



CITY OF MERCER ISLAND

9611 SE 36th Street • Mercer Island, WA 98040-3732

(206) 275-7605 • www.mercergov.org

IMPERVIOUS SURFACE DEVIATION

NOTICE OF DECISION

June 5, 2017

I. PROJECT SUMMARY

File Number: DEV17-007

Property Owner: Chris and Marie Chin

Location of Property: 8217 SE 28th Street, Mercer Island, WA 98040
King County Assessor's Parcel # 206355-0050

Zoning District: R-9.6

Description of Application: The applicant has requested approval of a deviation from the maximum allowable impervious surface limit. Impervious surfaces are items that prevent water from penetrating into the soil, such as driveways and rooftops. A maximum of 35% of some lots in a residential zone can be covered with impervious surfaces (subject to certain allowances). The City Code allows for the lot to be covered with an additional 5% of impervious surface (for a total of 45% lot coverage) via a deviation application if certain deviation criteria are met.

Applicant Contact: Architects Northwest

Decision: The request for an impervious surface deviation of 4.99% over the maximum allowed lot coverage of 35% (for a total of 39.99%) is **Approved** subject to the conditions listed in the conditions of approval. A 4.99% deviation equals 484.98 square feet of additional land, totaling in 3,886.63 square feet available for lot coverage by the property owner.

Exhibits:

1. Criteria Response Form received March 17, 2017.
2. Narrative Letter received March 17, 2017.
3. Development application received March 17, 2017.
4. Site Development Worksheet received March 17, 2017.
5. Site Plan received March 10, 2017.

II. **FINDINGS OF FACT**

1. Application Description:

The request is for approval of a deviation from the maximum allowable impervious surface limit. The subject property is currently allowed a maximum lot coverage of 35% (subject to certain allowances). The applicant is requesting a deviation that would allow for the lot to be covered with an additional 4.99% of impervious surface (for a total of 39.99% lot coverage) if certain deviation criteria are met.

According to the King County Assessor's data, the subject property totals 9,719 square feet. 35% of this is 3,401.65 square feet. A 4.99% deviation would result in 484.98 square feet of additional land, totaling in 3,886.63 square feet of space available for impervious surface lot coverage by the property owner.

2. Zoning:

The subject site is within the Single Family Residential R-9.6 zone (9,600 square foot minimum lot area) and has an area of approximately 9,719 square feet.

3. Lot Slope:

As stated in Exhibit 4, the average lot slope for the property is 29.67%.

4. Lot Coverage Allowance:

Per Mercer Island City Code (MICC) 19.02.020(D)(1), lots with a slope between 15% and 30% are allowed a maximum impervious surface coverage of 40%, except when a deviation is granted, pursuant to MICC 19.02.020(D)(3).

5. Consistency with Land Use Code/Zoning Requirements:

MICC 19.02.020(D)(3) permits the Code Official to grant a deviation for up to an additional five percent of lot coverage over the maximum requirements. MICC 19.02.020(D)(3) also provides criteria for impervious surface deviations that are listed and addressed in the Conclusions of Law below. MICC 19.15.010(E) requires that the impervious surface deviation application be processed as an administrative action with public notice.

5. State Environmental Policy Act (SEPA):

The proposal is categorically exempt from SEPA pursuant to WAC 197-11-800(6)(e).

6. Public Comments:

There is no public hearing requirement for an impervious surface deviation (an administrative action) per MICC 19.15.010(E) and 19.15.020(F)(1). Public notice of the deviation request was mailed to all residents within 300 feet of the subject property, published in the City Bulletin, and posted on the property on May 8, 2017 as required by MICC 19.15.020(D)(4), and 19.15.020(E)(4)(a). Per MICC 19.15.020(D), a 14-day comment period was provided from May 8, 2017 through May 22, 2017. The City did receive one letter from a neighboring property owner, requesting to be a party of record.

III. CONCLUSIONS OF LAW

Recognizing the decision criteria specified in the Mercer Island City Code for a fence height deviation, staff has made the following conclusions:

1. MICC 19.01.070 states the guidelines for the granting of variances and deviations.
 - A. *Per MICC 19.01.070(B)(1), an applicant may request a deviation only from those numeric standards that have been specifically designated as being subject to a deviation.*

Staff Analysis:

Impervious surface deviations are authorized under MICC 19.02.020(D)(3), thus the applicant may request an impervious surface deviation, and is in compliance with MICC 19.01.070(B)(1).

- B. *A deviation may be granted if the applicant demonstrates that the criteria set out in MICC 19.15.020(G)(5), and any additional deviation criteria set out in the code section under which the permit would be issued, are satisfied.*

Staff Analysis:

MICC 19.15.020(G) requires compliance with the deviation criteria established in MICC 19.02.020(D)(3). Upon reviewing the application for compliance with the deviation criteria in MICC 19.02.050(F)(1), planning staff find that the criteria are met; additional analysis is provided below.

2. MICC 19.02.020(D)(3) states that the code official may grant a deviation, allowing an additional five percent of lot coverage over the maximum requirements; provided the applicant demonstrates through submittal of an application and supporting documentation that the proposal meets one of the following criteria:
 - a. *The proposal uses preferred practices, outlined in MICC 19.09.100, which are appropriate for the lot. MICC 19.09.100 states that the applicant must use reasonable best efforts to comply with the following preferred development practices:*
 - A. *Use common access drives and utility corridors.*
 - B. *Development, including roads, walkways and parking area in critical areas, should be avoided, or if not avoided, adverse impacts to critical areas will be mitigated to the greatest extent reasonably feasible.*
 - C. *Retaining walls should be used to maintain existing natural slopes in place of graded artificial slopes.*

Staff Analysis:

The applicants have indicated that all three criteria of MICC 19.09.100 will be met:

- A. The proposed house is to access SE 28th Street via a road easement (created for the Donahue subdivision in 1998) shared with the adjoining property located at 8219 SE 28th Street. This criterion is met.
- B. The proposed house and associated driveway are will minimize impacts to the steep sloping western portion of the subject property. This criterion is met.

C. The applicant has indicated that retaining walls will be installed for an auto court near the garage and that grading will be minimized elsewhere on the lot. This criterion is met.

b. *The lot has unique shape or proportions (i.e., a flag lot, with a circuitous driveway corridor).*

Staff Analysis:

The applicant has not proposed to use MICC 19.02.020(D)(3)(b) for this project.

c. *The proposal minimizes impacts to critical areas and provides the minimum extent possible for the additional impervious surfaces.*

Staff Analysis:

The proposed house is to be located such that it minimizes impacts to the steep slopes on the western portion of the property. As proposed, the project meets this criterion.

3. MICC 19.15.020(K) states: Except for building permits or unless otherwise conditioned in the approval process, permits shall expire one year from the date of notice of decision if the activity approved by the permit is not exercised. Responsibility for knowledge of the expiration date shall be with the applicant.

Staff Analysis:

The applicant will be required to comply with 19.15.020(K) as a condition of approval.

IV. DECISION

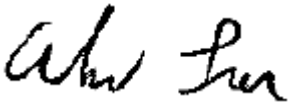
Based upon the above noted Findings of Fact and Conclusions of Law, Impervious Surface Deviation application DEV17-007, as depicted by Exhibit 2, is hereby **APPROVED WITH CONDITIONS**. This decision is final unless appealed in writing consistent with adopted appeal procedures.

V. CONDITIONS OF APPROVAL

The following conditions shall be binding on the "Applicant", which shall include the owner or owners of the property, heirs, assign, and successors:

1. This permit approval (DEV17-007) allows for impervious surface development up to 39.99% of the total lot area at 8217 SE 28th Street. This permit is not an approval of the proposed site plan. The impervious surface lot coverage of the proposed development on the site shall be verified under the building permit.
2. The applicant shall obtain all required permits for construction.
3. Per MICC 19.15.020(K), this permit (DEV17-007) shall expire one year from the date of notice of decision if the activity approved by the permit is not exercised. Responsibility for knowledge of the expiration date shall be with the applicant.
4. The impervious surface lot coverage on this site shall be verified at the time of final inspection by the City Inspector. The City of Mercer Island may require impervious surface on this site to be verified by a Washington State licensed surveyor at the time of final inspection.

Approved this 5th day of June, 2017.



**Andrew Leon, Planner
Development Services Group
City of Mercer Island**

Parties of record have the right to appeal this decision. If you desire to file an appeal, you must submit the appropriate form, available from the Development Services Group, and file it with the City Clerk within fourteen (14) days from the date this decision is signed. Upon receipt of a timely complete appeal application and appeal fee, an appeal hearing will be scheduled. To reverse, modify or remand this decision, the appeal hearing body must find that there has been substantial error, the proceedings were materially affected by irregularities in procedure, the decision was unsupported by material and substantial evidence in view of the entire record, or the decision is in conflict with the city's applicable decision criteria.

Please note that the City will provide notice of this decision to the King County Department of Assessment, as required by State Law (RCW 36.70B.130). Pursuant to RCW 84.41.030(1), affected property owners may request a change in valuation for property tax purposes notwithstanding any program of revaluation by contacting the King County Department of Assessment at (206) 296-7300.

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: www.MyBuildingPermits.com VM: 206.275.7730



Deviations to the Maximum Impervious Surface Requirements

APPLICATION FEE: See Development Application for current fees

The total percentage of a lot that can be covered by impervious surfaces (structures, including roof projections, impervious decks, and surfaces such as asphalt or concrete driveways, which substantially reduce and alter the natural infiltration characteristics of the soil) is limited by the slope of the lot for all single family developments as follows:

<u>Lot Slope</u>	<u>Maximum Lot Coverage</u> (limit for impervious surfaces)
Less than 15%	40%
15% – less than 30%	35%
30% – 50%	30%
Greater than 50%	20%

The Code Official may grant a deviation, allowing an additional five (5) percent of lot coverage over the maximum requirements. However, the applicant must demonstrate through the submittal of an application and supporting documentation that the proposal meets one of the criteria specified in MICC 19.02.020(D)(3).

Your application must include the following:

1. Select at least one of the three criteria listed below;
2. Give a complete statement of the reasons and conditions to support your request for a waiver in a cover letter;
3. Complete questions 1-4 regarding how this proposal addresses site issues;
4. Complete the attached site development worksheet;
5. Attach a detailed site plan or survey as determined by the Code Official; and
6. Provide calculations documenting total impervious surfaces

Please choose one of the following criteria and provide an explanation as to how the proposal meets the chosen criteria. City staff may grant a deviation (limited to 5% over the maximum lot coverage requirement based on one criterion). Please be as encompassing as you can in responding to the following criteria; remember, the burden of proof is on the applicant to show that they meet the minimum requirements for a deviation. Please feel free to attach additional sheets.

Criterion 1 – The proposal uses Preferred Practices, outlined in MICC 19.09.100, which are appropriate for the lot

Construction - Preferred Practices (MICC 19.09.100):

1. Use common access drives and utility corridors where feasible.

② Development, including roads, walkways and parking areas in critical areas, should be avoided, or if not avoided, adverse impacts to critical areas will be mitigated to the greatest extent reasonably feasible.

③ Retaining walls should be used to maintain existing natural slopes in place of graded artificial slopes; or,

Criterion 2 – The lot has a unique shape or proportions (i.e., a flag lot, with a circuitous driveway corridor); or,

Criterion 3 – The proposal minimizes impacts to Critical Areas and is the minimum extent possible for the additional impervious surfaces.

Please provide an explanation as to how your proposal meets at least one of the above criteria to support a deviation request

SEE ATTACHED EXPLANATION LETTER

PLEASE ANSWER HOW YOUR PROPOSAL ADDRESSES THE FOLLOWING QUESTIONS:

1. How is the proposed development associated or related to the site?

U

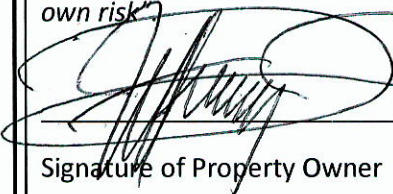
2. What is the minimum amount of impervious surface necessary to fulfill the request?

U

3. Are there other relevant physical or environmental factors that support the requested deviation?

U

Application for a deviation involves substantial time, expense, and risk for a property owner. Application does not guarantee approval. Request must meet difficult criteria, and applicants are proceeding "at their own risk"



Signature of Property Owner

ARCHITECT
FOR CLIENTS
CHRIS & MARIE CHIN

Date

3.10.17

8217 SE 28TH ST

Site Address



Architects Northwest, Inc.
18915 - 142nd Ave NE #100
Woodinville WA 98072

Website: www.ArchitectsNW.com

P: 425-485-4900
F: 425-487-6585
Toll Free: 1-888-ARCH-100
Email: ANW@ArchitectsNW.com

Impervious Area Deviation for Chris & Marie Chin Residence @ 8217 SE 28th ST, MI - page 1 of 2

Please provide an explanation as to how your proposal meets at least one of the above criteria to support a deviation request:

Criterion 1: The proposal uses Preferred Practices, outlined in MICC 19.08.100, which are appropriate for the lot. All three options are used.

1. Use(s) common access drives and utility corridors where feasible.

The proposal utilizes a triangular access easement shared with the residence at 8219 SE 28th ST. Easements providing water, sewer and storm drainage to other lots in the plat encumber the subject site.

2. Development, including roads, walkways and parking areas in critical areas, should be avoided, or if not avoided, adverse impacts to critical areas will be mitigated to the greatest extent reasonably feasible. The proposal locates the house in the center of the lot with driveway/auto court access from the east, leaving the western third of the lot undisturbed, which has slopes in excess of 40%.

3. Retaining walls should be used to maintain existing natural slopes in place of graded artificial slopes. The proposal uses retaining walls to provide a usable level auto court on the sloped lot, while minimizing grading within the water, sewer and storm drainage easements at the east end of the lot that serve other lots in the plat.

Criterion 3: The proposal minimizes impacts to Critical Areas and is the minimum extent possible for the additional impervious surfaces.

The steeply sloped areas on the west third of the lot will remain undisturbed. The proposed residence is located in the middle third of the lot. Major utilities easements run along the east property line, and the auto court is located between those easements and the residence. The proposal protects the steeply sloped western third of the site and the utility corridors on the east end of the site, which lengthens the entry driveway. The proposal is the minimum necessary to provide access and steep slope protection.

1. How is the proposed development associated or related to the site?

The proposal allows for construction of a 4298sf 2-story + basement residence, plus decks, porches and a 767sf garage at the basement level on a 9718sf vacant platted lot with 29.67% lot slope, along with a driveway, auto court, walkways and retaining walls as required. The residence is consistent in size, scale, style and site placement with other residences in its immediate vicinity.

2. What is the minimum amount of impervious surface necessary to fulfill this request?

The requested increase to 39.98% impervious lot area exceeds the 35.00% lot coverage allowed by 485sf. Meeting the 35.00% limit would shrink the auto court and result in a 2-car garage, which is not typical of homes in the area. This problem is exacerbated by the lack of parking on SE 28th ST. Therefore, the request for an additional 485sf (4.98%) of impervious area is the minimum necessary to fulfill this request.



Architects Northwest, Inc.
18915 - 142nd Ave NE #100
Woodinville WA 98072

Website: www.ArchitectsNW.com

P: 425-485-4900

F: 425-487-6585

Toll Free: 1-888-ARCH-100

Email: ANW@ArchitectsNW.com

page 2 of 2

3. Are there other relevant physical or environmental factors that support the requested deviation?

The proposed residence is sited on the center of a site that slopes off severely to its low point at the NW corner. The high point of the site is unfortunately located on the western third of a generally level south property line. The site was topographically altered by utilities installations and plat development over a decade ago. The measured lot slope of 29.67% does not reflect the much smaller impact of the proposed development. The proposed residence and its vehicular access are located in the eastern 2/3 of the site. The lot slope over the eastern 2/3 of the site, from the site's high point to the NE corner, which is the 2nd lowest point on the site, is only 14.62%. This lot slope more accurately reflects the true conditions of the development. Since the steeply sloped areas are not being disturbed, and development is confined to areas of less than 15.00% slope, this lot should be treated as a lot that is allowed 40.00% lot coverage, and the impervious are deviation approved.

ARCHITECTS NORTHWEST

Architects Northwest, Inc.

18915 - 142nd Ave NE #100

Woodinville WA 98072

Website: www.ArchitectsNW.com

P: 425-485-4900

F: 425-487-6585

Toll Free: 1-888-ARCH-100

Email: ANW@ArchitectsNW.com

To: City of Mercer Island Development Services Group / Planning Division
9611 SE 36th ST
Mercer Island, WA 98040

Client: Chris & Marie Chin
cchin128@msn.com; miuyichin@msn.com

RE: Request for Impervious Area Deviation for 8217 SE 28th ST

Dear Sir or Madam,


I hereby request an impervious area deviation to allow my clients to increase the allowable impervious area on their property from 35.00% to 39.99%, for the development of a future new SFR on their vacant lot located at 8217 SE 28th ST..

The 9718sf subject lot contains steep slopes on the western third, which will remain undisturbed. The proposed residence will be sited in the center third of the lot, avoiding the steep slopes to the west and major utilities easements serving the rest of the plat located on the east boundary of the lot. The site was heavily graded during plat development years ago. The calculated lot slope of 29.67% results from unusual topography that creates an unfortunate proximity of the lot's high and low points, resulting in an overstated calculation of lot slope. The lot slope in the proposed area of development is less than 15.00%, and therefore an impervious coverage of 40.00% should be allowed.

The subject site complies with many of the listed criteria for approval of an impervious area deviation and therefore my client is seeking this relief. The request is for 485sf additional impervious area, an increase from 35.00% to 39.99%. The proposal would not require a deviation if not for the high and low points of the lot being located in close proximity, in the steep slope areas not proposed for development.

Thank you in advance for your consideration of this request.

Sincerely,


Jeffrey deBoulet, Architect
President
Architects Northwest, Inc

3.10.17

CITY OF MERCER ISLAND DEVELOPMENT SERVICES GROUP

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



CITY USE ONLY		
PERMIT #	RECEIPT #	FEE
Date Received:		

DEVELOPMENT APPLICATION

Received By: _____

STREET ADDRESS/LOCATION 8217 SE 28TH , MERCER ISLAND WA 98040	ZONE R-9.6
COUNTY ASSESSOR PARCEL #'S 2063550050	PARCEL SIZE (SQ. FT.) 9,718 SF

PROPERTY OWNER (required) MARIE & CHRIS CHIN	ADDRESS (required) 8419 - 116TH AVE SE NEWCASTLE WA 98056	CELL/OFFICE (required) 206-898-1436 E-MAIL (required) MIUYICHIN@MSN.COM
PROJECT CONTACT NAME CORY BUCKLAND	ADDRESS 18915-142ND AVE NE SUITE 100 WOODINVILLE WA 98072	CELL/OFFICE 425-485-4900 E-MAIL CORY.BUCKLAND003@GMAIL.COM
TENANT NAME N/A	ADDRESS N/A	CELL PHONE N/A E-MAIL N/A

DECLARATION: I HEREBY STATE 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 THE INFORMATION FURNISHED BY ME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

SIGNATURE

DATE

[Handwritten Signature]

3/17/17

PROPOSED APPLICATION(S) AND CLEAR DESCRIPTION OF PROPOSAL (PLEASE USE ADDITIONAL PAPER IF NEEDED):

PLEASE SEE ATTACHED DOCUMENTS

ATTACH RESPONSE TO DECISION CRITERIA IF APPLICABLE

CHECK TYPE OF LAND USE APPROVAL REQUESTED:

APPEALS	DEVIATIONS Continued	SUBDIVISION SHORT PLAT Continued
<input type="checkbox"/> Building (+cost of file preparation)	<input checked="" type="checkbox"/> Impervious Surface (5% Lot overage)	<input type="checkbox"/> Deviation of Acreage Limitation
<input type="checkbox"/> Land use (+cost of verbatim transcript)	<input type="checkbox"/> Shoreline	<input type="checkbox"/> Short Plat Amendment
<input type="checkbox"/> Code Interpretation	<input type="checkbox"/> Wet Season Construction Moratorium	<input type="checkbox"/> Final Short Plat Approval
CRITICAL AREAS	ENVIRONMENTAL REVIEW (SEPA)	VARIANCES (Plus Hearing Examiner Fee)
<input type="checkbox"/> Determination	<input type="checkbox"/> Checklist: Single Family Residential Use	<input type="checkbox"/> Type 1**
<input type="checkbox"/> Reasonable Use Exception	<input type="checkbox"/> Checklist: Non-Single Family Residential Use	<input type="checkbox"/> Type 2***
DESIGN REVIEW	<input type="checkbox"/> Environmental Impact Statement	OTHER LAND USE
<input type="checkbox"/> Administrative Review	SHORELINE MANAGEMENT	<input type="checkbox"/> Accessory Dwelling Unit
<input type="checkbox"/> Design Review – Major	<input type="checkbox"/> Exemption	<input type="checkbox"/> Code Interpretation Request
<input type="checkbox"/> Design Review – Minor	<input type="checkbox"/> Semi-Private Recreation Tract (modification)	<input type="checkbox"/> Comprehensive Plan Amendment (CPA)
<input type="checkbox"/> Wireless Communications Facilities- 6409 Exemption	<input type="checkbox"/> Semi-Private Recreation Tract (new)	<input type="checkbox"/> Conditional Use (CUP)
<input type="checkbox"/> New Wireless Communications Facility	<input type="checkbox"/> Substantial Dev. Permit	<input type="checkbox"/> Lot Line Revision
DEVIATIONS	SUBDIVISION LONG PLAT	<input type="checkbox"/> Lot Consolidation
<input type="checkbox"/> Changes to Antenna requirements	<input type="checkbox"/> Long Plat	<input type="checkbox"/> Noise Exception
<input type="checkbox"/> Changes to Open Space	<input type="checkbox"/> Subdivision Alteration to Existing Plat	<input type="checkbox"/> Reclassification of Property (Rezoning)
<input type="checkbox"/> Fence Height	<input type="checkbox"/> Final Subdivision Review	<input type="checkbox"/> ROW Encroachment Agreement (requires separate ROW Use Permit)
<input type="checkbox"/> Critical Areas Setback	SUBDIVISION SHORT PLAT	<input type="checkbox"/> Zoning Code Text Amendment
	<input type="checkbox"/> Short Plat	

**Includes all variances of any type or purpose in all zones other than single family residential zone: B, C-O, PBZ, MF-2, MF2L, MF-2L, MF-3, TC, P)

***Includes all variances of any type or purpose in single family residential zone: R-8.4, R-9.6, R-12, R-15)

Site Development Information

Worksheet for single family residential development

Project description: _____ Address: _____

Owner Name: _____ Phone No. _____ Date _____

Signature & phone number of Individual who Completed this Worksheet _____
 (I hereby state that the information provided by me is true and correct to the best of my knowledge)

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

Large tree—conifers ≥ 6' tall, deciduous with diameter > 6".

Do you have an Accessory Dwelling Unit? _____ New ADU _____ Existing ADU _____ None _____

*This is intended as a worksheet and is not a substitute for the Mercer Island Development Regulations. Please consult the Mercer Island City Code.
 City of Mercer Island — Development Services Group 9611 S.E. 36th Street, Mercer Island, Washington 98040 — (206) 275-7605*

DEVELOPMENT INFORMATION

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 COVERAGE—On Mercer Island, the overall degree of lot slope governs total lot coverage. When calculating maximum allowable lot coverage, include all impervious surfaces, such as roof areas of primary and accessory buildings, impervious decks, patios, sidewalks, driveways and access easements. Refer to page 3 for more information about Pavers and Other Impervious Surfaces and Exemptions.

*The applicant shall note that impervious surface exemptions to lot coverage do not apply to stormwater runoff calculations or to critical areas.

The table below offers basic guidelines on lot slope and allowable lot coverage:

Lot Slope	Allowed Lot Coverage
Less than 15%	No more than 40%
15% - less than 30%	No more than 35%
30% - 50%	No more than 30%
Greater than 50%	No more than 20%

A steep slope is any slope of 40 percent or greater calculated by measuring the vertical rise over any 30-foot horizontal run.

Please refer to page 3 for materials that are exempt from lot coverage calculations per MICC 19.02.020(D)(2).

Pavers and gravel surfaces for vehicular access are **ALWAYS** considered 100% impervious.

LOT INFORMATION

LOT SLOPE

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 COVERAGE

Allowed Lot Coverage _____ % of Lot
 Gross Lot Area _____ Sq. Ft.
 Main Structure Roof Area _____ Sq. Ft.
 Accessory Building Roof Area _____ Sq. Ft.
 Impervious Deck, Patio, Walkway Area _____ Sq. Ft.
 Vehicular Use (Driveway, Access Easements, Parking) _____ Sq. Ft.
 Total Existing Impervious Surface _____ Sq. Ft.
 (Total Area Removed) (_____) Sq. Ft.
 Total New Impervious Surface Area _____ Sq. Ft.
 Total Project Impervious Surface Area (Existing plus new) _____ Sq. Ft.
 Proposed Lot Coverage _____ % of Lot

Lot Coverage equals total impervious surface area divided by the gross lot area multiplied by 100

BUILDING AREA—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 to the right.

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 4.

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.
Basement Area Excluded	() Sq. Ft.	() Sq. Ft.	() Sq. Ft.	() Sq. Ft.
TOTAL Building Area	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.

GROSS FLOOR AREA—Gross Floor Area (GFA) is the total square footage of floor area bounded by the exterior faces of a building.

The gross floor area of a single-family dwelling includes:

- The main building, including but not limited to attached accessory buildings.
- All garages and covered parking areas, and detached accessory buildings with a gross floor area over 120 square feet.
- That portion of a basement which projects above existing grade as defined and calculated in Appendix B of this development code.

Exterior decks and below existing grade areas are excluded. The amount of living space, garages and other accessory buildings on a single family lot is limited to 45% of the net lot area. Please refer to Pages 4 and 5 for details.

GROSS FLOOR AREA

Net Lot Area _____ Sq. Ft.

Net Lot Area Gross = Lot area minus ingress/egress easement

Net Lot Area x 45% equals:

Allowed Gross Floor Area _____ Sq. Ft.

Proposed Gross Floor Area _____ Sq. Ft.

Proposed % of Lot Area _____ %

BUILDING HEIGHT – All building height measurements must be taken from existing grade. Existing grade refers to ground surface as it exists at the proposed building perimeter before grading or other alterations take place.

The Average Building Elevation (ABE) is a calculated reference elevation from which the allowable building height is measured. It is a weighted-average of the mid-point elevations of the building's wall segments and is established by the following formula:

$$\frac{(\text{Mid-point elevation of individual wall segment}) \times (\text{Length of wall segment})}{(\text{Total length of wall segments})}$$

Single family new construction and additions are limited to a maximum height of 30 ft. above the ABE. The height is measured to the top of the structure. On the downhill side of a sloping lot, the building may extend to a height of 35 feet measured from existing grade to the top of the exterior wall facade supporting the roof framing, rafters, trusses, etc.; provided, the roof ridge does not exceed 30 feet in height above the average building elevation.

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

Average Building Elevation (ABE) calculations located on sheet #: _____

Allowable Building Height (ABE + 30 ft.): _____

Proposed Building Height (ft.): _____

Benchmark elevation (ft.)* : _____

Describe Benchmark location (must be undisturbed throughout project): _____

Sloping lot (Downhill side) – maximum height of top exterior wall façade above lowest existing grade (35-ft. max.): _____

ABE and allowable building height shown on elevations-plan sheet #: _____

Topo-survey accuracy attested on plan sheet #: _____

(Note- survey must attest to accuracy when proposed building height is within 2 ft. of the allowable building height)

Please see page 6 for more information about calculating Average Building Elevation (ABE):

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

IMPERVIOUS SURFACES INCLUDING PAVERS, AND OTHER PARTIAL EXEMPTIONS

The Mercer Island Unified Development Code (Section 19.02.020) contains maximum impervious surface limits for lots. The information below describes surfaces that are impervious or pervious. Refer also to the excerpts from the Code with respect to impervious surfaces including applicable definitions and impervious surface exemptions (see below).

IMPERVIOUS SURFACES INCLUDE WITHOUT LIMITATION THE FOLLOWING:	
1. Buildings:	The footprint of the building and structures including all eaves
2. Vehicular Use:	Driveways, streets, parking areas and other areas, whether constructed of gravel, pavers, pavement, concrete or other material, that can reasonably allow vehicular travel
3. Sidewalks:	Paved pedestrian walkways, sidewalks and bike paths
4. Recreation Facilities:	Decks, patios, porches, tennis courts, sport courts, pools, hot tubs, and other similar recreational facilities
5. Miscellaneous:	Any other structure or hard surface which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development, or causes water to run off the surface in greater quantities or at an increased rate of flow from present flow rate under natural conditions prior to development

EXEMPTIONS	
For purposes of lot coverage only, the following are exempted from being counted toward total impervious surface lot coverage for an individual building lot. These exemptions do not apply to stormwater runoff calculations for sizing conveyance, detention systems or to critical areas.	
1. Decks/Platforms:	Decks and platforms constructed with gaps measuring 1/8 inch or greater between the boards, which provide free drainage between boards as determined by the Code Official shall be exempt from the calculation of maximum impervious surface limits so long as the surface below the deck or platform is not impervious.
2. Pavers*:	Pavers installed with a slope of five percent (5%) or less and covering no more than ten percent (10%) of the total lot area will be calculated as only seventy-five percent (75%) impervious. Provided, however, that all pavers placed in driveways, private streets, access easements, parking areas and critical areas shall be considered 100% impervious. "Pavers" are defined as pervious pavers, per MICC 19.16.010 (P) and Washington State Stormwater Management Manual (Updated version available at http://www.ecy.wa.gov/programs/wq/stormwater/manual.html).
3. Patios/Terraces:	Uncovered patios/terraces constructed of pavers shall be exempt from the maximum impervious surface limits.
4. Pedestrian oriented walkways:	Uncovered pedestrian walkways constructed with gravel or pavers not to exceed 60 inches in width shall be exempt from the maximum impervious surface limits.
5. Rockeries/Retaining Walls:	Rockeries and retaining walls shall be exempt from the maximum impervious surface limits
* Pavers: A paver or pavement that allows rain and/or surface water runoff to pass through it and reduce runoff from a site and surrounding areas. Pavers include porous pavement, porous pavers, and permeable interlocking concrete pavement as described in the Washington State Department of Ecology Stormwater Management Manual, as now exists or hereinafter amended.	

IMPERVIOUS VS. PERVIOUS	
<u>Impervious</u>	<u>Pervious</u>
<u>Decks and platforms</u> constructed with no gaps, gaps less than 1/8 inch between boards, or when the surface below the deck or platform is considered impervious.	<u>Decks and platforms</u> constructed with gaps 1/8 inch or greater between boards to provide free drainage provided that the surface below the deck or platform is not impervious.
<u>Pavers</u> placed in driveways, private streets, access easements, parking areas and critical areas are considered 100% impervious.	* <u>Pavers</u> used for uncovered patios or terraces are exempt from the maximum impervious surface limits. (See definition of "pavers" in previous section.)
Uncovered <u>pedestrian walkways</u> constructed with gravel or pavers exceeding 60 inches in width or in critical areas.	Uncovered <u>pedestrian walkways</u> constructed with gravel or pavers not exceeding 60 inches in width.
Access easements, driveways and parking areas	Rockeries and retaining walls.
<i>Note: the impervious surface exemptions contained in MICC 19.02.020(D)(2) apply only to impervious surface lot coverage and do not apply to stormwater runoff calculations (conveyance and detention). NOTE: These exceptions do not apply in critical areas.</i>	

APPENDIX B — 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

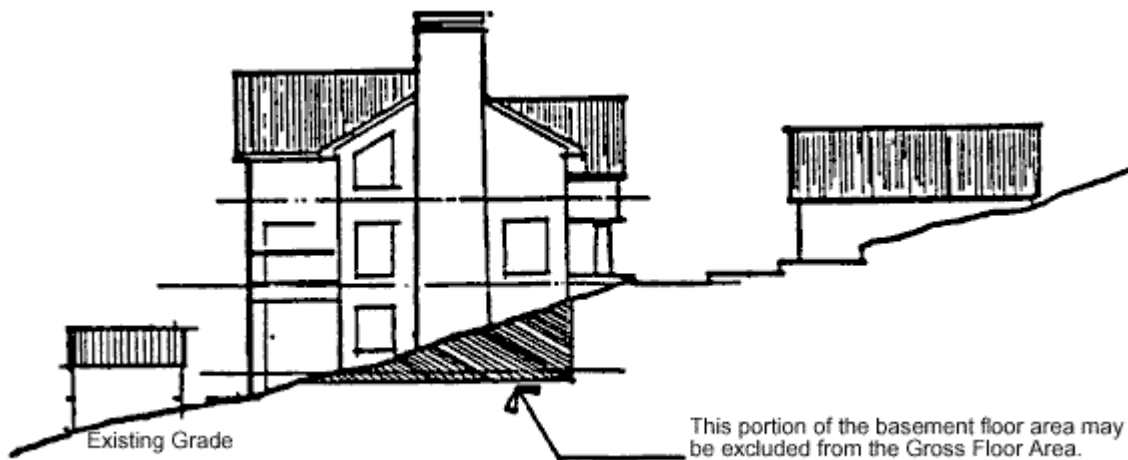
$$\frac{\sum (\text{Wall Segment Coverage} \times \text{Wall Segment Length})}{\text{Total of all Wall Segment lengths}}$$

Where the terms are defined as follows:

Total Basement Area: The total amount of all basement floor area.

Wall Segment Coverage: The portion of an exterior wall below existing grade. It is expressed as a percentage. Refer to example below.

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:

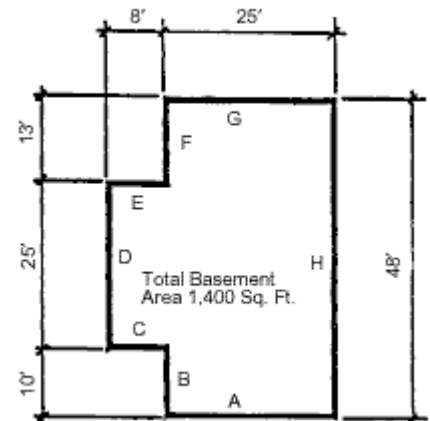
- A topographic map of the existing grades.
- Building plans showing dimensions of all exterior wall segments and floor areas.
- Building elevations showing the location of existing grades in relation to basement level.

Step One

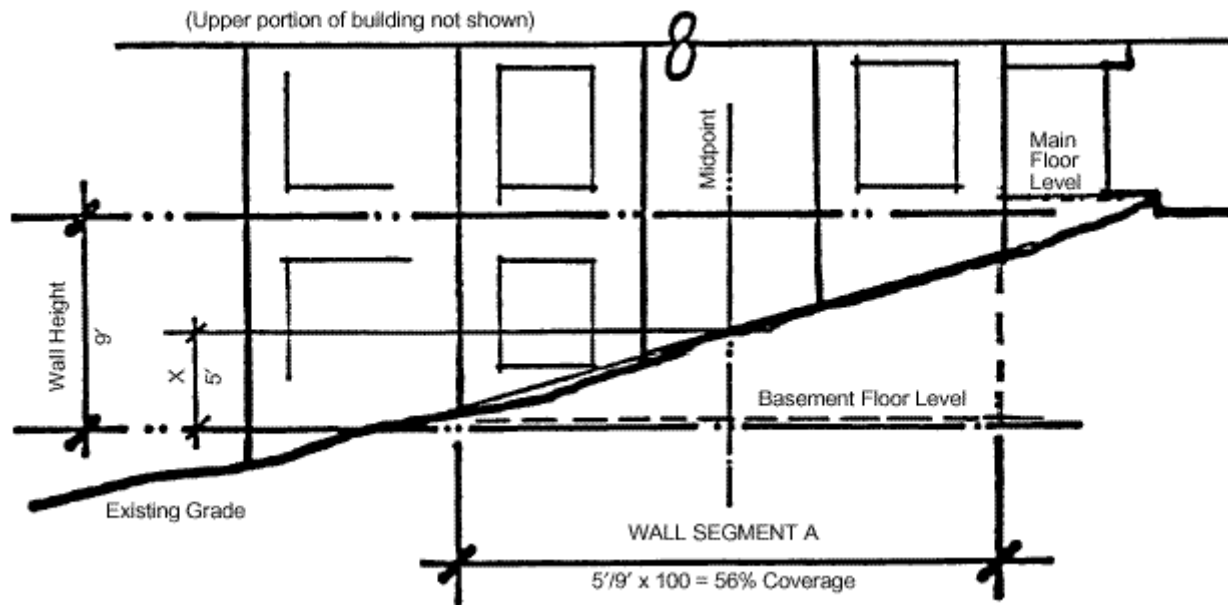
Determine the number and lengths of the Wall Segments.

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 grade. In other cases where the existing contours are complex, an averaging system shall be used. Refer to illustration.



APPENDIX B (Continued)



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'
C	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

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

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

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

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 35 feet measured from existing 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 grade, prior to any development activity, 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

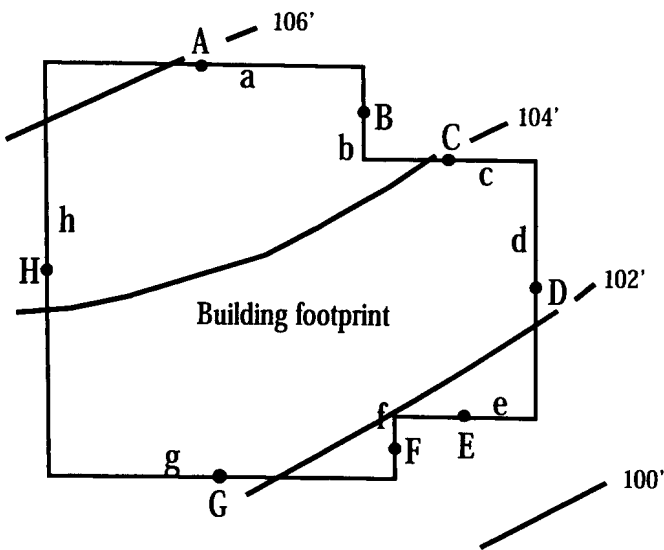
AVERAGE BUILDING ELEVATION FORMULA:

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

—OR—

$$\frac{(A \times a) + (B \times b) + (C \times c) + (D \times d) + (E \times e) + (F \times f) + (G \times g) + (H \times h)}{a + b + c + d + e + f + g + h}$$

WHERE: A,B,C,D... = 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:

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

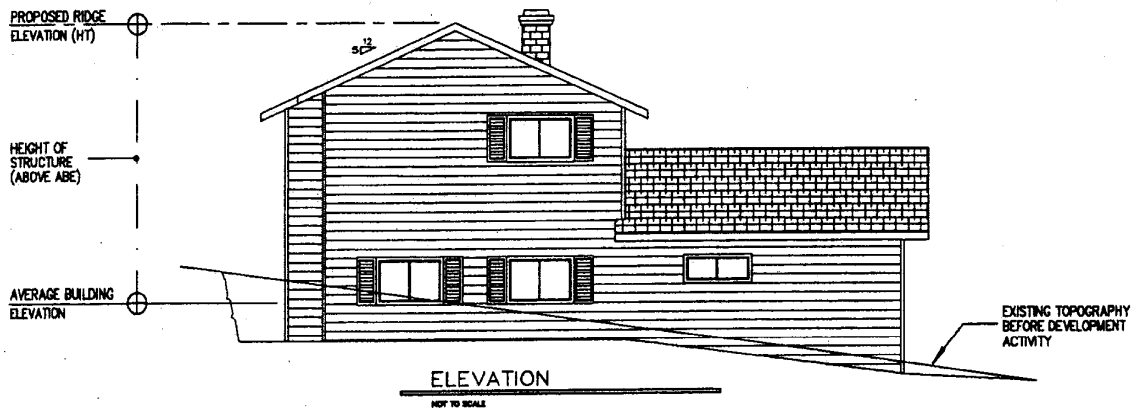
$$\frac{18023}{174} = 103.6' \text{ Average Building Elevation (ABE)}$$

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

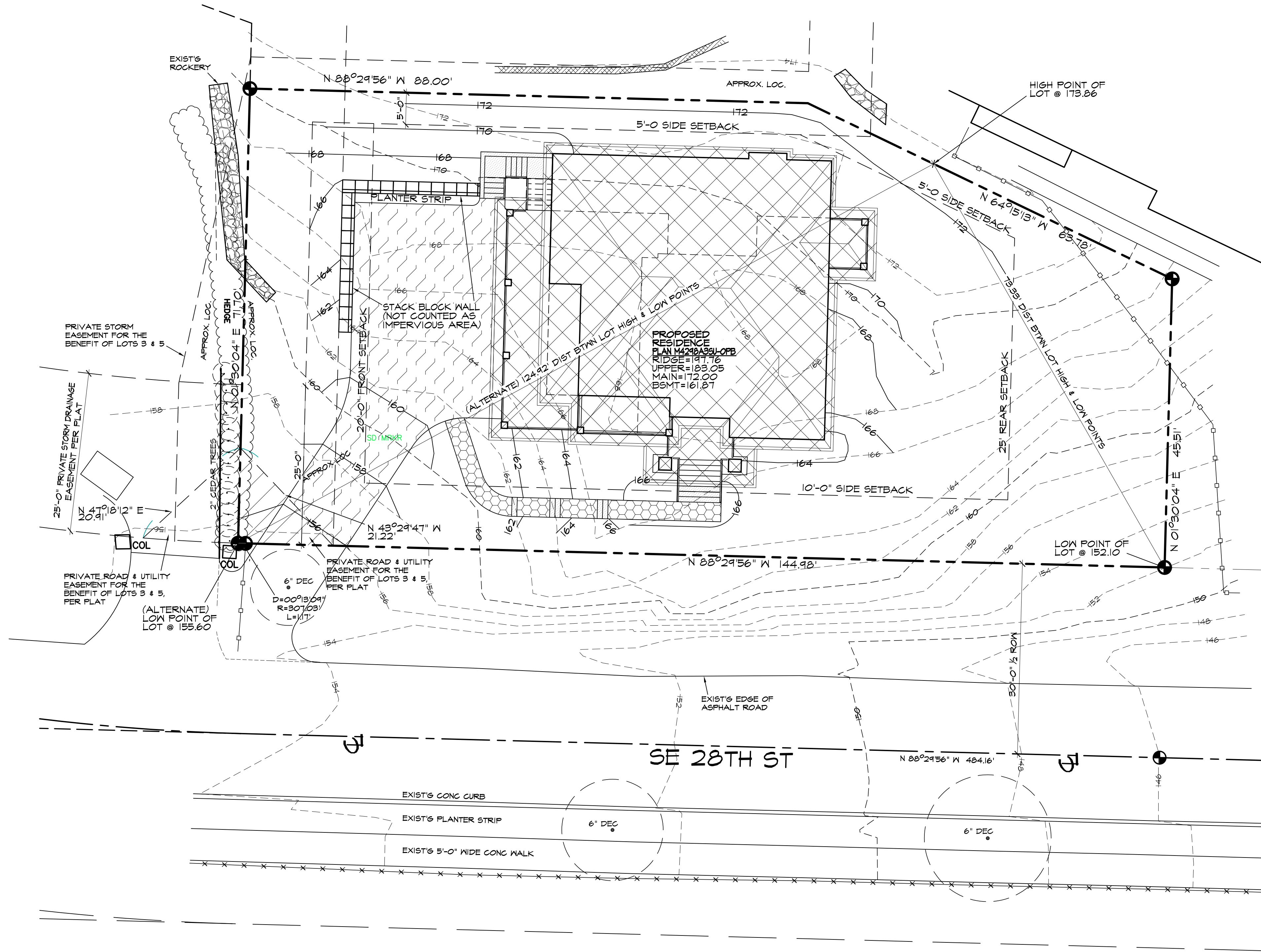
BEFORE SUBMITTING YOUR CONSTRUCTION DRAWINGS, CHECK TO SEE THAT YOU HAVE PROVIDED THE INFORMATION BELOW.

- 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 6.
- Indicate on an elevation drawing where the average building elevation strikes the building and the proposed ridge elevation (see below for example).
- 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.
- Sections of the structure that are below the existing grade and do not have a wall that extends above the existing grade, are not used in the ABE calculation.
- 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 5.

CROSS-SECTION REPRESENTATION OF ABE

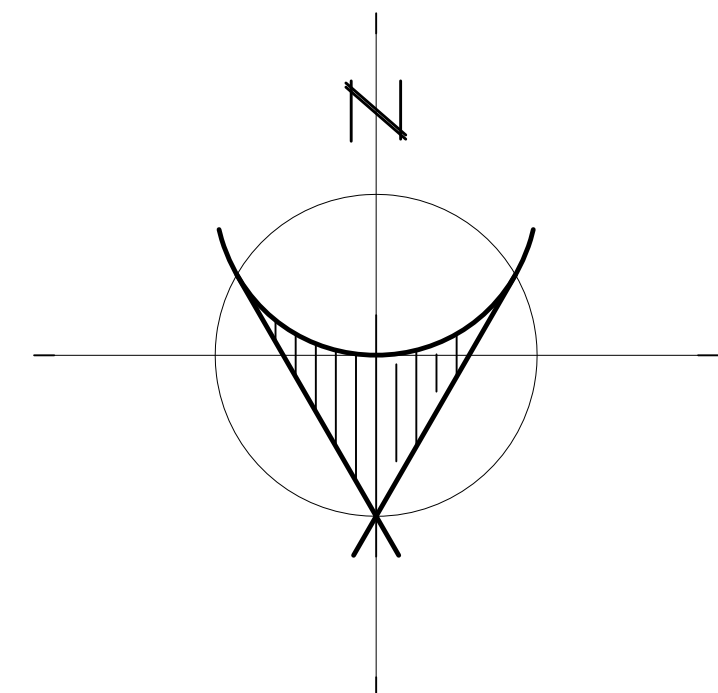
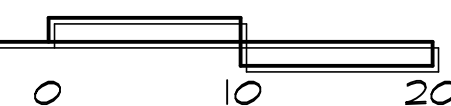


THIS PAGE INTENTIONALLY LEFT BLANK



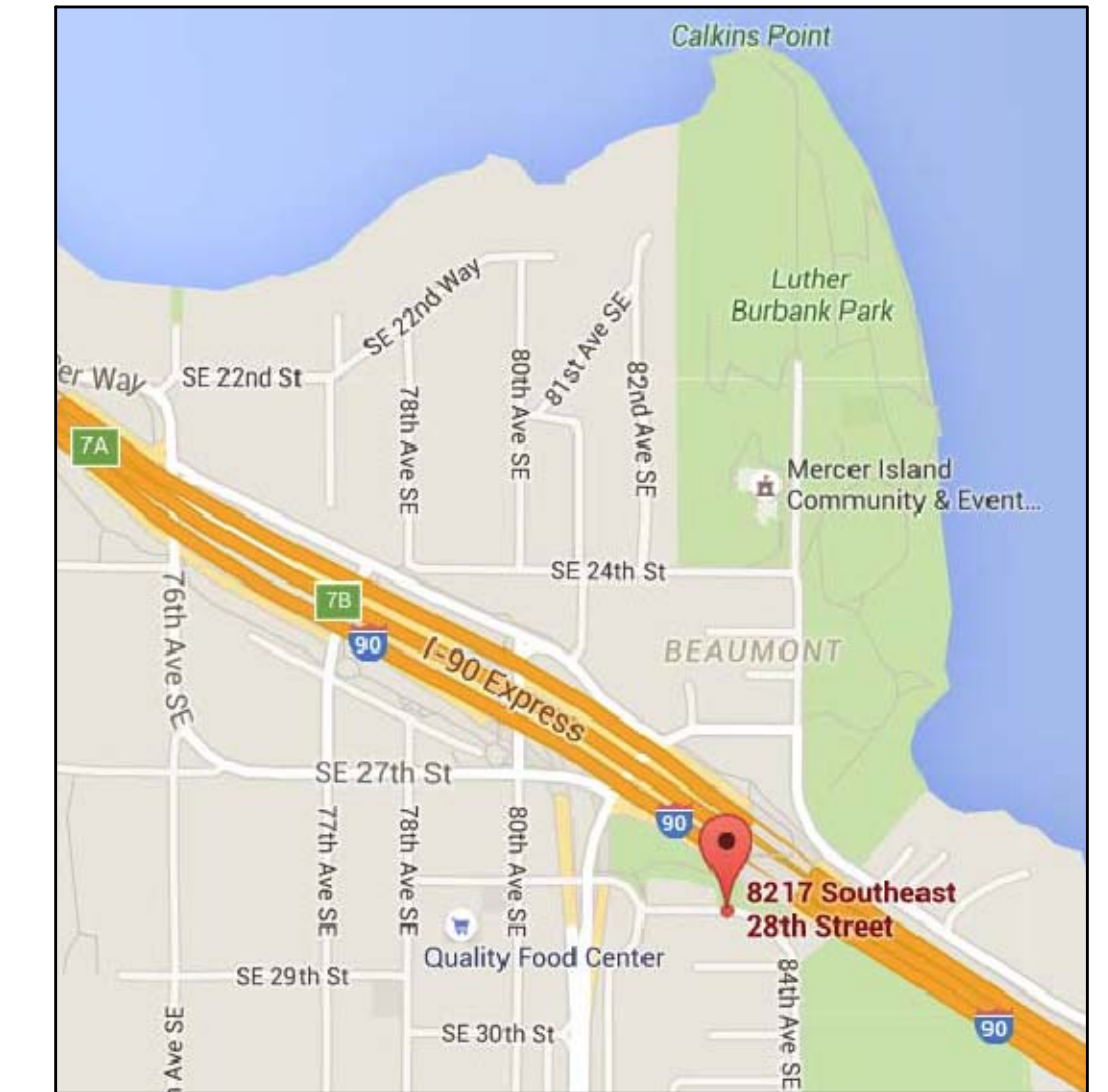
SITE PLAN FOR FOR IMPERVIOUS AREA DEVIATION

SCALE : 1" = 10'-0"



- Legend for hatching patterns: ECO-STONE WALKS & PATIOS, CONC STAIRS, ROOF & GUTTERS, VEHICULAR USE, EASEMENTS.

VICINITY MAP



ARCHITECT
JEFFREY DeROULET / ARCHITECTS NW
18915 - 142ND AVE NE / SUITE 100
WOODINVILLE, WA 98072

OWNER
MARIE & CHRIS CHIN
8419 - 116TH AVE SE
NEWCASTLE, WA 98056

STRUCT ENGINEER
SCOTT RATTERMAN
ECLIPSE ENGINEERING INC
421 W RIVERSIDE AVE STE 421
SPOKANE, WA 99201

PARCEL NUMBER
2063550050

SITE ADDRESS
8217 SE 28TH
MERCER ISLAND WA 98040

ZONING
R-9.6
MIN FRONT SETBACK: 20'-0"
MIN REAR SETBACK: 25'-0"
MIN SIDE SETBACK: 5'-0"
MIN SUM OF 15'-0"
MIN SETBACK FROM ROW: 10'-0"
MAX BLDG HEIGHT: 30'-0"
MAX IMPERVIOUS COV'G: 40%
MAX FLR AREA RATIO (FAR): 45%

LOT SLOPE
HIGHEST ELEV POINT OF LOT: 173.86
LOWEST ELEV POINT OF LOT: 152.10
ELEVATION DIFFERENCE: 21.76
HORIZONTAL DISTANCE BTWN HIGH AND LOW POINTS: 73.33'
LOT SLOPE: 29.67%

LOT COV'G
(LOT COV'G IS IMPERVIOUS AREA)
GROSS LOT AREA: 9,718 SF
ACCESS ESMT AREA: 113 SF
ROOF W/ GUTTERS: 2,689 SF
CONC STAIRS AREA: 85 SF
VEHICULAR USE AREA: 999 SF
TOTAL IMPERVIOUS AREA: 3,886 SF
% OF LOT AREA: =39.99%
ALLOWED IMPERVIOUS AREA: =3,401 SF
ALLOWED % OF LOT AREA: =35.00%

(ALT) LOT SLOPE
HIGHEST ELEV POINT OF LOT: 173.86
LOWEST ELEV POINT OF LOT: 155.60
ELEVATION DIFFERENCE: 18.26
HORIZONTAL DISTANCE BTWN HIGH AND LOW POINTS: 124.92'
LOT SLOPE: 14.62%

(40% LOT COV'G ALLOWED)



PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST... THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1976...

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
PH: 509 421 7731
EM: JDE@ARCHITECTSNW.COM

CHIN RESIDENCE
8217 SE 28TH ST, MERCER ISLAND 98040
PLAN M4298A35U-OPB

DESIGNED BY: JdeR DATE: 03/10/17

DRAWN BY: CMB DATE: 03/10/17

PROJECT MANAGER: JdeR DATE: 03/10/17

LATERAL BY: ESE DATE: 3/10/17

ANW WOODINVILLE OFFICE
JOB NUMBER: 160024

LEGAL DESCRIPTION

LOT 5 OF DONAHUE SUBDIVISION, AS PER PLAT RECORDED IN VOLUME 185 OF PLATS, PAGES 26 THROUGH 28, RECORDS OF KING COUNTY AUDITOR;

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

NAD 83(2011) WASHINGTON NORTH COORDINATE SYSTEM PER GPS OBSERVATIONS, THE CENTERLINE OF 84TH AVE SE BEARS N 01°16'29" E BETWEEN FOUND MONUMENTS.

REFERENCES

- DONAHUE SUBDIVISION, RECORDED IN VOLUME 185 OF PLATS, PAGES 26 THROUGH 28, RECORDS OF KING COUNTY AUDITOR

VERTICAL DATUM

NAVD 88, PER GPS OBSERVATION

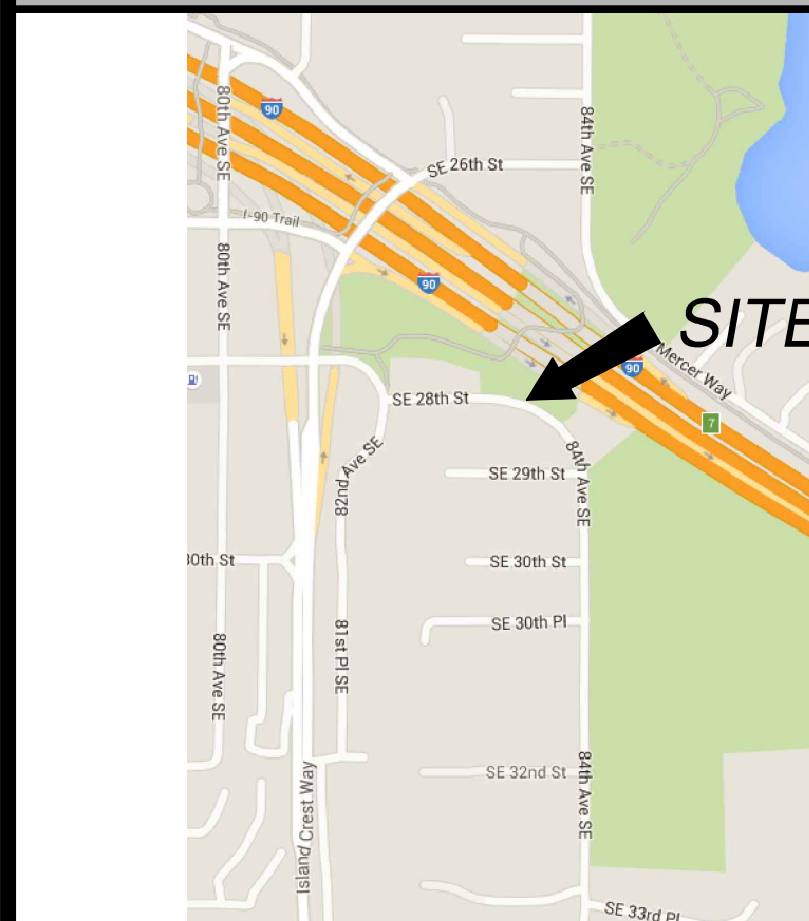
SURVEYOR'S NOTES

- THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN FEBRUARY OF 2016. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
- BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. DIMENSIONS ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. **AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.**
- SUBJECT PROPERTY TAX PARCEL NO. 2063550050
- SUBJECT PROPERTY AREA PER THIS SURVEY IS 9,718± S.F. (0.22± ACRES)
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
- INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090.

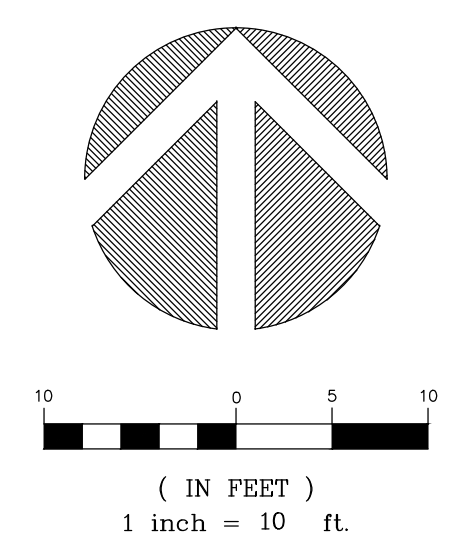
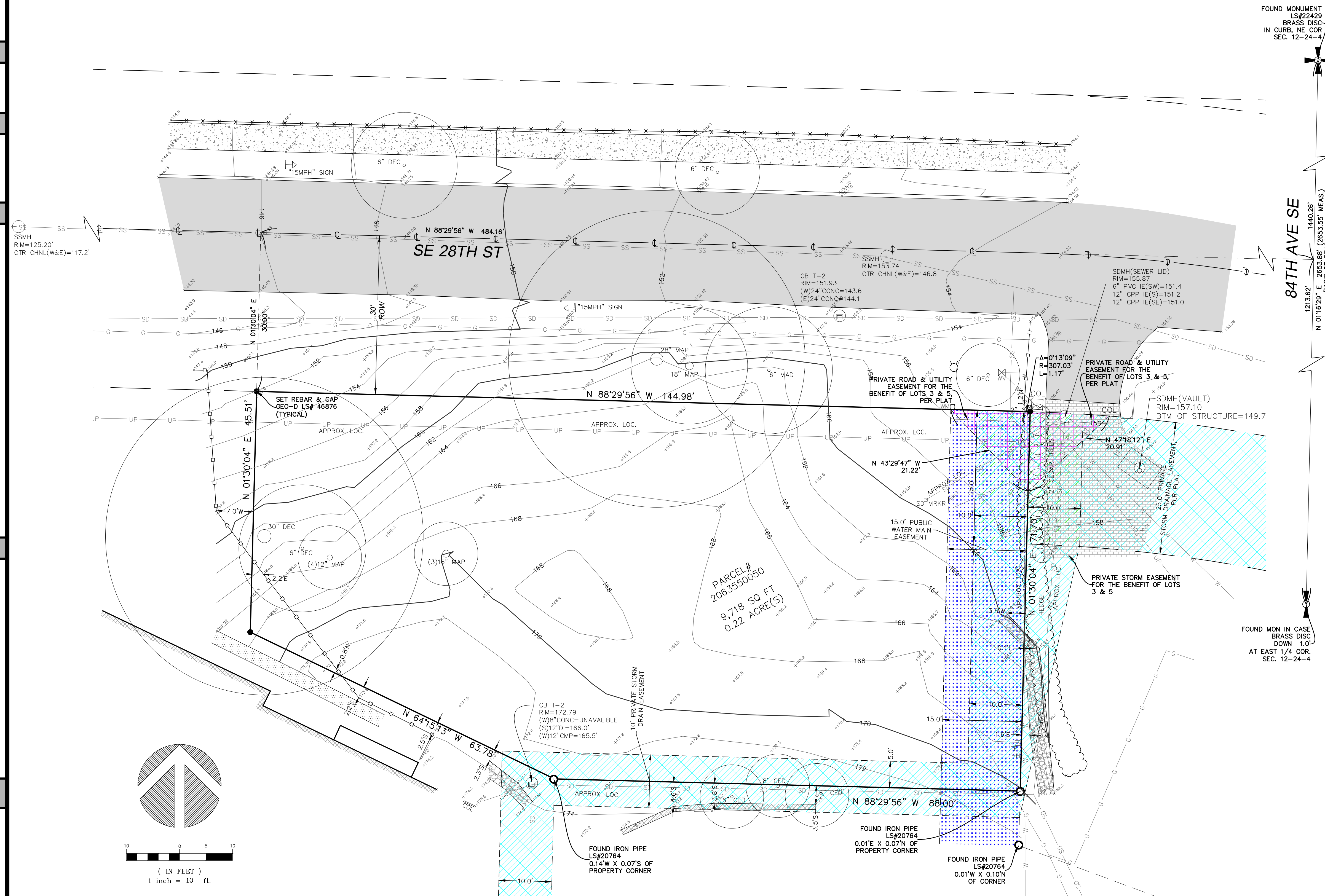
LEGEND

	ASPHALT SURFACE		WATER METER
	BUILDING		WATER VALVE
	CENTERLINE ROW		POWER (UNDERGROUND)
	CONCRETE SURFACE		WATER LINE
	CONCRETE WALL		STORM DRAIN LINE
	CONTOUR (MAJOR)		GAS LINE
	CONTOUR (MINOR)		CATCH BASIN (TYPE 2)
	FENCE LINE (WOOD)		GRAVEL SURFACE
	FIRE HYDRANT		
	HEDGE ROW		
	IRON PIPE (FOUND)		
	REBAR & CAP (SET, LS# 46876)		
	ROCKERY		
	SEWER LINE		
	SEWER MAINTENANCE		
	SIGN (AS NOTED)		
	TREE (AS NOTED)		

VICINITY MAP
N.T.S.



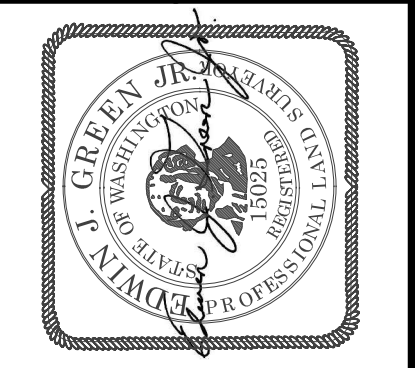
TOPOGRAPHIC & BOUNDARY SURVEY



measure success

TOPOGRAPHIC & BOUNDARY SURVEY
SE 1/4 OF NE 1/4 SEC 12, TWP. 24N., RGE 04E., W.M.
PARCEL NO. 2063550050

CHIN PROPERTY
8217 SE 28TH ST
MERCER ISLAND, WA 98040



Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	160087
DATE:	2/21/16
DRAFTED BY:	AB
CHECKED BY:	MAB/TGC
SCALE:	1" = 10'
REVISION HISTORY	
3/8/16	ADDTL TOPO
12/8/16	CORRECTION
SHEET NUMBER	
1 OF 1	