



REPORT FOR ACTION

Proposed Bylaw to Regulate Residential Construction Dust

Date: June 27, 2018

To: Licensing and Standards Committee

From: Executive Director, Municipal Licensing and Standards

Wards: All

SUMMARY

As directed by City Council in PG10.1: Strategy for Minimizing the Negative Impacts of Residential Infill Construction Activity, this report recommends the creation of a bylaw to aid in the mitigation of dust created by residential construction activities.

The proposed bylaw would make it mandatory for every person engaging, directing, or permitting residential construction activities to take reasonable measures to mitigate the creation of dust and its impact on neighbouring properties. The bylaw would require that specific actions be taken in order to minimize the generation and distribution of dust. These measures may include using a wet saw, dustless saw technology, a vacuum attachment when cutting, and/or tarping to contain dust. Other measures include wetting construction material and installing wind fencing.

The proposed bylaw would apply to residential properties only. It would not apply to necessary municipal work, large-scale construction projects such as the construction of multi-residential buildings, subdivisions, or mixed use developments, and commercial and industrial properties. It would also exclude residential demolition projects that have an approved demolition permit.

The construction industry plays a key role in the maintenance and revitalization of residential neighbourhoods. However, residential construction has the potential to generate frequent and high levels of dust. The aim of the proposed bylaw is to aid in the mitigation of dust from construction on residential properties. Dust that may have a health or environmental impact will not be regulated by the proposed bylaw, as this type of dust is already regulated by the Ministry of Environment and Climate Change and the Ministry of Labour. Toronto Public Health also responds to complaints about dust, if there are health concerns.

As part of this review, staff completed an extensive analysis of current dust regulations, examined complaint history, and reviewed dust control measures in other jurisdictions. Staff also consulted with the public and industry stakeholders.

Toronto Building, Engineering and Construction Services, Environment and Energy Office, Legal Services, Toronto Public Health, Transportation Services, and Toronto Water were consulted in the preparation of this report. Staff also met with the Ministry of Environment and Climate Change while developing this report.

The proposed bylaw, if approved, would come into effect on September 4, 2018.

RECOMMENDATIONS

The Executive Director, Municipal Licensing and Standards, recommends that:

New Bylaw

1. City Council establish a Toronto Municipal Code Chapter for dust that is applicable to residential construction.
2. City Council direct that every person engaging in, permitting, or directing construction activities on residential properties shall comply with the provisions of the chapter, as set out in the recommendations of this report.
3. City Council mandate that the dust bylaw does not apply to necessary municipal work, work occurring on commercial and industrial properties, and construction of a multi-residential building, subdivision or mixed use development.
4. City Council mandate that the dust bylaw does not apply to residential demolition projects that have approved demolition permits.

Preventative Measures

5. City Council direct that the Toronto Municipal Code Chapter for dust include the following:
 - a. No person shall cause or permit dust, or direct or cause a person to make dust, occurring as a result of residential construction activities that escapes from a residential property where the construction activity occurs and enters another premises.
 - b. It is an offence for any person to take any action or fail to take any action that would result in dust under 5a.
 - c. The above does not apply where reasonable preventative measures were taken to prevent dust from escaping a residential property including one, or a

combination of, the following dust control measures to the satisfaction of the Executive Director, Municipal Licensing and Standards:

- i. wetting the construction material;
- ii. using a wet saw;
- iii. using dustless saw technology;
- iv. tarping or otherwise containing the source of dust;
- v. installing wind fencing or a fence filter;
- vi. using a vacuum attachment when cutting; or,
- vii. any other preventative measure deemed by the Executive Director, Municipal Licensing and Standards to be adequate in the mitigation of dust escaping a residential property based on the nature of the activity.

Implementation

6. City Council direct that the proposed dust bylaw come into effect on September 4, 2018.

Definitions

7. City Council define a commercial property as any property within the municipality which is zoned for commercial use by an applicable zoning by-law or which is used in whole or in part for commercial use.

8. City Council define construction equipment as any equipment or device designed and intended for use in construction or material handling, including but not limited to hand tools, power tools, pneumatic or hydraulic tools, or other material-handling equipment.

9. City Council define dust, for the purpose of this bylaw, as solid particles which may become or be airborne as a result of residential construction activities, including, but not limited to, trimming, blasting, drilling, crushing, grinding, sawing, screening, cutting, altering or moving of clay, mortar, stone, rock, stucco, concrete, tile and insulation.

10. City Council define industrial property as any property within the municipality which is zoned for industrial use by an applicable zoning by-law or which is used in whole or in part for industrial use.

11. City Council define multi-residential as the following:

a. Land used for residential purposes that has seven or more self-contained units located on it; and,

b. Vacant land principally zoned for multi-residential development.

12. City Council define necessary municipal work as construction, rehabilitation or maintenance processes using construction equipment conducted by or on behalf of the City, the Province of Ontario, the Government of Canada, or any of their respective agencies or agents.

13. City Council define premises as a property, multi-residential, or mixed use building, or a part of a property, multi-residential or mixed use building owned or occupied by any person, including a corporation.

14. City Council define residential construction as anything to do in the erection, installation, extension or material alteration or repair of a residential property, including decorative stonework, retaining walls, and walkways.

15. City Council define residential property as the land, a building or structure used, capable of being used, designed or intended for residential use, excluding a multi-residential building.

Administrative Matters

16. City Council direct that the new Toronto Municipal Code for residential construction must provide the following, consistent with authority under the City of Toronto Act, 2006:

- a. That the maximum fine amount is \$100,000;
- b. Establish special fines where it is determined that the conduct could have resulted in economic advantage or gain to the party found to have breached the bylaw;
- c. Create an offence for failing to comply with a notice of violation or other order or direction made under the bylaw;
- d. Establish that directors or officers of a corporation knowingly concurring in the contravention of any offence under the bylaw by the corporation are guilty of an offence; and,
- e. Specify the authority of the City to enter on land to carry out an inspection to determine compliance with the bylaw, a notice of violation or other direction or order of the City or a direction or order made under a bylaw.

FINANCIAL IMPACT

There are no financial impacts beyond what has already been approved in the current year's budget for Municipal Licensing and Standards.

The Acting Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On May 22, 23, and 24, 2018, City Council adopted [PG29.1: Strategy for Minimizing the Negative Impacts of Residential Infill Construction - Update](http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PG29.1) (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PG29.1>). The staff report from this item indicated that a report on potential regulations for construction dust is expected from Municipal Licensing and Standards in July 2018.

On March 31, 2016, City Council adopted [PG10.1: Strategy for Minimizing the Negative Impacts of Residential Infill Construction Activity](http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PG10.1) (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PG10.1>). In it, the Executive Director, Municipal Licensing and Standards was directed to report to the Licensing and Standards Committee with recommendations on dust control measures related to residential infill construction.

On May 20, 2014, the Parks and Environment Committee referred item [PE27.5 Taking Action on Dust Suppression](http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PE27.5) (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PE27.5>) to staff for a report back. In considering the response to this item, staff from the Environment and Energy Division met with staff from Toronto Building, Municipal Licensing and Standards, and Public Health. Staff agreed that a City response to control dust from construction would be most appropriately addressed through a coordinated strategy to address infill construction issues.

COMMENTS

The City of Toronto currently regulates construction dust under certain circumstances, including in some demolition permits and site plan approvals. Nuisance dust, created by residential construction activities, is currently unregulated in the city of Toronto. During research, staff examined the current provincial and municipal dust regulations in Toronto, analyzed previous complaint history, and completed a jurisdictional scan. Staff also consulted with the public and key stakeholders in the construction and landscape industries. Based on this research, staff are proposing the creation of a new bylaw to regulate residential construction dust. A summary of the recommended changes can be found later in this report.

Current Dust Regulations

A number of provincial ministries and City of Toronto divisions are responsible for dust-related issues and concerns.

The Province of Ontario

Through the *Environmental Protection Act*, the Ministry of the Environment and Climate Change (MOECC) regulates contaminants released to the natural environment by industrial and commercial facilities. These facilities must apply for an environmental approval through the MOECC. Facilities that have air emissions, including particles emitted into air such as dust, must comply with Ontario's Local Air Quality Regulation (O.Reg 419/05). The regulation aims to limit substances released into the air that can affect human health and the environment, and requires industry to operate responsibly under a set of rules that are publicly transparent. Environmental Officers conduct inspections of these facilities to ensure compliance. This regulation does not apply to residential construction activities.

The MOECC released a technical bulletin to encourage the use of best management practises to control on-site dust at its regulated facilities. The bulletin includes information about the management of typical sources of dust, such as handling of materials and/or wind erosion of storage piles, their impact, and common dust reduction technologies and techniques.

The MOECC also monitors air pollution data, in real time, through Air Quality Ontario.

The *Occupational Health and Safety Act*, enforced by the Ministry of Labour, regulates dust if it is a hazard to workers. Under this Act, dust must be adequately controlled or workers must be given personal protective equipment to ensure their health and safety. Residents or workers may contact the Ministry of Labour's Health and Safety Contact Centre to inquire about workplace health and safety, and to report unsafe work practices.

The City of Toronto

General regulations for dust do not currently exist in Toronto's Municipal Code. However, certain activities in Toronto require dust control plans. For example, as part of the development application process, Transportation Services requires a Construction Management Plan. Applicants must demonstrate in the plan how they will control dust and mud on and off-site, specifically with respect to the public right of way.

As part of the permitting process for demolitions, Toronto Building may request comments from Toronto Public Health (TPH), including a Dust Control Plan. Toronto Building requires comments from TPH when applicants indicate the potential presence of environmentally hazardous substances or building elements which may contravene the Building Code Act. If required, the plan must identify measures that will be taken by the applicant to control dust during demolition, related soil excavation, or during soil remediation/excavation activities. Depending on the scale of the project, TPH may ask for additional control measures.

TPH also investigates general dust complaints if a complainant indicates a possible health hazard. Public Health Inspectors then investigate the complaint to determine if a health hazard exists. Under the Health Protection and Promotion Act, TPH may also notify the MOECC of the complaint and investigation if there are environmental concerns. Inspectors also play an educational role, informing the public and industry on best practices in dust mitigation.

Residential Infill Strategy

In 2016, City Council adopted recommendations from the Chief Building Official which initiated the inter-divisional Strategy for Minimizing the Negative Impacts of Residential Infill Construction Activity. A recommendation in this report was that the Executive Director, Municipal Licensing and Standards (MLS) develop a bylaw to regulate dust in the city of Toronto. The status report on the strategy, adopted by City Council at its May 2018 meeting, noted that MLS was considering regulations for construction dust and would report back to the Licensing and Standards Committee in July 2018.

One of the key objectives of the residential infill strategy is to improve communication with the public. One tool which was previously developed by the City is the Good Neighbour Guide. The guide, developed in consultation with the building industry and neighbourhood groups, outlines the requirements and best practices for residential infill construction. On the matter of dust control, the guide recommends that concrete and stone be cut with wet saws, that the sidewalk and street be swept at the end of every workday when activities that produce excessive dust are done, and that neighbours are kept informed of work being done that may be particularly dusty or lengthy. It also reiterates the requirements of Chapter 681, Sewers, which all construction activities must adhere to.

Complaint History

Only dust that poses a health or environmental concern is regulated in Toronto; as such, the City does not currently track complaints about dust as a nuisance. Toronto Public Health (TPH) receives complaints about construction dust and investigates when there is a health concern. Because of this, it is difficult to quantify the extent of this issue. On average, TPH receives 35 complaints per year regarding dust as a health hazard. TPH's five-year history of construction dust complaint data is shown in Table 1.

Table 1: Construction Dust Complaint Data from Toronto Public Health

| | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
|---|-------------|-------------|-------------|-------------|-------------|--------------|
| Construction dust-related complaints | 26 | 36 | 43 | 44 | 29 | 178 |

Through the consultation process and by touring areas with high amounts of residential construction and landscaping, staff understand that dust created from these activities is a greater concern to residents than this data would suggest.

Jurisdictional Scan

Staff reviewed dust mitigation practices, guides, and bylaws for eleven North American urban municipalities who have established dust control measures: Boston, Burnaby, Calgary, Chicago, Edmonton, Kelowna, Markham, New York City, North Vancouver, Portland, and San Francisco.

Of the American cities, Boston, Chicago, and New York City have legislation governing construction dust as a nuisance. It should be noted that the legislative authority that American cities have is substantially different than in Toronto. For example, New York City is able to issue immediate stop-work orders for sites that emit a significant amount of dust. Of the Canadian cities, Calgary, Edmonton, and Kelowna include regulations related to residential dust in their bylaws. However, these cities do not have a standalone bylaw to regulate dust. Instead, Calgary, Edmonton, and Kelowna house these regulations in their nuisance bylaw, community standards bylaw, and their good neighbour bylaw, respectively. The remaining cities communicate how to mitigate construction dust, including publishing materials such as good neighbour guides and best practices for dust management. Not all cities who have dust control measures specify that these measures apply to small scale residential construction and infill development. For example, San Francisco requires that only sites greater than half an acre in size submit a dust mitigation plan.

The approach taken to regulate dust from residential buildings varies for each municipality examined. A number of factors likely influence this, including different legislative authority granted at the state-or province level, differences in climate, and the city's rate of development.

Staff also completed an analysis of dust mitigation in two large urban municipalities in California: San Diego and Los Angeles. In California, there are several state-level dust regulations under the California Air Resources Board. This is due to the large number of dust sources in California, including proximity to deserts, frequency of drought, and vehicle pollution. Dust mitigation from construction is a small portion of California's dust-related codes.

Regulations in San Diego are for commercial construction and do not apply to residential construction, including infill. San Diego requires dust mitigation plans that may include watering, using surfactants, and reducing vehicle speeds. Los Angeles has similar dust mitigation measures and also specifies that dust cannot collect on other residents' property during excavation and certain landscaping activities.

Consultation Findings

In spring 2018, staff sought feedback through a public meeting and through written submissions on approaches to dust mitigation in Toronto. There were 26 people in attendance at the public consultation meeting. The majority of attendees were private citizens or associated with residents' associations.

Most of the public meeting attendees supported the creation of a bylaw that mandated dust control measures to prevent the spread of construction dust onto neighbouring

properties. Staff heard that many residents have been significantly impacted by residential construction dust and that contractors are generally not accommodating when concerns are brought up. Residents made a number of suggestions, including licencing contractors who do hardscape-related work, mandating that all dust is captured at the point of creation, and creating a team dedicated to the enforcement of residential construction dust. Some residents told staff that they were concerned with enforceability and wondered about the cost and practicality of enforcing a stringent construction dust bylaw. Staff also heard from residents that the City should increase public education outreach efforts to better inform residents and contractors of dust mitigation strategies.

Staff also met with key stakeholders regarding the review. ResCon, an association of residential builders, told staff that they were concerned with the impact of increased regulation in the industry, that managing construction dust during inclement weather is challenging, and that any new regulations should work in tandem with the requirements of other City divisions. Representatives suggested that, instead of a bylaw, the City focus on developing communication tools to better inform homeowners and contractors how dust may be mitigated.

BILD GTA, which represents the home building, land development, and professional renovation industry in the Greater Toronto Area, told staff that the City needs to focus on educating contractors and homeowners. Staff also heard that it is sometimes difficult for home builders to access water on construction sites as the water is required to be turned off and that colder conditions often mean that water-related dust suppression measures cannot be used. In addition, staff heard that the sandy composition of Toronto's soil often makes it difficult to contain the spread of soil. BILD GTA told staff that the building industry plays a key role in increasing Toronto's housing stock and voiced concerns about increased regulation. Representatives from BILD GTA were generally supportive of a dust control bylaw, but preferred one that did not prescribe mitigation measures; rather, they wanted industry to be responsible for implementing best practices based on the site, material used, and weather.

Staff also met with Landscape Ontario, which represents horticultural professionals and has 2,700 member companies across Ontario. Representatives were not opposed to the creation of a bylaw to regulate residential construction dust, but wanted to ensure that the regulations were based on current best practices. Staff were told that a bylaw that relies solely on the use of wet-saws and the wetting of materials will likely have an adverse effect on the sewers and water ecosystem. As such, representatives suggested including options such as dustless saws, vacuum attachments for tools, and the use of manual splitters in the bylaw to provide flexibility to the industry.

Recommendations for New Residential Construction Dust Bylaw

In order to regulate nuisance residential construction dust through a new bylaw, staff are proposing a number of recommendations. These recommendations are intended to ensure that reasonable precautions are taken by individuals participating in construction activities that create dust. A plain-language description of each recommendation, along with the rationale, is provided in Table 2.

Table 2: Recommendations for New Residential Construction Dust Bylaw with Rationale

| Recommendation | Rationale |
|--|---|
| <p>Establish a Toronto Municipal Code for residential construction dust.</p> | <p>Residents have expressed concern about residential construction dust and the fact that nuisance dust is currently unregulated by the City. The proposed bylaw would mandate that individuals who engage, permit, or direct construction activities on residential properties take reasonable precautions to mitigate the spread of dust. The purpose of this is to close the enforcement gap, as dust as a nuisance created by residential construction activities is currently unregulated.</p> |
| <p>Direct that the bylaw applies to every person, including corporation.</p> | <p>One aim of this bylaw is to ensure that the City is able to take enforcement against individuals participating in residential construction activity that creates nuisance dust. This may include homeowners/residents, contractors, or other workers. This recommendation specifies the applicability of the bylaw.</p> |
| <p>Mandate that the bylaw would not apply to necessary municipal work, commercial and industrial properties, and large-scale construction projects.</p> | <p>It is the aim of this report to recommend a bylaw that regulates dust emitted as a result of residential construction activities. For practical reasons, to ensure enforceability and to reduce duplication of current regulations, this report recommends that certain activities be exempt from the bylaw. This includes necessary municipal work by the City of Toronto, the Province of Ontario, the Government of Canada, a utility, or any of their agencies or agents, as well as commercial and industrial properties and large-scale multi-residential buildings, subdivisions or mixed use developments.</p> |
| <p>Mandate that demolition projects are exempted from this bylaw.</p> | <p>The City issues demolition permits and may request TPH to review and request a Dust Control Plan from an applicant. To avoid duplication, it is recommended that residential demolition projects that have a demolition permits are exempt.</p> |

| Recommendation | Rationale |
|--|--|
| <p>Mandate that reasonable measures be taken to prevent dust and to provide a list of approved dust control measures.</p> | <p>Staff conducted extensive consultation with industry and residents. It is recommended that the City of Toronto mandate that individuals participating in residential construction activities may not allow dust to escape from residential property, unless reasonable measures to prevent dust from escaping have been taken. To accomplish this, staff recommend directing that at least one of the following dust control measures, to the satisfaction of the Executive Director, Municipal Licensing and Standards are taken during construction:</p> <ul style="list-style-type: none"> a. wetting the construction material; b. using a wet saw; c. using dustless saw technology; d. tarping or otherwise containing the source of dust creation; e. installing wind fencing or a fence filter; f. using a vacuum attachment when cutting; or, h. any other preventative measure deemed by the Executive Director, Municipal Licensing and Standards to be adequate in the mitigation of dust escaping a residential property based on the nature of the activity. <p>Note: in every case where any of these control measures are taken, every person must also be in compliance with Toronto Municipal Code Chapter 681, Sewers. The disposal of water from the property shall not enter directly or indirectly any sewer and that it must be strictly contained on site or hauled off site per appropriate provincial regulations.</p> <p>This approach will better equip Municipal Standards Officers to ensure compliance in mitigating the spread of nuisance dust.</p> |
| <p>Define commercial property, construction equipment, dust, industrial property, multi-residential, necessary municipal work, premise, residential construction, and residential property.</p> | <p>Clearly articulating a definition for key terms in the bylaw will better allow Municipal Standards Officers to articulate and enforce the bylaw. It will also increase the ability for residents and contractors to understand and comply with the bylaw. Staff also recommend excluding dwelling units in a built multi-residential building from this bylaw, as residents and tenants have alternate avenues to address nuisance dust.</p> |
| <p>Ensure fines and offences to align with current authority.</p> | <p>This aligns enforcement abilities under this new bylaw with those available to City staff in other bylaws, including Chapter 354, Apartment Buildings.</p> |

Implementation

Staff recommend the proposed dust bylaw come into effect on September 4, 2018. This allows time to train staff, introduce a new complaint category in IBMS, update the 311 knowledge base, and create and distribute information materials to the public and relevant stakeholders. MLS will circulate materials to the industry through various associations, including ResCon, BILD, and Landscape Ontario. Additional information, including details of the proposed bylaw, will be provided through the Good Neighbour Guide for Residential Infill.

MLS will be responsible for enforcement of the dust bylaw. In addition, where there is an on-site first inspection as part of the building permit process, Toronto Building Inspectors will include dust control and related responsibilities under the bylaw as an educational topic.

MLS will also continue to work with City divisions, such as Toronto Building and Toronto Public Health, as well as the MOECC to ensure the alignment of dust regulation and messaging to industry and the public.

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