



P1

POLICY REPORT DEVELOPMENT AND BUILDING

Report Date: April 27, 2009
Contact: Paul Nowlan
Contact No.: 604.873.7712
RTS No.: 5148
VanRIMS No.: 08-2000-20
Meeting Date: May 5, 2009

TO: Vancouver City Council

FROM: Director of Planning in consultation with the Director of Development Services

SUBJECT: Enabling Basements in Single Family Districts

RECOMMENDATION

THAT the Director of Planning be instructed to make an application to amend the RS District Schedules to facilitate functional and livable basements, generally in accordance with Appendix A, and that the application be referred to a Public Hearing and be approved;

AND FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amendments to the Zoning and Development By-law generally in accordance with Appendix A, for consideration at the Public Hearing.

GENERAL MANAGER'S COMMENTS

The General Manager of Community Services RECOMMENDS approval of the foregoing.

CITY MANAGER'S COMMENTS

The City Manager RECOMMENDS approval of the foregoing.

COUNCIL POLICY

On June 10, 2008, Council adopted the EcoDensity Charter and approved a set of EcoDensity Actions, including priority action C-6: More Options for Rental Secondary Suites. That action directs staff to report back on ways to provide more options for rental secondary suites including: "Enabling basements that can accommodate suites to be built as part of new house construction on all sizes of lots in single family zoning schedules."

Current Council priorities for affordable housing support work on a variety of housing initiatives, including suites in single family areas.

SUMMARY

This report proposes single family zoning amendments to facilitate functional, full-sized basements and more livable basement suites. This responds to the Council priority for affordable housing by enabling the provision of mortgage helpers, rental opportunities, and a cost-effective means to co-locate with family members or care givers.

While zoning changes in the recent past have reduced the visible bulk of single family houses, they have not enabled full-sized basements. The main features of the proposed zoning amendments are:

- Additional floor area in the basement
- Less floor area above grade
- A smaller house footprint
- A basement height increase

These amendments would be added to the zoning to provide an option to build a house with a basement. This means that it would still be possible to build a house under current zoning options.

Potential benefits of the proposed amendments are:

- More space for functional basements, by increasing floor area
- More livable basements, by increasing the basement height
- More housing choices, by providing more options
- More renovations/fewer demolitions, by accommodating existing houses
- More green space, by reducing the house footprint
- No impact on land values, by reducing above grade floor area

The public and stakeholders were notified and three public open houses were held. Most responses are in favour of the proposals for additional floor area and a smaller house footprint. In response to input received during public consultation, the proposal to increase basement height has also been included.

PURPOSE

This report seeks Council approval to refer proposed single family zoning amendments to a Public Hearing. The purpose of these amendments is to facilitate functional and livable basements in all single family areas in the City of Vancouver.

BACKGROUND

1. Housing Initiatives Context

This report on basements is one of several initiatives that involve zoning amendments in line with Council priorities on Affordable Housing and Sustainability, as well as directions contained in the EcoDensity Initial Actions. In addition to basements, Council will be receiving reports on laneway housing and on secondary suites in apartments. All three initiatives enable provision of mortgage helpers, rental opportunities, and a cost-effective means to co-locate with close family members (e.g., elderly parents) or care givers. They provide greater flexibility, affordability, and long-term sustainability in the city's housing stock, and do so in a manner that provides little or no visible change in neighbourhoods.

2. The Basement Problem

Currently, most RS District Schedules include the basement or cellar area in the computation of allowable floor area. In general, houses built with the maximum floor area allowed above grade do not have enough left over for a full-size basement. Building a single family house thus requires a trade-off between allocating floor area above grade or in the basement.

Many families would prefer a house with a full basement. However, residents have told us that single family zoning does not permit enough floor area for a suitable size house that also includes a full basement. This concern is primarily related to smaller lots, which also represent the majority of single family lots in the city. As a result, most houses are built with no basement or with a partial basement.

3. History of Basements in RS Districts

Until 1974, basement floor area was not counted in allowable floor area provided the basement was not used as habitable accommodation. In 1974, the zoning was amended to include the basement in the floor area calculation regardless of its use. To compensate for the basement inclusion, total allowable floor area was increased. At that time, all of the allowable floor area could be built above grade, which enabled visibly larger houses, raising concerns in single family neighbourhoods.

From 1986 to 1990, a number of RS-1 zoning amendments were approved to reduce house bulk above grade. These amendments included:

- Above grade floor area reduced;
- Basement pushed deeper into the ground;
- Building height reduced;
- Building depth (i.e. length) reduced;
- Rear yard increased; and
- Parking structure separated from the house and moved to the rear of the property.

However, while the above amendments addressed many of the issues related to house bulk and improved neighbourliness, they did not address the basement limitations.

DISCUSSION

This section proposes five zoning amendments to enable functional and livable basements in single family areas.

Section 1 proposes a basement option for new houses.

Section 2 proposes a smaller building footprint to improve neighbourliness.

Section 3 proposes a basement option for existing houses.

Section 4 proposes basements that can be built higher out of the ground to improve livability.

Section 5 proposes an additional basement height relaxation to improve livability on difficult sites.

These amendments are proposed for all single family zones, where necessary to enable basements. The RS District Schedules, contained in the Vancouver Zoning and Development By-law, control land use and development in single family areas. There are ten RS District Schedules (RS-1, RS-1A, RS-1B, RS-2, RS-3, RS-3A, RS-4, RS-5, RS-6, RS-7). Most single family lots are zoned RS-1 (77% of lots) or RS-5 (17% of lots).

Section 6 evaluates the basement option, section 7 discusses implications for development and building permit processing, section 8 outlines a monitoring plan, and section 9 reports on the public consultation process.

1. Enable Basements in New Houses

Proposal

To facilitate the provision of functional basements in single family areas, provide an option to increase total floor area and limit above grade floor area. This results in houses with less floor area above grade, but with a full-size basement. (In some zones, allowable above grade floor area is lower than the proposed limit, depending on lot size. In this case, the lower limit will continue to apply.)

Amend RS Districts by adding a basement option to:

- Increase the total floor space ratio from 0.60 FSR to 0.70 FSR; and
- Reduce above grade floor area to 0.45 FSR (or less if the current zoning has a lower limit for above grade area).

Floor space ratio (FSR) is the measure used to determine how much floor area may be constructed on a lot. To calculate allowable floor area, multiply the area of the lot by the FSR value.

The proposed above grade FSR is the same as was permitted prior to 1974, when single family zoning permitted 0.45 FSR and did not include the basement in the floor area calculation. The difference now is that basement floor area is counted, but total FSR is sufficient to permit a full basement.

Rationale

Residents, builders and designers have indicated that about 1,800 square feet is necessary for a suitable-size house with a kitchen and other common rooms on the first storey, and three bedrooms on the second storey. Currently, on a typical 33 foot lot, a house built with 1,800 sq.ft. above grade would have 600 sq.ft. left over for a partial basement. An additional 300 to 400 sq.ft. would be sufficient to provide a full-size basement.

Figure 1 provides examples to compare current zoning options to the basement option. These examples illustrate houses that could be built on a typical 33 foot lot (4,000 sq.ft.) in the RS-1 District. The outcome of the basement option is the same for 33 foot lots in all RS Districts.

Current Zoning Option - 33' Lots

Under current RS-1 zoning, maximum total floor area is 2,400 sq.ft. (0.60 FSR), and maximum above grade area is 2,200 sq.ft. (0.55 FSR). This leaves 200 sq.ft. for the basement.

The house in Figure 1, example (i) provides maximum above grade floor area and is usually built at grade with no basement. The proposal is to continue to permit this building type for those who prefer to maximize above grade space.

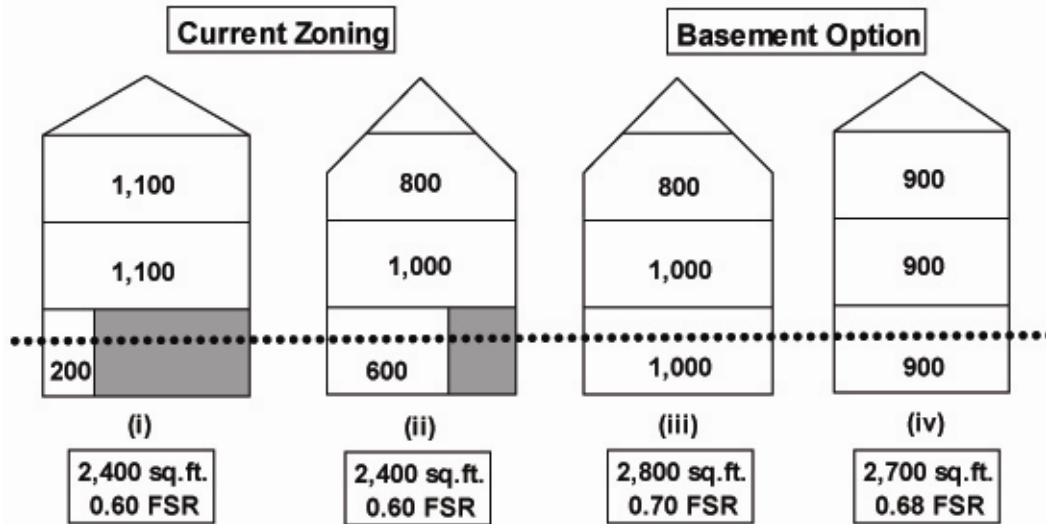
Houses built with a partial basement often have less floor area above grade because some of that area was transferred to the basement. Example (ii) shows a house that could be built

today with 1,800 sq.ft. above grade and 600 sq.ft. in a partial basement. With the basement option, this house would have a full basement.

Basement Options - 33' Lot

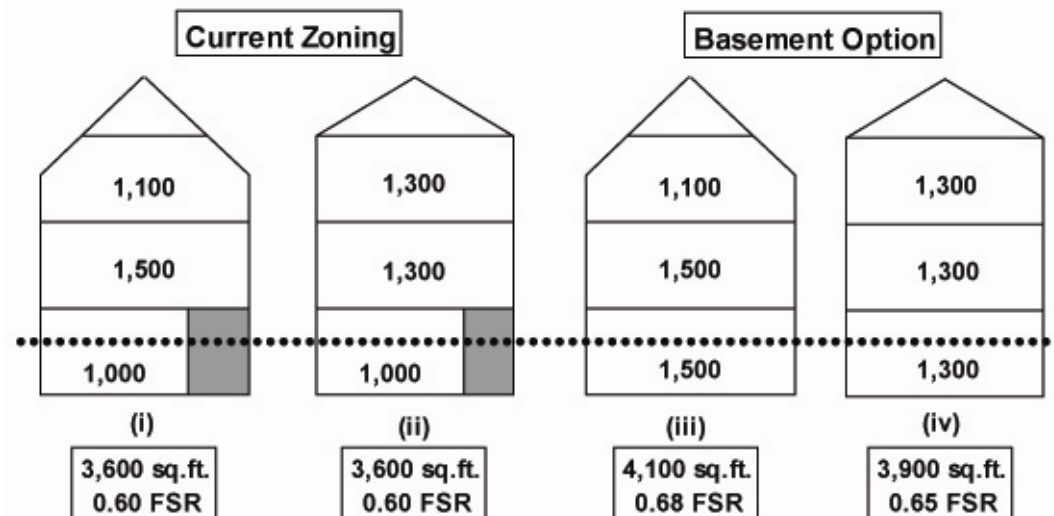
Under the basement option, maximum total floor area increases to 2,800 sq.ft. (0.70 FSR). However, maximum above grade area is reduced to 1,800 sq.ft. (0.45 FSR), and all additional floor area must be located in the basement. Both houses in examples (iii) and (iv) have the full 1,800 sq.ft. above grade, plus a full basement.

Figure 1. Basement option for new houses on a 33 foot lot in RS-1



Note: The dotted line in the diagram represents finished grade.

Figure 2. Basement option for new houses on a 50 foot lot in RS-1



Note: The dotted line in the diagram represents finished grade.

Current Zoning and Basement Options - 50' Lot

Figure 2 compares current zoning options to the basement option on a 50 foot lot (6,000 sq.ft.) in RS-1. Currently, total floor area is 3,600 sq.ft. (0.60 FSR), and maximum above grade area is 2,600 sq.ft. (0.43 FSR), leaving 1,000 sq.ft. for a basement. In this case, the above grade floor area is less than 0.45 FSR because of the existing above grade formula. As a result, the current zoning and basement option examples all have the same above grade floor area. However, the basement option permits additional floor area in the basement.

2. Reduce the House Footprint as part of the Basement Option

Proposal

To increase the neighbourliness of new houses built with additional floor area as part of the basement option, reduce the house footprint. As a result, house site coverage is reduced, creating more open space around the house.

Amend RS Districts by reducing the house footprint with the basement option:

- Reduce the area of any floor to 0.25 FSR (25% of site area); and
- Limit the basement area to the perimeter of the first storey.

Rationale

A smaller house footprint is enabled by the basement option because this option reduces above grade floor area. Reducing the house footprint provides a number of benefits in addition to improving neighbourliness. Houses have smaller floor plates, which increases natural light penetration. A smaller footprint also provides more flexibility in locating the house within the required yards. The potential for green space on a single family lot also increases, which improves natural water drainage.

The allowable house footprint (building site coverage) in RS Districts typically ranges from 28% to 32% of site area. The basement option includes a provision to limit the area of any floor to a maximum of 0.25 FSR, reducing site coverage to 25% of site area. This limit still permits a functional floor plate.

The basement option also specifies that the basement walls must be built within the perimeter of the first storey. This provision further helps to ensure that the goals for reduced site coverage are attained.

Figure 1 best illustrates the outcome of this proposal. The house footprint in example (i) works out to nearly 28% of the lot area, while the footprint in examples (ii) & (iii) is 25% of the lot. Example (iv) shows a house configuration that covers 22.5% of the lot.

3. Enable Basements in Existing Houses

Proposal

Provide an option to facilitate functional basements in existing houses that cannot meet the above grade floor area limits proposed for new houses. Any additional floor area would be located in the basement only.

Amend RS Districts by adding a basement option for existing houses to:

- Accommodate houses where existing above grade floor area is up to 0.50 FSR;
- Increase the total floor space ratio to 0.75 FSR to allow a basement;

- Retain the 25% site coverage limit; and
- Continue to limit the basement area to the perimeter of the first storey.

Rationale

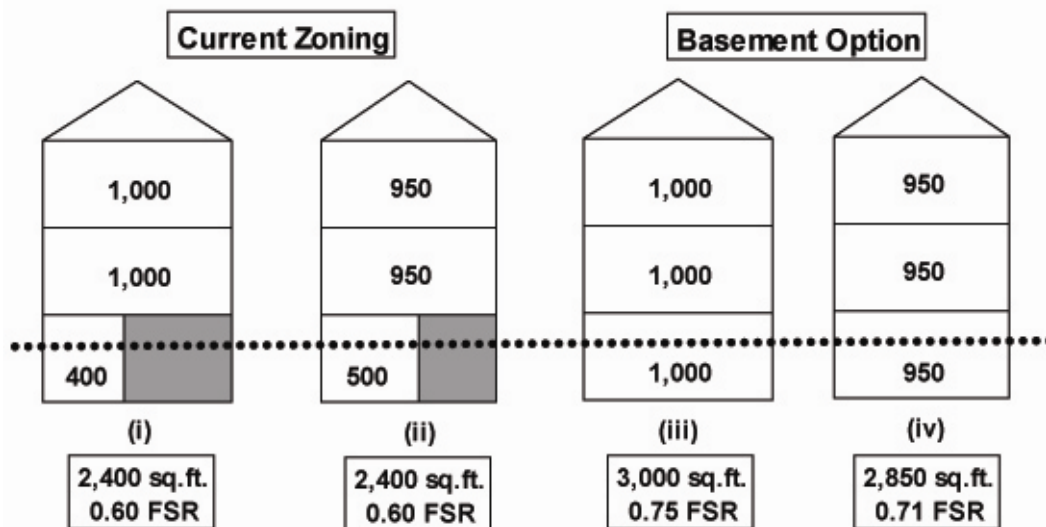
The basement option proposed for new houses would also be available to existing houses provided that they do not exceed the proposed regulations, i.e. above grade floor area is not greater than 0.45 FSR and the house footprint is not over 25% of lot size. For example, a typical pre-1950's bungalow built on a 33 foot lot would be able to add a second storey. Therefore, it is expected that many existing houses will receive additional floor area through the basement option for new houses.

However, due to an above grade formula introduced in 1988, a number of houses were built since then with a partial basement. Many of these houses would not be able to take advantage of the basement option because above grade floor area is greater than 0.45 FSR. A review of these houses indicates that above grade floor area is typically less than 0.50 FSR and the house footprint is less than 25% of lot size. Allowing a full basement in these houses could increase total floor area up to 0.75 FSR without adding any more floor area above grade or exceeding the proposed 25% building footprint.

Thus, existing houses that did not maximize the above grade floor area or house footprint would be accommodated. But not all houses would qualify. For example, the house illustrated in Figure 1.(i) would not qualify for the basement option because above grade floor area and the house footprint are too large.

Figure 3 illustrates this option for existing houses built with a partial basement on a 33 foot lot in RS-1. In these examples, the above grade floor area is greater than 0.45 FSR and less than or equal to 0.50 FSR, and the house footprint is not more than 25%. With this option, all additional floor area is located in the basement only.

Figure 3. Basement option for existing houses on a 33 foot lot in RS-1



Note: The dotted line in the diagram represents finished grade.

4. Improve Livability in Basements

Proposal

Improve livability in basement suites by allowing basements to move one foot (0.3 m) higher out of the ground without increasing the height of the house.

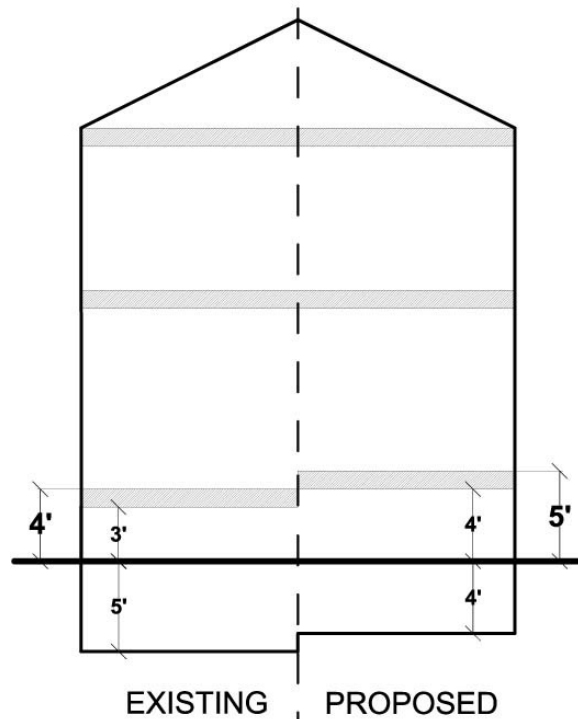
- Amend RS Districts by increasing the allowable height of the first storey floor surface from 4 feet (1.2 m) to 5 feet (1.5 m).

Rationale

In 1988, the RS-1 District Schedule was changed to push basements deeper into the ground. Basement depth in the ground is determined by the height of the first storey floor surface. In RS-1, the maximum height of the first storey floor in new houses was reduced from 6.5 feet (2.0 m) to 4 feet (1.2 m) above finished grade. Basement height was also reduced in the RS-3, RS-3A, RS-5, and RS-6 Districts.

The reason for pushing basements deeper into the ground was to reduce the visible house bulk. A side-effect was to reduce livability in basements. Livability is affected by factors such as window size and height. In addition, sewer depths are quite shallow in many parts of the city. Installing plumbing fixtures in deeper basements often requires pumps to move waste to the City's sewer system.

Figure 4. Proposed outright basement height increase.



Note: The solid line in the diagram represents finished grade.

Increasing basement height by one foot is significant when measured in relation to the basement ceiling height above grade. As illustrated in Figure 4, a one foot increase in basement height means that the basement ceiling can be up to 4 feet above grade (a 33%

height increase). This height increase can also be accomplished without increasing overall building height. The house in this figure provides clear ceiling heights of at least 8 feet on all floors.

5. Improve Livability on Difficult Sites

Proposal

Permit a conditional basement height relaxation to address livability issues caused by site conditions such as a sloping lot or very shallow sewer depths. In the RS-1 District only, permit a corresponding relaxation of overall building height to accommodate a basement height relaxation. Any height relaxation would require approval of the Director of Planning.

- Amend RS Districts to permit a conditional basement height relaxation of up to 1.6 feet (0.5 m). This would allow the height of the first storey floor surface to be increased to 6.6 feet (2.0 m).
- Amend the RS-1 District to permit a conditional building height relaxation of up to 1.6 feet (0.5 m). This would allow building height to be increased to 31.6 feet (9.7 m).

Rationale

On sloping lots, portions of basement walls can be mostly below grade. Any rooms in overly deep basement areas do not meet minimum livability requirements set out in the Zoning and Development By-law. In some areas of the city, sewer depths can be very shallow, necessitating the use of pumps whenever plumbing fixtures are installed in the basement.

The conditional height relaxation gives the Director of Planning the authority to exercise discretion in situations where site conditions place unnecessary hardship on a development. In all RS Districts, the proposed height relaxation refers to the height of the surface of the first storey, as measured above finished grade. The maximum relaxation of 1.6 feet (0.5 m) ensures that basement height cannot exceed 6.6 feet (2.0 m), the height that was permitted prior to 1988.

The RS-1 District Schedule limits outright building height to 30 feet (9.2 m). All other RS Districts permit a building height up to 35 feet (10.7 m). In RS-1, the building height would need to be increased in order to accommodate a basement height relaxation and permit a house with a minimal sloping roof. Therefore, staff also propose a building height relaxation of up to 1.6 feet (0.5 m) in RS-1.

6. Basement Option Evaluation

The main features of the basement option are:

- Additional floor area in the basement;
- Less floor area above grade on most single family lots;
- A smaller house footprint; and
- A basement height increase.

The following sections provide an evaluation of the basements option and answer some questions.

Why not permit a “free” basement?

Throughout the consultation on the basement option, questions were asked about the regulation of basement floor area: Why does the City count basement floor area? Why can't I build the full above grade floor area and have a full-size basement?

Permitting a free basement in a house could increase total floor area by a significant amount. A large floor area increase would provide a strong incentive to redevelop existing single family houses. One objective of the proposed basement option is to meet the need for basement space in a way that does not increase the rate of house demolitions.

A large floor area increase would also place upward pressure on land values. Another objective is to increase affordability as much as possible.

Illustrating the effect of a free basement option depends on lot size and the individual RS District. In general, with the proposed basement option, total floor area would increase by up to 17%. With a free basement option, total floor area would increase by up to 50%.

For example, on a 33 foot lot in the RS-1 District, total floor area would increase by 38%, from 2,400 to 3,300 square feet (see figure 1, example i). As lot size increases in RS-1, the overall floor area increase is reduced to the point where there is little difference between the proposed basement option and a free basement. In the RS-7 District, total floor area would increase by 50%, regardless of lot size.

What are the potential benefits of the basement option?

- *More Basements*
The additional floor area will encourage basements, which provide opportunities for a secondary suite and flexibility for other family uses. Secondary suites provide more affordable housing choices.
- *More Livable Basements*
The basement height increase will allow more livable basement suites.
- *More Housing Choices*
The basement option, when added as an option to the zoning, provides more opportunities for different types of houses. A two storey house with a basement is more typical of the houses that were built before the 1950's. Modern designs are also permitted.
- *More Renovations / Fewer Demolitions*
In addition to enabling basements, the basement option makes it possible to add a second storey to an existing one storey house with a full-size basement. Under current zoning, a typical bungalow can add about 400 sq.ft. in the second storey. This could provide an incentive to retain an existing house.
- *More Green Space*
With the basement option, the house footprint is reduced. A smaller building footprint leaves more opportunity for open yard space.

- *No Impact on Land Values*

With the basement option, houses would have more total floor area, but with all the additional floor area located in the basement. Most houses would also have less floor area located above ground compared to the current zoning option. Staff have been advised that, due to this trade-off between above grade and basement space, land values would not increase.

7. Permit Processing Implications

The RS District Schedules are complex and contain several regulations to control development in single family areas. The basement option presented here would add more regulations and complexity to the permitting processes in these zones. This could create challenges for Enquiry Centre and permit processing staff in Development Services, as well as members of the public, especially in the initial stages when staff expect a higher intake of applications to excavate partial basements. To help with this situation, staff will provide advance training to staff, and explanatory information and bulletins/diagrams to be made available for applicants seeking to take advantage of these new options.

Another comment relates specifically to the RS-5 District Schedule. This zone currently allows applicants to seek additional floor area in exchange for providing a more significant design response that is seen to be compatible with the existing streetscape. Additional floor area provides the incentive to go through this conditional process. The proposed basement option would allow the same total floor area as the current maximum permitted in RS-5. However, the basement option would permit less floor area above grade in order to enable full basements. There are two implications for RS-5: one for new houses and one for existing houses. For new houses, the "outright" basement option could potentially reduce the incentive to go through the conditional design stream. (Currently, about 50% of new houses are approved through the conditional review process.) For existing houses built under conditional approval with a partial basement, expanding the basement would not be possible because these houses would have too much floor area to fit the proposed regulations. Council may wish to direct staff to report back on options for basements in existing houses built under conditional design review in RS-5.

8. Monitoring the Basement Option

Staff propose to monitor all development permit applications in single family areas. Monitoring will provide information on the uptake of the basement option relative to the current zoning option and, regarding developments in RS-5, staff will pay attention to factors such as design impacts. Monitoring will also help to identify problems with the basement option, such as poor performance or unintended consequences. It is also important to note again that the regulations proposed increase regulatory complexity at the same time as staff are working to streamline and decrease regulations, particularly in the Zoning and Development By-law. Accordingly, monitoring will also be undertaken with a view to considering alternative options which are less complex in nature. Staff will report to Council if further zoning amendments are needed to address identified issues.

9. Public Consultation

Three public open houses were held the first week of March, 2009. A total of 151 people attended the open houses. Date, location, and attendance are as follows:

Tuesday, March 3, 2009	Sunset Community Centre	Attendance: 50 people
Thursday, March 5, 2009	Renfrew Park Community Centre	Attendance: 45 people
Monday, March 9, 2009	Kerrisdale Community Centre	Attendance: 56 people

Display panels at the open houses illustrated the basement option (see Appendix B). The open house panels are also posted on the City's EcoDensity website. Staff were available at the open houses to respond to questions, including staff who process permit applications for single family houses.

The open houses were advertised in a number of local community newspapers. In addition, emails were sent to the EcoDensity contact list, the Community Vision Committees, the Greater Vancouver Home Builders Association (GVHBA), the Urban Development Institute (UDI), the Vancouver City Planning Commission (VCPC), and the Vancouver Heritage Commission.

Comment sheets were provided at the open houses to receive feedback from members of the public. A total of 60 comment sheets were received plus three more sent by email. Overall, the majority of comments are in favour of the proposed basement option. In particular, people expecting to construct a new house or add a second storey to an existing house expressed strong support. However, some people feel that the basement option is not needed because they believe current zoning is sufficient to build a house with a basement. Others think the City should permit more floor area than the basement option offers.

Some people raised concerns in relation to potential impacts of higher density and more people living in single family areas, i.e. concerns about adequate parking, amenities, and water and sewer services.

While the amendments proposed in sections 1 and 2 were presented to the public at the open houses, the amendments presented in sections 3 to 5 are proposed in response to feedback received during the consultation period. Most of this feedback was received at the open houses either verbally or from written comment forms. Other feedback was solicited from house designers and home builders.

The consultation process also confirmed support for retaining the option to build a house under current zoning. Some people expressed a strong preference for above grade floor area rather than obtaining additional basement area if that also meant having less floor area above grade.

FINANCIAL IMPLICATIONS

There are no financial implications.

CONCLUSION

The zoning amendments proposed in this report will help to facilitate functional full-size basements and enable more livable basement suites. To accomplish this, the zoning amendments permit additional floor area in the basement and permit basements to be constructed higher out of the ground.

The proposed amendments will help to meet Council priorities for affordable housing by enabling more basement suites that are also more livable. Basement suites increase affordability on two fronts: they provide more affordable rental housing in single family areas; and they assist homeowners as “mortgage-helpers.”

* * * * *

Enabling Basements in Single Family Districts
PROPOSED AMENDMENTS TO THE
ZONING AND DEVELOPMENT BY-LAW (BY-LAW NO. 3575)

Note: An amending by-law will be prepared in accordance with the provisions listed below, subject to change and refinement prior to posting.

[All additions are shown in *bold italics*. Deletions are shown in ~~strikeout~~.]

Enable Basements in New Houses

Amend the following RS Districts by adding a basement option to:

- Increase the total floor space ratio from 0.60 FSR to 0.70 FSR; and
- Reduce above grade floor area to 0.45 FSR (or less if the current zoning has a lower limit for above grade area).

Reduce the House Footprint as part of the Basement Option

Amend the following RS Districts by reducing the house footprint with the basement option:

- Reduce the area of any floor to 0.25 FSR (25% of site area); and
- Limit the basement area to the perimeter of the first storey.

Enable Basements in Existing Houses

Amend the following RS Districts by adding a basement option for existing houses to:

- Accommodate houses where existing above grade floor area is up to 0.50 FSR;
- Increase the total floor space ratio to 0.75 FSR to allow a basement;
- Retain the 25% site coverage limit; and
- Continue to limit the basement area to the perimeter of the first storey.

1. In the RS-1, RS-5, and RS-6 District Schedules, amend section 4.7.1 *as follows*:

RS-1 District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, subject to the following:

- (a) for buildings existing prior to April 12, 1988 the area of all floors at or above finished grade and of the floors of any storey, basement or cellar located below a storey which has a floor surface located 2.0 m or more above finished grade, all of which floors are located within the building depth as defined by section 4.16.1 of this Schedule shall not exceed a floor space ratio of 0.20 plus 130 m²;
- (b) in all other cases, the area of all floors at or above finished grade and of the floors of any storey, basement, or cellar located below a storey which has a floor surface located 1.2 m or more above finished grade, all of which floors are located within the building depth as defined by section 4.16.1 of this Schedule, shall not exceed a floor space ratio of 0.20 plus 130 m²; ~~and~~

- (c) notwithstanding clauses (a) and (b), where a site is 18.2 m or more in width and 500 m² or more in area the Director of Planning may permit an increase in the area of all floors as described in clause (a) or (b) as the case may be, to a floor space ratio not exceeding 0.3 plus 93 m² provided that:
- (i) he considers the effect of the increase in floor area on adjacent properties and the character of the area, and
 - (ii) he first approves a plan showing existing and proposed trees and landscape;
- (d) *if:*
- (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.45, and the floor space ratio determined under subsection (a), (b), or (c) of section 4.7.1,*
 - (ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*
- an increase in the floor space ratio to 0.70 is permissible;*
- (e) *for buildings existing prior to _____, 2009, if:*
- (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) *the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*
 - (iii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iv) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*
- a basement or cellar is permissible.*

RS-5 District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, subject to the following:

- (a) for buildings existing prior to April 12, 1988 the area of all floors at or above finished grade and of the floors of any storey, basement or cellar located below a storey which has a floor surface located 2.0 m or more above finished grade shall not exceed a floor space ratio of 0.20 plus 130 m²;
- (b) in all other cases, the area of all floors at or above finished grade and of the floors of any storey, basement or cellar located below a storey which has a floor surface located 1.2 m or more above finished grade shall not exceed a floor space ratio of 0.16 plus 130 m²;
- (c) the Director of Planning may permit an increase in the maximum floor space ratio to 0.70 and may permit an increase in the area of all floors described in clause (a) or (b) to a floor space ratio not exceeding 0.24 plus 130 m² provided that he considers the intent of this Schedule and all applicable policies and guidelines adopted by Council;
- (d) *if:*
 - (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.45, and the floor space ratio determined under subsection (a) or (b) of section 4.7.1,*
 - (ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

an increase in the floor space ratio to 0.70 is permissible;
- (e) *for buildings existing prior to _____, 2009, if:*
 - (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) *the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*
 - (iii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*

(iv) no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,

a basement or cellar is permissible.

RS-6 District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, subject to the following:

- (a) for buildings existing prior to April 12, 1988 the area of all floors at or above finished grade and of the floors of any storey, basement or cellar located below a storey which has a floor surface located 2.0 m or more above finished grade, all of which floors are located within the building depth as defined by section 4.16 of this Schedule, shall not exceed a floor space ratio of 0.20 plus 130 m²;
- (b) for buildings existing prior to March 26, 1996 but not before April 12, 1988 the area of all floors at or above finished grade and of the floors of any storey, basement or cellar located below a storey which has a floor surface located 1.2 m or more above finished grade, all of which floors are located within the building depth as defined by section 4.16 of this Schedule shall not exceed a floor space ratio of 0.20 plus 130 m²;
- (c) in all other cases, the area of all floors at or above finished grade and of the floors of any storey, basement, or cellar located below a storey which has a floor surface located 1.2 m or more above finished grade, all of which floors are located within the building depth as defined by section 4.16 of this Schedule, shall not exceed a floor space ratio of 0.16 plus 130 m²;
- (d) notwithstanding section 4.7.1, the Director of Planning may permit an increase of the floor space ratio to 0.64 provided that:
 - (i) he considers all applicable policies and guidelines adopted by Council; and
 - (ii) the increase is subject to the following:
 - (1) the first and second storeys of the building shall not exceed a floor space ratio of 0.20 plus 130 m²;
 - (2) where a half storey is provided above the second storey, the area of all floors on the first, second, and half storey above the second storey shall not exceed a floor space ratio of 0.24 plus 130 m²;

- (3) the total floor space ratio may not exceed 0.60 plus the floor space ratio of the floor area counted above the second storey up to a maximum of 0.64;
- (e) *if:*
- (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.45, and the floor space ratio determined under subsection (a), (b), (c), or (d) of section 4.7.1,*
 - (ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*
- an increase in the floor space ratio to 0.70 is permissible;*
- (f) *for buildings existing prior to _____, 2009, if:*
- (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) *the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*
 - (iii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iv) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*
- a basement or cellar is permissible.*

2. In the RS-1A, RS-1B, RS-2, RS-4, and RS-7 District Schedules, amend section 4.7.1 as follows:

RS-1A District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, except that:

- (a) where an existing lot is less than 7.3 m width the floor space ratio shall not exceed 0.45;

- (b) *if:*
- (i) *the area of all floors at or above finished grade does not exceed a floor space ratio of 0.45,*
 - (ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

an increase in the floor space ratio to 0.70 is permissible;

- (c) *for buildings existing prior to _____, 2009, if:*
- (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) *the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*
 - (iii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iv) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

a basement or cellar is permissible.

RS-1B District Schedule

4.7.1 The total floor space ratio shall not exceed 0.60 and the area of any infill or secondary one-family dwelling shall not exceed 40 percent of the total floor area except that:

- (a) where an existing lot is less than 7.3 m in width the floor space ratio shall not exceed 0.45;
- (b) *if:*
 - (i) *the area of all floors at or above finished grade does not exceed a floor space ratio of 0.45,*
 - (ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*

(iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

an increase in the floor space ratio to 0.70 is permissible;

(c) *for buildings existing prior to _____, 2009, if:*

(i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*

(ii) *the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*

(iii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*

(iv) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

a basement or cellar is permissible.

RS-2 District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, except:

(a) for multiple dwellings or sites with infill in which cases the floor space ratio shall not exceed 0.75;

(b) *if:*

(i) *the area of all floors at or above finished grade does not exceed a floor space ratio of 0.45,*

(ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*

(iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, which perimeter includes covered porches,*

in which case, an increase in the floor space ratio to 0.70 is permissible;

- (c) *for buildings existing prior to _____, 2009, if:*
- (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) *the area of all floors at, above or below finished grade does not exceed a floor space ratio of 0.75,*
 - (iii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iv) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*
- a basement or cellar is permissible.*

RS-4 District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, except:

- (a) for sites with infill in which cases the floor space ratio shall not exceed 0.75;
- (b) *if:*
 - (i) *the area of all floors at or above finished grade does not exceed a floor space ratio of 0.45,*
 - (ii) *the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iii) *no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

in which case, an increase in the floor space ratio to 0.70 is permissible;
- (c) *for buildings existing prior to _____, 2009, if:*
 - (i) *the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) *the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*

- (iii) the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iv) no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*
- a basement or cellar is permissible.*

RS-7 District Schedule

4.7.1 The floor space ratio shall not exceed 0.60, except that:

- (a) for a single-family house, a two-family house and a multiple conversion dwelling the Director of Planning may increase the floor space ratio to a maximum of 0.64, provided he first considers the intent of this Schedule and the applicable policies and guidelines adopted by Council;*
- (b) if:*
 - (i) the area of all floors at or above finished grade does not exceed a floor space ratio of 0.45,*
 - (ii) the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*
 - (iii) no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,*

an increase in the floor space ratio to 0.70 is permissible;
- (c) for buildings existing prior to _____, 2009, if:*
 - (i) the area of all floors at or above finished grade does not exceed the lesser of a floor space ratio of 0.50 and the existing floor space ratio,*
 - (ii) the area of all floors at, above or below finished grade, after the addition of a basement or cellar, does not exceed a floor space ratio of 0.75,*
 - (iii) the area of any floor, including the basement or cellar, does not exceed a floor space ratio of 0.25, and*

(iv) no portion of the basement or cellar projects horizontally beyond the perimeter of the first storey, including covered porches,

a basement or cellar is permissible.

3. In the RS-6 District Schedule repeal section 4.7.4 as follows, and re-number the sections which follow it:

~~4.7.4 The following may be excluded in the computation of floor space ratio:~~

~~(a) basement and cellar floor areas, provided that:~~

~~(i) an amount equal to one half times the basement and cellar area excluded shall be deducted from the area allowed on the first and second storeys as defined by section 4.7.1; and~~

~~(ii) no portion of the basement or cellar shall project horizontally beyond the first storey, including covered porches.~~

4. In the RS-6 District Schedule, amend section 4.7.3(h) as follows:

(h) floors located below the first storey as defined in section 4.7.65(a) with a height of less than 1.2 m measured to the underside of floor joists;

Improve Livability in Basements in all RS Districts

- Amend the following RS Districts by increasing the allowable height of the first storey floor surface from 4 feet (1.2 m) to 5 feet (1.5 m).

1. In the RS-1 District Schedule, amend sections 4.7.1(b) and 4.17.1 by deleting "1.2 m" and substituting " *1.5 m*".

2. In the RS-3 and RS-3A Districts Schedule, amend sections 4.7.1(b), 4.7.3(g), and 4.17.1 by deleting "1.2 m" and substituting " *1.5 m*".

3. In the RS-5 District Schedule, amend sections 4.7.1(b) and 4.17.1 by deleting "1.2 m" and substituting " *1.5 m*".

4. In the RS-6 District Schedule, amend sections 4.7.1(b), 4.7.1(c), 4.7.2(d), 4.7.6(a)(ii), and 4.17.1 by deleting "1.2 m" and substituting " *1.5 m*".

Improve Livability on Difficult Sites

- Amend the following RS Districts to permit a basement height relaxation of up to 1.6 feet (0.5 m).
 - Amend the RS-1 District to permit a conditional building height relaxation of up to 1.6 feet (0.5 m).
1. In the RS-1 District Schedule, add the following new section after section 5.5:

5.6 If, due to conditions peculiar either to the site or to the proposed development, enforcement would result in unnecessary hardship, the Director of Planning may relax the height provisions of sections 4.3, 4.7.1(b) and 4.17.1 by no more than 0.5 m.
 2. In the RS-3 and RS-3A Districts Schedule, add the following new section after section 5.4:

5.5 If, due to conditions peculiar either to the site or to the proposed development, enforcement would result in unnecessary hardship, the Director of Planning may relax the height provisions of sections 4.7.1(b), 4.7.3(g), and 4.17.1 by no more than 0.5 m.
 3. In the RS-5 District Schedule, add the following new section after section 5.5:

5.6 If, due to conditions peculiar either to the site or to the proposed development, enforcement would result in unnecessary hardship, the Director of Planning may relax the height provisions of sections 4.7.1(b) and 4.17.1 by no more than 0.5 m.
 4. In the RS-6 District Schedule, insert the following new section after section 5.3 and renumber the sections following new section 5.4:

5.4 If, due to conditions peculiar either to the site or to the proposed development, enforcement would result in unnecessary hardship, the Director of Planning may relax the height provisions of sections 4.7.1(b), 4.7.1(c), 4.7.2(d), 4.7.6(a)(ii), and 4.17.1 by no more than 0.5 m.

welcome

Basements in Single Family Houses

Open House

welcome

Basements in Single Family Houses

Let us know what you think!

Come in and speak with staff.

Please record your comments on a Comment Form and deposit it in the box provided before you leave.

Why are we concerned about basements?

Vancouver residents have told us that single family zoning does not permit enough floor area for a suitable size house that also includes a full basement.

Many families would prefer a house with a full basement, but not if this means they have to give up a lot of floor space above ground level.

As a result, many houses have a partial basement or no basement at all, especially on smaller lots.

Why are we here to talk about basements?

Providing more affordable housing choices throughout the City is a top priority of Council. Facilitating basements in houses helps to meet this goal by providing more opportunities for rental secondary suites in single family areas.

On June 10, 2008, Vancouver City Council instructed staff to report back on “Enabling basements that can accommodate suites ...” as part of EcoDensity Action C-6: “More Options for Rental Secondary Suites.”

BASEMENTS IN SINGLE FAMILY HOUSES

What is the City proposing to do about basements?

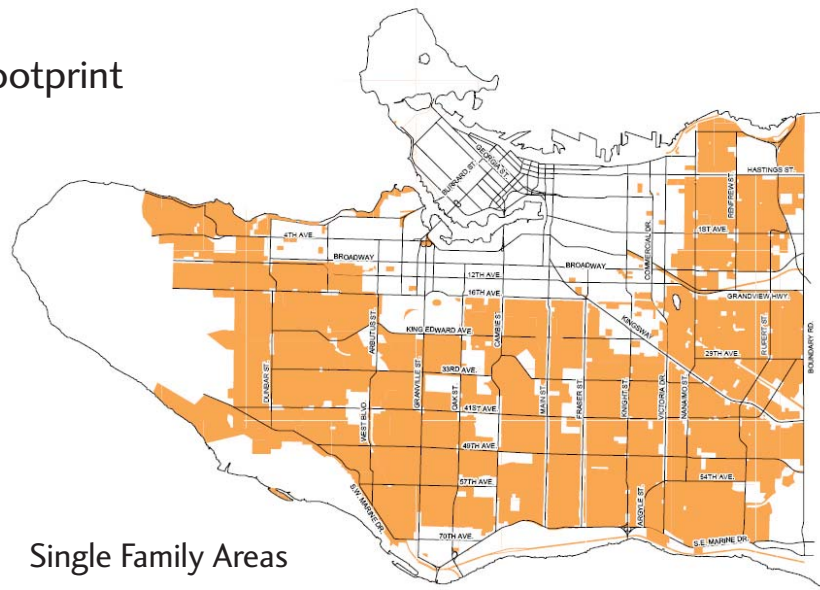
In Single Family Areas:

1) Continue to permit houses that can be built now under current zoning

AND

2) Add an option to single family zoning to permit a house with:

- A full-size basement
- More total floor area
- All additional floor area located in the basement
- A smaller house footprint



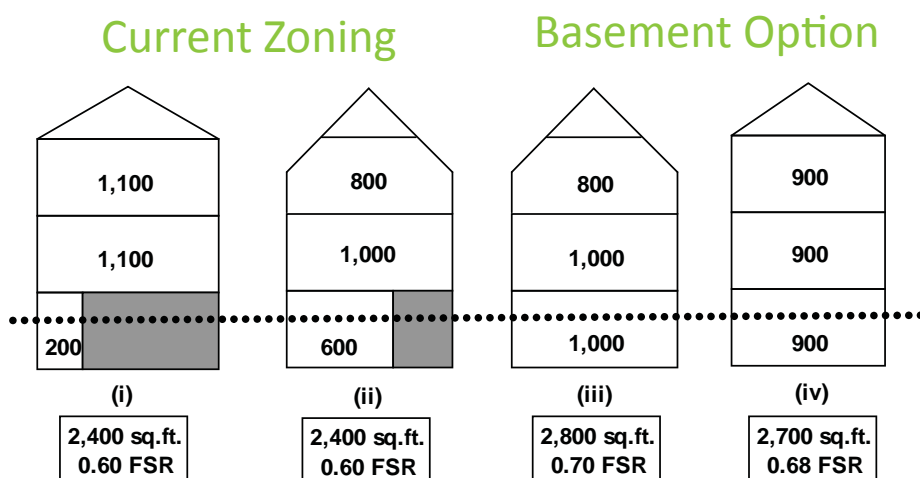
Single Family Areas

BASEMENTS IN SINGLE FAMILY HOUSES

Example:

House on a 33 foot lot in the RS-1 zone

What could this house look like?



Note: The dotted line in the diagram represents finished grade.
FSR (Floor Space Ratio) is used to determine how much floor area may be built.
Floor Area = Lot Size x FSR

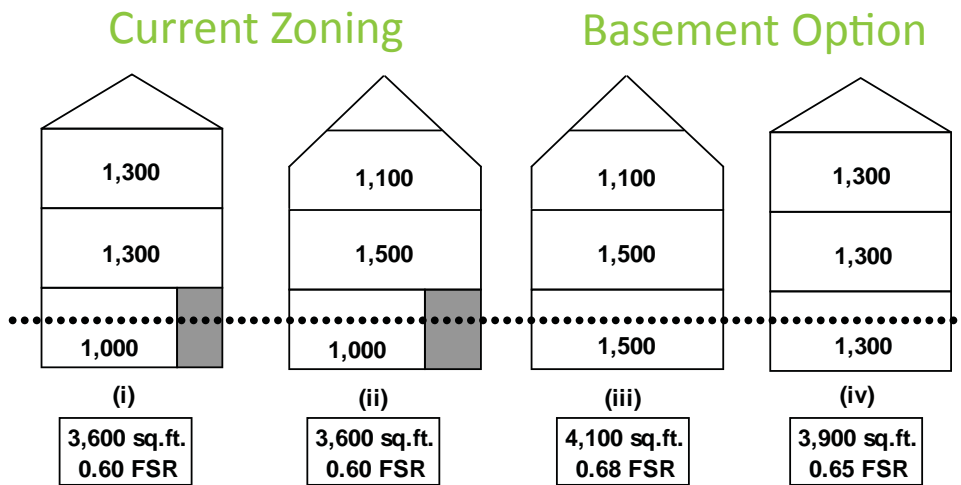
How is the floor area calculated?

	Current Zoning		Basement Option	
	Square Feet	Formula	Square Feet	Formula
Lot Size	4,000	33' x 120'	4,000	33' x 120'
Maximum Total Floor Area	2,400	0.60 FSR	2,800	0.70 FSR
Maximum Above Grade Area*	2,200	0.2 + 1,400	1,800	0.45 FSR
Basement Area	200	(2,400 minus 2,200)	1,000	0.25 FSR
Maximum Building Footprint	1,100	28% of Lot Size	1,000	25% of Lot Size

Note: * With the basement option, maximum above grade floor area equals 0.45 FSR or (0.2 FSR + 1,400 sq.ft.), whichever is less.

BASEMENTS IN SINGLE FAMILY HOUSES

Example:
House on a **50 foot lot** in the **RS-1 zone**
What could this house look like?



Note: The dotted line in the diagram represents finished grade.
FSR (Floor Space Ratio) is used to determine how much floor area may be built.
Floor Area = Lot Size x FSR

How is the floor area calculated?

	Current Zoning		Basement Option	
	Square Feet	Formula	Square Feet	Formula
Lot Size	6,000	50' x 120'	6,000	50' x 120'
Maximum Total Floor Area	3,600	0.60 FSR	4,100	0.68 FSR
Maximum Above Grade Area*	2,600	0.2 + 1,400	2,600	0.43 FSR
Basement Area	1,000	(3,600 minus 2,600)	1,500	0.25 FSR
Maximum Building Footprint	1,680	28% of Lot Size	1,500	25% of Lot Size



Note: * With the basement option, maximum above grade floor area equals 0.45 FSR or (0.2 FSR + 1,400 sq.ft.), whichever is less.

BASEMENTS IN SINGLE FAMILY HOUSES

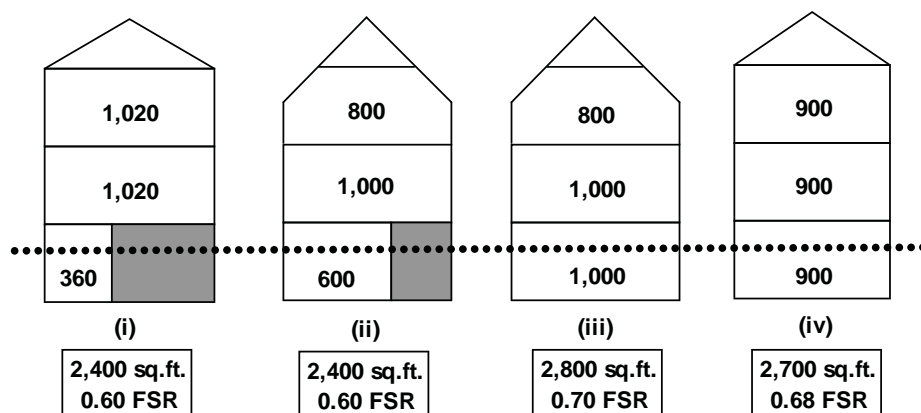
Example:

House on a **33 foot lot** in the **RS-5** zone

What could this house look like?

Current Zoning

Basement Option



Note: The dotted line in the diagram represents finished grade.
FSR (Floor Space Ratio) is used to determine how much floor area may be built.
Floor Area = Lot Size x FSR

How is the floor area calculated?

	Current Zoning		Basement Option	
	Square Feet	Formula	Square Feet	Formula
Lot Size	4,000	33' x 120'	4,000	33' x 120'
Maximum Total Floor Area	2,400	0.60 FSR	2,800	0.70 FSR
Maximum Above Grade Area*	2,040	0.16 + 1,400	1,800	0.45 FSR
Basement Area	360	(2,400 minus 2,040)	1,000	0.25 FSR
Maximum Building Footprint	1,200	30% of Lot Size	1,000	25% of Lot Size

Note: * With the basement option, maximum above grade floor area equals 0.45 FSR or (0.16 FSR + 1,400 sq.ft.), whichever is less.

BASEMENTS IN SINGLE FAMILY HOUSES

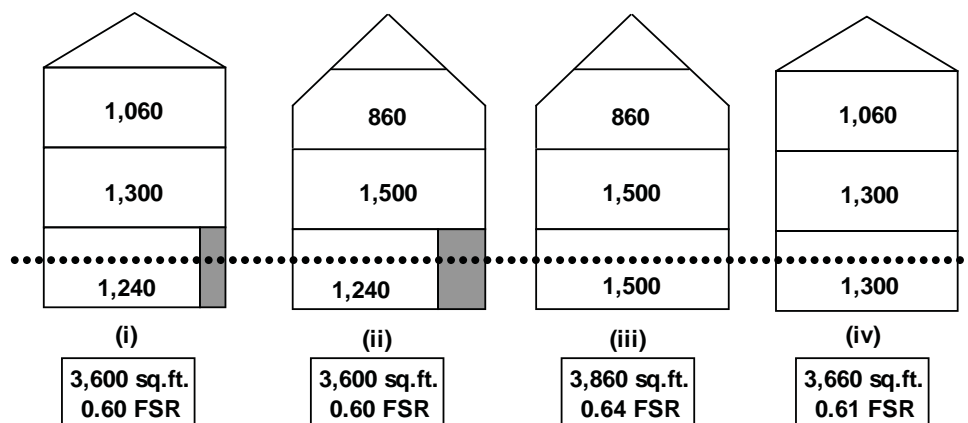
Example:

House on a **50 foot lot** in the **RS-5** zone

What could this house look like?

Current Zoning

Basement Option



Note: The dotted line in the diagram represents finished grade.
FSR (Floor Space Ratio) is used to determine how much floor area may be built.
Floor Area = Lot Size x FSR

How is the floor area calculated?



	Current Zoning		Basement Option	
	Square Feet	Formula	Square Feet	Formula
Lot Size	6,000	50' x 120'	6,000	50' x 120'
Maximum Total Floor Area	3,600	0.60 FSR	3,860	0.64 FSR
Maximum Above Grade Area*	2,360	0.16 + 1,400	2,360	0.39 FSR
Basement Area	1,240	(3,600 minus 2,360)	1,500	0.25 FSR
Maximum Building Footprint	1,680	28% of Lot Size	1,500	25% of Lot Size

Note: * With the basement option, maximum above grade floor area equals 0.45 FSR or (0.16 FSR + 1,400 sq.ft.), whichever is less.

BASEMENTS IN SINGLE FAMILY HOUSES

What are the potential benefits of the proposed basement option?

■ More Basements

Basements provide opportunities for a secondary suite, family room, utility room, workshop, and storage space. Secondary suites provide more affordable housing choices.

■ More Traditional House Form

A two storey house with a basement is more typical of the houses that were built before the 1950's.

■ More Housing Choices

The basement option, when added as an option to the zoning, provides more opportunities for different types of houses.

■ More Renovations / Fewer Demolitions

The basement option makes it possible to add a larger second storey to an existing one storey house with a basement. This could provide an incentive to retain an existing house.

■ More Green Space

With the basement option, the house footprint is reduced. A smaller building footprint leaves more open yard space.

■ No Impact on Land Values

With the basement option, houses would have more total floor area, but with all the additional floor area located in the basement. On smaller lots, these houses would also have less floor area located above ground level. Staff have been advised that this trade-off between above grade and basement space would not increase land values.

QUESTIONS & ANSWERS

Q Why can't basements just be "free" floorspace under the house?

A Allowing a "free" basement would increase floor area by a significant amount, depending on lot size and zoning. On a 33 foot lot in RS-1, total floor area would increase by 38%, from 2,400 to 3,300 square feet. In other zones, total floor area could increase by 50%.

A large floor area increase provides a strong incentive to redevelop existing single family houses. One objective of the proposed basement option is to meet the need for basement space in a way that does not increase the rate of house demolitions.

Q Will the basement proposal result in larger houses?

A Yes and No. With the basement proposal, total floor area increases by up to 17%. However, all of the increase is in the basement. In addition, some floor area is moved from above grade to the basement level. As a result, houses will not appear to be larger and in some cases could even look smaller. This increase is referred to as "invisible" density.

Q Does the basement proposal mean the City is allowing more suites?

A No. All the single family zones already permit a house with a secondary suite. However, the basement option may make it easier to provide a suite in a house.

Q If the City is going to enable more suites, will there be parking?

A Yes. The Parking By-law sets the required number of off-street parking spaces. For a newer house with a suite, a minimum of two parking spaces must be provided.

Q Will I be required to build a secondary suite in my basement?

A No. The choice of providing a suite is entirely up to the owner of a single family house.

Q Will my house be made non-conforming?

A No. The basement option will be available as an option. Any house that conforms to current zoning by-laws will remain conforming and will continue to be permitted in the zoning.

QUESTIONS & ANSWERS

Q I have a one storey house with a basement. How does the basement option help me if I want to add a second floor?

A Many one storey bungalows on a 33 foot lot have a full basement, with about 1,000 square feet on each level. Under current zoning, about 400 square feet could be built in a second floor addition. With the basement option, up to 800 square feet could be built.

Q Will the basement proposal increase my property taxes?

A Property taxes are based on two components: land value and building or improvement value. The basement option allows more floor area in the basement, which is less desirable than above grade space. This trade-off between above grade and basement space means that land values should not increase.

Any property tax increase will depend on the improvement value of the house, which depends on factors such as size, age, overall condition of the house, and construction costs. If the value of a house increases more than neighbouring houses, then property taxes for that house could increase.

Q How much more does a new house with a basement cost to build?

A Construction costs were estimated for two single family houses (without a suite) using a program called the Marshall-Swift calculator.

1) 33 foot lot, two storey house with no basement, 2,200 square feet:
Cost: \$244,560 Cost per sq.ft.: \$111.

2) 33 foot lot, two storey house with a finished basement, 2,700 square feet:
Cost: \$266,300 Cost per sq.ft.: \$99.

Adding a suite increases total cost by about \$6,000.

Q What's next for the basement option work program?

A Staff expect to present single family zoning amendments to Council in May, 2009 with a recommendation for referral to Public Hearing in June, 2009.

Q What is happening with Laneway Housing?

A Staff are developing regulations to permit Laneway Housing for family members or rental accommodation, in a way that maintains backyard open space.