

This guide is being provided to offer assistance when applying for a permit to construct a retaining wall. A retaining wall is defined as any retaining structure over 0.6m in exposed height, at any point along its length.

The following items are to be considered prior to applying for permits or constructing retaining walls on property in Maple Ridge.

- 1) Height and siting of the proposed retaining wall must comply with the current edition of the Maple Ridge Zoning Bylaw as amended. Information may be obtained from the Planning Department 604-467-7341 or on the city's web site under "bylaws".
- 2) If your property is located within a designated floodplain additional engineering will be required to resist flooding and the impact of surface water flows on adjacent properties.
- 3) If a property is located within the Fraser River Escarpment area, additional construction, engineering and covenants<sup>(4)</sup> may apply depending on the properties location. The following link will provide you with more specific information around this area ([Fraser River Escarpment Policies Summary - Building Permit Requirements](#)). The Fraser River escarpment area is located between; the Fraser River and North to 124<sup>th</sup> Avenue and between 207<sup>th</sup> Street and 224<sup>th</sup> Street.
- 4) For lots that have a geotechnical covenant registered on title, any proposed retaining must first be reviewed against these covenants to ensure proposed locations and methods of construction comply with requirements contained within these covenants.
- 5) For lots located adjacent to slopes a geotechnical engineer is to be consulted to ensure the retaining walls location will not affect or be affected by slopes. See Sloping Site Bulletin 2012-02.
- 6) For lots that have streams, ponds, trees, etc located on or adjacent to them, contact the Environmental section of the City's Planning Department for setbacks, habitat protection or repair.
- 7) A compliance letter must be submitted prior to permit issuance for any lots that have a septic system to ensure the location of any retaining walls will not impact the function of the septic system. This compliance must be obtained and verified in writing by an Authorized Person acceptable to the Municipality. For information on Registered Onsite Wastewater Practitioners, please contact the Applied Science Technologists & Technicians of BC at 604-585-2788 or visit their website at <http://owrp.asttbc.org>. The Association of Professional Engineers and Geoscientists currently have a searchable directory of their members on their web site at <http://www.eg.bc.ca>.

**Once the above mentioned items have been considered the following information is required in order to apply for a retaining wall permit:**

- 2 site plans (in metric) showing wall location(s), length of wall, top of wall and bottom of wall elevations at various points along its length (this must include the highest point along the wall to ensure compliance with the city's Zoning Bylaw), distance between consecutive tiers of walls, distance from any property lines, section through wall showing construction and drainage details including tieback systems and the location of any storm water/rainwater infiltration systems.
- Walls over 1.0m in height or tiered walls with less than 3.0m of separation between walls, and walls supporting the house foundation will require 2 copies of a sealed wall design supplied by a structural and/or geotechnical engineer plus copies of liability insurance and Schedule B.

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"This information is provided for convenience only and is not a substitution of applicable City Bylaws, Provincial or Federal Codes or Laws. You must satisfy yourself that any existing or proposed construction or other works complies with such Bylaws, Codes or other laws."

- For walls under 1.0m that are located on properties with a geotechnical covenant registered on title or on properties that may have geotechnical concerns a geotechnical engineer is required to comment on the impact of the walls on the site.
- For new subdivisions, a revision to the comprehensive lot grading plan may be required if the wall is to be constructed between lots or impacts the drainage or stability of the lot.
- A separate retaining wall permit is not required for walls that have been identified on the site plan of a building permit application provided wall design information is incorporated into the permit submission package.
- Revisions to the building permit are permitted for minor relocations or deletions only. Walls not originally identified on the site plan of the building permit application will require a separate retaining wall permit.

## DESIGN INFORMATION

- Walls are only permitted to be a maximum of 1.2m in height and must be under the retaining wall grade line as defined in the City's [Zoning Bylaw](#) subsection 403.(9).
- Proper drainage must be provided through drain tile behind all walls and must be connected or directed to the on lot drainage system.
- The use of cast in place concrete or concrete block type construction is preferred and in certain cases (i.e. accessibility issues and foundation support) the only type of wall construction permitted. Please see specific design criteria for wood walls.
- Unless previously approved on the lot grading plan or with written approval from the City of Maple Ridge Engineering Department, walls shall not be permitted to be installed on, over, under, adjacent to or within any easements or Rights of Ways that the City of Maple Ridge is a party to.
- Under no circumstance will the tie back structures for a retaining wall be permitted to encroach into easements, right of ways or cross over property lines. Wall locations are to be checked under a grading inspection to ensure correct placement on a lot as dictated by the City's Zoning and Building Bylaws, the lot grading plan or a Building Inspector.
- Boulder walls will not be permitted to be constructed between lots unless it can be demonstrated that the construction and/or location will not negatively impact the adjoining lot(s) and the boulders are installed on the low side lot.
- Guard rails will be required adjacent to walking surfaces and may be required elsewhere on the property. If unsure this may be determined by a site inspection with a building inspector.
- A survey will be required when walls are located adjacent to property lines or covenant boundaries.
- Please see the attached sample plans and site plan.

### Wood Walls:

- Wood retaining walls are only permitted up to 0.6m high for landscape purposes,
- Wood retaining walls are not permitted any closer to property lines than their height plus 600mm,
- Wood walls must be treated in accordance with the CSA Standard CAN/CSA-080.1 (UC4.1, "Specification of Treated Wood," as referenced in the current edition of the BC Building Code,
- Wood walls are not permitted to be installed as developer walls,
- Wood walls are not permitted to support driveways, walkways, sidewalks or any other method used to provide or gain access to or from a dwelling unit, suite or accessory structure,
- The minimum permitted size for wood used in retaining walls must be 150mm x 150mm (6" x 6") actual dimension,

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- Wood used for window wells may be reduced in size to 100mm x 150mm (4"x6") minimum actual dimension but must meet the above pressure treatment standard,
- A certificate of treatment will be required on site prior to sign off on retaining wall permits. Should the retaining walls be included as part of the main dwelling permit then this certification must be provided prior to the issuance of a provisional occupancy and/or final occupancy.

**NOTE: The use of wood retaining walls in the support of ground that is critical to the support of a building, other structures or land critical to the property is prohibited.**

The following documents will provide the necessary information to apply for a building permit. These documents are available online at [www.mapleridge.ca/184/Building](http://www.mapleridge.ca/184/Building) or at the Building Department front counter:

- Residential Building Permit Application (<http://www.mapleridge.ca/190/Application-Forms>)
- Owners Acknowledgement of Responsibility – Simple Buildings ([Owners Acknowledgement of Responsibility - Simple Buildings](#))
- Letter of Authorization – General for non-owner applicants ([Letter of Authorization - General](#))

**NOTE:** You will be required to have a legal survey certificate on site when calling for inspections on retaining walls being located adjacent to property lines or where covenants restrict the location of construction on a property. This survey must be obtained from a BC Land Surveyor. If the property is one acre or more this survey may not be required. Your drawings will indicate this requirement.

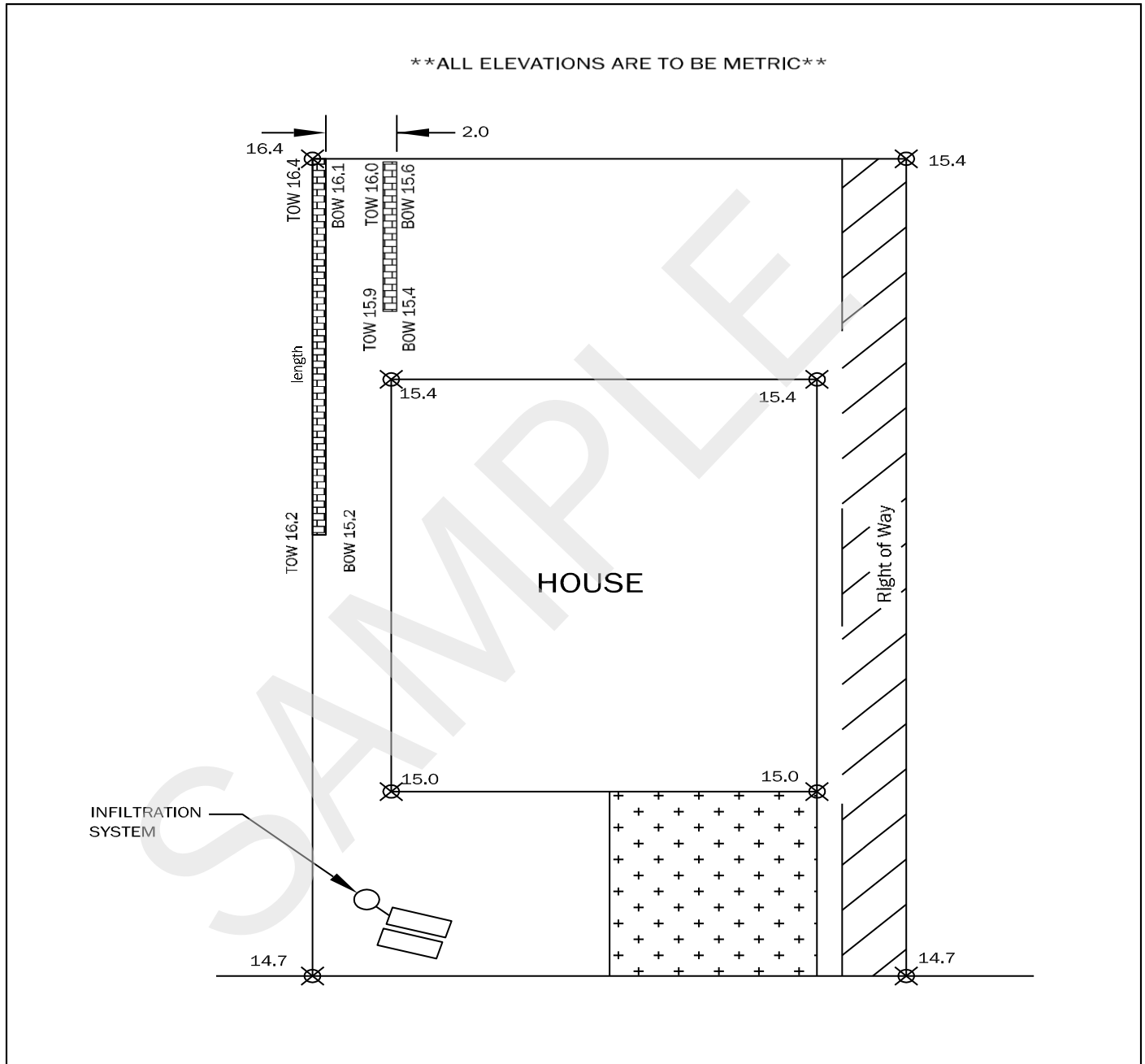
**NOTE:** Retaining walls installed to retain a property – outside of boulder or rock retaining systems - are to be constructed entirely within the property they support. Ownership and maintenance are the sole responsibility of the property owner on which lot the walls are constructed.

**Note:** The Restrictive Covenant(s) is registered on the Title of the **property**, not the owner and will remain registered with the property.

- (1) The Restrictive Covenant(s) must be registered with the Land Title Office. Contact a Development Services Technician in the Building Department at 604-467-7311 to obtain a **sample** covenant that may be taken to a lawyer or notary for execution.



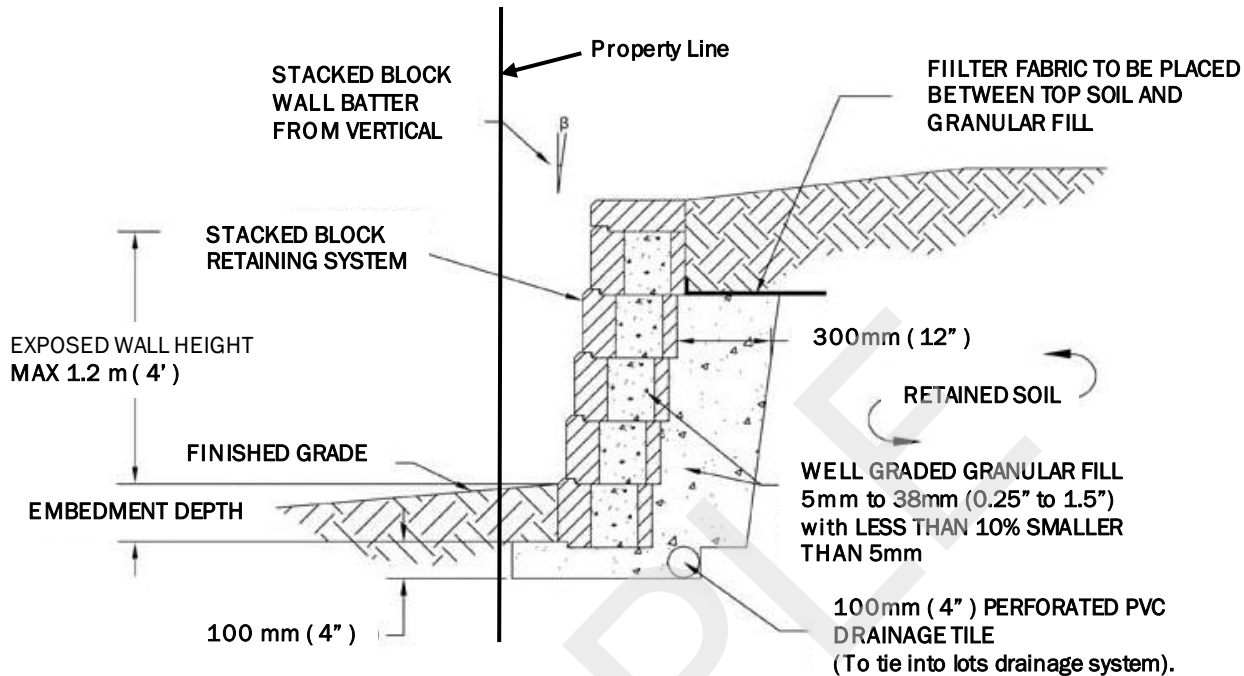
### Sample Site Plan



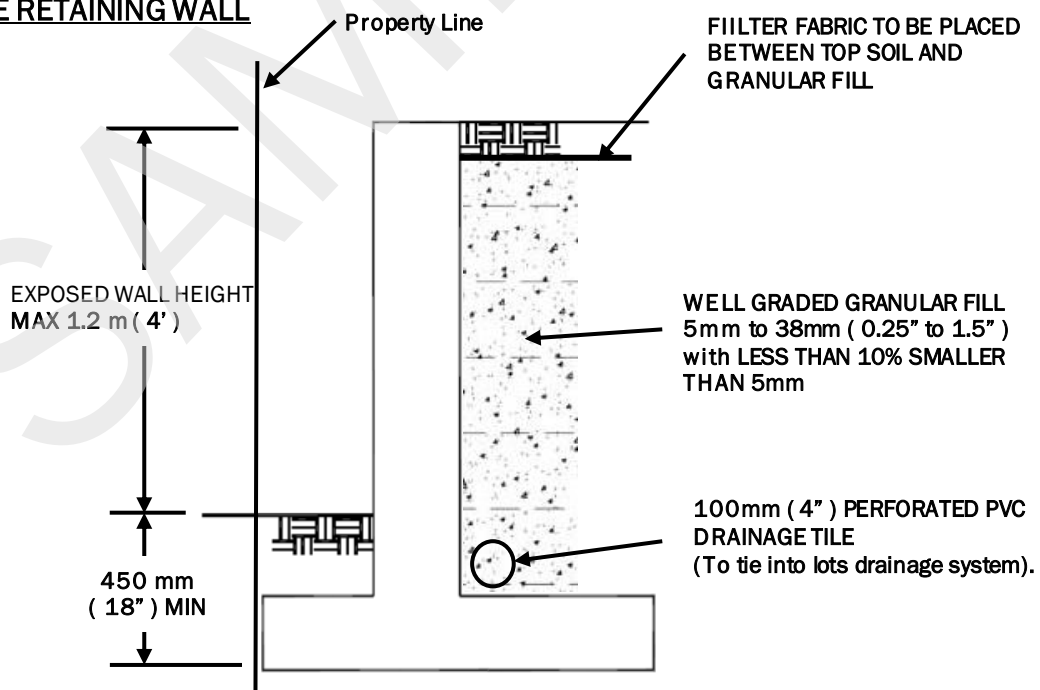
 SCALE: NTS	SAMPLE RETAINING WALL SITE PLAN		 MAPLE RIDGE British Columbia	
	CITY OF MAPLE RIDGE BUILDING DEPARTMENT			
	DRAWN BY:	DATE:	FILE #:	



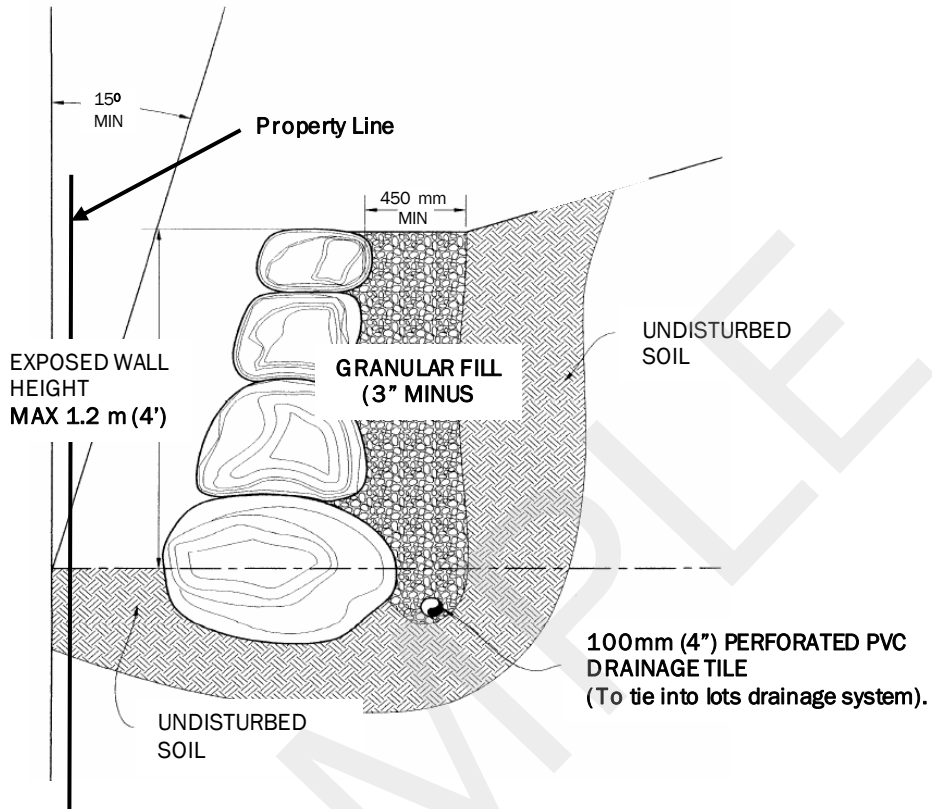
## STACKED CONCRETE BLOCK RETAINING SYSTEMS: ESC Plan & Schedules



## CAST IN PLACE RETAINING WALL



## BOULDER STACK RETAINING SYSTEM



## WOOD RETAINING SYSTEM

