



ADMINISTRATIVE REPORT

Report Date: April 20, 2018
Contact: Brad Badelt
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RTS No.: 12213
VanRIMS No.: 08-2000-20
Meeting Date: May 16, 2018

TO: Standing Committee on Policy and Strategic Priorities

FROM: General Manager of Planning, Urban Design and Sustainability and General Manager of Engineering Services

SUBJECT: Green Demolition By-law Update

RECOMMENDATION

- A. THAT Council receive the following report for information regarding the results of the City's green demolition program to date.
- B. THAT Council approve, in principle, amendments to the Green Demolition By-law No. 11023, generally in the form as set out in Schedule 1, to expand the scope of the program to apply reuse and recycling requirements to pre-1950 one- and two-family homes and to require deconstruction for pre-1910 and heritage-registered one- and two-family homes, all effective January 1, 2019;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amending by-law generally in accordance with Schedule 1.
- C. THAT Council approve up to \$250,000 in funding from the City's 2018 Innovation Fund to provide financial support for the establishment and operation of a locally operated non-governmental deconstruction hub on terms and conditions that are consistent with the Vancouver Charter and the City's Procurement Policy, and that are to be documented in a contract to be negotiated by City staff (the "Deconstruction Hub Contract").
- D. THAT the terms and conditions of the Deconstruction Hub Contract will include requiring that the private operator of the deconstruction hub provide at least matching external funds, as a condition of the release of the Innovation Funds, and that all terms and conditions will be to the satisfaction of the General Manager of Planning, Urban Design & Sustainability, the General Manager of Engineering Services and the Director of Legal Services.

- E. THAT no legal rights or obligations will be created or arise by virtue of Council's approval of Recommendations C and D unless and until the Deconstruction Hub Contract has been executed and delivered by the General Manager of Planning, Urban Design & Sustainability, the General Manager of Engineering Services and the Director of Legal Services.

REPORT SUMMARY

The recommendations in this report respond to the Heritage Action Plan, the Zero Waste objective in the Greenest City Action Plan and Metro Vancouver's Integrated Solid Waste and Resource Management Plan. These plans aim to encourage preservation and renewal of character homes, increase reuse of demolition materials, and generally reduce the amount of construction and demolition waste disposed to landfill and incinerator.

In June 2014, Council approved recommendations that established reuse and recycling requirements for demolition waste from pre-1940 one- and two-family homes. Staff reported back to Council in December, 2015, on the results of the program to date. At that time, Council supported an incremental expansion of the by-law requirement over time to newer homes. There was also support for measures to encourage more salvage and reuse of demolition materials, particularly for older, character homes.

To date, the Green Demolition By-law has diverted nearly 40,000 tonnes, or roughly 10,000 tonnes per year, of demolition waste from landfill and incinerator. The average diversion rate for pre-1940 homes has been 86%, which is significantly higher than the typical rate of 40-50% for traditional residential demolitions. However, most of the materials that have been diverted have been recycled rather than reused. Recycling is not necessarily the highest and best use of all materials, particularly for the old-growth timber that older, character homes were often built with.

The proposed by-law amendments will expand the existing green demolition requirements from pre-1940 homes to pre-1950 homes. Pre-1940 homes represent roughly 40% of residential demolitions; the shift to pre-1950 homes will capture 70%. The proposed amendments will also require deconstruction for pre-1910 homes and heritage-listed homes built before 1950. Deconstruction will be quantified as salvaging a minimum of three metric tonnes of wood per home for the purpose of reuse. This requirement would apply to approximately 10-12 homes a year that contain the highest value materials for reuse. The proposed by-law amendments will be effective January 1, 2019.

In addition, staff recommend providing financial support for an organization to establish and begin operating a deconstruction hub. Such financial support aligns with the City's 2018 Innovation Fund guidelines. The proposed hub would be operated independently from the City but would help advance the local market for upcycling and selling salvaged materials, particularly old-growth wood, thus addressing a significant barrier to increased salvage and reuse in Vancouver. Financial support for the deconstruction hub would be on terms and conditions that are consistent with the Vancouver Charter and the City's Procurement Policy and such terms will include matching external funds being secured by the operator of the deconstruction hub. These terms and conditions would be documented in the Deconstruction Hub Contract to be negotiated by City staff.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

- In 2011, Council endorsed Metro Vancouver’s Integrated Solid Waste and Resource Management Plan (ISWRMP) including the following municipal actions focussed on Construction and Demolition (C&D) waste diversion:
 - Municipalities will work with Metro Vancouver to develop a process to require construction and demolition waste recycling
 - Review municipal permitting processes (development, building and demolition) with a view to requiring waste management plans as a condition of such permits.
 - Review the desirability and feasibility of deposit systems or other financial incentives to increase enforcement of waste management plans for construction and demolition waste.
- In 2011, Council adopted the Greenest City Action Plan. The plan’s Zero Waste objective set the target of reducing total waste to landfill or incinerator by 50% (from 2008 levels). One of the priority actions to achieve that target is to reduce, reuse and recycle more construction and demolition waste.
- On June 10, 2014, as part of a Heritage Action Plan, Council approved a recommendation that the minimum recycling and reuse rate for pre-1940 homes be 75%, and 90% for pre-1940 homes that have character status.
- On December 16, 2015, Council received an update on the green demolition program and endorsed, in principle, an expansion of the by-law requirement to newer homes, incrementally over time, as well as incentives to encourage more deconstruction and reuse.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager recommends approval of the foregoing.

REPORT

Background/Context

Overview of Construction and Demolition Waste

Construction and demolition (C&D) waste represents more than 40% of the total materials disposed of in Vancouver. While some C&D waste cannot be recycled or reused, much more of it could be that is currently being disposed. As such, reducing C&D waste represents a significant opportunity to achieve our Zero Waste objectives.

The majority of C&D waste in Vancouver is generated through demolition. Within the demolition sector, commercial buildings typically have a relatively high diversion rate (approximately 80%) because the dominant materials—concrete and metal—are highly recyclable. One- and two-family homes, on the other hand, have a greater diversity of materials—concrete, wood, shingles, drywall, stucco, metal and others—which require careful sorting and separation to facilitate recycling. As a result, the diversion rate using traditional demolition practices for a one- or two-family home is often less than 50%.

Supporting Policy

The Greenest City Action Plan includes a target to reduce waste to landfill and incinerator by 50% from 2008 levels by 2020. Increasing diversion of C&D waste is a priority action in the Greenest City Action Plan, and is identified as an area of focus in the proposed Zero Waste 2040 strategic plan (RTS 12177). The Greenest City Refresh (2015-2020) included a recommendation to expand the green demolition program to all homes, rather than just pre-1940 homes.

At a regional level, Metro Vancouver's Integrated Solid Waste and Resource Management Plan (ISWRMP) targets achieving 80% diversion of C&D waste from landfill or incinerator by 2020. The priority actions Metro identified to achieve this target include:

1. Mandating waste reduction and recycling on construction and demolition projects;
2. Banning clean (unpainted, untreated) wood waste from disposal to landfill or incinerator, and taking actions to reduce all wood from being disposed; and
3. Providing depots for convenient drop-off of wood waste by residents.

In 2013, Metro Vancouver developed a sample by-law to help municipalities mandate waste recycling on demolition projects. Developing the sample by-law included a detailed three-year consultation program with demolition contractors, recycling facility operators, industry associations and regional municipalities. The City of Vancouver's Green Demolition By-law was modeled off Metro's recommended by-law and process.

Green Demolition Results to Date

In June 2014, Council approved the Green Demolition By-law, which set reuse and recycling requirements for demolition waste from pre-1940 one- and two-family homes. The requirements are that 75% of the demolition materials must be reused or recycled. For homes that have character status, 90% of the materials must be reused and recycled. The Green Demolition By-law came into effect on September 1, 2014.

Since that time, staff have required contractors to submit green demolition compliance reports that include receipts showing where materials were sent. For recycling, the receipts must be issued by a facility licensed by Metro Vancouver. To date, there have been nearly 1,000 pre-1940 homes demolished, with an average of 86% of materials being reused or recycled, which is significantly higher than the typical recycling rate of around 50%. As a result, nearly 40,000 tonnes of materials has been diverted from the landfill, or roughly 10,000 tonnes per year. Overall, compliance with the by-law has been high, with approximately 98% of applications meeting the diversion requirement.

The biggest challenge has been the lack of salvage and reuse of materials. Without specific requirements for salvage, contractors tend to demolish the house as quickly as possible, typically using an excavator to do most of the work. In some cases, architectural details such as fixtures, doors, and cabinets are being recovered. But there has been very little wood salvaged, despite growing interest from local makers and contractors for salvaged lumber and shiplap.

Regional Actions

Across the region, a number of municipalities have also implemented by-laws similar to the City's Green Demolition By-law. These municipalities include New Westminster, Port Moody,

Richmond and, most recently, the City of Surrey. The programs range from requiring compliance reports and security deposits similar to the City of Vancouver's through to more education and outreach-focussed programs. An informal review of the various programs by Metro Vancouver suggested that the City of Vancouver's program is the most intensive and is achieving the highest diversion rates.

Strategic Analysis

Expansion to pre-1950 homes

The Green Demolition By-law has proven to be an effective tool at diverting demolition waste from the landfill and incinerator. Since it was adopted in 2014, demolition contractors have generally adapted their practices to meet the by-law requirements. As such, staff are proposing to expand the by-law, effective January 1, 2019, from pre-1940 homes (which applies to approximately 40% of one- and two-family demolitions) to include pre-1950 homes (which would apply to a total of approximately 70% of one- and two-family demolitions). This amendment is consistent with Council's previous direction in December, 2016, and would divert an additional 8,000 tonnes of materials annually from disposal.

A final expansion of the by-law to apply to all homes will be brought forward to Council when staff confirms there is sufficient downstream market capacity. Implementing the by-law in phases will provide the regional recycling facilities time to adjust to by-law changes and accommodate additional materials. There is also some concern that newer homes built using certain materials, such as glues and spray-foam insulation, may not be recyclable to the level required under the current by-law. Staff will do further analysis on this before bringing a final expansion of the by-law.

Deconstruction requirement for pre-1910 and heritage-listed homes

The key issue with the Green Demolition By-law has been that it is not resulting in the highest and best use of the demolition materials, particularly for older homes. The vast majority of the demolition materials are being recycled, not reused. Most wood, in particular, is being recycled as biomass fuel or as landscape mulch. While diverting materials from disposal is advancing the City towards our zero waste goal, achieving a higher and better use of these materials aligns with our zero waste objectives.

Over the past several years, there has been growing demand from local makers for salvaged wood from older homes. Old-growth wood is often found in the framing and shiplap used to build pre-war homes in Vancouver. Several deconstruction projects have been completed in Vancouver recently, which led to significant wood salvage and reuse. The salvaged wood was reused for decorative features including for flooring, staircases, and cabinetry, as well as for furniture-making. These deconstruction projects have demonstrated the feasibility of meeting the proposed by-law requirement and also shown that end markets do exist, albeit at a relatively small scale today.

Deconstruction requirements have been successfully implemented in other North American cities. In Portland, for example, a deconstruction ordinance came into effect on January 1, 2017 and applies to pre-1916 homes, which represent about one-third of all residential demolitions there. Portland staff report that the ordinance has been successful to-date in diverting more materials to salvage and reuse, and that it's also generating employment opportunities (more manual work is required, rather than fully relying on excavators). Portland also reports that

deconstruction sites tend to produce less dust and noise compared to traditional demolition sites. (More information on Portland's deconstruction program can be found here: <https://www.portlandoregon.gov/bps/68520>).

To ensure more reuse of demolition materials in Vancouver, the proposed by-law amendment, effective January 1, 2019, will require deconstruction for pre-1910 and heritage-listed homes (built before 1950), which will be quantified by the salvage of at least three metric tonnes of wood in reusable form, per home. Three tonnes was selected as the minimum amount for salvage as it has been shown to be feasible in previous projects (it's less than half the wood in a typical small home), but will necessitate a more careful approach to taking down a house. Recent deconstruction projects completed in Vancouver have all met or exceeded this level of wood salvage. The requirement would apply to approximately 10-12 homes a year, out of roughly 1,000 demolitions annually. These homes are the oldest and/or have the highest heritage value, and thus have the highest potential value of materials for reuse.

Market support

The proposed deconstruction requirement intentionally targets a small number of homes; it's meant to be a modest, first step to grow the local deconstruction and salvage industry. There are a sufficient number of contractors to support this level of deconstruction. But there is a need for a central hub to store, upcycle and market salvaged materials, including salvaged wood. Other cities, such as Portland, Seattle, and Oakland, have established salvage and reuse markets, including stores run by not-for-profit organizations as well as for-profit businesses. In Portland, locally salvaged wood is featured in the interior design of a number of restaurants, bars and other businesses.

In order to advance Vancouver's deconstruction industry, staff recommend financial support be provided to a locally operated organization to establish and begin operating a deconstruction hub. Such a hub would be operated independently from the City. The hub would provide a central location for contractors to bring salvaged materials, including old-growth wood and architectural details, where furniture makers and contractors could then procure and upcycle these materials, and where the public, interior designers, and architects could purchase these goods. Financial support for the deconstruction hub would be on terms and conditions that are consistent with the Vancouver Charter and the City's Procurement Policy and such terms will include matching external funds, at a minimum, being secured by the private operator of the deconstruction hub, in order to leverage the City's support. These terms and conditions would be documented in the Deconstruction Hub Contract to be negotiated by City staff.

In parallel, staff will explore opportunities to offer training and other resources to support deconstruction. Specifically, staff will offer, through a third-party organization, introductory deconstruction workshops for contractors in advance of the by-law coming into effect. Staff will also explore the opportunity to develop case studies of deconstruction projects, to document and demonstrate the benefits to other contractors, builders and home owners.

Public/Civic Agency Input

Staff held two workshops with demolition contractors in late 2017 to raise awareness -of the proposed by-law amendments and to solicit feedback. In general, the demolition industry has adapted well to the green demolition program. The main concern raised is that regional recycling facilities sometimes lack capacity. Wood recycling facilities have adequate processing capacity but are limited at times by lack of demand by end users (for biomass or mulch). For this

reason, staff have proposed only an incremental expansion to the green demolition program at this time. Staff have apprised Metro Vancouver staff of the proposed amendments and will continue to advocate for more regional-scale recycling. In addition, the City of Vancouver is studying the feasibility of a wood recycling program at the Vancouver Landfill.

With respect to the proposed deconstruction requirement for pre-1910 and heritage-registered homes, demolition contractors did not raise significant concerns, largely because the number of homes affected is fairly limited (10-12 per year). For contractors interested in deconstruction, the proposed by-law amendment is strongly supported. There are several local contractors pursuing deconstruction work and the field appears to be growing in recent years. While supportive of the by-law amendment, deconstruction contractors highlighted the need for a central hub to gather, upcycle and retail salvaged materials in Vancouver.

Implications/Related Issues/Risk

Financial

The City currently collects a \$350 fee for green demolition projects, which offsets staff time required to review compliance reports and administer the green demolition program (providing customer support, liaising with recycling facilities, processing deposits and refunds, verifying program compliance, etc.). The proposed by-law amendments will continue this practice and therefore will have no net financial impact on the City. Staff will continue to monitor the volume levels for the additional permits and any additional costs and revenue will be considered as part of the annual operating budget process.

The report also recommends that funding of up to \$250,000 from the City's 2018 Innovation Fund be used to provide financial support to establish and operate a non-governmental deconstruction hub. (There is no additional in-kind support or subsidized lease proposed.) The private operator will be required to provide matching external funds, at a minimum, in order to receive the City's funding. Financial support for the deconstruction hub would be on terms and conditions that are consistent with the Vancouver Charter and the City's Procurement Policy. These terms and conditions would be documented in the Deconstruction Hub Contract to be negotiated by City staff. Schedule 2 of this report outlines how financial support for the deconstruction hub aligns with the 2018 Innovation Fund guidelines.

Environmental

The green demolition program outlined in this report supports Vancouver's goal of achieving zero waste and is highlighted as a priority area of action in the Zero Waste 2040 strategic plan (RTS 12177). This program would also support the Greenest City Action Plan's Green Economy goal by supporting the development of green jobs.

Legal

The Vancouver Charter (Section 303) grants the City of Vancouver broad authority over solid waste including: collection, removal, transfer, disposal and recycling.

CONCLUSION

This report summarizes the results of the Green Demolition By-law to date and proposed amendments to expand and improve upon the requirements. Since its enactment in 2014, the by-law, which currently applies to pre-1940 homes, has resulted in nearly 40,000 tonnes of materials being diverted from disposal to landfill and incinerator. Based on the results to date, the report recommends expanding the green demolition requirements to pre-1950 homes. The report also recommends requiring, for pre-1910 and heritage-registered homes built before 1950, a minimum of three tonnes of wood be salvaged for the purpose of reuse. These amendments will significantly increase the amount of demolition waste diverted from disposal, and also achieve higher and better use for materials that have reuse value. In addition, staff recommends the City provide financial support for a locally operated deconstruction hub. Such financial support aligns with the City's 2018 Innovation Fund guidelines. The green demolition program is a key step toward achieving Vancouver's zero waste goal.

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SCHEDULE 1

**DRAFT By-law to amend
the Green Demolition By-law No. 11023
Regarding buildings constructed before 1950, and deconstruction and wood salvage**

Note: A by-law will be prepared generally in accordance with the provisions listed below.

2. Council strikes sections 2.1 through 10.2, and substitutes the following:

“Definitions

- 2.1 In this By-law:

“character residential building” means a residential building determined to be a character building by the Director of Planning in accordance with the Heritage or Character Buildings Review – Interim Procedure, adopted by Council on June 11, 2014, or a character house as defined in section 2 of the Zoning and Development By-law No. 3575;

“Chief Building Official” means the person appointed as City Building Inspector under section 305 of the Vancouver Charter, and his or her deputies;

“compliance report” means a report substantially in the form attached as Appendix “A”, as modified from time to time by the Chief Building Official;

“deconstruction” means the systematic dismantling of a building, typically in the opposite order to which it was constructed;

“demolition permit” means a permit issued pursuant to the Building By-law that authorizes demolition of a building or structure;

“disposal” means the disposal of building materials at a landfill or an incinerator facility;

“hazardous materials” means any material, product or substance regulated as a controlled product or hazardous waste under the B.C. Workers Compensation Act and Environmental Management Act, respectively, that is present on a demolition site or is produced, originates or results from demolition;

“heritage listed residential building” means a residential building listed on the Vancouver Heritage Register;

“recycling” means the process of collecting, sorting, cleaning, treating and reconstituting materials that would otherwise be waste, and converting them into material that can be used for new products, and includes storage for such purpose;

“reuse” means further or repeated use of the building materials, and includes storage for such purpose;

“green demolition condition ” means a condition requiring reuse, recycling, or salvage imposed on a demolition permit by the Chief Building Official pursuant to this By-law;

“residential building” includes all buildings used as one or two family dwellings, as well as accessory buildings on the same lot or site;

“salvage” means removing materials such that they are protected from damage and kept intact so that they can be reused; and

“waste recycling or other facility” includes a facility or licensed business, other than a landfill or an incinerator facility, that:

- (i) has a subsisting permit, licence, or operational certificate issued under the GVS & DD’s Municipal Solid Waste and Recyclable Material Regulatory By-law No, 181;
- (ii) is a publicly-owned transfer station under the Integrated Solid Waste and Resource Management Plan for purposes other than disposal;
- (iii) accepts only asphalt and concrete for the purposes of reprocessing, resale and reuse;
- (iv) is a drop off depot owned or operated by a charitable organization registered under the Income Tax Act (Canada) or a non-profit organization to which section 149 of the Income Tax Act applies;
- (v) receives, cleans, sorts, bales or packages recyclable material for the purpose of recycling; or
- (vi) resells or builds products using reused, recycled, or salvaged building materials.

Demolition of pre-1950 residential buildings

3.1 No person may cause, permit or allow the demolition of a residential building constructed in whole or in part before 1950 without a demolition permit.

3.2 Every demolition permit authorizing demolition of a residential building constructed in whole or in part before 1950 must include a green demolition condition, imposed by the Chief Building Official, requiring that the building be subject to demolition resulting in the reuse or recycling of not less than 75% of all building materials, by weight, excluding hazardous materials.

3.3 Every demolition permit authorizing demolition of a character residential building constructed in whole or in part before 1950 must include a green demolition condition, imposed by the Chief Building Official, requiring that the character residential building be subject to demolition resulting in the reuse or recycling of not less than 90% of all building materials, by weight, excluding hazardous materials.

3.4 In addition to the applicable green demolition condition imposed under section 3.2 or 3.3 above, every demolition permit authorizing demolition of a residential building constructed in whole or in part before 1910, or demolition of a heritage listed residential building constructed in whole or in part before 1950, must include an additional green demolition condition, imposed by the Chief Building Official, requiring that the residential building be subject to demolition by means of deconstruction, resulting in the salvage of at least three tonnes of wood.

Additional credit for reuse

4.1 Any building materials that are reused or salvaged, rather than recycled or disposed of, can be credited towards compliance with a green demolition condition at a rate of five times its actual weight.

Security deposit condition

5.1 Every demolition permit subject to a green demolition condition must include a condition, imposed by the Chief Building Official, requiring the permit holder to provide to the City, immediately upon issuance of the permit, security in the form of cash or other legal instrument acceptable to the City in the amount of \$14,650.

5.2 Any security deposit payment paid to the City under section 6.1 shall be refunded to the permit holder based on the reuse, recycling, or salvage achieved and in accordance with Appendix "B", once the permit holder has satisfied all other permit conditions and otherwise complied with this By-law.

Other permit conditions

6.1 A fee of \$350.00 must be paid before a demolition permit subject to a green demolition condition may be issued.

6.2 The Chief Building Official may impose other conditions on a demolition permit subject to a green demolition condition, including conditions regarding:

- (a) notifications and notices;
- (b) safety;
- (c) demolition requirements;
- (d) timing of demolition;

- (e) deadlines for completion of demolition;
- (f) reviews and inspections; and
- (g) compliance with this By-law, the Building By-law, and other enactments.

Demolition in accordance with permit

7.1 Every person issued a demolition permit subject to a green demolition condition must ensure that the building is demolished in accordance with the demolition permit and this By-law.

7.2 No person issued a demolition permit subject to a green demolition condition may cause, permit or allow the disposal of building materials that are to be reused, recycled, or salvaged except in accordance with this By-law.

7.3 Building materials that are to be subject to reuse, recycling, or salvage pursuant to a demolition permit must be delivered or taken to a waste recycling or other facility, or be sold or donated for reuse.

7.4 Every person who demolishes a building pursuant to a demolition permit subject to a green demolition condition must keep original records of the removal, reuse, recycling, salvage, and disposal of building materials governed by the demolition permit, including payment receipts, donation receipts, weigh bills, inspection reports, confirmation letters, and sampling reports, until the appropriate amount of the security deposit has been refunded to them in accordance with section 6.2, and in no case for less than 180 days.

7.5 The Chief Building Official may demand that a person who demolished a building pursuant to a demolition permit subject to a green demolition condition produce any or all of the original records required under section 8.2.

7.6 The Chief Building Official may, in the case where this By-law imposes unnecessary hardship, relieve the holder of a demolition permit subject to a green demolition condition from strict adherence to this By-law, provided the Chief Building Official first considers the:

- (a) cost of compliance;
- (b) diligence of the permit holder in seeking compliance; and
- (c) quality of the building material that will not be reused, recycled, or salvaged as a result of any relief granted.

7.7 The Chief Building Official may allow an exemption from a green demolition condition required under this By-law in the following circumstances:

- (a) when an applicant has applied for a building permit to move a structure;

- (b) when the residential building has been determined by the Chief Building Official to be dangerous and is required to be abated by demolition; and
- (c) in the case of a pre-1910 residential building, when a residential building has been determined by the Chief Building Official to be unsuitable for deconstruction because the building is structurally unsafe or is otherwise hazardous to human life, or because most of the material of the building is not suitable for reuse.

7.8 An applicant may request an exemption under section 9.1 by submitting a written request for exemption, together with supporting documentation, when submitting a demolition permit application.

Compliance reports

8.1 Every person issued a demolition permit subject to a green demolition condition must submit to the Chief Building Official:

- (a) a compliance report confirming that the building was demolished and that the building materials were reused, recycled, or salvaged in accordance with the demolition permit and this By-law; and
- (b) legible copies or scans of original records required under section 8.2,

within 30 days of the completion of the demolition.

8.2 No person issued a demolition permit subject to a green demolition condition may cause, permit or allow the submission of a false or inaccurate compliance report.

8.3 The Chief Building Official may require the submission of a satisfactory compliance report prior to issuing a building permit in relation to a site where a demolition permit subject to a green demolition condition was issued.

8.4 The Chief Building Official may suspend a building permit issued in relation to a site where a demolition permit subject to a green demolition condition imposed under this By-law was issued if:

- (a) no compliance report has been submitted;
- (b) a compliance report was submitted in contravention of this By-law; or
- (c) the demolition was carried out in contravention of the demolition permit or this By-law.

Offences and Penalties

9.1 Every person who:

- (a) violates any of the provisions of this By-law;
- (b) suffers or permits any act or thing to be done in contravention or in violation of any of the provisions of this By-law;
- (c) neglects to do or refrains from doing anything required to be done by any of the provisions of this By-law; or
- (d) does any act which violates any of the provisions of this By-law,

is guilty of an offence against this By-law and liable to the penalties hereby imposed.

9.2 Every person who commits an offence against this By-law is liable to a fine of no less than \$250 and no more than \$10,000 for each offence.

9.3 Every person who commits an offence of a continuing nature against this By-law is liable to a fine of no less than \$250 and no more than \$10,000 for each day such offence is continued.”

3. Council strikes Appendix A and Appendix B and substitutes Appendix A and Appendix B attached as Schedule A to this by-law.

[Schedule A of Draft Amendments to By-law]

Appendix A

RECYCLING & REUSE COMPLIANCE REPORT FOR GREEN DEMOLITION

Email this form with supporting documentation* to ComplianceReport@vancouver.ca

Project Address: _____ Permit No. _____

Building # of storeys: _____ Estimated total building area: _____ ft² Was a garage demolished? _____ (yes/no)

Foundation type (pick one): slab on grade crawlspace walkout full basement

Pre-1950 heritage-listed or pre-1910 house? : _____ (yes/no)
If answer is yes, complete Wood Salvage report on page 3

Recycling/reuse Requirement: _____ % (75% or 90%)

Recycling/reuse rate achieved for this project: _____ %

Demolition Completion Date : _____ / _____ / _____
Day Month Year

Demo Contractor Name: _____

Applicant Name on Permit: _____

UPDATED ADDRESS GREEN DEMO DEPOSIT REFUND CHEQUE SHOULD BE MAILED TO: _____

Tell us about any special circumstances, unusual features of the property, or special efforts made to reuse/recycle:

*Required documentation:

- For disposal and recycling, applicant must provide legible scans/photos of all receipts and weigh bills from receiving facilities
- For materials salvaged for reuse, acceptable documentation includes itemized donation receipt from a charity, itemized receipt from a salvage company or used building supply store. For private sales: provide clear photos showing the items removed from the house intact AND contact info of buyer(s).

NOTE ABOUT SALVAGE FOR REUSE: *Items salvaged for reuse, with documentation, can claim 5 times the estimated weight on the recycling compliance report (example: 100kg of salvaged doors can claim 500kg on the compliance report).*

More information:

<http://vancouver.ca/home-property-development/demolition-permit-with-recycling-requirements.aspx>



RECYCLING & REUSE COMPLIANCE REPORT FOR GREEN DEMOLITION

Email this form with supporting documentation* to ComplianceReport@vancouver.ca

Material	Recycling/Reuse or Disposal Facility Name	Metric Tonnes Generated	Recycling Rate % (from facility)	Metric Tonnes Recycled
Drywall / gypsum				
Asphalt roofing shingles				
Concrete, plaster (80 tonnes maximum credited)				
Metal				
Clean wood unpainted, untreated wood/lumber				
Items salvaged for reuse: lumber, windows, doors, cabinets, etc.	Are you claiming 5 x weight bonus? ____ (y/n)		100%	
Appliances/mechanical Stove, fridge, hot water tank, furnace, etc.				
Other _____				
Garbage: non-recyclable materials disposed to landfill (total of all loads)			0	0
		TOTAL:		TOTAL:
<p>Your overall recycling rate: _____%</p> <p>(Total tonnes recycled ÷ Total tonnes generated) X 100</p> <p><i>Notes: do not include hazardous materials on this report; 1000kg = 1 metric tonne</i></p>				

More information:

<http://vancouver.ca/home-property-development/demolition-permit-with-recycling-requirements.aspx>

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RECYCLING & REUSE COMPLIANCE REPORT FOR GREEN DEMOLITION

Email this form with supporting documentation* to ComplianceReport@vancouver.ca

PRE-1910 HOUSES & PRE-1950 HERITAGE-LISTED HOUSES

As of January 1, 2019, the City of Vancouver requires that at least three (3) metric tonnes of wood be salvaged for the purpose of reuse from the demolition of any pre-1910 house or pre-1950 heritage-listed house.

Wood Salvage Requirement: 3 metric tonnes (3000 kg)

Wood Salvaged: _____ Board Feet, OR _____ metric tonnes

To estimate tonnage when you know how many board feet you have: _____ board feet ÷ 0.75 board feet / kg = _____ kg

Evidence of compliance can be provided via:

- receipt of sale to a licensed business that reuses salvaged wood; or
- site inspection.

If you intend to demonstrate compliance on site, please email ComplianceReport@vancouver.ca report to book a site inspection.

NOTE: A portion of the deposit may be refunded where the applicant has made demonstrable efforts to deconstruct and salvage wood but has not achieved the required minimum.

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Appendix B

FOR PROJECTS WITH 75% RECYCLING REQUIRED		FOR PROJECTS WITH 90% RECYCLING REQUIRED	
Recycling Rate Achieved	Amount of Deposit Refunded	Recycling Rate Achieved	Amount of Deposit Refunded
75%	100%	90%	100%
71 – 74%	50%	86 - 89%	70%
66 – 70%	20%	81 – 85%	40%
Under 65%	0	75 - 80%	20%
		Under 75%	0

FOR PROJECTS WITH A DECONSTRUCTION AND SALVAGE REQUIREMENT	
Wood Salvage Requirement Achieved ¹	Amount of Deposit Refunded
Yes	Determined by recycling requirement and rate achieved
No	0

1. Note: If the building materials for a particular house make it uniquely challenging to meet the wood salvage by-law requirement, the Contractor should notify staff prior to starting demolition work in order to determine a fair and reasonable wood salvage requirement.

SCHEDULE 2

**Alignment of
Financial Support for Deconstruction Hub
with Innovation Fund Guidelines**

Innovation Fund Guidelines	Project Alignment
<p>Aligns with City priorities</p> <p>Supports transformation and innovation in meeting City goals</p>	<p>The project aligns with the following City priorities:</p> <ol style="list-style-type: none"> 1. The City optimizes strategic partnerships and collaborations; and 2. Vancouver is an environmentally sustainable city. <p>The project directly supports the City's efforts to achieve its zero waste and green economy goals in the Greenest City Action Plan. Further, the project could provide low-barrier employment opportunities, in support of the Healthy City Strategy.</p>
<p>Leverages 1:1 third-party investment</p>	<p>The use of Innovation Fund will be contingent upon securing at least matching external funds.</p>
<p>One-time opportunity (2-year maximum)</p> <p>\$250,000 maximum/year</p>	<p>Request is for \$250,000 in funding. Funding may be allocated over a period of up to two years, in order to support the establishment as well as initial operations of a deconstruction hub. The organization selected to establish and operate the deconstruction hub will be required to provide a sustainable long-term business plan, as well as demonstrating a sound financial capacity.</p>
<p>Demonstrates clear outcomes and transformation toward City of Vancouver goals</p>	<p>This is an opportunity to:</p> <ul style="list-style-type: none"> • Support the establishment of a deconstruction hub to advance reuse and upcycling of salvaged wood, fixtures, architectural details and other materials that are currently being disposed or recycled. • Support the creation of employment opportunities through the deconstruction, upcycling and retailing of materials salvaged from older homes.

	<ul style="list-style-type: none">• Support a small but growing market of makers and contractors who are seeking to reuse old-growth wood and other salvaged materials in furniture, interior finishing, and contracting work. <p>The City's financial support to a local organization to establish a deconstruction hub is expected to leverage other funders and lead to measurable outcomes including:</p> <ul style="list-style-type: none">• Less disposal of demolition materials;• Greater reuse of materials;• Low-barrier employment opportunities;• Green economic growth.
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