)	_____	Square Feet
H. Proposed Adjustment for Flag Lot	_____	Square Feet
I. Total New Lot Coverage Area:		
1. Main Structure Roof Area	_____	Square Feet
2. Accessory Structure Roof Area	_____	Square Feet
3. Vehicular Use (driveway, paved access easement [portion used by the lot for access], parking)	_____	Square Feet
4. Covered Patios and Covered Decks	_____	Square Feet
5. Total New Lot Coverage Area (I1 + I2 + I3 + I4)	_____	
J. Total Project Lot Coverage Area = (E5 - F) + I5	_____	Square Feet
K. Proposed Lot Coverage Area = (J/B) x 100	_____	% of Lot

Lot coverage calculations shown on Plan Sheet # _____

HARDSCAPE

Up to 9% of the net lot area may consist of hardscape areas. For single family residential development, hardscape is the solid, hard, elements or structures that are incorporated into landscaping. The hardscape includes, but is not limited to, structures, paved areas, stairs, walkways, decks, patios, rockeries and retaining walls, and similar constructed elements that do not have a roof. The hardscape within the landscaping area consists of materials such as wood, stone, concrete, gravel, permeable pavements or pavers, and similar materials. Hardscape does not include solid, hard elements or structures that are covered by a minimum of two feet of soil intended for softscape (for example, a septic tank covered with at least two feet of soil and planted shrubs is not hardscape). The hardscape does not include driving surfaces or buildings. In addition, unused lot coverage may also be improved with hardscape.

HARDSCAPE CALCULATIONS

A. Gross Lot Area	_____	Square Feet
B. Net Lot Area	_____	Square Feet
C. Area Borrowed from Lot Coverage	_____	Square Feet
D. Allowed Hardscape Area = 9% of lot area + C	_____	% of Lot
E. Allowed Hardscape Area	_____	Square Feet
F. Total Existing Hardscape Area:		
1. Uncovered Decks	_____	Square Feet
2. Uncovered Patios	_____	Square Feet
3. Walkways	_____	Square Feet
4. Stairs	_____	Square Feet
5. Rockeries and Retaining Walls	_____	Square Feet
6. Other _____	_____	Square Feet
7. Total Existing Hardscape Area (F1+F2+F3+F4+F5+F6)	_____	Square Feet
G. (Total Hardscape Area Removed)	_____	Square Feet
H. Total New Hardscape Area:		
1. Uncovered Decks	_____	Square Feet
2. Uncovered Patios	_____	Square Feet
3. Walkways	_____	Square Feet
4. Stairs	_____	Square Feet
5. Rockeries and Retaining Walls	_____	Square Feet

- 6. Other _____ Square Feet
- 7. Total New Hardscape Area
(H1+H2+H3+H4+H5+H6) _____ Square Feet
- I. Total Project Hardscape Area = (F7 - G) + H7 _____ Square Feet
- J. Total Project Hardscape Area = (I/B)x100 _____ % of Lot

Hardscape calculations shown on Plan Sheet # _____

GROSS FLOOR AREA (GFA)

For single family residential development, GFA is the total square footage of floor area, bounded by the exterior faces of the building(s). The GFA includes the floor area of the main building, accessory buildings, garages, attached roofed decks on the second or third story of a single family home, staircases, etc. The GFA does not include second- or third-story uncovered decks or uncovered rooftop decks.

The GFA includes the floor area of the main building, accessory buildings, garages, attached roofed decks on the second or third story of a single family home, staircases, etc. The GFA does not include second- or third-story uncovered decks or uncovered rooftop decks. GFA does not include any portion of a building that is below ground (refer to page 6).

Allowed GFA

- A. R-8.4: 5,000 square feet or 40% of the lot area, whichever is less.
- B. R-9.6: 8,000 square feet or 40% of the lot area, whichever is less.
- C. R-12: 10,000 square feet or 40% of the lot area, whichever is less.
- D. R-15: 12,000 square feet or 40% of the lot area, whichever is less.
- E. All zones: Lots with a lot area of 7,500 square feet or less, the lesser of 3,000 square feet or 45% of the lot area.
- F. All zones: If an accessory dwelling unit is proposed, the 40% allowed GFA may be increased by the lesser of 5 percentile points, or the floor area of the accessory dwelling unit. Provided, this allowance shall not result in a GFA of more than 4,500 square feet or 45% of the lot area, whichever is less.

GFA Modifiers

The GFA calculation for a floor with a ceiling height of 12 to 16 feet, is 150% of the area of the floor.

The GFA calculation for a floor with a ceiling height of more than 16 feet, is 200% of the area of the floor.

The GFA calculation for a stair case shall be counted as a single floor for the first two stories accessed by the stair case. For each additional story above two stories, the stair case shall count as a single floor area.

**Floor plans shall identify rooms with a ceiling height of more than 12 feet and rooms with a ceiling height of more than 16 feet.*

All building areas must be identified and labeled on the site plan. Please distinguish all new construction from existing areas on both your drawing and in the calculations you complete below.

Will you be excluding a portion of the basement floor area? Yes No

If yes, you must provide basement floor area calculations, with your building permit application, that show how you determined what portion of the basement will be excluded. Refer to page 6.

GROSS FLOOR AREA CALCULATIONS

Building Area	Existing Area	Removed Area	New/Addition Area	Total
Upper Floor	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.
Main Floor	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.
Gross Basement Area	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.
Garage/ Carport	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.
Total Floor Area	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.
Accessory Buildings	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.	_____ Sq. Ft.

Accessory Dwelling Unit 2 nd & 3 rd Story Roofed	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.
Decks	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.
Basement Area	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.
Excluded	_____		_____		_____		_____	
150% GFA Modifier* (main and upper floor x2)	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.
200% GFA Modifier* (main and upper floor x2)	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.
Staircase GFA Modifier* (x2 for a three story staircase, x3 for a four story staircase)	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.
TOTAL Building Area	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.	_____	Sq. Ft.

*Enter the actual room area

- A. Lot Area _____ Square Feet
- B. Zone R-8.4 R-9.6 R-12 R-15
- C. Allowed Gross Floor Area (refer to "allowed GFA") _____ Square Feet
- D. Allowed Gross Floor Area _____ % of Lot
- E. Proposed Gross Floor Area _____ Square Feet
- F. Proposed Gross Floor Area _____ % of Lot

Gross floor area calculations found on Plan Sheet # _____

Basement exclusion calculations found on Plan Sheet # _____

BUILDING HEIGHT

All building height measurements must be taken from existing grade or finished grade, whichever is lower. Existing grade refers to ground surface as it exists at the proposed building perimeter before grading or other alterations take place. Finished grade refers to the ground surface as it exists at the building perimeter after grading or other alterations take place.

Single family new construction and additions are limited to a maximum height of 30 ft. above the Average Building Elevation (ABE) – see section on next pages. The height is measured to the top of the structure. On the downhill side of a sloping lot, the wall façade height is also limited to a height of 30 feet measured from existing or finished grade (whichever is lower) to the top of the exterior wall facade supporting the roof framing, rafters, trusses, etc.

A topographic survey is required at permit application when the proposed building height is within 2 ft. of the allowable building height. The survey must include a statement that attests the average contour elevation within the vicinity of the building footprint to be accurate within 6 inches vertically and horizontally from actual elevations.

BUILDING HEIGHT CALCULATIONS

- A. Average Building Elevation (ABE) calculations located on sheet #: _____
- B. Allowable Building Height (ABE + 30 ft.) _____ Feet
- C. Proposed Building Height _____ Feet
- D. Benchmark Elevation* _____ Feet
- E. Describe Benchmark Location (must be undisturbed throughout project) _____

- F. Sloping lot (Downhill side)- maximum height of top of exterior wall façade above lowest existing grade (30-ft max) _____ Feet
- G. ABE and Allowable Building Height Shown on elevations plan sheet # _____
- H. Topo-survey Accuracy Attested on Plan Sheet # _____

Note: survey must attest to accuracy when proposed building height is within 2 feet of the allowable building height. Please see page 8 for more information on calculating Average Building Elevation (ABE)

*The benchmark elevation is a fixed elevation point on or off site that will not be disturbed during development activity and is used to verify the final building height.

BASEMENT FLOOR AREA CALCULATION

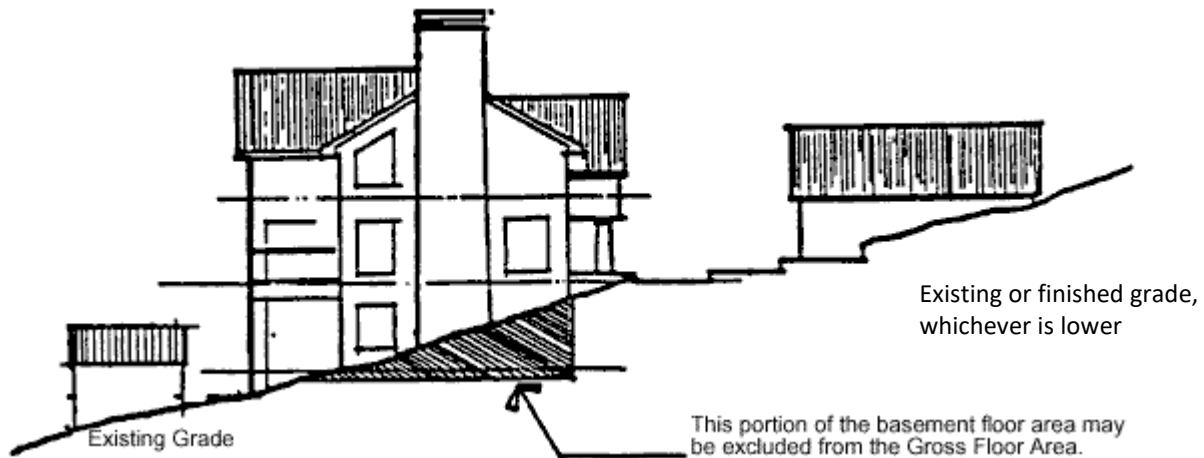
The Mercer Island Development Code allows for the portion of the basement floor area which is below grade to be excluded from the Gross Floor Area. That portion of the basement which will be excluded is calculated as shown:

Portion of Excluded Basement Floor Area = Total Basement Area x

$$\frac{\sum (\text{Wall Segment Coverage} \times \text{Wall Segment Length})}{\text{Total of all Wall Segment lengths}}$$

Where the terms are defined as follows:

- Total Basement Area:** The total amount of all basement floor area.
- Wall Segment** The portion of an exterior wall below existing or finished grade, whichever is lower. It is expressed as a percentage. Refer to example below.
- Coverage:**
- Wall Segment Length:** The horizontal length of each exterior wall in feet.



EXAMPLE OF BASEMENT FLOOR AREA CALCULATION

This example illustrates how a portion of the basement floor area may be excluded from the Gross Floor Area. In order to complete this example, the following information is needed:

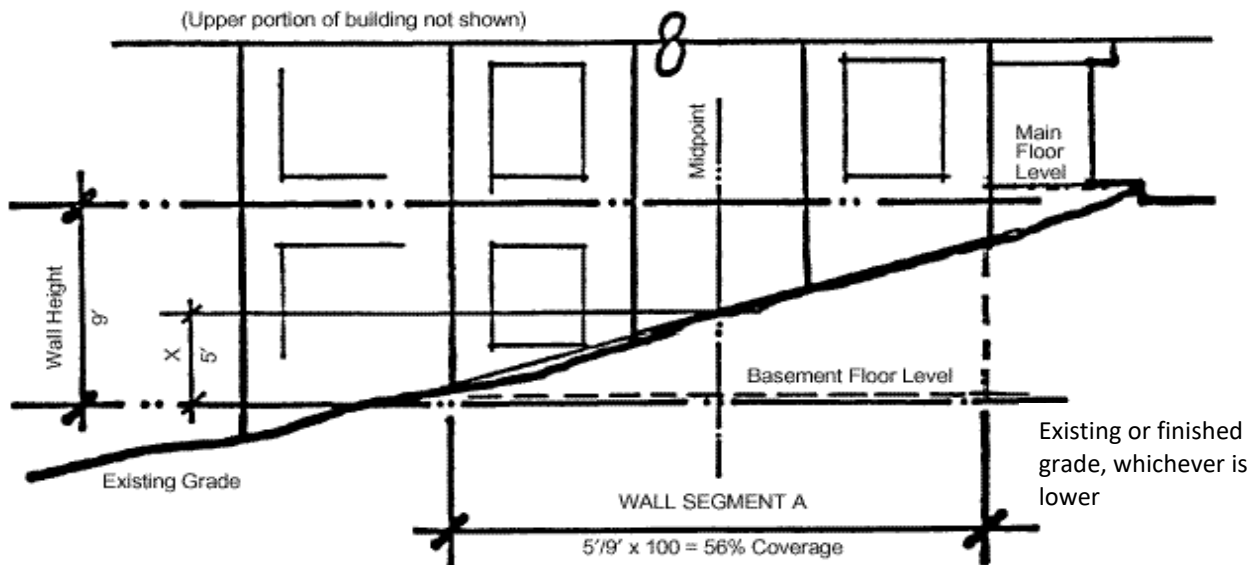
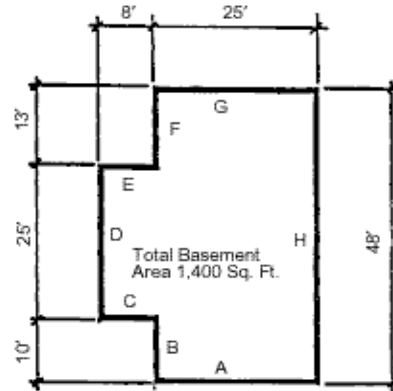
- a. A topographic map of the existing (e) grades and showing proposed finished (f) grades.
- b. Building plans showing dimensions of all exterior wall segments and floor areas.
- c. Building elevations showing the location of existing and finished grades in relation to basement level.

Step One

Determine the number and lengths of the Wall Segments.

Step Two

Determine the Wall Segment Coverage (in %) for each Wall Segment. In most cases this will be readily apparent, for example a downhill elevation which is entirely above existing and finished grade. In other cases, where the existing contours are complex, an averaging system shall be used. Refer to illustration.



Step Three

Multiply each Wall Segment Length by the percentage of each Wall Segment Coverage and add these results together. Divide that number by the sum of all Wall Segment Lengths. This calculation will result in a percentage of basement wall which is below grade. (This calculation is most easily completed by compiling a table of the information as illustrated below.)

Wall Segment	Length x	Coverage=	Result
A	25'	56%	14%
B	10'	0%	0%
B	8'	0%	0%
D	25'	0%	0%
E	8'	0%	0%
F	13'	0%	0%
G	25'	60%	15%
H	48'	100%	48%
Totals	162'	NA	77%

Step Four

Multiply the Total Basement Floor Area by the above percentage to determine the Excluded Basement Floor Area. Portion of Excluded Basement Floor Area Calculation below

$$1,400 \text{ Sq. Ft.} \times \frac{(25' \times 56\% + 10' \times 0\% + \dots + 25' \times 60\% + 48' \times 100\%)}{162'}$$

$$= 1,400 \text{ Sq. Ft.} \times 47.53\%$$

$$= 665.42 \text{ Sq. Ft. Excluded from the Gross Floor Area}$$

CALCULATING AVERAGE BUILDING ELEVATION (ABE)

No part of a structure may exceed 30 feet in height above the "Average Building Elevation" to the top of the structure, except that on the downhill side of a sloping lot the structure shall not extend to a height greater than 30 feet measured from existing or finished grade to the top plate of the roof; provided the roof ridge does not exceed 30 feet in height above the "Average Building Elevation." ABE is defined as: The elevation established by averaging the elevation at existing or finished grade, whichever is lower, at the center of all exterior walls of the completed building.

NOTE:
INCOMPLETE
AVERAGE BUILDING
ELEVATION
INFORMATION
COULD
SUBSTANTIALLY
DELAY THE
PROCESSING OF
YOUR APPLICATION

AVERAGE BUILDING ELEVATION FORMULA:

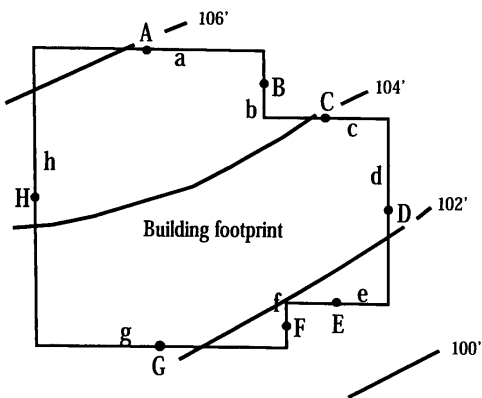
$$\frac{(\text{Mid-point Elevation of Individual Wall Segment}) \times (\text{Length of Individual Wall Segment})}{(\text{Total Length of Wall Segments})}$$

—OR—

$$\frac{(Axa)+(Bxb)+(Cxc)+(Dxd)+(Exe)+(Dxd)+(Exe)+(Fxf)+(Gxg)+(Hxh)}{a + b + c + d + e + f + g + h}$$

WHERE: A,B,C,D... = Lower of Finished or Existing Ground Elevation at Midpoint of Wall Segment

AND: a,b,c,d... = Length of Wall Segment Measured on Outside Wall



MIDPOINT ELEVATION	WALL SEGMENT LENGTH
A = 105.9 feet	a = 30 feet
B = 104.7 feet	b = 9 feet
C = 103.7 feet	c = 17 feet
D = 102.7 feet	d = 25 feet
E = 101.6 feet	e = 13 feet
F = 101.7 feet	f = 6 feet
G = 102.2 feet	g = 34 feet
H = 104.5 feet	h = 40 feet

ABE CALCULATION:

$$\frac{(105.9)(30)+(104.7)(9)+(103.7)(17)+(102.2)(25)+(101.6)(13)+(101.7)(6)+(102.2)(34)+(104.5)(40)}{30 + 9 + 17 + 25 + 13 + 6 + 34 + 40}$$

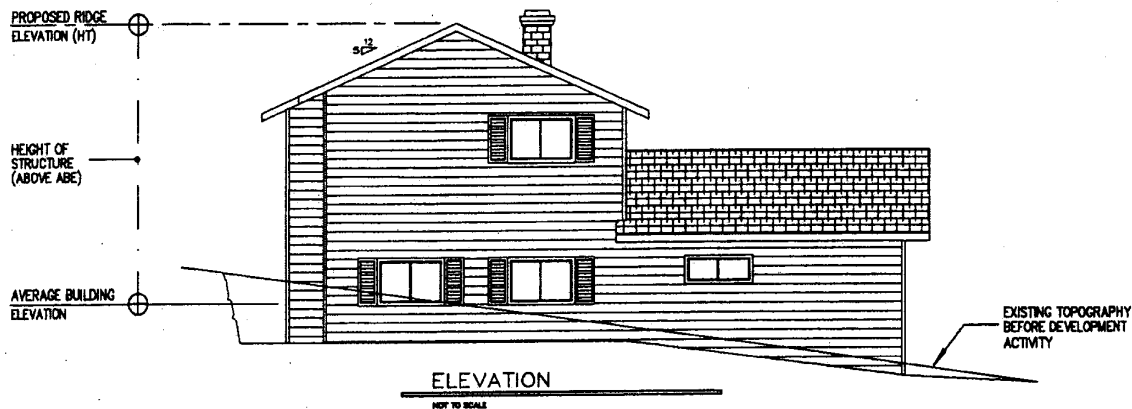
$$\frac{18023'}{174'} = 103.6' \text{ Average Building Elevation (ABE)}$$

NOTE: This example is not to scale. Site plans submitted to the building department must be to scale.

BEFORE SUBMITTING YOUR CONSTRUCTION DRAWINGS, CHECK TO SEE THAT YOU HAVE PROVIDED THE INFORMATION BELOW.

- The site plan and the elevation drawings must be drawn to scale, for example 1" = 20', and based on a survey.
- Clearly show existing topography on your site plan. Topography should be shown in 2' increments.
- Submit (with the site plan) your average building elevation calculations using the formula provided on page 8.
- Indicate on an elevation drawing where the average building elevation strikes the building and the proposed ridge elevation (see below for example).
- Elevation drawings for all sides of the building.
- Indicate on the site plan the elevation of the finished floor or garage slab.
- Indicate the elevation and location of a fixed point (benchmark) within the ADJACENT RIGHT-OF-WAY or other point approved by the Building Official. The benchmark elevation and location must be provided and cannot be a part of the proposed structure. Note: Benchmark must be established, verified by a licensed surveyor and remain during construction so height can be verified when completed.
- For additions, you must provide an average building elevation calculation for the entire structure.
- If a portion of the basement floor area will be excluded from the gross floor area, provide the exclusion calculations with your site plan. The formula for basement area exclusions is shown on page 6.
- Indicate ceiling heights greater than 12' and greater than 16' on floor plans.

CROSS-SECTION REPRESENTATION OF ABE



CITY OF MERCER ISLAND

Fire Marshal's Office

3030 78th Ave SE | MERCER ISLAND, WA 98040 PHONE:

206.275.7966 | www.mercerisland.gov | V.2021-1



2021 RESIDENTIAL FIRE AREA SQUARE FOOTAGE CALCULATION

Project Type: <input type="checkbox"/> New Single Family <input type="checkbox"/> Alteration <input type="checkbox"/> Addition <input type="checkbox"/> ADU/DADU	
Project Address:	
Contact Name:	Phone No.
Owner Name:	

Gross floor area shall be that area in square feet under the roof line of the structure including all usable area whether heated or not, above and below grade. This includes the garage and any unheated storage rooms or attachments including covered decks. If it is *usable space*, then it is included in the **Gross** square footage calculation. *This is not the same calculation for floor area ratio.*

For all construction types, add all the interior wall measurements of each floor and the basement and total that figure.

CONSTRUCTION VALUATION TYPE (verified with permit application)

Good \$180 sq/ft	Very Good \$230 sq/ft	Very Good Custom \$280 sq/ft	Luxury Custom \$380 sq/ft
Select One:			
<i>* Hit enter when done</i>			

NEW CONSTRUCTION (over for addition or alteration)

N/A	Measurements	Square Footage	
	Main Floor interior		
	Lower Floor Interior		
	Other Floors interior		
	Basement interior		
	Attached Garage interior		
	Covered Decks interior		
	Other interior		
	TOTALS		

ADDITION or ALTERATION

Does this house have an existing **Fire Sprinkler System?** Yes No / **NFPA 72 Alarm System** Yes No

Measurements	Existing Square Footage	Standardized Value	Final Square Footage
Main Floor interior		x sq/ft	
Lower Floor Interior		x sq/ft	
Other Floors interior		x sq/ft	
Basement interior		x sq/ft	
Attached Garage interior		x sq/ft	
Covered Decks interior		x sq/ft	
Other interior		x sq/ft	
TOTALS			

Construction Cost \$ _____

Official Use

Verified Cost \$ _____

Higher of Verified or Cost \$ _____ / Value _____ = % _____

- Valuation Ratio
 - Exempt structure – detached garage or similar structure less than 750 sf.
 - Less than 10% (fire review not required)
 - 10 – 49% (monitored Household Fire Alarm System per NFPA 72 Chapter 29, if fire deficiency)
 - 50% or greater (substantial alteration)

2015 INT'L FIRE CODE

901.4.4 Additional Fire Protection Systems. In occupancies of a hazardous nature, where special hazards exist in addition to the normal hazards of the occupancy, or where the fire code official determines that access for fire apparatus is unduly difficult, the fire code official shall have the authority to require additional safeguards. Such safeguards include, but shall not be limited to, the following:

- Automatic fire detection systems,
- Fire alarm systems,
- Automatic fire-extinguishing systems,
- Standpipe systems, or
- Portable or fixed extinguishers.

Fire protection equipment required under this section shall be installed in

accordance with this code and the applicable referenced standards.

2015 INT'L RESIDENTIAL CODE

AV107.1 Fire Sprinklers. An approved automatic fire sprinkler system shall be installed in new one-family and two-family dwellings and townhouses in accordance with Appendix Q.

AV107.2 Fire Sprinklers in Existing Buildings. An approved automatic fire sprinkler system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) in accordance with Appendix Q when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within

a sixty-month period exceeds 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.

AV107.3 Household Fire Alarm System. An approved household fire alarm system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) that have deficiencies in fire flow, hydrants or access. This system shall be installed in accordance with NFPA 72 Chapter 29 when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within a sixty-month period is within 10% to 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.