

Assessing Value from What We Learned Through Facade Ordinances

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INTRODUCTION

Facade ordinances are established to safeguard public welfare by mandating periodic inspection and maintenance protocols. However, despite the presence of millions of buildings across the US and Canada, such ordinances are currently enforced in only 14 cities and 1 province.¹ In most jurisdictions where they do exist, facade ordinances typically apply to buildings exceeding a specified height—commonly five or six stories. Consequently, a substantial portion of the building population that meets these height criteria remains outside the scope of regulatory oversight.

The absence of comprehensive facade maintenance, repair, and upkeep often results in the progressive deterioration of the building facade. This includes the degradation of masonry elements, spalling of decorative stone or terracotta, water infiltration, and, in severe cases, personal injury or fatalities (**Fig. 1**). This paper aims to examine the structure and intent of facade ordinances, assess their influence on the practices of design professionals, and evaluate how mandated inspections affect property

owners' ability to maintain buildings in a safe and compliant condition.

To draw a comparison between buildings and automobiles: how frequently is a vehicle brought in for maintenance or scheduled for routine inspection? Depending upon the inspection type, this could be every 3 months to every 5 years.³ Automobile manufacturers establish minimum inspection and maintenance schedules to be followed at designated intervals throughout the vehicle's expected lifespan. These schedules often include the repair or replacement of specific components, which the owner may choose to adhere to or disregard. Neglecting such maintenance can lead to severe consequences, potentially rendering the vehicle inoperable. Similarly, buildings require regular inspections and ongoing maintenance to ensure continued functionality and adherence to safety standards. If left to natural weathering and deterioration, a decorative terra-cotta element could turn from an architectural feature to a fatal projectile (**Fig. 2**).

FACADE ORDINANCES 101

Facade ordinances are legal mandates enacted by local jurisdictions that typically define the requirements for periodic inspection and reporting of a building's exterior facades or elevations. Many of these ordinances are modeled after ASTM E2270-14 (2019), *Standard Practice for Periodic Inspection of Building Facades for Unsafe Conditions*, which outlines the minimum procedures and standard practices for identifying hazardous or unsafe conditions during facade inspections.⁵

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Figure 1. View of 2023 facade collapse debris in Philadelphia's Center City district. Image courtesy of 6ABC.²



Figure 2. Close-up view of terra-cotta failure that led to fatality in New York City, 2019. Image courtesy of the New York Post.⁴ Annotations by Mike Lopez.



Figure 3. Facade collapse in New York City's Little Italy neighborhood. Image courtesy of The Structural Engineer.⁷

While ASTM E2270-14 (2019) offers architects and engineers a structured framework for conducting such inspections, the 2024 *International Property Maintenance Code* (IPMC)—specifically Chapter 3, Section 304.1—states that buildings must be maintained in a safe condition.⁶ This is with the understanding that “safe” implies free from defects that would otherwise harm public health and safety. The IPMC further identifies conditions that may be deemed “potentially unsafe,” yet it does not prescribe specific methods or reference standards for conducting inspections. Instead, it delegates the responsibility to building owners to establish their own inspection and

maintenance protocols. Although this may appear to be a reasonable expectation, the financial burden of repairs and maintenance is not always a top priority for owners. Establishing a formalized annual inspection and maintenance schedule could significantly enhance long-term planning and budgeting efforts.

THE WHY

It is indisputable that buildings are subject to continuous aging. They no longer reflect their original condition at the time of construction; materials specified during design may have exceeded their intended service life, and natural weathering and environmental exposure

contribute significantly to the deterioration of exterior walls and architectural elements. For example, a building located in Manhattan's Times Square neighborhood, featuring decorative terra-cotta and stone facade elements, had not undergone any repairs for over a decade. The neglect of such ornamental elements led to the death of a pedestrian walking on the sidewalk along the building.⁷ Another building in the Little Italy neighborhood that had not undergone maintenance attempted to perform work without a permit, which led to a partial building collapse (**Fig. 3**).

Building owners require support from architects and engineers to ensure that exterior facades and their components are maintained in a safe condition, thereby preventing public injury or even fatality. Unfortunately, there have been documented cases of serious injuries and deaths resulting from inadequate building maintenance and insufficient public protection. In New York City, a fatal incident in 1980 led to the enactment of Local Law 10, the city's first facade ordinance. Subsequent failures in 2013 and 2019 prompted further amendments to the ordinance, introducing stricter inspection and reporting requirements.⁸

Similarly, in San Francisco, a series of facade failures involving glass buildings led to a mandate requiring owners to submit inspection reports within 6 months of receiving notification from the Department of Building Inspection.⁷ In other cities, instances of owner negligence, lack of awareness, or disregard for responsibility have compelled building departments to take regulatory action.

Currently, cities in the US with facade ordinances include Boston, Chicago, Cleveland, Cincinnati, Columbus, Detroit, Jersey City, Milwaukee, New York City, Pittsburgh, Providence, San Francisco, and St. Louis (**Fig. 4**). The province of Quebec and the city of Calgary in Canada have also implemented similar regulations.

COMPONENTS OF THE FACADE ORDINANCE

A facade ordinance developed with guidance from ASTM E2270-14 (2019) generally consists of four key components: inspection qualifications, inspection preparation, execution of the inspection (both general and detailed), and reporting procedures. While the level of prescriptiveness varies among ordinances, most provide explicit guidance regarding the location and scope of inspections or critical examinations, the qualifications required of individuals conducting the inspections, and the format and content of the resulting reports.

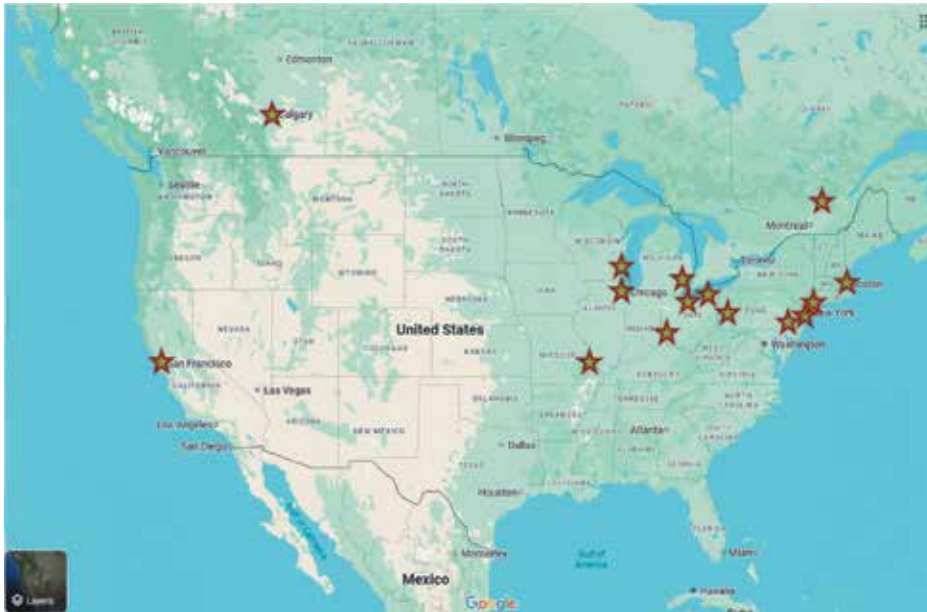


Figure 4. Diagram of US and Canada cities with facade ordinances. Map image by Google Maps (<https://www.google.com/maps>); edited by Mike Lopez.

INSPECTION QUALIFICATIONS

Each facade ordinance enacted in the US and Canada applies to buildings that exceed a specified height threshold. In 6 of the 13 cities with such regulations, buildings that are five stories or taller are required to comply. In contrast, jurisdictions such as New York City and Philadelphia apply the ordinance to buildings six stories and above. The remaining five cities define the threshold based on absolute height, typically set at 60, 70, or 80 ft.

In addition to height criteria, many ordinances also incorporate building age requirements. For instance, Cincinnati, Milwaukee, and San Francisco mandate compliance for buildings that are 15 years or older. In New York City, the age requirement is determined by the date of the building's first issued certificate of occupancy, which generally

results in buildings as young as 5 to 7 years being subject to the ordinance.

Once the applicable building size is established, each ordinance also specifies the required frequency of inspections. In 6 of the 13 cities, inspections must be conducted every 5 years. Chicago, however, varies this requirement based on building classification, with mandated inspection intervals of 4, 6, or 8 years depending on the category.

PREPARATION

As with any professional undertaking, the inspection process—guided by ASTM E2270-14 (2019)—commences with thorough preparation. This includes the review of prior inspection reports, documentation, existing building drawings, and any other relevant materials that contribute to a comprehensive understanding

of the building's construction and condition. The licensed professional conducting the inspection assumes responsibility for accurately assessing and reporting the status of the building's facade. In this capacity, the inspector effectively assumes the role of the designated professional accountable for the integrity of the evaluation. Architects and engineers routinely perform comparable tasks when conducting building or property condition assessments, applying similar principles of diligence and technical expertise.

PERFORMING THE INSPECTION

The third component of a facade ordinance is the execution of the inspection itself—often referred to as the critical examination, hands-on inspection, or close-up inspection. This phase typically involves direct observation at close range, facilitated by suspended scaffolding, aerial platforms, or industrial rope access, enabling inspectors to physically engage with the building surface—touching, listening, and documenting observed conditions (**Figs. 5 and 6**). ASTM E2270-14 (2019) specifies the percentage of a building's surface area that must be examined at close range to meet compliance standards.

The objective of the close-up inspection is to identify conditions that cannot be reliably assessed from street level using binoculars or high-powered lenses. While the use of drones has gained popularity as a tool for preliminary assessments or for accessing difficult-to-reach areas, it is important to note that drone technology does not eliminate the need for physical, close-up inspections. In addition to the close-up, some ordinances, along with ASTM E2270-14 (2019), require that probes of the existing exterior wall cavity be performed with the intent to determine and observe the condition of cavity wall ties or the underlying

TABLE 1. Comparison of facade ordinance by age and inspection frequency

City	Boston	Calgary	Chicago	Cincinnati	Cleveland	Detroit	Jersey City	Milwaukee	New York City	Philadelphia	Pittsburgh	Quebec	San Francisco	St. Louis
Year Enacted	1995	2017	1996	2016	2016	2010	2020	2001	1980	2010	2004	2018	2016	2018
Age	30	8	29	9	9	15	5	25	45	15	21	7	9	7
Inspection Freq	5 Yrs	5 Yrs	Varies	Varies	5 Yrs	5 Yrs	TBD	TBD	5 Yrs	5 Yrs	5 Yrs	5 Yrs	10 Yrs	5 Yrs

Table by Mike Lopez.^{9,22}

structure, as observation of the exterior can only do so much without more information.

REPORTING PROCEDURES

The final component, following the review of documentation and completion of the inspection, is the development, preparation, and submission of the ordinance report. The format and organizational structure of these reports vary depending on the requirements of the local building department or enforcement agency, as no standardized reporting template currently exists. Typically, reports include extensive photographic documentation to accurately illustrate observed conditions, with the expectation that identified issues will be addressed either in the near term or as part of a long-term maintenance strategy.

In many jurisdictions, reports must be submitted either electronically or in hard copy format to the appropriate regulatory authority. Additionally, property owners are often required to retain copies of the report on-site or ensure they are readily accessible in the event of an incident or an audit conducted by an inspector.

PENALTIES

Many facade ordinances include penalties for non-compliance or failure to maintain building exteriors, intended to compel owners to take corrective action. However, these penalties are often nominal when compared to the substantial costs associated with performing necessary repairs. The rising expenses of materials, labor, and restoration work far exceed the financial impact of fines, penalties, or even prolonged scaffolding rentals. This disparity highlights an area of opportunity for local jurisdictions to strengthen enforcement mechanisms and incentivize timely compliance with maintenance requirements.

TECHNOLOGY

Determining whether a building is classified as safe or unsafe can often be subjective, particularly when assessments are based solely on minimum standards. This subjectivity is compounded by unknown variables, existing and unforeseen conditions, and deviations that may hinder the architect's or engineer's ability to make a fully informed judgment. To enhance the accuracy and reliability of such evaluations, emerging technologies have become valuable tools for design professionals. One such advancement is the use of drones to generate "digital



Figure 5. Inspector performing facade inspection via industrial rope access. Photograph by Mike Lopez, May 23, 2024. Rimkus.



Figure 6. Inspector performing facade inspection via industrial rope access. Photograph by Mike Lopez, January 25, 2022. Rimkus.

twins" of buildings, which enables a higher level of detail and precision in identifying and documenting facade conditions.

Located along New York's West Side Highway, the Barclay-Vesey Building at 140 West Street is a 34-story steel-framed masonry structure constructed in 1923 (Figs. 7 and 8). Once

the tallest buildings in New York City at the time of construction, the building recently has undergone extensive restoration over the past 5 years due to prolonged neglect of maintenance and inspection responsibilities by its owners. Since 2017, Rimkus's New York team has worked with the building that has



Figure 7. The Barclay-Vesey Building at 140 West Street. Photograph by Mike Lopez, May 08, 2024. Rimkus.



Figure 8. Close up view of cracked decorative stone at the Barclay-Vesey Building at 140 West Street. Photograph by Mike Lopez, November 21, 2022. Rimkus.

been designated as unsafe, due to cited non-compliance with mandated inspection, reporting, and maintenance requirements along with various façade conditions that were in need of immediate repair.

Although restoration efforts in 2019 and 2020 temporarily removed the need for scaffolding, subsequent water infiltration and additional deterioration necessitated renewed intervention. This led to the building owners implementing and approving a plan for a more comprehensive, all-hands-on-deck approach to restore the building to a safe and compliant condition. The approach included inspections performed at 100% of all building elevations in order to address any and all defects to restore the building to a safe condition.

CONCLUSIONS

In summary, façade ordinances serve as a critical mechanism for ensuring public safety through the regulation of building inspections and maintenance. While existing ordinances provide a foundational framework—often modeled after ASTM E2270—they vary significantly in scope, enforcement, and effectiveness. The disparity between the cost of compliance and the penalties for non-compliance underscores the need for stronger regulatory incentives. Moreover, advancements in technology, such as drone-assisted inspections and digital twin modeling, offer promising avenues to enhance the accuracy and efficiency of façade assessments. As buildings continue to age and urban environments

evolve, it is imperative that local jurisdictions strengthen their ordinances, promote proactive maintenance, and support building owners and professionals in safeguarding the built environment. The future of façade safety depends not only on regulation but on a collective commitment to accountability, innovation, and public protection. 

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