



SITING, FORM & CHARACTER

WEST VANCOUVER HOUSING STUDY



REGULATORY APPROACHES TO ADVANCE SITING FORM & CHARACTER

JUNE 2014

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1

INTRODUCTION AND BACKGROUND



PURPOSE

In the fall of 2013, the District of West Vancouver commissioned CitySpaces Consulting to complete a study of the issues involved with new single detached house construction in established neighbourhoods below the highway. While this issue is not unique to West Vancouver, and has been discussed before, this latest study is intended respond to ongoing community comments about the ensuing “bulk” or larger scale of new homes compared to older and established houses. As the name might imply, the *Siting, Form, and Character* study seeks to specifically explore how siting and form act as core elements that, in turn, directly contributes to what resident's see as neighbourhood character.

This report concludes the second stage of the *Siting, Form and Character* study. It builds on the work of the earlier Discussion Paper released through stage one and is intended to point to potential modifications to the District's current Zoning Bylaw.

It is acknowledged that new housing construction in established neighborhoods is a fluid issue; in that it is tied to one's perception at a given point in time. As a result, a set of guiding objectives were established early in the process to serve as reference points, against which the study's outcomes could be compared to assess overall performance in addressing the community's concerns.

Key guiding objectives of this study are to:

- Reduce the perceived bulk of new houses, especially from neighbouring (adjacent) properties;
- Ensure sensitive siting of new construction, relative to existing development;
- Reduce development impacts to the existing landscape;
- Limit changes to the overall existing grading of a site; and
- Simplify the regulations and language to be more accessible to community members.

Overall, these objectives highlight the desire that new construction be respectful in their siting and form, designing *with* the land instead of proposing significant site alterations. They also underscore the interest in providing clarity and strengthening the intuitive nature of the District's zoning regulations.

Before discussing the proposed regulatory measures that might address the key objectives, this report first outlines in more detail the community's messages heard to-date.

A HOUSING DISCUSSION PAPER

This *Siting, Form and Character* study originally stemmed from the community consultation process on the “Community Dialogue on Neighbourhood Character and Housing” under taken in 2008. As well, it reflects the District’s past extensive amendments to its Zoning Bylaw, in order to address the issues related to new house construction.

In the fall of 2013, the first phase of this study included the drafting of a Discussion Paper on siting, form and character. The Discussion paper was shared with District Council and the wider community, serving as a basis for an informed understanding of:

- The context and the issues facing the community related to new, single detached replacement housing;
- What other municipal best practices exist in addressing similar issues (see case studies below and on adjacent page); and
- The potential tools for mitigation and development of best practices.

As part of the work in developing the Discussion Paper, Staff and Stakeholder sessions were undertaken to flesh out the issues. From the Discussion Paper four key issues were verified:

- Bulk, Scale & Compatibility – of new replacement houses in an established neighbourhood context;
- Lengthy and Disruptive Construction Processes;
- Site Intervention – how the land is altered as part of the construction process; and
- Landscape Character – preservation of trees & natural vegetation.

With the Discussion Paper prepared, the District facilitated resident participation in a “West Vancouver Housing and Neighbourhoods Fair” on Monday, February 24 and Saturday, March 1, 2014 and stakeholder involvement in a technical workshop in May.

CASE STUDY | CITY OF COQUITLAM

Concern: Large houses being constructed next to bungalows, and the potential impact of these homes on established neighbourhoods.

Approach to Addressing Concern:

- “Large house” bylaw, reducing the bulk and scale of replacement houses and to increase building articulation.
- Intensive Residential Development Permit Areas for duplexes, tri-plexes & four-plexes.
- Wall area relaxations for sloped sites.
- Discretionary provisions for staff review.
- Consistent, city-wide design guidelines.

CASE STUDY | CITY OF KELOWNA

Concern: Quality development on steep slopes in relation to newer subdivisions and their impact on the natural environment, the physical terrain, and views.

Approach to Addressing Concern (new development/ not infill):

- Requires low density hillside development.
- Introduced site-specific design flexibility.
- Introduced subdivision layout and lot size determination occurs with the development permit process, with staff approval of grading plan.
- Introduced Development Permit Guidelines for hillsides.

CASE STUDY | CORPORATION OF DELTA

Concern: Smaller houses are gradually being demolished and replaced by larger homes, and larger lots are being subdivided to provide higher density housing, creating concern of “box like structures”.

Approach to Addressing Concern:

- Maximum house size of 3,552 sq ft.
- Introduced North Delta Development Permit Area and design guidelines to complement existing character, addressing building design, massing, setbacks, and landscaping.
- Discretionary provisions for staff review.

CASE STUDY | CITY OF VANCOUVER

Concern: Impact of bulk and size of new houses in mature neighbourhoods.

Approach to Addressing Concern:

- Discretionary provisions for staff review.
- Defined outright uses and conditional uses (i.e. infill and laneway homes), requiring approval of the City’s Development Permit Board or the Director of Planning.



HOUSING DISCUSSIONS

The Housing and Neighbourhoods Fair provided an opportunity for the community to learn about and provide input on a series of West Vancouver initiatives related to housing, namely, Coach Houses, Purpose-Built Rental Housing, and Heritage Conservation. Relevant to this report, a fourth aspect of the Fair – the housing bulk component related to siting form and character - was also included.

During the engagement process, industry stakeholders - architects, designers and builders of single detached housing - were consulted to consider their perspective in development of replacement housing. As this was the second Stakeholder Workshop, it was focused on a review of the public's comment from the Housing and Neighbourhoods Fair, gaining insights into their interpretation of the District's zoning, new housing construction challenges, and an outline and discussion of potential regulatory options.

THE HOUSING AND NEIGHBOURHOODS FAIR

For the Fair, public consultation included an Open House format with a series of stations each with boards and information on the subject area. For the *Siting, Form and Character* station, 3 boards were provided identifying the context and the issues, case study information from four comparable municipalities and tools and questions for consideration.

A feedback form was also on hand for people to fill out or send in until March 31, 2104. The questions posed provided an opportunity for the public to comment on their relative concerns on the issues, rate some potential approaches to addressing the issues and provide general input.

A couple of hundred people attended over the course of the two days of the event. Approximately 60 people filled in the feedback forms.

STAKEHOLDER SESSION

The Stakeholder Session was attended by six architects, designers and builders of replacement houses currently working in the community. The workshop format included presentations and discussions over the course of the 2.5 hour workshop.

WHAT WE HEARD

HOUSING AND NEIGHBOURHOODS FAIR

The following outlines some of the general comments we heard, as well as the number of responses to each of the questions.

General comments included:

- It is not just about size but also about separation and articulation of buildings
- Need to preserve existing landscape (on and off site)
- Consideration should be given to incentives for character and for renovating instead of building new
- Concern was expressed over the lack of sustainability with new/replacement house construction - existing house building materials sent to the land fill; soil removal; tree removal; site modification; increased building footprint; decreased permeability
- Property speculators sometimes lack design expertise – need architects or basic guidelines
- Need to restrict the size of houses
- Limit grade manipulation
- Include basements in FAR/Floor Area
- Is it too late?

Tables 1 and 2 on the next page outline the response to the questions posed in the feedback forms.

TABLE 1: HOW CONCERNED ARE YOU ABOUT THE FOLLOWING?				
	Extremely Concerned	Moderately Concerned	Slightly Concerned	Not at all Concerned
Bulk, Scale & Compatibility of New Homes	42	9	3	2
Lengthy and Disruptive Construction Processes	26	15	11	4
Site Intervention	30	11	6	6
Landscape & Public Realm Character	39	8	5	2

TABLE 2: WHICH OF THESE APPROACHES DO YOU THINK SHOULD BE CONSIDERED IN WEST VANCOUVER?			
	Yes	No	Not Sure
Development permit areas & corresponding design guidelines for all houses	36	6	6
Zoning changes to reduce allowable house size	40	9	4
Only allow larger homes if subject to design guidelines	29	17	4
Comments: <ul style="list-style-type: none"> • Include basement, balconies, and garages in FAR • Cap on max house size • On the surface; not requiring a development permit for FAR = 0.3 or less sounds wise • Consider traffic and transportation side effects • Demonstrate compatibility in scale with other houses 			

From the general and detailed information provided by the attending public, it is clear that despite the District's past engagement and regulatory efforts, community concern remains for the issues identified in relation to new housing construction in established neighbourhoods. Further, residents input identifies their preferred options that the District may entertain towards addressing the community's interests.

STAKEHOLDER SESSION

Building on the community dialogue, the subsequent stakeholder session generated a lively discussion, touching on the opportunities and challenges faced when working with the existing zoning bylaw. Through the interactive discussion, a draft set of regulatory issues was revealed, with the key subject areas focusing on:

- Massing
- Grades
- Basements
- Landscape Treatment

Overall, there was hesitation expressed to making changes to the District's current Zoning Bylaw. Participants felt that market forces and design should guide the process. There were also sentiments that new construction of houses in established neighbourhoods is a temporary issue - a new home today will become an existing house tomorrow. Given that, it was felt that continued amendments to District regulations was not necessary. In addition, it was questioned if addressing community concerns through the use of zoning was even achievable, noting that development trends and market preferences continue to change over time.

The remainder of this report will detail some of the potential modifications to the Zoning Bylaw to ameliorate issues related to new housing construction in established neighbourhoods.



2

OPTIONS FOR MODIFYING THE EXISTING ZONING REGULATIONS



DEVELOPING A STARTING POINT

The conversation regarding *Siting, Form and Character* is long standing, with the District having taken proactive steps in the past to address this community concern. Equally drawn from the past are the elements that were described or identified by the public during our discussions at the Housing and Neighbourhoods Fair about what constitutes “character” in the West Vancouver context. Specifically, from our earlier conversations with residents, they point to the smaller scale (often no more than 2 storeys) of older homes, as well as their siting which often resulted in generous separations between dwellings. Also identified were the past practices to build with the existing grade, as opposed to altering the site, as well as the existence of mature, robust landscaping.

WHAT IS ON THE GROUND?

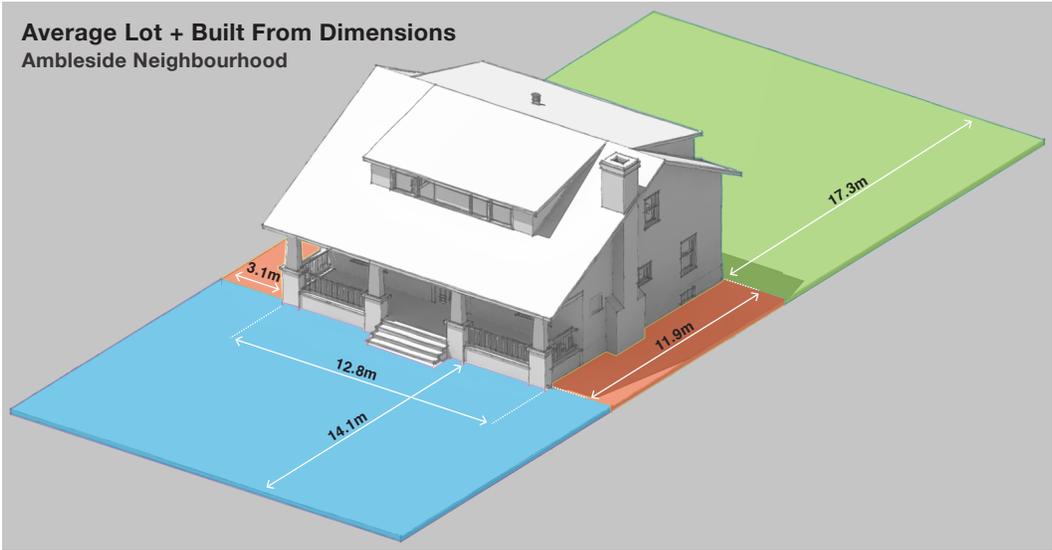
In an attempt to better understand the community’s observations, and in order to identify the siting and form patterns that are derived from the built form found in the District’s established neighbourhoods, a desk-top analysis of various neighbourhood aerial photos was undertaken. The high-level assessment focused specifically on three areas within the neighbourhoods of Ambleside and Dunderave, encompassing over 200 example homes. The assessment examined the setbacks of existing homes as well as the typical house and yard sizes/depths.

The resulting Table 3 below indicates not surprisingly that earlier forms of housing have a siting pattern where the various yard depths were generally larger, especially for the side yard spaces separating houses. The results of the assessment were then used as a starting point in the subsequent review of the current zoning regulations pertaining to single detached residential developments.

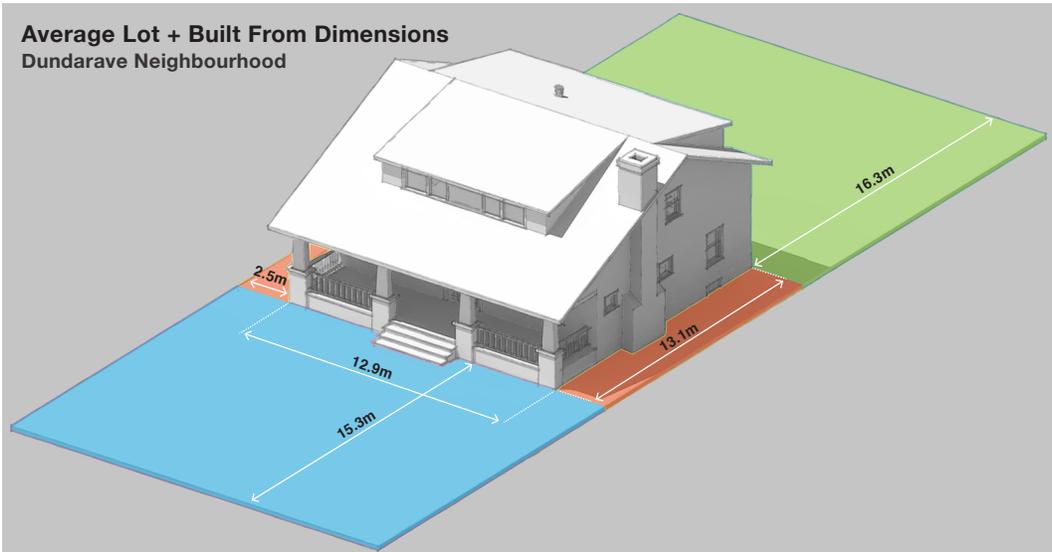
TABLE 3: EXISTING HOUSING ASSESSMENT

Area	House Footprint	House Depth	House Width	Rear Yard Depth	Front Yard Depth	Int Side Yard Width
Area #1	143 m ²	12 m	13 m	17 m	7 m	3 m
Area #2	170 m ²	15 m	13 m	13 m	8 m	2 m
Area #3	147 m ²	13 m	13 m	16 m	9 m	3 m

Average Lot + Built From Dimensions
Ambleside Neighbourhood



Average Lot + Built From Dimensions
Dundarave Neighbourhood





APPLYING A REGULATORY LENS

The *Siting, Form and Character* study is premised on the exploration of zoning options, or tools, empowered by Part 26 of the *Local Government Act*. These origins afford a variety of regulatory directions to the District, although certain limitations are inherent to zoning regulations: including the limited ability for a municipality to exercise regulatory discretion and the inability of regulations to pursue implementation of character aesthetics. As a result, and in reflection of the comments received by the public and stakeholders as part of this study, it is important to determine which messages are character-based and which can be addressed through zoning regulations.

With a regulatory lens, Table 4 on the next page was prepared outlining an initial set of zoning and non-zoning based tools available to the District. It is acknowledged that the District already utilizes many of the key approaches to regulating development, with its current zoning framework considered one of the more comprehensive, albeit complicated, in the Metro Region. Further, this list of potential new regulatory approaches is offered noting the considerable history of zoning amendments already undertaken towards addressing the issue of Form, Siting and Character. In light of these observations, a description and potential benefit of each tool has been outlined.

TABLE 4: REGULATORY TOOLS OVERVIEW

POSSIBLE DIRECTION	DESCRIPTION	BENEFIT
Lower the maximum Floor Area Ratio (FAR) or place a cap on Gross Floor Area (GFA)	FAR and GFA determine the total amount of floor space available for development.	Reduction of the FAR or GFA limit would directly reduce the overall amount of new development that could occur on the lot.
Introduce a new approach to defining Grade and Height	Grade is the term use to define the elevation on which building height is based upon.	Ensuring that grade is reflective of existing topography limits the extent of site alteration and influences the starting point for measuring height.
Introduce Perimeter Wall Height/Length Limits	Unlike highest building face regulations, perimeter wall provisions address all sides of a development.	A focus on the perimeter walls allows for improved overall facade articulation and limits on wall length.
Clarify Basement floor space exemptions	Basement floor space that is exposed above a certain threshold is included in the GFA calculations of a building.	Clarifying what basement floor area contributes to massing may influence how the site is altered.
Redefine Basement as a Storey	Basements are not currently defined as a storey, with the current height limit at two storeys, <i>plus</i> a basement.	Defining basements as a storey retains the intention that massing be limited to two storeys in total.
Relate Height to roof pitch	Height calculations make distinctions on flat roof or sloped roof construction, but do not specific a preferred roof pitch.	Relating the permitted height of a development to its proposed roof pitch could generate more preferred roof styles or limit the massing of other forms of developments
Remove Accessory Building floor space exemptions	Accessory buildings are counted in the total GFA, however floor space exemptions are provided.	Limiting the exemption of floor space for accessory buildings could result in more efficient allocation of floor space across accessory and principal buildings.
Consider respective front yard/ development siting relative to neighbouring properties	Adopting more performance based siting requirements, as opposed to fixed measures.	Ensures that new development is reflective of the existing siting and development patterns that surround.

POSSIBLE DIRECTION	DESCRIPTION	BENEFIT
Widen side yard setbacks	Side yard requirements are currently related to the width of the site as well as tied to massing.	Widening the side yard creates additional separation between neighbouring developments as well as minimizes the width of the dwelling as it is seen from the fronting street.
Introduce a setback for retaining walls	Retaining and excavation walls, used in site alteration, are permitted to be sited on the property lines.	A setback on retaining walls draws consistency with the setting back of other structures from the property line and minimizes impacts to neighbouring properties.
Relate Lot Coverage to massing and permeability	Lot coverage is currently limited to between 33% and 40% and is tied to lot size.	Relating lot coverage to permeability or massing can minimize the footprint of larger scaled developments
Increase landscape requirements	Current landscaping provisions of single detached dwellings are minimal.	Landscaping can “soften” the appearance of development, as seen from neighbouring properties or the street.
Use a siting permit to evaluate development siting	A siting permit is an early step in the development process used to confirm the siting of buildings, based on zoning regulations.	Such an approach provides an additional review and approval of siting intentions, including the identification/assessment of studies early in the development process.
Implement an Intensive Residential Development Permit Area	The <i>Local Government Act</i> allows the application of a development permit area to residential development considered to be intensive.	Development Permit Areas, and related guideline requirements, can be a valuable tool in the regulation of character driven development
Introduce a set of voluntary design guidelines, a checklist, or a workbook to augment the application process	Similar in intent to the above only such requirements would be voluntary.	Such requirements, while voluntary, can establish the municipality’s expectation relating to character development.

INITIAL FEEDBACK

This initial list of regulatory tools was discussed at a high-level with District staff and stakeholders during its development. While the regulatory net was cast wide at the outset of the effort in order to determine the options available, it was recognized that not all possible directions would “fit” the West Vancouver context or be applicable to this study. To that end, through the initial assessment of Table 2, several items were determined to be outside the scope of the study. In particular, it was held that reductions in FAR or GFA would result in significant departures from the current zoning framework, and would be contrary to the messages heard from the community to-date.

The regulatory options related to the establishment of an Intensive Development Permit Area were equally not pursued; namely given the feedback received by the stakeholders, which held such an approach as cumbersome as it would introduce an additional layer to the current regulatory framework. That said, a clear legal opinion is recommended before further pursuit of this option is considered to affirm if a newly constructed replacement home could be considered more intensive than the surrounding, existing built form. It is noted however, that should an Intensive Development Permit Area be introduced as part of the concurrent Coach House process, such a measure could, potentially, be extended to include the principal dwelling and achieve a shared benefit between the two processes.

Lastly, the reliance on voluntary guidelines or checklists was considered by community residents and stakeholders to be limited in their ability to address the subject given their voluntary nature.

A more detailed assessment of the applicability of each of the remaining approaches is offered in the subsequent section.

3

RECOMMENDATIONS FOR CHANGE



Set out through this section are a suite of recommended regulatory options for District consideration. Each approach is intended to contribute positively, in whole or in part, to achieving the founding objectives of the study, as outlined in Section 1. A supporting objective, discussion and proposed regulatory solution is presented for each option.

1: REVISE GRADE CALCULATION

OBJECTIVE:

Improve the overall visual mass of the building, maintain existing site features, and limit the complexity of the current approach to calculating grade.

DISCUSSION:

The current approach to defining grade has been suggested by stakeholder participants as equally complicated, and effective. However, it also generates an average grade elevation and an ensuing grade plane that can run perpendicular to the slope of site when the property is situated on a hillside. As height is measured from the grade plane, on the downhill side, the result is that a portion of the dwelling below the grade plane is often not included in building height, but nevertheless contributes to the overall massing of the development.

PROPOSED SOLUTION:

Alternatively, other municipalities employ a similar averaging of grade elevations, but instead generate two average grade points, commonly one for the front face and one for the rear face of the proposed development. Other options also exist such as averaging the grade at the corners of the lot or where it might otherwise interface with adjoining properties. Regardless of the points used, when the resulting two average elevation points are joined by a connecting plane, the grade line closely parallels the fall of the site. This in turn creates a height envelope that requires development to step with the slope of the site.

In discussing this alternative approach with stakeholders, it was again reiterated that the current approach for determining grade, and ultimately height, is preferred to the proposed alternative. To better understand the implications of altering the District's approach to determining grade, a model was generated for a "typical" single detached house in West Vancouver. Utilizing the existing and alternative approach to determine grade, the massing implications were assessed for comparison purposes.

Through the model, it was revealed that the alternative approach does shift massing, to be more reflective of the slope of the site. That is, the grade plane of the alternative approach did result in a net 0.8 m or 2.7 ft. difference (0.4 m or 1.35 ft lower along the front elevation and 0.4 m or 1.35 ft. higher along the rear elevation), mainly due to the grade plane being angled to approximately a 10% slope. Compared to the approximate 15% slope of the site, the alternative approach does generate a grade plane more consistent with the fall of the site. Admittedly, however, the minor difference in overall height and resulting massing does raise questions if the alternative approach would result in more sensitive massing for new replacement housing.

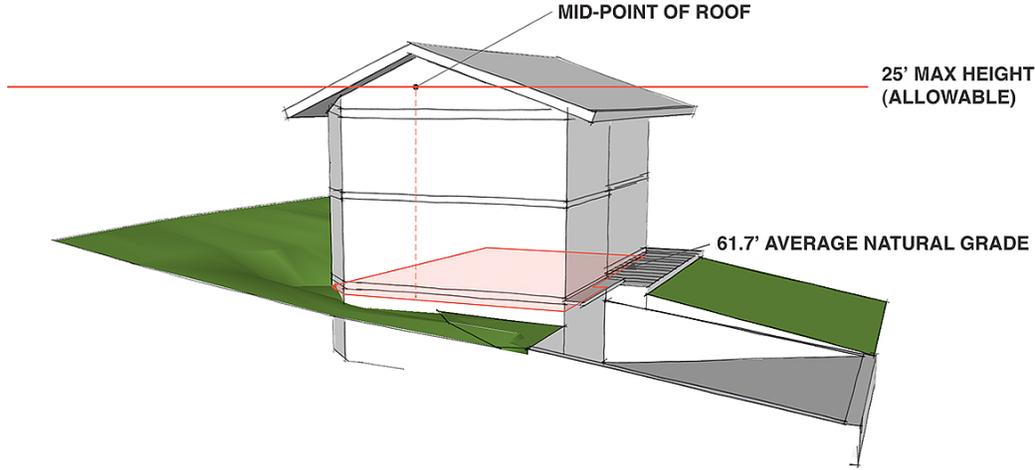


FIGURE 1: DETERMINING GRADE

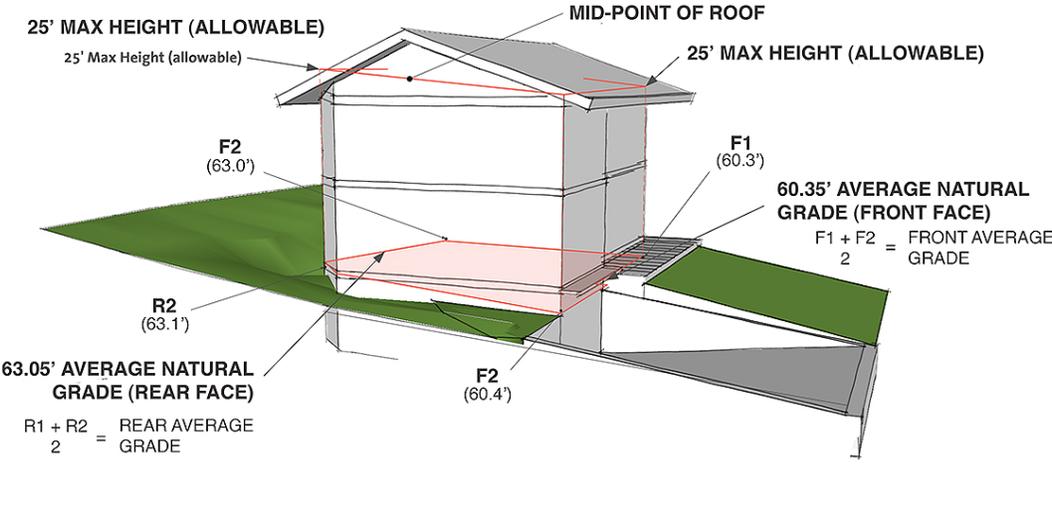


FIGURE 2: PROPOSED ALTERNATIVE GRADE APPROACH

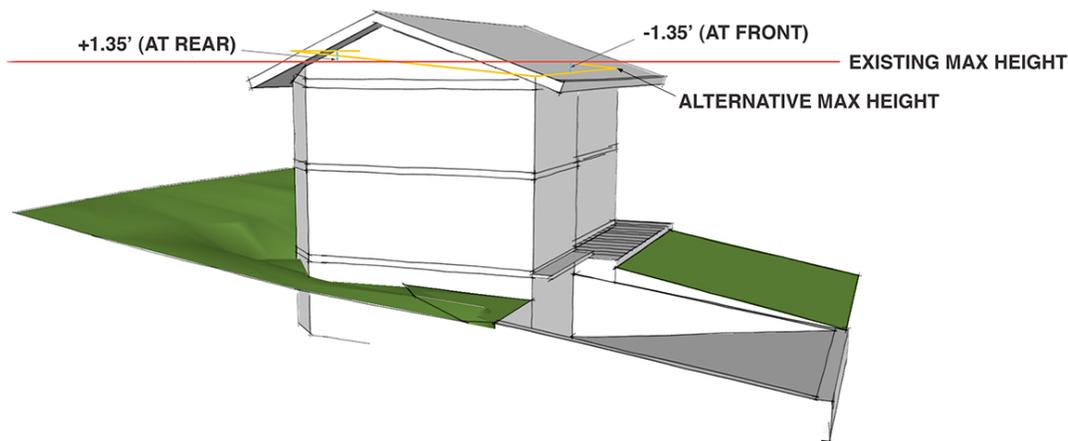


FIGURE 3: RESULTING DIFFERENCE

2: SITING OF RETAINING WALLS & FENCE HEIGHT MAXIMUM

OBJECTIVE:

Limit the impact of retaining walls on the street and adjacent properties.

DISCUSSION:

As indicated by residents through the recent Housing and Neighbourhoods Fair discussions, the *Siting, Form and Character* issues identified by the community relate as much to the site and how it is prepared for development as they do to the actual dwelling. Key to this discussion is the siting and treatment of retaining and excavation walls. As a result, three related issues have been identified below along with potential alternative solutions for consideration.

IMPACTING NEIGHBOURING PROPERTY

The community expressed concerns about the use of retaining walls along the side yard, between existing homes and newly developed houses. Some residents noted that such use of retaining walls on adjacent newly developed properties has undermined their driveways and landscape features.

Further, the community identified a similar situation when an adjacent, developing property utilized an excavation wall or structure.

Much of these observed conditions stem from the current regulations, which permit the siting of retaining and/or excavation walls directly along property lines.

SCREENING

It was commented in conversations with the community and the stakeholder participants that while West Vancouver regulates the height of a retaining wall (with a maximum height of 2.4 m or 8 ft.), it only requires a minor amount of screening (0.6 m or 2 ft.) along the bottom edge of the ensuing blank wall face.

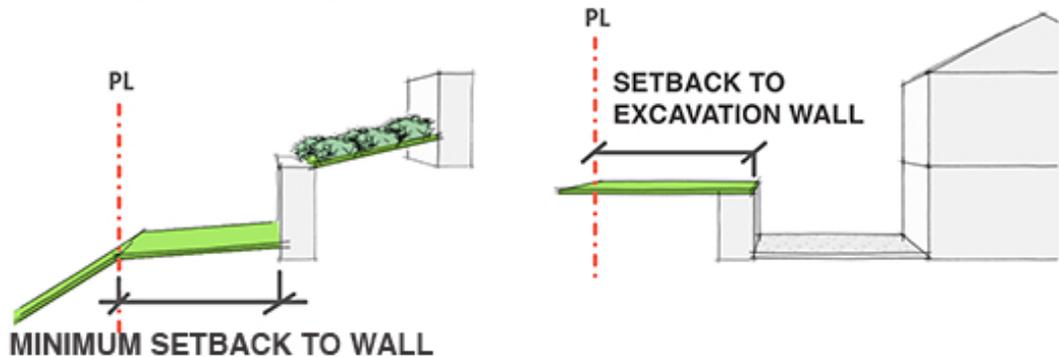


FIGURE 8: ILLUSTRATIONS OF RETAINING WALL AND EXCAVATION WALL SETBACKS

HEIGHT

Lastly, it was observed that unlike many municipalities, West Vancouver does not regulate the height of fences, either as stand alone structures or when sited on top of a retaining/excavation wall. This can manifest itself, as reported by the Housing and Neighbourhoods Fair participants, as an over-height structure in appearance. As well, when viewed as a combined fence/wall structure, the joint height far exceeds the intentions of the current regulations.

PROPOSED SOLUTIONS:

It is proposed that a setback be introduced; measured from the property line to the exposed face of either the retaining or excavation wall, much like is imposed on accessory and principal structures. In doing so, such a setback would facilitate the implementation of retaining structures without the need to encroach upon or undermine neighbouring properties.

In terms of screening, it is proposed that the screening requirement be increased (i.e. 1.2 m or 4 ft.), in order to minimize the visual presence of such retaining or excavation walls.

With regards to the appearance of combined retaining/excavation walls and fences, it is proposed that a limit be introduced on the total height of a fence and retaining/excavation structure, once that is consistent with the maximum height applied to a retaining/excavation wall by itself.

3A: INTRODUCE PERIMETER WALL HEIGHT

OBJECTIVE:

To provide articulation on all faces of the building.

DISCUSSION:

The current practice of applying an additional height maximum on the largest or highest building façade is a method often used for countering the above noted condition, whereby portions of a building are below the grade line. Again, such portions are not captured in the building height determination, yet still contribute to the overall massing and appearance of the development. Despite its benefits, a drawback to the existing highest building face approach, as noted by the community during the recent Housing and Neighbourhoods Fair, was that the sides of a building can go unchecked. As a result, the interior sides of a development can appear as unarticulated and blank facades, albeit within the building height limit, resulting in an un-neighbourly adjacent condition.

PROPOSED SOLUTION:

A simple approach to address this condition is to apply a maximum wall height to all four sides of a dwelling, and then encourage articulation, such as steps in the façade or the provision of decks or secondary roof features through exemptions. A further limit can also be introduced on the length of any side wall. This alternative maximum wall height approach constrains the overall bulk of the development, while encouraging designs that break-up the massing as read from neighbouring properties.

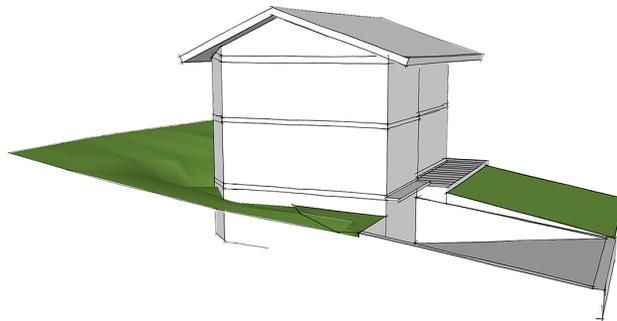


FIGURE 4: ILLUSTRATION OF TYPICAL RESIDENTIAL DEVELOPMENT WITHOUT PERIMETER WALL APPROACH

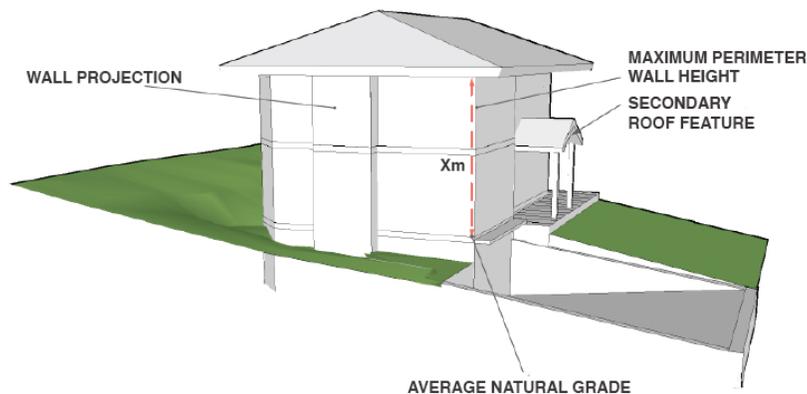


FIGURE 5: ILLUSTRATION OF PROPOSED PERIMETER WALL HEIGHT APPROACH TO ENCOURAGE ARTICULATION AND REDUCE MASSING

3B: INTRODUCE BASEMENT MAXIMUM WALL HEIGHT

OBJECTIVE:

To reduce building bulk, height and reduce the amount of required excavation.

DISCUSSION:

As a further extension of the perimeter wall height concept, the overall maximum wall height can be further defined per storey. Admittedly, this direction may be unnecessarily complicated for the upper storeys of a dwelling, but applying a maximum height limit to the basement portion of a building provides a further means of minimizing the overall massing of a dwelling.

PROPOSED SOLUTION:

Specifically, it is proposed that the existing practice of counting only that floor space within a basement that is situated, in part or in full, above the lesser of natural or finished grade be clarified through the use of a fixed maximum height limit for exposed basement walls (i.e. 0.6 m or 2 ft.). If, for example, an area of the basement has an adjacent exposed perimeter wall height in excess of that set out in any revised regulations, measured from the bottom of the floor above to the lesser of natural grade and finished grade, then the floor space encompassed in that portion of the basement is applied to the total allowable GFA.

This approach is not a far departure from the current practice, in fact a 0.6 m or 2 ft. height limit is illustrated in the General Regulations applying to residential zones, yet is unaccounted for the actual regulations. As a result, adding a basement wall height maximum, potentially as part of perimeter wall regulations, can provide greater clarity as well as limit the extent to which the basement storey can be exposed. The extent of exposure, should this option be pursued, is dependent on levels of support for the following alternative regulatory consideration.

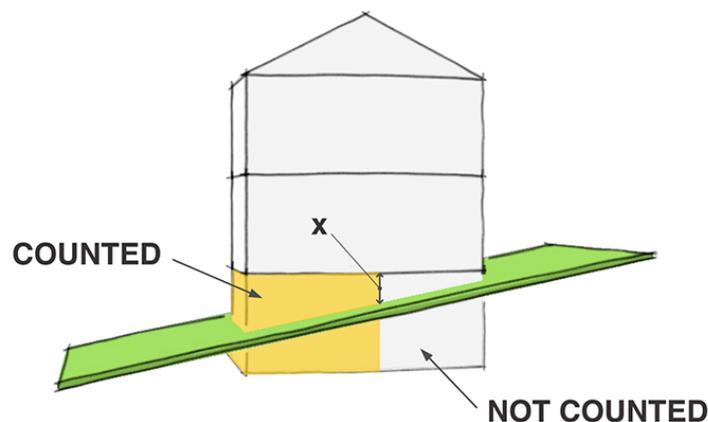


FIGURE 6: ILLUSTRATION OF PROPOSED APPROACH TO DETERMINING CONTRIBUTING FLOOR SPACE IN BASEMENT

4: INCLUDE BASEMENTS AS STOREYS

OBJECTIVE:

To reduce building bulk, height, and reduce the amount of required excavation.

DISCUSSION:

Currently, height is limited through two measures; namely, a fixed distance (i.e. 7.62 m or 25 ft.) and a limit on the number of storeys. In regards to the latter requirement, a single detached dwelling is often limited to a maximum of 2 storeys, *plus* a basement. In other words, basements are exempted despite their contributions towards the overall height and resulting massing of a dwelling.

PROPOSED SOLUTION:

To that end, and as an alternative approach, it is proposed that basements be considered a storey. Such a change, while minor in terms of only requiring small text edits to the general regulations and the single-detached residential zones, would considerably reinforce the District's intention that detached homes be massed to no more than 2 storeys in total.

5: ADDITION OF MINIMUM ROOF PITCH

OBJECTIVE:

To reduce the provision of limited sloped or flat roofs.

DISCUSSION:

A commonly identified feature of traditional home designs is the pitch of the roof, with many character homes utilizing a 6:12 or sometimes greater roof pitch. Comparatively, many contemporary designs, even those emulating the older homes of the District's past, employ roof pitches commonly around 4:12.

PROPOSED SOLUTION:

As a result, the current maximum height calculation can be expanded to include the provision of a minimum roof pitch that more closely resembles the District's preferred character. It is noted that stakeholder support for this approach was limited, despite acknowledgement that it is commonly found in other municipalities. It was expressed that higher roof pitches may result in perceptible taller looking homes (as height is measured to the midpoint of the roof). As well, it was suggested that accommodating the allowable floor space program would be challenged if roofs with greater slopes were required.

Drawing upon the typical single detached housing model, and employing different roof pitches, it was observed not surprisingly that as the roof pitch is increased, and if the existing maximum height is maintained, the floor space volume within the second floor is reduced. For example, from the model it was observed that the top plate of the second storey wall where it meets the roof required a 0.8 m or 2.5 ft. reduction with an increased roof pitch.

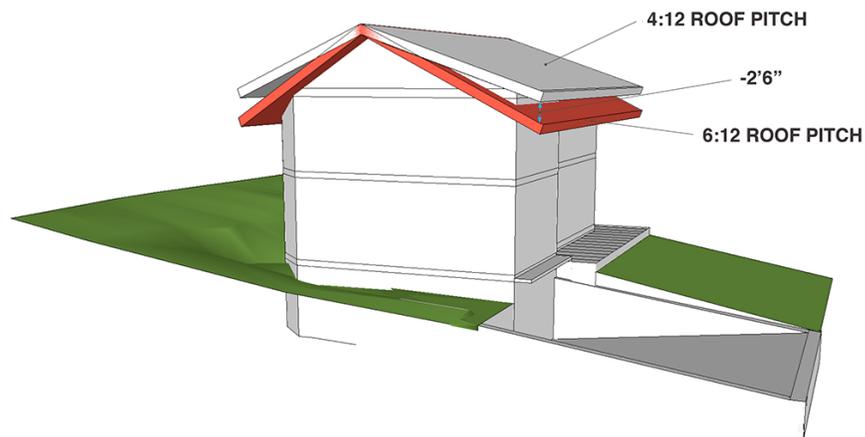


FIGURE 7: ILLUSTRATION OF IMPLICATION TO MASSING AND WALL HEIGHT FROM PROPOSED MINIMUM ROOF PITCH

6: REMOVE ACCESSORY BUILDING EXEMPTIONS

OBJECTIVE:

To reduce the overall sense of building massing, beyond the principal building.

DISCUSSION:

The gross floor area resulting from the permitted floor area ratio is often allocated across the site, between the principal building and accessory buildings/structures. The resulting appearance of accessory buildings/structures can contribute to the perceived massing of a site, especially those physically attached to the principal dwelling. Such a condition is exacerbated further given the current practice of exempting a portion of the floor space allocated to accessory buildings, as the resulting net floor space across the site ends up being in excess of the permitted gross floor area (if the exemptions were included in the calculation of total floor area). This is best highlighted using garages as an example, noting that current regulations permit a 41 sq. m. or 441 sq. ft. floor space exemption.

PROPOSED SOLUTION:

Given the above, it is proposed that the floor space being allocated to garages and other accessory buildings/structures be included in the permitted gross floor area calculation, removing the existing floor space exemptions. It is held that such an effort will prioritize the allocation of floor space in the design of future houses, as well as potentially reduce the massing of the principal dwelling if now its floor space must be redistributed in order to accommodate any desired accessory buildings/structures. This latter implication is of particular relevance to the pending introduction of Coach House regulations, as it is similarly proposed that the floor space of a Coach House be counted against the total gross floor area permitted on the lot. As well, the removal of the exemptions simplifies the current gross floor area calculations.

7: RELATE LOT COVERAGE TO MASSING & PERMEABILITY

OBJECTIVE:

Relate size of development to coverage of its footprint and the reduction in the amount of impermeable surfaces.

DISCUSSION:

The current Zoning Bylaw, in places, relates the siting of a dwelling to its massing. For example, the side yard setbacks relate to the massing of the second storey, requiring a wider setback where the second storey is not less in width than the first storey.

PROPOSED SOLUTIONS:

In a similar manner, it is proposed that lot coverage be tied to the massing of the principal dwelling, offering a larger site coverage maximum than the current 33% for dwellings under 2 storeys (including a basement). This approach is premised on a fundamental trade-off; namely the allowance of a larger footprint should development opt to extend over the site in lieu of having new construction extend vertically. This may also require a revised set of setbacks, especially along the side and rear yards, in order to facilitate a larger development footprint.

As well, it is also suggested that a further requirement be included in the site coverage requirements, one that introduces a limit on the amount of non-permeable surfaces used on the site. The intent with such a provision would be to ensure that a minimum area of the site is left permeable or ideally in its natural state, reflecting on the community's comments about the importance of landscaping towards character maintenance.

8: RESPECTFUL SITING

OBJECTIVE:

Provide for sensitive siting of buildings relative to adjacent houses.

DISCUSSION:

Reflecting on the origins of many of the community's comments and concerns, it is noted that beyond the perceived massing of a building, the siting of new development relative to that of neighbouring homes is key character issue.

PROPOSED SOLUTION:

Given that, and instead of applying fixed setbacks in the side and front yards, it is recommended that such setbacks be determined through more performance based measures. Examples of such measures from other municipalities can include:

- Front yard or side yard averaging, whereby the average setback of surrounding development (and the existing development on the site) is determined and informs the setback applied to new development.
- Relate the siting of new development compared to adjacent development in order to achieve a prescribed angle or dimension, in order to ensure that appropriate light penetration and privacy levels are retained for the existing development.

Inherent in these approaches is acceptance that the resulting streetscape will be less uniform, and potentially more undulating or varying given the evolving nature of existing housing stock replacement.

9: WIDEN SIDE YARD SETBACKS

OBJECTIVE:

To site the building envelope to improve the adjacencies between neighbours.

DISCUSSION:

Similar to the above discussion, it was heard through the Housing and Neighbourhoods Fair that the implications of new housing construction in established neighbourhoods, along with the associated site preparation, are largely experienced within the side yard space separating the new from the older homes. While the District's current setback requirements offer a variety of ways to determine the individual and combined side yard setbacks, including relating the setback distance to the massing of the development, it was observed that new houses typically have smaller side yards than older homes. This is directly related to the smaller housing forms consistent with past development practices, which in turn created the wider side yard spaces.

PROPOSED SOLUTION:

As an extension of the above sensitive siting discussion or as another option, it is proposed that the side yards be widened. In doing so, the resulting wider side yards present the visual appearance from the front yards of a narrower house and provide greater separation between principal dwellings. Such widened spaces can be further enhanced with additional landscaping consistent with recommendation #11 presented later in this report, as well as be coordinated with a proposed setback applied to retaining and excavation walls (see below). It is noted that wider side yards may create shallower rear yards.

10: INTRODUCE SITING PERMIT

OBJECTIVE:

To facilitate siting of principal and accessory buildings relative to existing adjacent development.

DISCUSSION:

A reflection of the messages heard from the participants of the Housing and Neighbourhoods Fair points to the importance of facilitating sensitive siting and massing of new housing construction relative to existing adjacent development. It was heard through the community and stakeholder feedback that there should be an early "check-in" with the development process, through which applicants can gain an understanding of how a development program could be applied to a site, with minimal impact to the site and its neighbours. Such an opportunity may also allow the District or the applicant to affirm the need for studies or assessments early in the development process and before the design proceeded ahead.

PROPOSED SOLUTION:

As a final proposal, therefore, it is suggested that the District consider implementing a separate siting permit, as a means of working with the applicant team early in the process to determine the siting of new replacement houses stemming from the zoning regulations and identify any implications to adjacent and existing dwellings. It is noted that the use of a siting permit is currently being contemplated as part of the proposed development permit approval process related to Coach Houses.

The value of this approach is heightened if the above discussed approaches regarding the application of performance measures, as opposed to fixed figures, are implemented (i.e. options #7 and #10).

11: ESTABLISH ROBUST LANDSCAPE STANDARDS AND REQUIREMENTS

OBJECTIVE:

To improve the overall appearance of newly constructed houses.

DISCUSSION:

As noted above, a consistent message shared by the community through this process, was the importance of landscaping as a core character element in West Vancouver. And yet, many residents shared stories in which, through new construction, mature and established landscaping was removed, or replaced with limited plantings.

This issue is tied in part to the complexities involved with construction. It is noted as a counter point that through the stakeholder discussions many challenges were described with retaining landscaping throughout the site preparation and construction stages of development.

As well, and through an assessment of existing regulations, it was observed that the existing regulations relating to landscaping do not detail the District's expectations nor the value placed on landscaping by the community. Instead the current landscaping requirements are limited to a general clause requiring that any portion of the site not occupied by buildings, structures, parking areas, driveways and pedestrian paths be landscaped.

PROPOSED SOLUTION:

It is proposed that the District introduce greater landscape requirements, in order to clearly articulate the community's expectations regarding the retention of existing and mature trees and other established plantings. Typical methods of implementation could involve expansion of the District's zoning regulations or through the pending Tree Protection Bylaw.

Further, and in light of the challenges of retaining landscaping at the time of construction, new language should also be introduced to require the minimum landscape standards in the replacement of trees and planting removed from the site. Specifically, it is proposed that requirements similar to those found elsewhere in the region for single-detached houses be considered, such:

- establishing a minimum 2 to 1 ratio in the replacement of existing trees removed as a result of construction. This can be accomplished through either zoning or a tree protection bylaw;
- that replacement trees meet a required caliper +/- or height limit. This can be achieved zoning;
- that a minimum percentage of landscape coverage (i.e. 30%) be established across the site, this can be achieved zoning; and
- that the preferred landscape standards relate to the slope of site, acknowledging that certain plantings are better suited than other on sloping topography. This can be achieved zoning;

4

SUMMARY + NEXT STEPS



The *Siting, Form and Character* study has explored with community residents and stakeholder representatives an assessment of what generally constitutes character in the District of West Vancouver's single detached residential neighbourhoods. Equally as important, the study has revealed a number of issues stemming from the construction of new houses that are seen to potentially jeopardize existing neighbourhood character. From these conversations emerged an earlier Discussion Paper intended to explore key issues and share best practices from around the region and province as a means of illustrating how other municipalities are successfully addressing similar interests.

With that as a starting point for this report, the various regulatory options outlined above have been conceived as potential steps the District may consider towards addressing the overall perceived massing or bulk of new development and the related disruption to the subject site as a result of grade alteration and intervention.

SITE INTERVENTION + LANDSCAPE PRESERVATION

Specifically, in terms of site intervention, the intention was to present a variety of regulatory tools that can minimize the alteration of the site needed to accommodate new replacement housing. Further, with much attention given to the separating side yards between new and existing developments, it is suggested that new regulatory approaches seek to foster sensitive siting of development and minimize the neighbouring impacts from the use of retaining/excavating structures. Overall, enhanced landscaping requirements are also recommended towards ensuring that character-defining trees and plantings are not lost through the construction process.

BUILDING FORM + MASSING

As for the massing and ensuing form of new housing, various regulatory approaches ranging from alternative grade and height calculations to removing existing floor space exemptions have been suggested. Such proposed new regulations are consistent with the District's past amendments, undertaken through earlier attempts to refine its regulatory base in the pursuit of similar community interests.

A summary of the proposed alternative approaches is illustrated on the next page in Table 5, to identify how the various options perform against the earlier identified project objectives.

TABLE 5: SUMMARY OF REGULATORY OPTIONS AND IMPLICATIONS						
	OPTION	REDUCE PERCEIVED BULK	SENSITIVE SITING	REDUCE IMPACTS TO LANDSCAPING	LIMIT GRADE CHANGES	SIMPLIFY / CLARIFY REGULATIONS
1	GRADE Revise Grade Calculations	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 NO IMPROVEMENT	 MINOR IMPROVEMENT	 IMPROVEMENT
2	GRADE Siting of Retaining Walls & Fence Height Maximum	 IMPROVEMENT	 IMPROVEMENT	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 IMPROVEMENT
3a 3b	BULK Introduce Perimeter Wall Height & Basement Wall Height	 IMPROVEMENT	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT
4	BULK Include Basements as Storeys	 IMPROVEMENT	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 MINOR IMPROVEMENT	 IMPROVEMENT
5	BULK Addition of Minimum Roof Pitch	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 NO IMPROVEMENT	 NO IMPROVEMENT	 MINOR IMPROVEMENT
6	BULK Remove Accessory Building Exemptions	 IMPROVEMENT	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 NO IMPROVEMENT	 IMPROVEMENT
7	BULK Relate Lot Coverage to Massing & Permeability	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT
8	SITING Respectful Siting	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 MINOR IMPROVEMENT
9	SITING Widen Side Yard Setbacks	 IMPROVEMENT	 IMPROVEMENT	 MINOR IMPROVEMENT	 IMPROVEMENT	 NO IMPROVEMENT
10	SITING Introduce Siting Permit	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 NO IMPROVEMENT	 NO IMPROVEMENT
11	LANDSCAPE Establish Robust Landscape Standards & Requirements	 MINOR IMPROVEMENT	 MINOR IMPROVEMENT	 IMPROVEMENT	 NO IMPROVEMENT	 IMPROVEMENT

Given the breadth of the founding objectives, it is clear that no one singular effort can address the issues raised by the community. Rather, the options presented in this report are intended to offer a suite of regulatory directions, that when combined, address the core issues of *Siting, Form and Character*.

But is it enough? As the community commented through the Housing and Neighbourhoods Fair, is it too late to address the implications of new houses in established neighbourhoods? The stakeholder participants identified that the development of new replacement housing is fundamentally related to time, and specifically the point in time at which the new construction is introduced, to form part of the existing built form. With that in mind, addressing the comments raised during this study, and those before, through regulatory pursuits can at a minimum establish the District's expectations for development in established neighbourhoods and ensure that zoning remains responsive to development trends.

It is acknowledging that the resulting regulatory effects may be minimal or hard to visually discern, given in part the extensive history of amendments already made to the zoning bylaw. However, in reflection of the past regulatory amendments and if combined with those outlined in this report, it is suggested that the District has before it a comprehensive set of zoning tools, making full use of the powers afforded to it through Part 26 of the *Local Government Act*.

To that end, and given the ongoing introduction of new housing in established District neighbourhoods, such a combined suite of zoning tools and their inherent requirements should best be considered as the most recent steps taken by the District as part of its ongoing commitment to review and revise its zoning regulations in order to proactively respond to community interests.

As a result, and in terms of next steps, it is anticipated that more detailed modeling and additional discussions with community residents and stakeholders will be required to move the District's preferred regulatory options towards future amendments and ultimately, implementation.