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**COMMISSIONER**  
**NEW YORK CITY DEPARTMENT OF BUILDINGS**  
**HEARING BEFORE THE NEW YORK CITY COUNCIL**  
**COMMITTEE ON HOUSING & BUILDINGS**

**January 31, 2017**

Good morning Chair Williams, members of the Housing & Buildings Committee and other members of the City Council. I am Rick Chandler, Commissioner of the New York City Department of Buildings (“Department”). I am joined by Deputy Commissioner for Enforcement Tim Hogan and Deputy Commissioner for Legal & Regulatory Affairs Alex Fisher. We are pleased to be here to offer testimony on twenty-one pieces of proposed legislation related to construction safety.

In 2016 our City lost twelve people in construction accidents whose work is regulated by the Department. We take these and all construction tragedies to heart, as I know you do. The Department is taking decisive action to make construction sites safer, and I am committed to working with the City Council and others to do even more to support a culture of safety within the development community.

In recent months, the Department has implemented a number of initiatives to help reduce construction accidents throughout the City. The Department has hired 140 new inspectors. The Department has more than quadrupled penalties for the most common safety lapses. These penalties are now \$10,000 for each violation, with a maximum of \$25,000 when certain

aggravating factors are present. The Department has increased supervision by requiring Construction Superintendents to be present at more construction sites under ten stories. The Department is being more aggressive in its discipline of “bad actors”. In 2016 we issued 56,289 violations, a 23% increase from 2013, along with higher penalties. We are also issuing stop-work orders at a higher rate. Stopping work for a period of time can result in a bigger monetary loss to a contractor than even the most significant penalties. We are regularly seeking to suspend or revoke the licenses and registrations of professionals who work unsafely and put their lives and the lives of others at risk. We have significantly enhanced our information technology and data analytics capabilities, improving our ability to target resources where the greatest risk exists and to identify bad actors.

I am particularly pleased to announce that the Department is now targeting its outreach to the most vulnerable populations within the construction industry, namely workers on small buildings and day laborers. In partnership with day laborer organizations, the Department will be providing safety training throughout the five boroughs on safe construction practices during scaffold and excavation work, two of the areas with the greatest risk. We welcome the Council’s participation in this outreach and will be following up with more information.

The Department is also seeking greater flexibility in hiring inspectors to meet the demands of construction surges like the one we are experiencing right now.

For example, archaic provisions in the City Charter impede the Department’s ability to hire the inspectors it needs to maximize our enforcement efforts. The Charter essentially requires all of our inspectors to have a minimum of five years of construction experience. This requirement significantly hampers the Department’s ability to pull from the widest pool of otherwise available

and qualified talent. Legislation has been introduced at the Council to give the Department the ability to consider licenses, education and experience that are beyond what the Charter requires and I would appreciate the City Council's swift consideration of this legislation.

The Department recorded twelve construction fatalities in each of the past two years. Additionally, the Department recorded 598 injuries last year, while issuing 141,000 permits. Last year's injury count is significantly higher than the ten year average of 256 injuries. The increase in injuries is due in part to a significant increase in construction activity, but is also due to increased reporting resulting from greater supervision by safety professionals now required by the Department on thousands of construction sites. More safety monitors equals more safety-related reports.

While these numbers deserve our attention and require more work to reduce, context is important. Construction activity in the City is occurring at an unprecedented rate. In 2015 we saw ninety-two million square feet of new construction. By contrast, at the peak of the last boom in 2008 we saw sixty-five million square feet of new construction.

With our increased focus on data analytics as committed to in our *Building One City* plan, the Department has examined the predominant causes of accidents and the types of construction sites where they occur most often. The single most common factor causing injuries and fatalities is worker falls. Last year, nearly 30% of all accidents and 50% of all fatalities were caused by worker falls. Also last year, 51% of all accidents and 71% of all fatalities occurred on buildings between one and ten stories in height.

Much has been discussed concerning the method by which the Department tracks construction accidents. I would like to state at the outset that the Department appropriately tracks construction

accidents in New York City, and communicates regularly with the Federal Occupational Safety and Health Administration (“OSHA”) concerning incidents under their purview. Federal law vests in OSHA the authority to regulate worker safety, while the Department is responsible for ensuring the protection of the public and property.

For example, the Department reports on construction accidents resulting in a fatality to a member of the public, whereas OSHA does not, because its jurisdiction is limited to accidents involving workers. Similarly, the accident data the Department reports does not include accidents at non-building construction sites, such as bridges and streets. Our accident data also does not capture information about medical emergencies, such as a heart attack that is unrelated to construction safety as governed by the Construction Codes. I can understand that there has been some confusion concerning the different counts we provide and those provided by OSHA. As such, the Department will be posting on its website both the Department’s and OSHA’s data, with an explanation as to how they differ.

All these initiatives, along with our ongoing work to monitor over 40,000 active construction sites at any one time, have prevented an untold number of accidents. The Department recognizes that more needs to be done, and has spent a great deal of time and effort thinking through additional reforms. The Department has consulted with a variety of stakeholders, including a meeting I convened earlier this month with leaders representing a cross-section of the construction industry. We had a candid and productive discussion concerning where the greatest risks lie and suggested ways to mitigate these risks. I believe some of the participants will testify this morning and I thank them for their time and expertise.

Some of the reforms the Department proposes are included in the package of legislation before this Committee. Before getting into the specifics of each bill, I would like to share that the Department appreciates the thoughtfulness the City Council has devoted to this issue, welcomes your participation, and supports a number of the proposals outlined in these twenty-one bills.

I will begin with the bills related to crane safety.

Seven of the twenty-one bills before the Committee are derived from recommendations issued by the Crane Technical Working Group, established by Mayor de Blasio and me following the tragic crane collapse on February 5, 2016 that killed one individual. Comprised of experts within engineering and government, the Working Group was charged with reviewing crane regulations and recommending policies to improve crane safety, along with evaluating the circumstances of the February 5<sup>th</sup> collapse. The Department has been working diligently throughout this past year to review and implement these recommendations, along with a myriad of other reforms to strengthen crane regulations.

**Introductory Number 443** would prohibit the operation of cranes throughout the City that are older than twenty-five years. The bill would also require cranes to be equipped with load cycle counters. According to the manufacturers of tower and mobile cranes used in the City, cranes are designed to safely perform 250,000 cycles. A consultant hired by the Department determined that at 70% utilization and 60 cycles per shift (at 8 minutes per cycle) 5 days per week equates to roughly 23.5 years of useful life before material fatigue sets in. Several other jurisdictions throughout the world place similar age restrictions on their cranes and New York City should do the same. Therefore, the Department supports this bill.

**Introductory Number 1403** would require anemometers on cranes with the ability to measure three second wind gusts. The bill also would require real time wind speed to be displayed in the cab of a crane. While the Department is supportive of this legislation, the proposal requires drafting revisions to account for older and smaller cranes, the scope of the Department's jurisdiction, and a reasonable amount of time for crane owners to comply with the law. The Department has been working on a rule which reflects these issues, and would be pleased to discuss it further with the City Council.

**Introductory Number 1435** would require data logging devices on cranes and would require that the data recorded be made available to the Department upon request. While the Department supports this bill, some revisions are necessary to reflect the practical reality of crane operations in the City. We look forward to discussing them further with the City Council.

**Introductory Number 1421** would require cranes to be equipped with GPS to track their location, and for this information to be submitted to the Department. As recommended by the Crane Technical Working Group, the Department has been evaluating different technologies appropriate for use on cranes. As an interim measure, the Department supports requiring crane operators to notify the Department when a crane arrives on a site and when it leaves.

**Introductory Number 1422** would place additional restrictions on cranes required to be taken out of service at wind speeds of 30 mph or less. For cranes whose out-of-service wind threshold is 20 mph or less, the bill would effectively ban these cranes from City streets by restricting their use to a safety zone that is set back from public spaces and occupied buildings. For cranes whose out-of-service wind threshold is above 20 mph, but at or below 30 mph, the bill would require these cranes be set up within a safety zone, or be subject to additional review and

monitoring by the Departments of Buildings, Transportation, and FDNY. The Department supports this legislation.

**Introductory Number 1431** would establish a registration for Lift Directors and require them on site full time, charged with supervising the overall activity of a crane and monitoring compliance with crane regulations. Currently the Department requires cranes to be operated by a Hoisting Machine Operator (“HMO”) licensed by the Department, and for rigging work to be supervised by a Master Rigger licensed by the Department, or in certain cases, by a Rigging Supervisor who possesses prerequisite training or certification. While these professionals focus on specific technical tasks, there is no one individual responsible for overseeing the entire operation, including monitoring weather forecasts and ensuring traffic controls are in place. The Department supports this bill as it will task a specific individual to oversee and monitor overall operations of a crane at a construction site.

**Introductory Number 1446** would establish an endorsement for the Class B HMO license for cranes with complex booms. While this was a recommendation of the Crane Technical Working Group, further evaluation has concluded that such a proposal is unworkable. The small number of cranes that would be subject to this endorsement are quite different from one another. Given that an endorsement on the license would require standardized training and experience, such training and experience would not be able to capture the highly specialized nature of these complex cranes. As an alternative, the Department proposes to generally strengthen the amount of experience required to receive a Class B HMO license, and to also specifically require that before operating an extra-long boom crane the operator must get simulator time specific to the make, model and configuration of the crane to be used at the construction site.

At this point I will comment on the eight bills that generally relate to construction site safety and prevailing wage.

**Introductory Numbers 1429 and 1444** would require workers at buildings four or more stories to receive task-specific safety instruction and a site-specific safety orientation. The Department currently requires this safety training on buildings ten stories and more. These bills would also require that the training be provided in a language in which workers are proficient. The Department supports these bills.

**Introductory Number 1448** would require a Site Safety Manager or Site Safety Coordinator and site safety plans for buildings five or more stories. Currently the Department requires such personnel and plans for buildings ten or more stories. The Department applauds the Council's desire to have additional supervision on smaller construction sites. In fact, the Department has recently required more supervision on these sites. However, the supervision proposed by this bill would have the unfortunate consequence of stalling construction work throughout the City.

While the Department shares the goal of requiring additional supervision on smaller construction sites, unfortunately there is a limited pool of qualified personnel available to monitor these construction sites. There are currently 1,093 Site Safety Managers and 148 Site Safety Coordinators licensed by the Department. Only about half of these professionals utilize their license.

Currently, there are approximately 700 construction sites throughout the City that are subject to monitoring by a licensed Site Safety Manager or Coordinator. The proposed bill would require 3,500 additional sites to require licensed supervision, far exceeding the 1,241 licensed safety

personnel to do this work. Currently, we have 28 applicants for these site safety licenses either under review or awaiting additional information from applicants. The process generally takes between three and six months. Given the lack of interested and qualified applicants, this bill would force thousands of construction sites to shut down for lack of safety supervision.

We believe we can have better supervision without this unintended consequence. Last August, the Department increased the types of sites under ten stories that require a Construction Superintendent. Construction Superintendents are required to perform the same duties as Site Safety Managers and Coordinators and have the added responsibility of managing the construction site and ensuring work occurs in accordance with the law. More time is needed to determine if these additional safety personnel are having the desired effect of improving safety on these sites.

**Introductory Number 1445** would require floor openings used for debris removal to be protected by safety netting and guardrail systems. Additionally, the bill would require vertical netting on interior shaftways, and horizontal netting two stories below floor openings and shaftways on certain major construction projects such as the construction of a new building, enlargements six stories or more in height, and demolitions of exterior walls or a roof.

The Department agrees that netting should be required around floor openings and at full height in shaftways, with appropriate exceptions for any work that must occur within a shaftway.

**Introductory Number 1447** would require all workers on construction sites to have completed a ten-hour safety course approved by OSHA every five years. Currently, the Department requires this training on buildings ten stories or more. The Department supports requiring this training on

all buildings with limited exceptions, and provided that there is a reasonable phase-in period for workers on the smaller buildings that are proposed to be added to the law.

Additionally, this bill would require workers on all buildings ten stories or greater, and full or partial demolitions of buildings four stories or greater, to be enrolled in or have completed an apprenticeship program or commensurate program as defined by State law. For all other buildings, workers would be required to be enrolled in or have completed an apprenticeship program, a commensurate program, or a “bona fide construction site safety program” to include a minimum number of hours of safety and trade training, along with training equivalent to one year of an apprenticeship program.

**Introductory Number 1432** would similarly require that an agreement to participate in an apprenticeship program be in place with a recognized apprenticeship program prior to receiving financial assistance.

The Department recognizes the need to improve safety training for workers on construction sites, and as such supports a number of initiatives to do so. However we do not support requiring apprenticeship programs for all workers. While apprenticeship programs have safety components, they are primarily focused on teaching a trade. The Department supports requiring more safety training for workers, such as expanding the number of workers required to have OSHA approved safety training. Apprenticeships can also pose barriers to workers and smaller firms, including M/WBEs. Most apprenticeship programs last between two and five years, and require GED, English proficiency, and passing an entry exam. While the Department supports worker training, requiring registered apprenticeships can prevent local talent from being able to participate,

particularly the nearly two million New Yorkers who lack English language proficiency, a high school diploma, or both.

Apprenticeship programs take significant time to create and register with the State Department of Labor, and since apprenticeship programs are for new entrants into the construction industry, their impact on mid-career workers is limited, even though experienced workers are just as much at risk as new hires. Safety programs work when they are continuously reinforced. This occurs through refresher trainings and establishing a culture of safety at the job site, where supervisors at all levels treat safety with the seriousness it deserves and are held accountable when lapses occur.

**Introductory Number 744** would require that recipients of financial assistance pay all covered contractors a prevailing wage on their projects. Currently, all public works construction projects are already covered by new prevailing wage requirements, and this Administration is committed to improving work standards for all workers across the City. In the context of this hearing, however, we are not convinced this legislation would improve construction safety like other measures under consideration by the City Council today. This Administration has previously expressed concerns that this bill as written could create significant challenges for the development of affordable housing and other essential City projects and priorities, particularly given the current fiscal uncertainties around federal funding.

**Introductory Number 1442** would establish a process for the Department to rate the safety performance of those contractors subject to a safety registration and discipline them accordingly. This bill would require the Department to rate contractors based on a myriad of criteria including violation and stop work order issuance, the amount of time to correct violations, the strength of their safety plans, any fatalities at their job sites, and their Experience Modification Rating, which

is assigned by insurance companies to rate some contractor's safety performance. Every six months contractors are to be grouped in one of five tiers and can face suspension or revocation of their safety registration after the contractor drops into a lower tier which would take a minimum of one year.

The Department's safety registration applies to general, demolition and concrete contractors and excludes contractors of one-to-three family homes who are subject to a licensing process. For safety registrants who have demonstrated poor safety records, the Department now has the ability to require that they submit a plan demonstrating how they plan to improve safety on their site. This can be coupled with increased on-site monitoring at the contractor's expense in conjunction with additional Department inspections.

While the Department supports being given the authority to suspend or revoke a general contractor's safety registration, we believe the process described in this bill might fail to capture all the problem contractors who should be subject to discipline, incorrectly rank them, and take too long for them to be disciplined. The Department has an effective process in place for disciplining its licensees. Safety registrants should not be treated any differently. We would welcome the opportunity to work with the City Council to keep the enhanced discipline provided for in this bill while maintaining the advantages of our current enforcement framework.

At this point I will turn to the three bills that propose to increase penalties.

As a general matter, the Department supports increasing penalties to serve as a deterrent and to more appropriately punish those who violate the law at the expense of worker and public safety.

Recently, the Department more than quadrupled penalties for violations for the most common safety lapses.

**Introductory Number 1404** would set the minimum civil penalty for unlicensed plumbing and fire suppression system work at \$2,500 for the first violation and \$5,000 for each subsequent violation. Additionally, the bill would increase the civil penalty for violations related to site safety to between \$2,000 and \$30,000 for immediately hazardous violations and between \$1,000 and \$15,000 for major violations. The Department supports this bill and suggests the minimum civil penalty provided for unlicensed work should apply to all licensees, not just the two license classes included in the bill.

**Introductory Number 1437** would double the civil penalty for construction sites whose “violation ratio” exceeds 90% of other construction sites in the preceding calendar year. The violation ratio would be equal to the number of total immediately hazardous and major violations divided by square footage. The bill would also give the Department the ability to establish an alternative method.

There currently exists an alternative and more punitive method for increasing penalties for “bad actors” that is simpler and more effective than what this bill proposes. As part of its penalty schedule, the Department issues aggravated violations for repeat offenders of the law. Aggravated violations increase penalties by 2 ½ and 5 times the base penalty for repeat offenders or where there exists a history of non-compliance with the law. Another significant concern is that there are often multiple contractors on a particular construction site. We believe that this bill would capture and unjustly penalize contractors for the actions of one bad actor.

Like Introductory Number 1404, **Introductory Number 1419** would set the minimum civil penalty for unlicensed plumbing and fire suppression system work at \$2,500 for the first violation and \$5,000 for each subsequent violation. Additionally, the bill would increase the civil penalty for site safety violations that results in a fatality, or serious injury, or where a significant number of people are affected, to between \$500,000 and \$1.5 million, with a separate daily penalty of not more than \$2,000.

As mentioned previously, the minimum civil penalty provided for unlicensed work should apply to all licensees, not just the two license classes included in the bill. As to the proposal that would increase the civil penalty for violations that resulted in a fatality or serious injury to as much as \$1.5 million, one could imagine the strong likelihood of such a significant penalty not being paid, which would only serve to increase the amount of debt the City is unable to collect.

The final three bills focus on reporting.

**Introductory Number 81** would require the Department to report to OSHA any violations that endanger workplace safety. It would also require the Department to submit an annual report to the Mayor and City Council concerning the number and nature of violations reported to OSHA.

The Department does not believe this proposal is necessary or practical. The Department communicates regularly with OSHA and shares information on violations that we believe warrant their enforcement. The Department fails to see the benefit of proposed legislation requiring it to perform a task it already does, and submit a report to the Mayor and City Council on violations that are already publicly available. Furthermore, we oppose this bill because it would require the Department's inspectors to obtain knowledge of OSHA's extensive and

complex regulations (in addition to the knowledge of the City's intricate Building Code) in order to identify workplace safety violations that are solely under OSHA's purview.

**Introductory Number 1433** would add a number of indicators to what the Department is currently required to report concerning injuries and fatalities. The Department supports broadening its reporting to include injuries and fatalities on construction sites regardless of whether it violated the Code, to the extent the Department is made aware. Additionally, the Department can provide information on whether the injured or deceased was a worker or member of the public, date and time of the incident, address, and number of floors. However, for some of the indicators included in the bill, it is unlikely the Department would get access to the information. This includes the number of years the worker was employed and the number of hours the worker worked that day. Similarly, information on the type of injury and whether the worker is in a union is often times difficult to collect. To make this provision effective, the City Council should consider requiring employers to provide this information to the Department.

**Introductory Number 1436** would require the Department to submit an annual report to the Mayor and City Council concerning Site Safety Managers and Coordinators. The report would include the number of active Site Safety Managers and Coordinators at different periods in time, number of sites requiring these safety personnel, number of licenses issued, applications filed, metrics on how long processing takes and a description of the unit responsible for processing, including the size of the staff.

To the extent that there is a shortage of safety personnel on construction sites, delay in processing applications is not the cause. As mentioned previously, there are currently 1,093 licensed Site Safety Managers and 148 licensed Coordinators. The number who actually utilize their license is

about half. It generally takes the Department between three and six months to process applications for these licenses, which includes a rigorous background investigation. At the end of 2016 the Department had 28 applicants either in review or awaiting additional information from applicants.

The Department does not support this bill because the resources necessary to comply will be diverted from processing applications as quickly as possible. As outlined in our *Building One City* plan, the Department is moving toward on line filing of licenses. Once this feature is programmed in our DOB NOW system, most the information sought in this bill will be available to the public in real time.

Thank you for your attention and the opportunity to testify before you today. We welcome any questions you may have.



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**Gale A. Brewer, Borough President**

**January 31, 2017**

## **Testimony before the City Council Committee on Housing and Buildings**

### **Hearing on the Construction Safety Act**

#### **Gale A. Brewer, Manhattan Borough President**

Thank you Chair Williams and members of the Committee on Housing and Buildings for holding this important hearing to discuss different strategies for improving safety conditions on construction sites.

Identified by the New York State Department of Labor (NYSDOL) as one of the top 13 industries to grow faster than the overall economy through 2022, the construction industry is a significant economic engine for our city.<sup>1</sup> In 2015, the New York City Department of Buildings authorized 56,528 new residential units across 1,998 new buildings—nearly 180% more than in 2014. Nearly a quarter of a million New Yorkers work in construction and real estate, including construction managers, skilled tradespeople, to developers and brokers. Of these jobs, roughly 80% are engaged in physical construction and other manual operations.<sup>2</sup>

New York Building Congress data shows that Manhattan remains the center of construction activity. Over the next four years, Manhattan is expected to add 23 office buildings and nearly 20

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<sup>1</sup> New York State Department of Labor, “Significant Industries: A Report to the Workforce Development System” September 2015. Retrieved January 26, 2017 <https://www.labor.ny.gov/stats/PDFs/Significant-Industries-New-York-City.pdf>

<sup>2</sup> New York Building Congress, “Three-Quarters of NYC Construction Workers Live in the Five Boroughs, According to New York Building Congress Analysis of Census Data” December 21, 2011. Retrieved on January 26, 2017 <https://www.buildingcongress.com/outlook/112916.html>

million square feet of office space. According to the last outlook analysis done by the New York Building Congress, in the first nine months of 2016 our borough was home to 58% of construction starts by value, citywide.<sup>3</sup>

New York City's building boom is not without its adverse effects: traffic congestion, construction noise, street closures, and drops in pedestrian traffic for small businesses and increases in rodent complaints near dig sites. But the most sobering effect of the boom has been a surge in the number of workers hurt and killed in construction accidents.

Looking only at data made available by the DOB, construction-related injuries totaled 599 citywide in 2016, 66 percent of which were in Manhattan; compared to 237 citywide in 2014, a 152.7 percent increase in just two years. Construction-related deaths totaled 8 in 2014, then 12 in 2015, and 12 more in 2016.<sup>4</sup> However this is not the complete story about fatalities. The DOB and the U.S. Occupational Safety and Health Administration (OSHA), the federal agency tasked with investigating workplace accidents and fatalities, have different definitions of what is counted. The DOB only counts fatalities that violated the building code and public safety, not all accidents on the work site. In 2015 that meant that DOB did not recognize 6 deaths where OSHA issued violations to respective employers for failing to adhere to safety standards.<sup>5</sup>

These deaths and injuries occur at a disproportionate rate among immigrant construction workers, and are particularly stark for Latino workers. According to the New York Committee for Occupational Safety and Health (NYCOSH), Latinos comprise 30 percent of the construction workforce but are 57 percent of the construction workers who die due to falls. NYCOSH researchers compared total OSHA penalties for safety violations to sites where Latino workers

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<sup>3</sup> New York Building Congress Construction Outlook Report November 29, 2016. Retrieved on January 26, 2017 <https://www.buildingcongress.com/outlook/112916.html>

<sup>4</sup> NYC Department of Buildings, Construction Related Accident Reports for December 2015 and 2016, 12/13/16. Retrieved on January 26, 2017 <https://www1.nyc.gov/site/buildings/about/construction-related-accident-reports.page>

<sup>5</sup> Rosa Goldensohn, Joe Anuta and Harini Chakrapani, "Despite safety push, many worksite deaths go uncounted", September 12, 2016. Retrieved on January 26, 2017 [http://www.crainsnewyork.com/article/20160912/REAL\\_ESTATE/160919993/tension-between-union-and-nonunion-workers-over-uncounted-fatalities](http://www.crainsnewyork.com/article/20160912/REAL_ESTATE/160919993/tension-between-union-and-nonunion-workers-over-uncounted-fatalities)

lost their lives. The analysis showed that penalties at “worksites where Latinos died was \$40,989, compared to \$15,873 at worksites where non-Latino construction workers died.”<sup>6</sup>

The rise in serious construction site injuries is unacceptable. That’s why in Fall 2015 I convened the Manhattan Construction Safety Working Group, bringing together diverse representatives from the Building Trades Employers’ Association (BTEA), the Building and Construction Trades Council, Real Estate Board of New York (REBNY), worker’s rights organizations, elected officials, and the Manhattan DA’s office. For six months, working group members met in-person five times with many additional conferences by phone.

We tackled a wide range of topics, including:

- How risk contributes differently to accidents in low-rise vs. high-rise construction
- Public health concerns for workers and the adjacent community
- Language access for immigrant workers and community residents
- Code enforcement from both agency and industry perspectives

Though we didn’t always agree on every idea attached to my testimony is a list of recommendations on which we were able to find consensus,<sup>7</sup> and I thank the members of the group for giving generously of their expertise and time to work through these difficult issues in pursuit of improved safety for the industry. Issues discussed at our meetings and included in the attached list have appeared as reports and recommendations issued by members of the working group. Examples include elements of the agenda laid out by the Construction Safety Advisory Committee of New York (CSACNY) released in December 2016<sup>8</sup>; the Standards of Excellence Agreement used by the Building Construction Trades Council and the Building Trades Employers' Association<sup>9</sup>; the annual report on construction fatalities issued by NYCOSH in

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<sup>6</sup> NYCOSH (January 2017). *Deadly Skyline An Annual Report on Construction Fatalities in New York State*. Retrieved from [http://nycosh.org/wp-content/uploads/2017/01/DeadlySkyline2017\\_NYS-ConstructionFatalitiesReport\\_final\\_NYCOSH.pdf](http://nycosh.org/wp-content/uploads/2017/01/DeadlySkyline2017_NYS-ConstructionFatalitiesReport_final_NYCOSH.pdf)

<sup>7</sup> APPENDIX: Manhattan Construction Safety Working Group Recommendations

<sup>8</sup> Construction Safety Advisory Committee Of New York recommendations <http://www.csacny.net/agenda/>

<sup>9</sup> Unions and Management Agree to Major Construction Cost Reductions at Twelve Large Development Sites in New York City, Business wire, May 29, 2009. Retrieved January 26, 2017 <http://www.businesswire.com/news/home/20090529005513/en/Unions-Management-Agree-Major-Construction->

January 2017; and statistics related to high fatality rates on low-rise buildings as reported in REBNY's March 2016 Construction Safety Report.

The bottom line is that we must increase health, safety, and craft training above what is currently required, and that monetary penalties for safety violations must become too costly to ignore.

My efforts in the working group led me to co-sponsor Int. No. 1404 and 1447, which are included in the impressive package of bills before you today.

Int. No. 1404 will increase the minimum and maximum civil penalties and fines for immediately hazardous and major violations of the site safety provisions of the building code. Int. No. 1447 specifies worker training and qualifications relative to the size of the project or the buildings under construction.

Int. No. 1404 mandates an escalating schedule of fines to help create strong disincentives to unsafe conditions and practices. This approach was applied at the federal level as part of the 2016 federal budget bill, which included the Protecting America's Workers Act (PAWA) that allowed for the first adjustment of OSHA's maximum penalties since 1990, increasing them by as much as 78%<sup>10</sup>.

On October 7, 2015 Dr. David Michael, PhD, MPH, who was then the Assistant Secretary of Labor for Occupational Safety and Health at OSHA, testified before the U.S. House of Representatives Education and the Workforce Committee, Subcommittee on Workforce Protections, that "OSHA penalties must be increased to provide a real disincentive for employers accepting injuries and worker deaths as a cost of doing business."<sup>11</sup> Dr. Michael's rationale applies to Int. No. 1404 because the proven cost benefits of safer sites are apparently not enough

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Cost-Reductions <http://www.businesswire.com/news/home/20090529005513/en/Unions-Management-Agree-Major-Construction-Cost-Reductions>

<sup>10</sup> OSHA Factsheet November 2015 <https://www.osha.gov/Publications/OSHA3879.pdf>

<sup>11</sup> United States. Cong. House. Subcommittee on Workforce Protections. Hearing on Protecting America's Workers: An Enforcement Update from the Occupational Safety and Health Administration October 07, 2015. 114th Cong. 1st sess. Washington: GPO, 2015 (statement of Dr. David Michael, PhD, MPH, Assistant Secretary, OSHA) [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=TESTIMONIES&p\\_id=1722](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=TESTIMONIES&p_id=1722).

of an incentive, despite a 2013 McGraw Hill Construction Smart Market Report which found that contractors investing in strong safety management programs saw a range of positive benefits that improved their bottom line. Safer practices avoid fines, decrease reportable injuries, shorten project schedules, shrink total budgets, and improve insurance rates.

Additionally, enforcement and oversight of safety violations should be used as an opportunity to increase outreach to Latino and immigrant workers, improve education, expand language services, and make clear to workers that they are protected regardless of immigration status. NYCOSH's correlations between high OSHA fines and danger to immigrant workers should be an incentive for DOB and OSHA to conduct coordinated, proactive enforcement instead of simply reacting to complaints or accidents.

My support for Int. No. 1447 –mandatory apprenticeship--is the result of decades of experience working with and witnessing the local impact of apprenticeship programs that have developed the country's best-trained construction workforce. A key aspect of these programs is the emphasis on worksite health and safety, and additional layers of safety training improve the culture of safety on job sites.

A March 2014 study in the *Work & Industry*, a publication by The American Occupational Therapy Association, found that safety communication and fall prevention training for 48 participating foremen and modeled after an apprentice program curriculum increased the daily emphasis on fall protection, and on toolbox talks from 13% to 68%, increased the availability of fall protection gear from 56% to 100% of sites, and led to a general drop in unsafe site behaviors.<sup>12</sup>

I believe that when workers are given the opportunity to hone skills like applied mathematics for construction, blue print evaluation or acquire specialty skills like welding or bridge painting, they pay more attention to potential health and safety problems. Training classes, including

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<sup>12</sup> Vicki Kaskutas, OTD, MHS, OT/L. "Fall Prevention and Safety Communication Training for Construction Foremen", *Work & Industry*. March 2014. Retrieved January 27, 2017 [https://oshr.wustl.edu/wp-content/uploads/2016/11/Kaskutas\\_2014\\_WISIS\\_Fall-Prevention-and-Safety-Communication-Training-for-Construction-Foremen.pdf](https://oshr.wustl.edu/wp-content/uploads/2016/11/Kaskutas_2014_WISIS_Fall-Prevention-and-Safety-Communication-Training-for-Construction-Foremen.pdf)

OSHA 10 and 30 courses, fall prevention and 4-hour, 8-hour and/or 32-hr scaffolding trainings promise to reduce the frequency of injury or death.

I want to stress that each of these bills, as is often the case with legislation, is the beginning of a dialogue about how to balance private interests and wise oversight. Industry advocacy groups, safety professionals, and workers each have their role to play. My primary aim is workable standards that maximize protections for workers and whenever possible add value for contractors and developers who also seek a safer workplace.

The construction trades must continue to be an avenue of opportunity for people of all backgrounds, and its workforce should be representative and supportive of city's diversity. To that end, we must ensure that minority and women-owned construction firms have the resources they need to comply with the final version of Int. No. 1447.

In the area of workforce diversity, I'm most familiar with efforts by organizations like the Building and Construction Trades Council (BCTC) and the Building Trades Employers' Association. Programs like the Edward J. Malloy Initiative for Construction Skills and Nontraditional Employment for Women have pushed to add several thousands more people of color and women in the construction field; in the public sector there is the work of BCTC and NYCHA's 2015 Project Labor Agreement (PLA) which required that 10 percent of new apprenticeship classes be reserved for public and subsidized housing residents. This could lead to 1,000 to 1,200 slots annually.<sup>13</sup> NYCHA's other great collaboration, launched with the help of the City Council, is the four-year Civil Service Apprenticeship program run by District Nine of the International Union of Painters and Allied Trades. This Council-funded program is expected to bring hundreds of residents into gainful employment; 86% of current apprentices are women and 96% are minorities.<sup>14</sup>

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<sup>13</sup> New York Public Housing Authority. (2015). NYCHA Residents to Get Swifter Capital Repairs and Access to Union Jobs and Training Through Newly Signed Labor Agreement with Building Trades Union [Press release]. Retrieved from <https://www1.nyc.gov/site/nycha/about/press/pr-2015/project-labor-agreement-release.page>

<sup>14</sup> Kathleen Culliton, "NYCHA Tenants Get Chance to Apprentice for Union Jobs Under \$26M Program", DNAinfo, October 25, 2016. Retrieved from <https://www.dnainfo.com/new-york/20161025/civic-center/nycha-tenants-get-chance-apprentice-for-union-jobs-under-26m-program>

In addition to these programs, there are hundreds of open/merit construction firm that do not currently have a registered apprenticeship program but employ tens of thousands of workers and contributing to important efforts like the construction of affordable housing throughout the city.

According to Richard Lambeck, professor at New York University's Schack Institute of Real Estate, slightly more than half of private sector development is constructed by open/merit shops<sup>15</sup>. In this regard, I am aware of concerns that an apprenticeship program mandate would have a negative financial impact and create new layers of bureaucracy for open/merit shop construction firms. My office has reached out to Jane Thompson, Director of Apprenticeship Training at NYSDOL, to clarify the timeline for state approval of new apprenticeship programs, and how best to bring open/merit construction firms into compliance. One option may include working with NYSDOL to offset costs and establish additional Group Non-Joint Programs<sup>16</sup> through the Apprenticeship USA State Expansion Grants<sup>17</sup> available from the Employment and Training Administration of the U.S. Department of Labor. We can also encourage NYSDOL and the Office of Labor Policy and Standards at the NYC Department of Consumer Affairs to provide matching funds for local programs.

Another issue that will need to be considered is the unique hurdles of creating language-appropriate training for workers from our immigrant communities. Legislation of this scale should consider whether a fund can be created that funds efforts to extend low-cost or free training programs to immigrant workers, regardless of educational and cultural circumstances and available in their native language. This level of strategic planning should be coordinated with organizations like the National Day Laborer Organizing Network (NDLON) and New

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<sup>15</sup> Laura Kusisto, "Growth of Nonunion Construction Tests New York City Labor Leader", The Wall Street Journal, June 12, 2015. Retrieved from <http://www.wsj.com/articles/growth-of-nonunion-construction-tests-new-york-city-labor-leader-the-weekend-profile-gary-labarbera-1434154002>

<sup>16</sup> Group Non-Joint Programs consisting of a group or association of employers without the participation of a union representing employees, in which the group or association of employers acts as Sponsor, and where the Sponsor and its Signatories are bound by a Department approved agreement signed, collectively or individually, by the Sponsor and all the Signatories. Article 23, Part 601 NYS Labor Law

<sup>17</sup> U.S. Department of Labor (2016). Notice of Availability of Funds and Funding Opportunity Announcement for: ApprenticeshipUSA State Expansion Grants [Notice]. Retrieved from <https://www.doleta.gov/grants/pdf/FOA-ETA-16-13.pdf>

Immigrant Community Empowerment (NICE) to identify worker centers that need assistance with navigating the NYSDOL system or partnering with existing qualified programs to meet their need. This should also be included as items to discuss with NYSDOL and the Office of Labor Policy and Standards.

Separate from Int. No. 1404 and 1447, this package of bills includes several initiatives that I can support, such as those calling for greater cooperation and information sharing between OSHA and DOB – specifically, detailed toolbox talks -, increased netting and guardrail requirements, greater scrutiny for smaller job sites, and several bills related to crane safety. Int. 1436 would gather information about the approval process for site safety managers and help address a problematic shortage in the industry. I hope that conversations related to Int. 1436 will help determine if DOB has used any portion of the four-year \$120 million investment announced in 2015 to address this problem.<sup>18</sup>

Another reason these bills are so important is because experts are already predicting a less aggressive, underfunded OSHA under the new Trump Administration. Given President Trump's experience as a developer and distaste for regulation it's expected that a scaling back of initiatives will be something that will be on the President's agenda. The outcomes can range from reinterpreting or ignoring existing regulations to using OSHA site visits as an extension of his administration's immigration policy, using inspections to search for undocumented workers on construction sites, a strategy that would be disastrous and undermine the safety of all workers. Any additional actions to relax enforcement by this federal agency would just compound reductions that have been going on for the last several years. According to the analysis by NYCOSH since 2012 the number of OSHA safety inspectors in New York State went from 82 to 66 in 2015 and inspections fell from 2,722 in 2011 to 1,966 in 2015, a drop of 27%. Since we are unable to know if we can count on federal assistance with turning the tide on this crisis, we must do everything to make construction safer using the powers available to local government.

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<sup>18</sup> Matt A.V. Chaban, "Fatal Construction Accidents Are Rising in New York", New York Times, June 2, 2015. Retrieved on January 26, 2017 <https://www.nytimes.com/2015/06/03/nyregion/fatal-construction-accidents-are-rising-in-new-york.html>

Once again I want to congratulate the Council on moving to address this issue with such force and purpose. I'm proud to be part of this comprehensive package of construction regulation reform and stand ready to provide any assistance I can.

## **APPENDIX: Manhattan Construction Safety Working Group Recommendations**

The following reforms were among those that the Working Group discussed at our meetings:

### **Access to Safe and Proper Training:**

These recommendations address a number of safety and training issues that contribute to making current work sites unsafe. These include a proliferation of fraudulent OSHA classes and certifications resulting in workers who are seemingly certified but not actually properly trained; a lack of effective training resources - both personnel, health, and actual classes; a lack of language accessibility; and rules that apply only to large buildings (10 stories or more) when in fact many accidents occur on smaller building sites.

- Require Occupational Safety and Health Administration (OSHA) trainers register with the city's Department of Buildings (DOB) and submit lists of all students who complete their courses
- Expand the requirement that workers complete an OSHA 10-hour training course for all construction sites, not just those with a height of 10 or more stories, with funding and a phase-in period to ease the transition for companies working on buildings below 10 stories
- Allow community organizations to be authorized to offer 4-hour Scaffold User Safety Training (Scaffold User Safety Training covers proper scaffold assembly, fall and electrical hazard prevention, ladder safety, and other topics.)
- Require DOB to ensure that all materials are translated into the languages read and spoken by the nationalities in the construction workforce. The city's current practices do not comply with federal language access laws.
- Support new and existing public/non-profit partnerships to create additional day labor centers with onsite professional assistance and consultation about workers' rights
- Increase the number of multilingual master safety trainers in the NYC-Metro area

### **Stronger Enforcement Measures:**

These recommendations primarily address the lack of enforcement in smaller construction sites (buildings less than 10 stories) where so many construction accidents occur. They also address the issue of fraudulent training and certification.

- Create a Buildings Enforcement Safety Team (BEST) focused on high-risk low-rise buildings (less than 10 stories) or increase staffing, resources and the scope of inspections by the existing BEST low rise unit
- Extend the safety plan provisions of the NYC Administrative Code section 28-110.1 to cover more medium-size projects, rather than only the largest worksites. Specifically, these provisions should apply to all 'New Buildings', 'ALT 1' or 'Full Demolitions' of buildings from 4 stories (or 40 feet in height) to 10 stories (or 100 feet in height) or a "building foot print" 40,000 square feet or larger
- Create a joint DOB/OSHA enforcement unit to identify and penalize businesses and operators who provide fraudulent safety certification credentials

### **Transparency and Accountability Through Data**

These recommendations address a lack of public information about those who are responsible for each construction site, and are intended to encourage builders to employ higher safety standards.

- Using the city's Building Information System (BIS), create a database on DOB's website that would enable users to cross reference about owners, developers, LLCs, general contractors and subcontractors - including those with high-risk trades - to learn which permits have been issued to them, and all adjudicated violations they have incurred
- Government should work with insurance companies to incentivize premium reductions on construction sites where management, general contractors, and subcontractors adhere to higher industry standards.
- Modify the construction fence signage requirements to require the new project information panels to include a contact name and phone number for the project construction superintendent and local Community Board office

## **Worker and Job Site Safety**

These recommendations provide some best practices for increasing worker safety at all construction sites.

- Mandate that all employers provide fall prevention training
- Encourage construction companies to form joint jobsite health and safety committees between workers and management
- Support the creation of/sponsor public workshops with community entities on how to identify and report issues on construction sites
- Require the owner of sites categorized as 'New Buildings', 'ALT 1' or 'Full Demolitions' of 4 stories (or 40 feet in height) to 10 stories (or 100 feet in height) or a "building foot print" 40,000 square feet or larger to retain a third-party qualified safety professional to provide daily safety checks. Records should be kept onsite and available for review. A set of criteria should be established to trigger more regular DOB inspections if a series of negative conditions are found on site. To ensure DOB is able to process and enforce this new site safety plan requirement, additional resources need to be allocated to the department as part of implementation
- Require DOB to study and implement procedures that streamline the approval process for qualified safety professionals to become Certified Site Safety Managers and Site Safety Coordinators



# Association of Electrical Contractors, Inc.

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FOR THE RECORD Phone: 718.752.0800 Fax: 718.752.0805 www.aecnyc.com

## MEMORANDUM IN SUPPORT-INTRO 1447-2017

The AEC writes in support of Intro 1447, legislation developed by Council Member Williams that would more effectively protect New York City construction workers and the general public by mandating that tradespersons on major building and demolition jobs be trained in appropriate safety protocols. The AEC is an organization of electrical contractors and suppliers active in the five boroughs and affiliated with IBEW Local #3 and the New York City chapter of the National Association of Electrical Contractors.

Int. 1447 is a critically needed bill. Construction worker injuries and deaths have increased dramatically in New York City in the last few years. OSHA data shows that most fatalities occurred at nonunion sites (80% in 2014 and 74% in 2015). Of the contractors that OSHA dubbed "severe violators" for repeat violations, 93% were nonunion in 2015. Simply put, union contractors are safer because their workers are better trained. Thanks to our labor-management partnership with Local #3, the unionized electrical industry invests a great deal of money on safety through our State-certified apprenticeship school and continuing education and training programs. Our apprentices are required to take safety classes such as Safety & Health Awareness (safeguards both workers & the public); OSHA-10; OSHA/Safety Awareness (includes fall protection & confined space training); Asbestos Awareness; First Aid/CPR, and many others.

On the other hand, exploited and sometimes undocumented electrical workers employed by unscrupulous non-union contractors get little or no safety training and frequently become part of the underground economy. They may end up hurt and treated in emergency rooms at taxpayer expense because their employers do not take appropriate safety measures. They often put the general public at great risk because they do not know how to work safely.

Opponents of this legislation claim it is designed to lock up this work for union labor. In fact, this bill does **NOT** mandate that all major construction be union, nor does it disadvantage legitimate open-shop developers and contractors that invest in safety. First of all, less than half of building and construction apprenticeship programs in the city are sponsored by unions according to the State Labor Department which oversees them. Furthermore, the proposed legislation simply requires that before workers can be employed on major building or demolition jobs, they either be a registered apprentice or a graduate of a registered apprenticeship program who has received the requisite safety training, **OR** they must receive a minimum number of hours of safety related instruction and on-the job training from another training program. The Buildings Commissioner would approve such trade-specific safety and training programs. By statute, these programs must be commensurate with the training required of apprentices and in accordance with the relevant New York City regulations and State labor law standards. How anyone can argue against the necessity of making sure that ALL construction workers on major projects – union or non-union- are properly trained in safety protocols to protect themselves and the general public? Construction sites throughout the five boroughs should not be allowed to operate with minimal and perhaps even criminally negligent levels of safety training.

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We do have some concerns about the lack of clear enforcement provisions in this legislation. For instance, the bill is silent as regards how workers employed on covered projects can prove they are apprentices/graduates or have received all the training required by the legislation. Must they carry a card similar to what is issued for OSHA-10? Also, the Buildings Department needs more and better trained & qualified inspectors to help safeguard job sites in our view. These inspectors should not just focus their efforts on the highest profile job sites that are usually union, especially since OSHA data proves that non-union construction projects have the most fatalities. Without proper resources and appropriate deployment, the legislation is not worth the paper it is written on. Finally, we would respectfully request that the bill drafters consider whether it is enough for construction workers on smaller jobs to have simply completed a Department of Buildings-approved construction safety program as outlined in *Section 3310.3.3-Workers at Other Sites* in order to be employed on small-scale projects. We would suggest that the members consider whether the same standard as larger projects should be applied; we know this would increase costs, but safety and training are critical issues at ALL job sites.

There is one other bill under consideration today that we would like to briefly comment on. Intro 744, legislation developed by Council Member Crowley, would expand prevailing wage requirements for certain construction projects with government financial assistance. If a developer receives a public subsidy, there are public responsibilities involved. We believe the workers on these projects should receive training in safety protocols and should be paid a wage that meets area standards. Simply put, this legislation would improve construction safety.

As regards the other bills under consideration today, we take the same positions as the Building Trades Employers Association. Our organization is an active member of the BTEA and we appreciate the fact that several members of this committee have met with BTEA President Lou Coletti to find ways to enact thoughtful legislation to achieve our mutual goal of making construction sites safer. We encourage all committee members to do the same since BTEA contractors have proven to be the safest in the industry.

We support the City Council's efforts to ensure that the highest standards of safety are met and we thank you for bringing public scrutiny to this critically important issue.

Respectfully,

John Mannino  
President, AEC

For more information, contact AEC Executive Director Jeffrey Elmer at 718 752-0800 or [jelmer@aecnyc.com](mailto:jelmer@aecnyc.com).

**Submitted Testimony of Carlo A. Scissura, Esq.  
President and CEO, New York Building Congress  
At a Hearing of the New York City Council  
Committee on Housing and Buildings  
January 31, 2017**



The New York Building Congress, a membership organization drawn from all sectors of the design, construction, and real estate industry, appreciates the careful attention the Committee on Housing and Buildings has given to construction oversight and safety today, and over the last several years.

Our members – many of whom have testified today – are committed to worksite safety. Across the industry, the well-being of the workforce who build and maintain our City is the topmost priority.

We therefore applaud the Council’s efforts to strengthen safety procedures with this suite of legislation. We believe with careful consultation with key stakeholders involved in implementing and maintaining these standards – the Department of Buildings, labor, contractors, real estate owners, engineers, and site safety experts, among them – a number of these bills can be refined and clarified and substantial gains can be made in ensuring the highest safety standards.

However, the concerns voiced today by broad swaths of the industry must be carefully examined. Many of these bills could unintentionally slow construction or prevent critical small businesses from broad participation in the construction market.

We do note that there is general agreement that some of the Intros, could, with slight modification, be readily approved with broad industry consensus. Those bills include Intro 1429, Intro 1444, Intro 1445, and Intro 1448.

However, the remaining intros warrant further discussion and consideration. Indeed, the sheer volume of the legislation in question today begs for more careful investigation.

The Building Congress therefore urges the Speaker and this Committee to convene a Construction Safety Task Force to go over these bills in detail, fully understand their impacts on each sector, and improve upon them to ensure greater safety standards *and* continued productivity. The Task Force should include all of the key stakeholders and work toward a consensus model. This industry's success has always been based upon compromise and we believe that is achievable here.

We look forward to working with the City Council to improving upon this important effort.

Thank you for the opportunity to testify.



NEW YORK STATE ASSOCIATION FOR AFFORDABLE HOUSING

**New York City Council Committee on Housing and Buildings: Construction Site Safety**

Testimony of Jolie A. Milstein, President and CEO, NYSFAH

January 31, 2017

On behalf of the New York State Association for Affordable Housing (NYSFAH), I would like to thank Chair Williams and the members of the Committee on Housing and Buildings for the opportunity to submit comments on the bills before the committee today.

The New York State Association for Affordable Housing (NYSFAH) is the trade association for New York's affordable housing industry, with over 350 member organizations statewide, employing thousands of New Yorkers active in the development, preservation, management and construction of affordable housing. As an industry, we are deeply committed to construction site safety and applaud this Committee for taking up this cause. Although we are submitting comments on a number of bills on the agenda, I would like to take this time to highlight several pieces of legislation that damage our collective efforts to provide affordable housing while doing nothing to advance the cause of safety.

**Ints. 1447-201 & 1432-201: Apprenticeship**

NYSFAH embraces the spirit of today's hearing, and goal of ensuring all workers on sites are properly trained, managed and overseen. The affordable housing industry stands ready to engage in a dialogue with the members of this committee and with all stakeholders here today about the best ways to accomplish this.

This legislation in its current form does not get us there. NYSFAH strongly opposes Intros. 1447 and 1432, and their mandates of apprenticeship or commensurate training for construction workers. Implementation of these bills would have devastating effects on the costs of building affordable housing, would shut down our members' longstanding local hiring initiatives, and would greatly harm the non-unionized construction workforce which includes thousands of diverse New York City residents.

Construction site safety is a culture that relies on trained workers and is enforced by responsible contractors through vigilance and effective oversight. The affordable housing industry believes safety reforms in the less-regulated parts of the building trade are long overdue. NYSFAH members are proud of their safety track record, and agree that all workers should be as properly trained, and all sites as well-managed and regulated.

Intros. 1447 and 1432 would require workers on almost all affordable housing projects to either be a participant or graduate of an apprenticeship program, or to demonstrate that he or she has received substantially similar training and instruction. Apprenticeship training is, by definition, skills training that is trade or craft-oriented. While apprenticeship programs are one pathway for skilled workers, they are also limited in capacity, very costly and time-consuming. Despite efforts by open- and merit-shop contractors to build capacity, apprenticeship programs are dominated by the construction trade unions and the contractors associated with them. While non-union

apprenticeship programs exist, they are single-employer sponsored and therefore very small. Union apprenticeship programs are often multi-employer sponsored and far more widely available.

Intros. 1447 and 1432 threaten to put thousands of New Yorkers out of work, and would be effective only in ensuring that construction work is performed almost exclusively by union-trained individuals. Those who learned their trade through a means outside of the apprenticeship path, or who are unable to document their training and experience – even if they have decades of experience and a flawless safety record – would be deemed unqualified to work within the City of New York. Ironically, making apprenticeship programs the standard for safety, this legislation gives priority treatment to a new, inexperienced apprentice over an open shop construction professional, who may have decades of experience, but did not follow the apprenticeship path.

The apprenticeship model would also have an adverse impact on NYSFAFH members' efforts to hire locally in the communities in which they build, as unemployed or untrained New Yorkers would be deemed unqualified. The end result for the affordable housing industry would be greater labor costs, less opportunity for smaller contractors, and no opportunity for local community members to obtain employment on affordable housing projects.

#### **Int. 744: Prevailing Wage**

This bill is not about site safety and its inclusion at today's hearing unfortunately diverts attention from the important topic at hand. NYSFAFH strongly opposes this bill, which would devastate the Mayor's affordable housing plan and dramatically slowdown construction in the city.

Prevailing wage rates dramatically drive up the cost of building affordable housing. The Independent Budget Office (IBO) found that prevailing wages increase construction hard costs on affordable housing by 28 percent, or \$80,000 for every affordable unit. Given the existing resources, Intro. 744 would substantially cut production of affordable. The city would be unable to subsidize the additional tens of millions of dollars needed to keep up with its historical constructions gains. This is unacceptable at a time when homelessness is at an all-time high, and housing costs are out of reach for so many working New Yorkers.

This bill's significant increase in administrative costs would disproportionately burden small and local businesses that do not have the administrative capacity to comply. Larger firms with robust compliance departments may be able to keep up with the mountain of new paperwork and reporting, but most at risk are those without that capacity. In this industry, that burden falls on many Minority and Women-owned Business Enterprises (MWBE) that the city is rightfully making an effort to support and grow. Penalties for incorrect reporting are substantial, resulting in fewer contractors undertaking this work, further driving up prices.

The focus today should be on ways all sectors of the industry can come together to promote construction site safety, while at the same time ensuring steps taken do not needless harm the city's ability to house its most vulnerable residents. Unfortunately, this legislation accomplishes neither. NYSFAFH is ready to engage in a dialogue with the members of this committee and with all stakeholders here today about the best way to accomplish those mutually agreed-upon goals.

We would like to again thank Chair Williams and the members of the Committee for consideration.

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Written Testimony of Brian Sampson  
President, Empire State Chapter  
Associated Builders and Contractors  
The New York City Council Committee on Housing and Buildings  
January 31, 2017

My name is Brian Sampson and I am the President of the Empire State Chapter of Associated Builders & Contractors. We represent 21,000 contractors across the nation, employing hundreds of thousands of merit shop workers across the nation and tens of thousands within the City of New York. As the leading construction industry association in the country, we work hard to promote safety training, skill development and foster better working conditions through the sharing best practices. We believe that every incident is avoidable with the proper training and work every day to ensure those that show up for work go home in the same condition or better than when they arrived for work that day. In our view, one fatality is one too many.

We are encouraged by many of the safety measures the City Council has proposed, namely those bills which seek to improve safety on the job. We have reviewed the package of legislation which you set forth and we would like say that there are many good ideas that have come about. In fact, we think things like jobsite safety talks as proposed in Intro. 1429 is a best practice, as would be the fall protection safe guard measures specified in Intro. 1445. We think it would make sense to encourage all contractors do adopt these practices.

We are however concerned with Intro. No. 1447, which would require contractors to have an apprenticeship program in order to build 10 stories and above. The apprenticeship requirement does not fix the problem of safety, specifically since most of the unfortunate fall-related fatalities occurred on low-rise buildings. With this in mind, the legislation does little to solve the problem which the bill was originally proposed to address. Our immediate concern is that as drafted it would put tens of thousands of merit shop workers -brothers, sisters, aunts, uncles, mothers and fathers out of work. While that is not what is intended, as drafted that's what this legislation will do.

I think it would help to understand the practical implications of Intro. 1447. According the legislation, each worker would have to have gone through an apprentice program or be currently enrolled in one. Even if every worker were to apply to become an apprentice, there is not enough available slots in these programs because the state Department of Labor tightly controls the number of apprentices allowed in any given program. Given that about 80% of the work is being performed by merit shop firms, most of whom do not have a program, an apprenticeship mandate does nothing to help the workers who are currently working on private construction in this city.

Written Testimony of Brian Sampson  
President, Empire State Chapter  
Associated Builders and Contractors  
The New York City Council Committee on Housing and Buildings  
January 31, 2017

Further complicating the situation is the fact that there are currently only 76 active state apprentice programs in the city, with over half of them belonging to the union trade halls. The remaining programs belong to merit contractors that typically perform public work, which is different in many ways from private construction. Making this even more problematic is the fact that the application and approval process for a contractor to create a program can take 12 months or longer. It is doubtful state DOL could handle the influx of so many program applications at once.

Additionally, there are certain contractors who cannot qualify for a program but train their people, send them to classes and ensure a safety mindset is adopted by all on the jobsite. You have other larger contractors who are very specific in their trade that is not an apprenticeable trade, according to state DOL.

Apprenticeship is about learning a craft in state-registered program, it is not about being safe. The concepts of apprenticeship and safety are vastly different from each other. Our goal is first and foremost to ensure workers are as safe as possible and can continue to work under whatever safety package that is passed by this legislative body.

The great thing about our industry is that the merit shop is a diverse workforce – we have people from every race, every region of the city, of the globe really. But you also have a diversity of trades. You can get trained in a couple different trades but in an apprentice program, individuals are limited to just that trade. The diversity in trades provides more opportunities for advancement that is greater than the alternatives some people find out there.

We will all agree construction is a challenging job. Intro. What we want to propose are solutions that go from the ground up that are going to make workers safe. At a bare minimum, we believe every worker should have an OSHA-10 card before they step foot on the jobsite. There should also be more scaffold training and fall protection -for all jobsites. We should also consider requiring trenching and excavating training, rigging training, as well as classes that focus on New York City specific building requirements. The higher up the building, the more things that can be done. Imagine if we did all these trainings and they were all required to work in this city. If we did all these things as a package, we could make New York City the safest place to do construction in the most complicated market on the planet.

We look forward to working with you on developing a comprehensive safety package that protects all craft people's right to work. Thank you.

## Testimony of the Queens & Bronx Building Association, January 31, 2017

Good Day. I am Robert Altman and I am the legislative consultant for the Queens & Bronx Building Association. To start off, I would like to note that I applaud the Council's interest in the safety of construction workers. QBBA has long been concerned about worker safety having one of the most successful worker safety groups in the State. No organization is perfect, and in fact, there are some groups here touting their record of safety that in fact have had some very spotty years.

Getting to the legislation at hand. QBBA has no objection or supports the following bills: Int. Nos. 81, 1403, 1421, 1422, 1433, 1435, and 1436. We have not yet had sufficient time to analyze Intro. Nos. 1431, 1442, 1445, 1446, and 1448, although four stories seems pretty low for a story height in 1448.

With respect to Int. Nos. 1429 and 1444, we have no issue with the concept but feel that the laws are vague regarding what is acceptable implementation. For example, if something is communicated to a worker by another worker, who was told by his superior what to tell that worker, is that acceptable? Or are a host of translators supposed to be on site?

With respect to Int. Nos. 1404 and 1419, we are wondering what proof there is to show that the current fine system is not sufficient and that this legislation is necessary because of violations on a pervasive scale. There may have been one or two high profile incidents, but do the actions of a few bad actors warrant the increase. Chances are those bad actors will not care about any fine level because they do not think they will be caught.

With respect to Int. No. 1437, we are again left to question what scientific method was chosen here to determine a "violation ratio." It seems like the figure was picked from thin air. If most of the sites in the City are safe, then this law would penalize safe sites. Legislation should catch bad actors, not sites that are generally safe.

With respect to Int. No. 443, age is only one determinant of the safety of a crane. Focusing on just one element seems short-sighted and simplistic.

With respect to Int. No. 1432, this is basically a reintroduction to Int. No. 1169 from the prior term. This bill has major flaws which have not even bothered to have been corrected. Moreover, it shows a serious lack of understanding of the reason for tax abatements and how and when they are calculated. Most of the time calculation is AFTER construction, making it difficult to know if the law will apply or not. The text from my personal testimony from 2013 is attached to this testimony. Int. No. 744 suffers from many of the same flaws.

Int. No. 1447 is a serious giveaway to labor unions. In many respects, the unions would like to gain by legislation what they bargained away a few years back at the table. Moreover, despite the fallacy you will hear at this hearing, apprenticeship programs in NYC are entirely union. And if a non-union entity tries to form one, it will be rejected, because the State Department of Labor knows that within the City, politically, it must protect the unions. Nor does the legislation consider other forms of worker safety programs and the program does not consider the discriminatory practices of union. Some Council Members

have figured out how bad this is, but this legislation shows that some prefer to give a blind eye to it. I cannot understand the reason behind supporting legislation that protects bigotry and significantly higher construction costs in the City that is the most expensive one in America to build in.

## PERSONAL TESTIMONY FROM 2013

MY NAME IS ROBERT ALTMAN, AND I AM TESTIFYING TODAY AS SOMEONE WHO REPRESENTS A NUMBER OF MANUFACTURING CLIENTS.

INTRO 1169 IS A HARMFUL BILL TO THE CITY'S BUSINESS COMMUNITY. WHILE ITS PRIMARY INTENT SEEMS TO IMPACT CITY DISCRETIONARY BENEFIT PROGRAMS, IT, IN FACT, PICKS UP AS-OF-RIGHT PROGRAMS.

IT IS IRONIC THAT THE COUNCIL SHOULD WANT TO PASS SUCH A BILL. A FEW YEARS AGO, WITH MUCH FANFARE, THE COUNCIL PASSED AN MWBE BILL DESIGNED TO ASSIST MINORITY CONTRACTORS WITH THE INDUSTRIAL & COMMERCIAL ABATEMENT PROGRAM (ICAP). BY PASSING THIS BILL, THE COUNCIL WILL EVISCERATE THE GOOD OF THAT BILL AS THE OVERWHELMING MAJORITY OF MINORITY AND WOMEN OWNED BUSINESSES IN THE CITY DO NOT USE UNION LABOR AND DO NOT PARTICIPATE IN A UNION SPONSORED APPRENTICESHIP PROGRAM. SO IF THIS BILL PASSES, IN CERTAIN CIRCUMSTANCES AN ICAP APPLICATION WILL BE REQUIRED TO USE UNION LABOR WHILE AT THE SAME TIME SOLICITING THREE BIDS FROM MWBE'S WHICH ULTIMATELY CANNOT BE USED ANYWAY. THUS, THE BILL CREATES MORE PAPERWORK FOR NO BENEFIT.

JUST AS INTERESTING WOULD BE HOW TO DETERMINE WHAT A BENEFIT WOULD BE UNDER ICAP OR 421-A. THE ICAP BENEFIT IS NOT SET UNTIL AFTER CONSTRUCTION IS COMPLETE. UNDER THE BILL, PROJECTS THAT RECEIVE OVER \$1 MILLION IN ASSISTANCE ARE SUBJECT TO IT. IRONICALLY, THE FINANCIAL ASSISTANCE THAT THESE PROJECTS RECEIVE IS NOT SET UNTIL AFTER CONSTRUCTION IS COMPLETE. SO HOW CAN THE CITY DETERMINE BEFORE THE PROJECT BEGINS THAT THE BENEFIT WILL EXCEED \$1 MILLION. THE TRUTH IS, IT CAN ONLY SPECULATE.

NEXT, THESE PROGRAMS ARE DESIGNED FOR CERTAIN GOALS. ONE IS TO KEEP BUSINESSES IN THE CITY. BUT THE UNION REQUIREMENT IN THIS BILL WILL ADD TO THE COST OF DOING BUSINESS IN THE CITY, WHILE THE GOALS UNDER THESE PROGRAMS ARE TO LESSEN SUCH EXPENSES. MOREOVER, IT IS NOT AS IF THESE EXTRA COSTS ARE SPREAD-OUT OVER TIME. THEY ACTUALLY COME AT THE BEGINNING OF A PROJECT, A TIME WHEN A PROJECT IS MOST SENSITIVE TO COSTS AND OFTEN RECEIVING NO BENEFITS (WHICH IS VERY TRUE WITH ICAP, WHERE NO BENEFIT IS RECEIVED UNTIL ONE YEAR AFTER CONSTRUCTION IS COMPLETE). AND THE UNION COSTS ALREADY ADD TO THE SIGNIFICANT COSTS WITH UNDERTAKING THE PROJECT IN THE FIRST PLACE. IF THE COSTS ARE TOO HIGH, EVEN IF THE BUSINESS WANTS TO STAY IN THE CITY, IT MAY JUST DECIDE NOT TO DO THE PROJECT IN THE FIRST PLACE. AND THEN THE CITY MISSES OUT ON THE CONSTRUCTION JOBS (WHETHER UNION OR NOT). MOREOVER, WHEN A BUSINESS DOES SUCH PROJECTS, IT IS LOOKING TO EXPAND, SO IF THERE IS NO EXPANSION, THERE IS NO INCREASE IN PERMANENT JOBS. SO THE BILL CREATES A PRESENT AND FUTURE JOB LOSS.

EVEN WHEN LOOKING AT DISCRETIONARY PROJECTS, THE BILL MAKES LITTLE SENSE. FOR EXAMPLE, IDA PROJECTS FOR BUSINESSES OFTEN ARE WITH A "BUT FOR"

ANALYSIS: BUT FOR THE TAX BREAK, THE BUSINESS WOULD LEAVE THE CITY. BUT IF THE BENEFIT PACKAGE IS COUNTERBALANCED BY INCREASED COSTS FROM UNION WAGES, THE BUT FOR ANALYSIS SHIFTS AND THE BUSINESS LEAVES THE CITY. AND NOW THE CITY IS LEFT WITH A LOSS OF PERMANENT JOBS AND NO CONSTRUCTION JOBS WHATSOEVER.

FINALLY, BUSINESSES CERTAINLY DO NOT WANT TO BE INVOLVED WITH MASSIVE AMOUNTS OF PAPERWORK THAT THIS BILL REQUIRES FOR A BENEFIT THEY WILL NOT EVEN KNOW ABOUT UNTIL AFTER THE PROJECT IS COMPLETE. MOREOVER, THE IDEA OF THE AS-OF-RIGHT PROGRAMS WAS TO PROVIDE A SIMPLE PROCESS AND NOT CREATE A MASSIVE BUREAUCRATIC HEADACHE. MOST OF THE COUNTRY IS MOVING AWAY FROM UNNECESSARY EXCESSIVE REGULATION. THIS BILL DOES THE OPPOSITE. ULTIMATELY, THE LAW SEEKS TO SHIFT THE ECONOMICS OF PROJECTS ASSUMING THAT THE PROJECTS WILL NOT BE HARMED. BUT AS I HAVE SAID IN THE PAST, THE COUNCIL CAN CHANGE A LOT OF LAWS, BUT IT CANNOT CHANGE THE LAWS OF ECONOMICS. THIS BILL WILL NOT DO SO EITHER AND INSTEAD OF HELPING THE CITY, IT WILL HARM IT. FOR THAT REASON, I URGE THE COUNCIL NOT TO PASS THIS PIECE OF LEGISLATION.

**Testimony of James Bifulco**  
**President, Construction Safety Advisory Committee of New York**  
**Before the New York City Council Committee on Housing and Buildings**  
**Concerning the Construction Safety Act**  
**New York City Council Chambers, City Hall**  
**January 31, 2017**

Good morning, Chair Williams and Members of the Committee. I am Jim Bifulco, President of the Construction Safety Advisory Committee of New York, herein referred to as CSAC. CSAC's leadership and members include over 300 licensed, experienced site safety professionals who have served as former officials for entities such as the New York City Department of Buildings, FDNY, New York City Transit, School Construction Authority. Our membership has also served as Safety Personnel for both Union and Open Shop Contractors and as safety consultants for building owners and developers.

CSAC's mission is to advocate for safety on and around New York City construction sites. We believe that the current epidemic of construction fatalities is unacceptable and cannot be allowed to continue. We therefore commend and applaud the Council for recognizing the issue and taking pro-active steps to stop this alarming trend.

Most construction injuries and fatalities are occurring on building sites that are under 10 stories. Therefore, CSAC strongly advocates for applying the proven model for site safety management to these sites in order to dramatically improve construction safety in New York City.

**This proven model includes:**

- Required minimum training
- Required minimum pre-planning, and
- Mandated safety oversight and routine enforcement

These essential components of effective site safety are not currently required on buildings under 10 stories, where most accidents and fatalities are occurring. Until this is corrected, injuries and fatalities will continue.

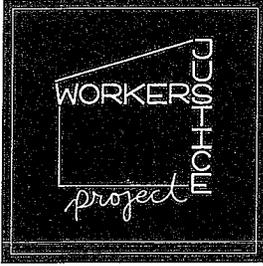
CSAC supports the following bills, which will improve construction safety throughout the city:

- **Intro 1429-2017** sponsored by Councilmember Julissa Ferreras-Copeland which would require that all construction workers receive task-specific instructions at the beginning of every shift. Commonly referred to as "tool talks", these interactions provide workers with an invaluable opportunity to interact with their peers and managers before their work begins.
- **Intro 1431-2017** sponsored by Councilmember Barry Grodenchik which would require registration of lift directors and sets forth the qualifications and duties of lift directors.
- **Intro 1436-2017** sponsored by Councilmember Steve Matteo which would require the Department of Buildings to report to the City Council on site safety managers and coordinators. We further suggest this information be provided on a monthly or quarterly basis, rather than the proposed annual basis.
- **Intro 1444- 2017** sponsored by Councilmember Mark Treyger which would require that workers at all construction sites receive site-specific safety orientations. Such orientations will ensure all workers are better prepared to take on any new challenges that may exist at a particular site.

- **Intro 1445- 2017** sponsored by Councilmember Jumaane Williams which would require safety netting systems and guardrails to protect floor openings. Far too often, workers are injured or worse because an elevator shaft or other opening was not covered or shielded.
- **Intro 1447- 2017** sponsored by Councilmember Jumaane Williams which would specify certain training and qualification requirements that the persons engaged in the construction and demolition of certain buildings must meet.
- **Intro 1448- 2017** sponsored by Councilmember Jumaane Williams which would require buildings more than four stories in height to file site safety plans with the Department of Buildings and to enact and maintain a site safety monitoring program to implement such site safety plans.

In regard to Intro 1419, sponsored by Speaker Melissa Mark-Viverito, which would increase civil penalties for violations of Chapter 33 of the Building Code where the violation is accompanied by, or results in a serious physical injury, CSAC suggests certain amendments. As long-time construction safety experts, our experiences have shown us that even the most progressive and safety-conscious contractors and owners may experience an unintended hazardous violation, accident, or fatality on their site despite their implementation of best safety practices. CSAC agrees that contractors and owners who have a record of repeated disregard for safety should be severely punished and prevented from performing further construction. The type of increased fine proposed in Intro 1419 should be applied to repeat offenders and known bad actors.

The Construction Safety Advisory Committee of New York thanks the Council for the opportunity to testify and looks forward to continuing our partnership in order to protect all New Yorkers.



# WORKER'S JUSTICE PROJECT

Tuesday, January 31, 2017

## TESTIMONY

### Presented to:

New York City Council  
Committee on Housing and Buildings  
Chair, Jumaane D. Williams

### Prepared by:

Ligia Gualpa, Executive Director Worker's Justice Project (WJP)

### **Int. No. 144, in relation to training and qualifications of persons engaged in the construction and demolition of buildings**

Good morning, Chairperson Jumaane D. Williams, and the distinguished members of the New York City Council Committee on Committee on Housing and Buildings. On behalf of the Worker's Justice Project (WJP), I want to thank you for this opportunity to testify today on the importance on creating a safe work environment for all New Yorkers.

My name is Ligia Gualpa, I am Executive Director of Worker's Justice Project (WJP). WJP is a Brooklyn worker center that represents immigrant workers, primarily day laborers and immigrant Latino construction workers, who mostly do residential construction work. As a worker center, WJP has been committed to providing workers with space, training, legal services and resources to organize and advocate for better jobs and better their lives. In the past three years, we have been training over 1,500 of day laborers on health and safety and creating a safe space for day laborers to organize and win working conditions.

We are here today to support the principle of enhanced worker safety presented by these bills without reservation, but the provision of Int. 1447 that expands mandatory training requirements for all construction and demolition sites is concerning to many of our members. Specifically, **§ 5. Section 3310.10** of the New York City building code would be amended to include **Section 3310.10.03**, requiring all workers at major building sites (**3310.10.3.1**) and certain demolition sites (**3310.10.3.2**) to be a registered apprentice, a graduate of an apprenticeship program, or a skilled person that has received training commensurate with that required by registered

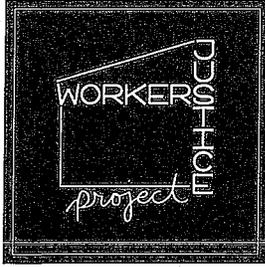
apprentices. Furthermore, workers at all other work sites not covered by **Section 3310.10.3.1** or **Section 3310.10.3.2** would also have to meet those requirements or have successfully completed a bona fide construction site safety program approved by the commissioner (3310.10.3.3).

We have questions about the impact of these requirements on the accessibility of construction jobs to those outside of traditional labor networks, and the potential unintended consequences this policy would have, that are likely to force a majority of New York's construction workers into informal labor agreements. We propose revisions that would provide for more inclusive training programs, a phased implementation program, and the dedication of resources to lift up traditionally excluded and exploited members of the workforce.

We want worksites to become safer and we strongly believe that training is essential to that goal. However, apprenticeship programs have a long way to go before they are inclusive enough to serve the purpose of improving the safety of all workers or of qualifying workers as skilled. Skilled women, and minority workers outside of traditional networks will be excluded.

We proposed to revise and expand the definition of commensurate training programs to include alternative health and safety programs that can be created within community organizations and in partnership with community colleges or other institutions.

We hope to continue this conversation and together create a bill that will protect and represent all workers.



# WORKER'S JUSTICE PROJECT

Tuesday, January 31, 2017

## TESTIMONY

**Presented to:**

New York City Council  
Committee on Housing and Buildings  
Chair,  
Council Member, Carlos Menchaca

**Prepared by:**

Antonio Sanchez, Member leader & construction worker  
Worker's Justice Project (WJP)

**Int. No. 144, in relation to training and qualifications of persons engaged in the  
construction and demolition of buildings**

Buenas días, Presidente Jumaane D. Williams y distinguidos miembros del Comité de Vivienda y Edificios de la Ciudad de Nueva York. Mi nombre es Antonio Sánchez y soy trabajador de la construcción y miembro del Proyecto Justicia Laboral. Primero, quiero agradecerles la oportunidad de testificar hoy sobre la propuesta de ley 1447 que propone que trabajadores como yo sea capacitados mediante un entrenamiento de aprendiz específico para poder trabajar en construcción y en la demolición.

Como trabajador inmigrante y miembro de un centro de trabajadores como el Proyecto Justicia Laboral que representa Jornaleros/as y trabajadores inmigrantes de la construcción, me siento alentado por su compromiso para cambiar la cultura de inseguridad que existe en la construcción y su iniciativa por querer evitar muertes y accidentes que es muy común entre trabajadores inmigrantes e indocumentados.

Yo soy un trabajador de la construcción que he tenido la oportunidad de capacitarme en Salud y Seguridad mediante el Proyecto Justicia Laboral y estoy comprometido a cambiar la condiciones de trabajo junto a mi centro y compañeros de la construcción que hemos iniciado un proyecto de salud y seguridad que se llama Enlaces de Seguridad del Proyecto Justicia Laboral. Este programa, permite que trabajadores como yo nos capacitemos en Salud y

Seguridad para identificar peligros en el lugar de trabajo y tomar acción para hacer cambios que nos permitan trabajar con seguridad. También mediante este proyecto me he podido certificar como instructor de OSHA-10 y cada año capacitamos a más de 400 trabajadores Latinos inmigrante. Nuestro centro y este program permite que trabajadores inmigrantes y mayormente indocumentados con pocos recursos y educación limitada puedan capacitarse en Salud y Seguridad. Yo quiero contar con su apoyo para continuar creando programas de capacitación que sean accesibles para todos los trabajadores con o sin papeles, que sabemos que tienen pocos recursos y el educacion limitada.

Yo apoyo la idea de más entrenamiento, pero yo y muchos otros trabajadores inmigrantes indocumentados nos preocupa como esta ley nos pueda afectar negativamente y limitar nuestra habilidad de poder trabajar y poder proveer a nuestra familias.

La razón de nuestra preocupación de la propuesta de ley 1447 es porque requiere que trabajadores como nosotros nos hayamos graduado de un programa de aprendizaje registrado. Nuestra preocupación es porque sabemos que este programa no es accesible a todos los trabajadores, sobretodo si eres trabajador inmigrantes indocumentados de la construcción, sabemos que es muy competitivo entrar y muy difícil entrar y es muy costoso.

Me preocupa saber que la ciudad quiera limitar mi habilidad de trabajar y poder proveer a mi familia.

Apoyo la idea de capacitar a más trabajadores en salud y seguridad, sobretodo a trabajadores inmigrantes e indocumentados, quienes enfrentan más riesgo a morir o accidentarse, pero no hagan imposible poder capacitarlos mediante programa que no están a nuestro alcance ni mucho menos accesible a nosotros.

Si queremos cambiar la cultura de inseguridad, apoyenos que crear más capacitaciones en nuestro centro, el Proyecto Justicia Laboral, apoyemos a expandir el programa de enlaces de seguridad para desarrollar más líderes y capacitar más trabajadores en OSHA-10 y otros programas de Salud y Seguridad. Nosotros queremos ser sus ojos y oídos para cambiar la cultura de inseguridad. Queremos trabajar juntos, porque sabemos que la unión hace la fuerza!



**National Day Laborer**  
New York, NY 10016

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**To: Committee on Housing and Building**  
**From: Cal Soto, National Day Laborer Organizing Network (NDLON)**  
**Date: Tuesday, January 31, 2017**  
**Re: CONCERNS ABOUT INT. 1447 PROVISION ON APPRENTICESHIP REQUIREMENT**

As a network organizations that represent immigrant workers, NDLON is encouraged by the New York legislature's renewed commitment to health and safety. Our immigrant members have few traditional work networks, which are crucial to finding dependable work, and often lack the knowledge of their rights as construction workers in New York. Because of this they are viewed as targets by scofflaw employers that exploit their labor by avoiding local regulations with little regard for life or limb or the safety of these workers.

The proposed health and safety legislation this term, ranging from increased civil penalties for employers that violate safety regulations to more stringent requirements regarding health and safety training and planning, represents a long overdue correction aimed at creating a truly safe work environment for all New Yorkers. For our members who daily find themselves at the front lines of the struggle to defend labor rights, these life-saving regulations could not come at a better time. In the atmosphere of uncertainty and fear created by a federal administration that seeks to increase production and profits for owners and general contractors while at the same time scapegoating immigrants and labor, it is the moral imperative of states like New York to protect its workers by unequivocally standing for justice and fairness wherever and whenever possible.

But while we support the principle of enhanced worker safety presented by these bills without reservation, a provision of Int. 1447 that expands mandatory training requirements for all construction and demolition sites gave us pause. Specifically, § 5. Section 3310.10 of the New York City building code would be amended to include Section 3310.10.03, requiring all workers at major building sites (3310.10.3.1) and certain demolition sites (3310.10.3.2) to be a registered apprentice, a graduate of an apprenticeship program, or a skilled person that has received training commensurate with that required by registered apprentices. Furthermore, workers at all other work sites not covered by Section 3310.10.3.1 or Section 3310.10.3.2 would also have to meet those requirements or have successfully completed a bona fide construction site safety program approved by the commissioner (3310.10.3.3).

We have questions about the impact of these requirements on the accessibility of construction jobs to those outside of traditional labor networks, and the potential unintended consequences this policy would have. We propose revisions that would provide for more inclusive training programs, a phased implementation program, and the dedication of resources to lift up traditionally excluded and exploited members of the workforce.

We see two alternative revisions to the proposed legislation that would improve the safety of all workers and foster a highly skilled workforce without excluding thousands of otherwise eligible workers:



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**1)** Broaden the definition of commensurate training programs to include a pre-apprenticeship program that is approved by the state regulatory codes. This pre-apprenticeship exception would be written with the goal of creating a collaborative of community-based organizations that serve and train hard-to-reach workers. This collaborative would design a pilot program that would be inclusive and serve as a model for fusing skills and safety education in one curriculum. Workers who complete a pre-apprenticeship program would be eligible to work on construction job sites and must be fast-tracked into a more detailed apprenticeship program.

The timing of the application of these requirements should be tiered in order to allow those who have been excluded from apprenticeship programs in the past to enter a training program and qualify for construction jobs. One proposal would be to phase in different aspects of the training requirement over the course of 10 years, applying the requirement first for certain major building sites, then for demolition sites, and eventually for smaller construction sites.

Furthermore, to accomplish this pre-apprenticeship collaborative, the state must devote sufficient resources to organize groups that work with workers who have had low representation in apprenticeship programs and create a curriculum that trains workers in an appropriate setting and applicable language.

**2)** Alternatively, the legislation could utilize a phased implementation model, and restrict only certain jobs on major worksites to registered apprentices or graduates of commensurate programs. The legislature can mandate that no requirement will take effect until the demographics of enrollment in apprenticeship programs have improved to a certain level. This does not immediately address the vast disparity between white male workers and women or minority workers, but would at the very least allow time to improve the diversity of apprenticeship programs.

We want worksites to become safer and believe that training core skills is essential to that goal. However, apprenticeship programs have a long way to go before they are inclusive enough to serve the purpose of improving the safety of all workers or of qualifying workers as skilled. We hope that with some detailed planning and thoughtful program design, these concerns can be addressed.

Sincerely,

Cal Soto  
Workers' Rights Coordinator  
National Day Laborer Organizing Network (NDLON)  
305-582-8868; [csoto@ndlon.org](mailto:csoto@ndlon.org)

**Testimony: Rev. Albert Ortiz Jr.**

**Committee: Housing and Buildings**

**Re: Support of Int. No. 1447**

**Date: January 31, 2017**

I would like to begin by thanking Council Chair, Member Jumanne Williams as well as his fellow Council Members who are present here today for the opportunity to address you and speak in support of Intro 1447.

Please allow me a moment to introduce myself, my name is Albert Ortiz Jr. and I am here to speak on behalf of all construction workers. However, I am also speaking on behalf of their families and friends alike.

The reason I believe that I am qualified to speak and represent said people is that aside from being a construction worker, I am also a Pastor and a sanctioned Chaplain by the United States Supreme Court. My faith runs deep and I have served my community and have Pastored now for 12 years. I currently Pastor Eternal Grace Christian Fellowship in the Mariners Harbor neighborhood of Staten Island and I am in touch with the community on a daily basis, in touch with all genders, faiths, and age groups. My fellow congregants and I serve the community in various ways. We coordinate Community Outreaches, offer Christian based counseling for various needs and partner with Departments such as our NYC Police Dept. and also Our NYC Fire Dept. as well as others to see our communities thrive for a better tomorrow.

I am also an active member in good standing with the Heat and Frost Insulators Local No.12 of NYC/LI. I am a product of New York City and have remained here for my entire life. I respectfully ask of the Council members to seriously consider my testimony towards the advancement of Safety and Skill Training in the work place since I truly have a pulse on safety on the job site.

The Importance of this legislation is to recognize the need for appropriate Safety Training as well as skill training as well as shine a light on the exploitation of many workers within our great city. We can make movies and praise those that survive work place disasters such as the film about miners in Chile titled "The 33".

Another movie called Deepwater Horizon that told a true story of company that chose to cut corners ignoring safety protocol, the end result; 11 workers are dead.

Regrettably, it is apparent that we will never focus on disasters like these that are happening right in our backyard. There were 30 NYC construction workers who did not make it home in the last 2 years. The lives of these 30 families have been changed forever. OSHA cites Construction Workers make up under 5% of the city's workforce but account for an astounding 20% of the deaths at work. There should be no difference between training for union vs. non-union. Since workers aren't born safe, comprehensive training must be required in order for them to remain safe and return home the same way they came to work.

**Council Members, it is our moral obligation and civic duty to hold those accountable if they are unwilling to look out for the welfare of the New York City construction worker.** We are regarded as the capitol of the world and it starts here with us. Through my own personal experience, I have worked alongside others who were not sufficiently trained in safety practices on open shop projects. These developers and contractors turned a blind eye to safety in order to build their projects faster. Ultimately, their goal was monetary gain and considered the life of a construction worker to be like a casualty of war in a distant land. Ignored; Forgotten; Expendable; Like They Never Existed.....

We can no longer sacrifice safety at all costs. I am grateful to have been provided with the opportunity to complete a 4 year NY State Approved Apprenticeship Program wherein I was taught and learned about safety within the workplace. As a Mechanical Insulator, safety continues to be the top priority within our Union.

As I conclude my testimony today I implore you to pass Bill 1447 so that every construction worker will have the best opportunity to make it home safely and will have the chance to continue to be a productive member in this great City of New York. Once again, I thank you for allowing me to give my testimony in support of Bill 1447.

In His Service,

Rev. Albert Ortiz Jr.

**Testimony** Ulysses Williams  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning, my name is Ulysses Williams and I am a member of Laborer's Local 79.

I want to start by thanking the committee and Council Member Williams for the opportunity to testify today about Intro 1447 and the importance of training and safety for ALL construction workers.

I've been a member of Laborer's Local 79 for 15 years. I started as an apprentice and worked my way up to shop steward and then foreman, but I'm not here today to talk about the difference my apprenticeship training made in my life and how it protected me on the job. I'm here to tell you a personal story about how one person's training, or lack thereof, can affect you and change your life.

I'm currently out of work and receiving workers compensation; because, of my last job and an accident that happened on it.

On my last job, I was the only union member on the site.

Meaning I was the only person to have undergone skills & safety training on the entire job site.

Before I arrived on the job one day, a few non-union workers had cut holes in the floor we were working on.

Instead of covering the holes with wood, securing the wood to the floor with the proper nails and then orange spray, painting the edges of the wood and writing the word hole in the middle on the wood to show other workers they should be careful when stepping in that area, as my training taught me; the non-union workers just put a piece of plywood down and called it a day. They didn't know any better after all.

The next time I walked on the site and was on that floor, I fell through the plywood and the hole in the floor injuring the entire left side of my body.

I tore my tricep, hurt my shoulder, and was pretty banged up in every sense possible.

I've had to have surgery to repair my severed tricep and am on the road of recovery through intensive physical therapy.

All this; because, workers on the site never got any skills or safety training to know they should've covered the hole more completely and securely.

I was trained for the job but they weren't and because of that I'm now in pain, dealing with serious health issues and unable to work.

Had these workers received adequate skill and safety training, I would not have gotten hurt and I wouldn't be here today in pain.

Construction is already dangerous but it gets even more dangerous when workers aren't trained for the jobs they're doing.

Stories like mine are all too common because my training doesn't matter if there's someone around me that was never given the same opportunity to be properly trained & educated like I have.

I implore you to protect everyone in the construction industry and the public around construction sites by passing Intro 1447 and setting basic training and safety standards for all construction industry workers, ensuring people like myself and those workers that didn't even know they were doing something wrong, are safe on the job.

Thank you for your time and service.

  
(718) 679-6488



**TESTIMONY OF THE NEW YORK ELECTRICAL CONTRACTORS ASSOCIATION  
BEFORE THE NEW YORK CITY COUNCIL COMMITTEE ON HOUSING AND BUILDINGS  
REGARDING THE "CONSTRUCTION SAFETY ACT" AND INT's 1447, 1436-2017  
JANUARY 31, 2017  
CITY HALL, NEW YORK CITY**

Chairman Williams and members of the New York City Council Committee on Housing and Buildings, good afternoon. I am Peter Rescigno, Director of Government Affairs for the New York Electrical Contractors Association (NYECA), New York's City's leading trade association of unionized electrical contractors. Thank you for the opportunity to testify today on the Construction Safety Act, which will help make construction work safer in New York City, and therefore save lives. On behalf of NYECA, a unionized electrical subcontractor trade association dedicated to worker safety, we appreciate the work you are doing in this area and support many of the proposals in the package of bills you are considering today.

First, we **SUPPORT** Intro. 1447-2017. This legislation will protect the safety and wellbeing of all New York City residents by requiring that major building sites of ten stories or more and demolition sites of four stories or more be staffed with experienced, highly skilled, and well trained men and women.

Intro. 1447-2017 is vital to helping ensure that buildings are constructed safely in New York City and affords protection to all construction workers on the job site. Currently, New York City only occasionally enforces its requirement of a 10 hour safety training course and the proper certificate upon successful completion. In the face of increased construction worker deaths on non-union construction sites, where minimum standards of training obligations are being met, New York City has an obligation to improve on this and Intro. 1447-2017 does that.

Intro. 1447-2017 requires that contractors on major building sites of ten stories or more and demolition sites of four stories or more employ construction workers who are apprentices in

registered apprentice programs, graduates of such programs, or workers that are experienced, trained, and skilled and have received training commensurate with that required of apprentices in related instruction and on the job training in accordance with standards set forth in the New York State Labor Law and the federally mandated Department of Labor laws.

As union contractors who employ Local Union No. 3, IBEW electricians, we are employing men and women who have received safety training that far exceeds the minimum 10 Hour OSHA safety training course. Local Union No. 3, IBEW electricians receive training related to safety and health awareness, more in-depth OSHA and safety awareness fall protection and confined space training, asbestos awareness, first aid and CPR training, proper use of personal protective equipment (PPE) and Right to Know and Material Safety Data Sheet procedures (MSDS). In addition to these training programs, Local Union No. 3, IBEW is always building upon this training and offering more to meet today's construction site challenges. We are proud to be part of an industry that has set the bar high when it comes to safety. Intro 1447-2017 raises the bar on safe construction and standardizes best practices that have kept construction workers safe in New York City.

Second, NYECA also SUPPORTS Int. 1436-2017, regarding prompt DOB reporting on the status of site safety managers and coordinators being considered for certification. This common sense bill will require the full disclosure of the DOB site safety manager and coordinator certificates that are being processed by DOB, which will hopefully eliminate the present bottleneck in processing these applications that is now slowing down construction projects in New York City.

Finally, NYECA would like to express its general support for many of the other bills contained in the Construction Safety Act. Many of these measures will enhance construction safety by increasing penalties for performing unlicensed work, which we strongly support, and other beneficial bills which will create safer work sites. However, NYECA is concerned about any proposal which may increase costs on licensed, properly operating businesses, or add unnecessary regulatory burdens. But overall, we support the intent of the package and commend the Committee on Housing and Buildings for addressing, in a comprehensive manner, the critically-important issue of construction safety in New York.

As the leading trade association of unionized electrical contractors in New York City, we help build New York, serve our communities in times of crisis, provide opportunities for minority and women-owned businesses, and promote the highest standards of worker safety in the industry. For these reasons, NYECA strongly supports Int. 1447-2017 and Int. 1436-2017, and we look forward to working with the Committee on Housing and Buildings on the entire Construction Safety Act, as well as other bills important to the electrical trades, such as Int. 247-2014, which increases criminal and civil penalties for performing unlicensed electrical work, which is also before your Committee for consideration.

Thank you for your time today and the opportunity to testify on behalf of the New York Electrical Contractors Association.



Good Morning, Council Members. I am Bud Griffis, Professor of Construction Engineering and Management and Director of the Center for Construction Management Innovation at New York University's Polytechnic School of Engineering. In a previous lifetime, I was the District Engineer and Commander of the US Army Corps of Engineering District in New York. At NYU-Poly, we have several construction safety research projects underway to include the effect of high winds on existing buildings, effect of high winds on buildings under construction and associated equipment, and Zero Incident Safety Management principles. Thank you for the opportunity to testify concerning the proposed safety legislation.

FOR THE RECORD

### General

I commend the City Council for facing the problem of construction safety. In the past five years, with the increase intensity of building in the City, deaths and injuries on construction site have increased. Former Mayor Mike Bloomberg stated in the *New York Times* a few years ago words to the effect that if you are going to have construction projects, you are going to have accidents that result in deaths. That is not true. Almost every construction accident can be prevented. However, I don't think you can prevent accidents with more laws and regulations.

My purpose in providing this testimony is to suggest that passing most of these 21 bills collectively is not in the best interest of citizens of the City of New York. As a matter of fact, this initiative in my opinion is like trying to kill a fly with a shotgun: loud, ineffective, and annoying. The important word is ineffective. In general, they will do little in protecting the construction workers in New York. This initiative paints the whole construction industry with a wide brush when the problem is with a very specific subset...a group of the non-union construction contractors.

The union contractors in this city do not have as good a record as they should have. In 2015, they had a one fatality out of the twenty-five fatalities reported by the Daily News. One fatality is one too many fatalities. But, the union contractors have good safety programs and they are getting better. The approximately 2000 union contractors that are members of the Building Trades Employers Association (BTEA) are moving closer and closer to adopting a Zero Incident Safety Management Program, the only real program that will more closely ensure the safety of every construction worker. The Zero Incident Safety Management process was developed by the Construction Industry Institute (CII) over a decade ago and is wide-spread over the process and commercial power construction segment of the construction industry. Its results are dramatic with its member contractors having a recordable injury rate an order of magnitude less than the construction industry average. As we move to Zero Incident Safety Management Culture we will have years with no construction fatalities.

Our focus must address the real problem, the smaller, non-union contractors that perform the bulk of construction work in the City. They have the most injuries and the most fatalities. They are the mother lode of construction safety statistics. The question is, how do you improve their safety? Ideally, the safety initiative would come from the grass-roots of the population of contractors. Self-policing is the most effective way of improving safety. But, there is no single group that speaks for these contractors as the BTEA does for the bulk of the union contractors. The BTEA safety committee is a hard-working group that meets monthly and concentrates on improving contractor safety. They communicate



frequently with the member companies of the BTEA. This vehicle doesn't exist with the non-union contractors. My recommendation is for the City Council to form an *Ad Hoc* Commission on Non-Union Construction Safety and devise a plan to reach out to the non-union construction contracting community with innovative approaches to construction safety that make sense to these contractors and their workers.

### Specific Proposed Legislation

The following are comments on specific proposed legislation:

**Introduction 1442.** This bill creates a system to identify those contractors and subcontractors with poor safety performance and place them in a special category that would result in more focused inspection and enforcement of safety violations. Unless the resources of the DOB are considerably increased, I do not see how this can be enforced.

**Introduction 1447.** This bill requires additional training for construction workers such as through an apprentice program. I like this bill but enforcing it with the non-union contractors will be difficult to impossible.

**Introduction 81.** This bill would consolidate accident information in one place by requiring the DOB to maintain a comprehensive list of all construction related injuries and fatalities, and would ensure prompt reporting of violation information by DOB to OSHA. This bill might help eliminate some of the confusion with quoted safety statistics. OSHA and DOB use different fiscal years and different definitions in defining safety statistics. I support this bill.

**Introduction 744.** Prevailing wage requirement for workers in city assisted projects. I have no opinion on this bill.

**Introduction 1404.** Increase civil penalties for major and lesser violations. I have no opinion on this bill.

**Introduction 1419.** Increase penalties for builders at sites that have a history of unsafe practices. I have no opinion on this bill.

**Introduction 1432.** Training and transparency requirements for projects receiving city financial assistance. I have no opinion on this bill.

**Introduction 1433.** DOB to post reports on accidents and injuries. I have no opinion on this bill.

**Introduction 1436.** This bill requires DOB to post a report on the applicants for SSM and SSC licenses and the time it takes to receive an answer to their application. I have no opinion on this bill.

**Introduction 1437.** This bill increases civil penalties for a project that has "excessive violations" based on building size. I oppose this bill for two reasons:

1. The determination of "excessive violations" is either arbitrary or it will require substantial effort on the part of DOB to fairly define the terms and number.



2. Until a violation is adjudicated, it is simply an allegation.

**Introduction 1448.** This bill would require safety plans for buildings four stories and above. This bill addresses part of the real construction safety problem in the City and I support it. It will strain DOB resources.

**Introduction 1439.** This bill requires site managers to conduct a task-specific safety orientation for all new workers before performing any dangerous or out-of-the-ordinary work at the site in different languages. This bill is probably unenforceable but I support it.

**Introduction 1445.** This bill requires additional safeguards to prevent fall. I support the bill.

**Introduction 1444.** This bill requires site managers to conduct a site-specific safety orientation for all new workers at the site in different languages and to hold meetings before performing any dangerous work at the site in different languages. I support this bill.

### Crane Safety Legislation

**Introduction 443.** Imposes age limits on cranes operating in NYC. I do not oppose this bill however it will be difficult to enforce and will require careful study by experts to fairly define and "old" crane that must be replaced.

**Introduction 1403.** This bill requires anemometer at the top of the boom for all cranes. I strongly support this bill.

**Introduction 1421.** This bill requires installation of equipment on cranes including a GPS location system. I have no opinion on this bill.

**Introduction 1422.** This bill would establish a 30 mph wind restriction for the operation and disassembly of cranes, establishes a safety zone, and requires training for operators on the configuration of crane in use. I oppose this bill for a number of reasons:

1. The forecast of localized wind speed from NOAA forecasts is currently beyond the state of the art. If crane operators are to use actual measured local wind speeds, it will be more dangerous to move the crane through less stable configurations to secure the crane. The bill should be rewritten to follow the manufacturer's specifications.
2. The establishment of safety zones in New York City for most projects is probably impossible because of space.
3. Meaningful training of operators in different configurations will be very difficult.
4. The bill should be written to require the crane to be placed in safe mode as required by the crane operations manual.

**Introduction 1431.** This bill creates the position of trained Lift Director. I support this bill if it is rewritten to clarify the chain of command for the Lift Director.



**Introduction 1435.** This bill requires cranes to be equipped with data logging devices. I have no opinion on this bill.

**Introduction 1446.** This bill requires new licensing endorsement standards for operators of particularly large, complex cranes. I have no opinion on this bill.

**Close**

Thank you again for this opportunity to comment on this legislation.



NEW YORK STATE CHAPTER OF  
THE NATIONAL ASSOCIATION OF MINORITY CONTRACTORS



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Brooklyn, NY — January 31, 2017

1447  
Re: Bill 1432 (22-902) Apprenticeship Requirements

FOR THE RECORD

Good morning Chairman, City Councilmembers, the Mayors office, and all of the esteemed members of the MWBE community. My name is Joseph Coello Sr. And I am the President of the New York State Chapter of the National Association of Minority Contractors (NYSAMC). NYSAMC, located in the Brooklyn Navy Yard, is a non-profit corporation with the mission of advancing and promoting the mutual interests of minority and women contracting firms based in the State of New York.

NYSAMC has earned a solid working relationship with key stakeholders and community organizations in the New York City construction industry and with major developers. NYSAMC has been a fierce supporter and advocate for minority contractors in New York State over the last 27+ years. We are one of the last few Minority construction advocacy groups, AMENY another, and in spite of the many laws enacted, the many forums attended, and a host of mentorship programs created...we continue to feel the historical sting of exclusion and discrimination in this industry. While the construction playing field has been mildly tilled, we continue to struggle to address New York City spending billions and billions on construction, goods, and services, but less than 4% percent goes towards MWBEs.

In the case of your proposed construction safety bill Intro<sup>1447</sup>~~1432~~- We strongly recommend that you **withhold your support** until further examination is done to understand its unintentional consequences. We find that the passing of this apprenticeship bill would be aggressive, punitive, and continue to increase the gaps in minority hiring and contracting. The construction unions have a history in the lack of diversity of New York's construction contractors, and this would give them another unfair advantage over the non-Union developments which continue to hire minorities throughout the state. This apprenticeship mandate would exclude many Black and Hispanic construction firms and workers, and continue to deplete and discourage our young folks from joining our ranks. While the Building and Construction Trades Council of Greater New York touts significant gains for minority workers over the last few years, it has yet to be transparent or to be held accountable to provide those statistics of which they glamorize, but still hide with immunity.

Our new administration in Washington has shown what happens when swift and arbitrary decisions affect the broader mandate of inclusion and diversity. Adding an apprenticeship program will continue to deny opportunities to black and Hispanic contractors and workers and is **unacceptable!** We, in the MWBE Community, look forward to working with the authors of this bill, ~~\_\_\_\_\_~~, as well as the many stakeholders in order to make construction in New York City safe without limiting our potential to succeed! Sincerely,

Joseph Coello Sr., President  
NYSAMC- New York Chapter  
NAMC Board 2018

*New Attitude — New Direction — New Opportunity*

TESTIMONY OF CARL JOHNSON  
BUSINESS AGENT, PLUMBERS LOCAL NUMBER 1

BEFORE

FOR THE RECORD

THE COMMITTEE ON HOUSING & BUILDINGS

JANUARY 31, 2017

Good morning, Chairman Williams and Members of the Committee on Housing & Buildings. My name is Carl Johnson, and I am a Business Agent of Plumbers Local Number 1. I thank you for this opportunity to testify and to urge the Committee to pass Introduction 1447.

My colleagues have spoken about the benefits of apprenticeship programs. I would like to address some of the criticisms that have been launched against this proposal. Critics of Intro. 1447 have charged that this legislation will be a barrier to non-union construction workers and a barrier to people of color entering the construction trades. That is simply not the case. The only thing that this legislation is intended to and will do is to ensure that every worker that sets foot on a construction site—whether union or non-union, whether Caucasian, African-American, Latino, Asian, or of other race—receives adequate training so that he or she can return safely from the construction site to his or her family at the end of the shift.

The language of the bill is clear in that it does not require apprenticeship training of every construction worker; it also offers an alternative for construction workers that have received “training commensurate with that required for registered apprentices.” Even if Intro. 1447 did require apprenticeship training of all construction workers, however, statistics show that this still would not be a barrier.

While critics often mistakenly assert that the vast majority of apprenticeship programs are sponsored by unions, the New York State Department of Labor has recently confirmed that in fact **a minority** of building and construction apprenticeship programs in New York City are sponsored by unions.<sup>1</sup> Additionally, of the 8,000 union apprentices enrolled in apprenticeship programs sponsored by affiliates of the Building and Construction Trades Council of Greater New York, 75% live in the five boroughs, and 65% of these local residents are people of color.

Ultimately, we are here today to talk about safety and training. Safety and training that must be universal to every construction worker in New York City. Safety and training that will prevent fatalities and save lives. This bill promotes safety and training, and that is why Plumbers Local 1 supports it.

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<sup>1</sup> See, “As construction site fatalities rise, Council eyes new safety regulations,” *Politico New York*, by S. Goldenberg and G. Pazmino, January 9, 2017. <http://www.politico.com/states/new-york/city-hall/story/2017/01/as-construction-site-fatalities-rise-city-council-prepares-to-enforce-new-safety-regulations-108548>



# JOINT INDUSTRY BOARD OF THE ELECTRICAL INDUSTRY

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Testimony of Humberto J. Restrepo  
Political Affairs Liaison, Joint Industry Board of the Electrical Industry  
Intro. 1447-2017  
Meeting of the Committee on Housing & Buildings  
January 31, 2017

## MEMORANDUM IN SUPPORT

Good Morning Chair Jumaane D. Williams and distinguished Committee Members. Thank you for the opportunity to testify at this hearing on behalf of the Joint Industry Board of The Electrical Industry (JIB). My name is Humberto J. Restrepo; I am the Political Affairs Liaison for the Joint Industry Board of The Electrical Industry.

The Joint Industry Board of The Electrical Industry (JIB) strongly supports Intro 1447-2017: A Local Law to amend the New York City building code, in relation to training and qualifications of persons engaged in the construction and demolition of buildings.

The JIB is a labor-management organization founded in 1943. It is comprised of Local Union No. 3 of the International Brotherhood of Electrical Workers (I.B.E.W) and the New York Chapter of the National Electrical Contractors Association (NYECA) and the Association of Electrical Contractors, Inc (AEC). The JIB is the ERISA administrator for a family of multi-employer benefits plans serving Local Union #3 and its affiliated contractors in the greater New York City area.

The enactment of Intro. 1447-2017 will go a long way in reversing the rise of construction site deaths and severe accidents. It will help provide better protection for the public at large and construction workers whose jobs by nature are hazardous. Construction workers enrolled in registered apprenticeship programs receive safety training that far exceeds the minimum 10 hour OSHA safety training course currently required on construction job sites. For instance, following is a list of some of the safety courses registered with the NYS DOL that local 3 IBEW apprentices are required to take in addition to an already full load of electrical courses:

- Safety and Health Awareness (safeguarding both worker and the public)
- OSHA/Safety Awareness (including fall-protection and confined space training)



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- OSHA 10-Hour Construction Course
- Asbestos Awareness
- First Aid/CPR
- Proper Use of Personal Protective Equipment (PPE)
- Right-to-Know/Material Safety Data Sheets (MSDS)
- Tag-out/Lock-out

Intro. 1447-2017 will ensure that major building sites and demolition sites of 4 stories or higher will be staffed by experienced, skilled and properly trained workers. It is a win-win... the public's safety will be better served and the workers' odds of returning home to their loved ones greatly increased. Safety at any job, let alone a construction job-site, should always be in the forefront. Intro. 1447 moves the needle in that important direction.

Sincerely,

Dr. Gerald Finkel

Chairman, Joint Industry Board of the Electrical Industry



**BUILDING &  
CONSTRUCTION  
TRADES COUNCIL  
OF GREATER NEW YORK**

**GARY LaBARBERA**  
PRESIDENT

AFFILIATED WITH THE  
BUILDING CONSTRUCTION TRADES DEPARTMENT  
OF WASHINGTON D.C.  
—  
BUILDING AND CONSTRUCTION TRADES COUNCIL  
OF NEW YORK STATE  
—  
AMERICAN FEDERATION OF LABOR OF CONGRESS  
OF INDUSTRIAL ORGANIZATION

TESTIMONY OF GARY LABARBERA, PRESIDENT,  
BUILDING AND CONSTRUCTION TRADES COUNCIL OF GREATER NEW YORK AND VICINITY

Before

THE NEW YORK CITY COUNCIL - COMMITTEE ON HOUSING AND BUILDINGS

On Intro 1447

January 31, 2017

Good Morning Chairperson Williams and Committee members. My name is Gary LaBarbera. I am President of the Building and Construction Trades Council of Greater New York and Vicinity. I am here to testify in Support of Intro 1447. I thank the Chair and Committee for the opportunity to testify regarding the very important subject of construction site safety.

The Building Trades and Construction Trades Council is an organization of local building and construction trade local unions that are affiliated with 15 International Unions in the North American Building Trades Union. Our local union affiliates represent approximately 100,000 construction workers. The Building Trades mission is to raise the standard of living for all workers, to advocate for safe work conditions and to collectively advance working conditions for our affiliates' members, as well as all workers in New York City.

In the two year period between 2015 and 2016, 30 construction workers died on NYC construction sites. Most of these workers were minorities and/or recent immigrants.<sup>1</sup> They came to New York for work in hopes of improving the lives of their families. A majority of these workers were Latino men.<sup>2</sup> Almost all of these deaths occurred on non-union construction sites.<sup>3</sup> These workers can no longer speak for themselves. The Building Trades are here today speaking for them. We can no longer tolerate the exploitation and oppression of our non-union brothers and sisters.

Besides wage rates, the main distinction between union and non-union jobs is the investment in training. We all know that in the construction industry the training model is jointly sponsored apprentice training programs. Contractors and unions partner together to develop world-class training programs. Many of you have seen firsthand our training facilities and you are have been irrevocably

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<sup>1</sup> [http://nycosh.org/wp-content/uploads/2017/01/DeadlySkyline2017\\_NYS-ConstructionFatalitiesReport\\_final\\_NYCOSH.pdf](http://nycosh.org/wp-content/uploads/2017/01/DeadlySkyline2017_NYS-ConstructionFatalitiesReport_final_NYCOSH.pdf)

<sup>2</sup> Id., BCTC, Memorandum, Construction Worker Deaths 2015 -2016.

<sup>3</sup> Id.



impressed by our industry's commitment to training. Nationally, the building trades spends over \$1.3 billion dollars annually in training our new construction workers. <sup>4</sup>

These programs not only teach the skill needed for a particular trade, but they also teach job site safety. Graduates of apprentice programs have been taught in school and on the job how to recognize dangerous conditions, how to avoid them, how to advocate for their safety, and how to work safely. They learn what is required of their employers and the owners of projects to protect their safety.

These joint labor management programs are the undeniable national model for workforce development. The United States Department of Labor, the New York State Department of Labor, Independent studies, think tanks, and experts throughout the country have lauded the apprenticeship model.

Yet, somehow, the word "apprenticeship" has become controversial here in New York City. The non-union sector of the industry has engaged in a campaign to convince legislators and other policy makers, that the term "apprenticeship program" is just "code language" for mandating union labor and depriving the non-union sector of opportunities.

First, it has been widely reported that the majority of apprentice programs in New York City are, in fact, **NOT** sponsored by unions. However, even more importantly, the non-union sector's position on training unquestionably places a priority on their business model, rather than workers lives.

The Building Trades is here today to emphatically support a bill that unequivocally removes the union/non-union controversy from the debate on training. This bill does not mandate union labor but, rather, mandates that anyone working on a building governed by the Building code be an experienced, skilled and trained workforce, regardless of union status. The bill sets a benchmark for real and substantial training that is already part of the regulatory framework and applies regardless of union or non-union status.

The Building Trades is here to demand that all construction workers get a level of safety training that will save lives. We want better for all workers. We want all workers to get the kind of safety training we get. We want all workers to know what is required of their employers on their job sites; we want all workers to know that if they confront a dangerous condition on their job that they can speak up for themselves. We want all workers to know that this City cares enough about them and their families to implement policies that will get them trained.

Those developers and contractors that oppose this bill have tried to change the debate to one over diversity statistics. In this debate, they claim to be protecting their workforce from the potential for unemployment if they cannot prove that they are trained.

First, I cannot resist pointing out that such a position is an admission that they do not train their workers. If they did, they could assist their workforce in establishing their skill, training and experience.

Second, data establishes both the increased diversity of the Building Trades, as well as the fact that the existence of a union workforce raises the income level of minorities.

The Economic Policy Institute, an independent think tank in Washington DC that was founded by Robert Reich, former secretary of Labor, found in a recent study that 55.1% of the unionized construction

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<sup>4</sup> <https://www.bctd.org/BCTD/media/Files/BCTD-Appren-Four-YR-Degree-2015.pdf>

workforce are minorities. Black workers are more represented in the union construction workforce than in the non-union workforce. 61.8% of apprenticeships in NYC went to minorities. The presence of unions and collective bargaining in New York City greatly boosts overall annual earnings to the black community from construction by 83 percent, or \$152 million each year.<sup>5</sup>

Finally, it should not be acceptable to anyone in this Council, that anyone could deny the value of safety training for construction workers. The very fact that nearly 90% of the construction deaths in this City over this past two years have been on non-union projects<sup>6</sup> without the investment in training when non-union projects make up, at best, only 20% – 25%, of the industry in NYC, <sup>7</sup>supports the need for a significant modification to our building code.

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<sup>5</sup> <http://www.epi.org/blog/the-increased-diversity-of-new-york-city-union-construction-employment/>

<sup>6</sup> BCTC, Memorandum, Construction Worker Deaths 2015 -2016

<sup>7</sup> ***Building Congress Construction Outlook Report 2016-2018,***

***<https://www.buildingcongress.com/press/2016-10-25.html>***



**Building Trades  
Employers' Association**

1430 Broadway, Suite 1106 • New York, New York 10018

**TESTIMONY PRESENTED TO  
THE NEW YORK CITY COUNCIL  
HOUSING AND BUILDINGS COMMITTEE**

**PUBLIC HEARING ON  
CONSTRUCTION SAFETY**

**JANUARY 31, 2017**

**Submitted By  
Louis J, Coletti  
President & CEO  
Building Trades Employers' Association**



**Building Trades  
Employers' Association**

Louis J. Coletti | BTEA President and CEO

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**GOOD MORNING MR. CHAIRMAN AND MEMBERS OF THE HOUSING AND BUILDINGS COMMITTEE. THANK YOU FOR THE OPPORTUNITY TO TESTIFY ON THE PACKAGE OF CONSTRUCTION SAFETY BILLS UNDER CONSIDERATION.**

**LET ME FIRST APPLAUD AND CONGRATULATE THE CITY COUNCIL FOR FOCUSING THIS ATTENTION ON EFFORTS TO STRENGTHEN PUBLIC AND WORKER CONSTRUCTION SAFETY.**

**IN THE INTEREST OF TIME, ATTACHED TO MY TESTIMONY IS A PROFILE OF THE BTEA AS AN ORGANIZATION AND OUR MEMBERS THAT INCLUDES OUR OUTSTANDING SAFETY RECORD IN BUILDING HIGH RISE CONSTRUCTION IN NEW YORK CITY.**

**ALSO ATTACHED IS A SUMMARY OF OUR POSITION ON ALL THE BILLS BEING CONSIDERED TODAY.**

**THERE ARE 5 MAJOR AREAS WE WOULD LIKE TO ADDRESS:**

- 1) AS DRAFTED, THE LEGISLATION ESTABLISHING CRANE WIND RESTRICTIONS WOULD MAKE CRANE OPERATIONS EVEN MORE DANGEROUS AND UNSAFE THAN THEY ARE TODAY;**
- 2) AS DRAFTED, THE LIFT DIRECTOR POSITION LACKS CLARITY AS TO WHO IS RESPONSIBLE AND ACCOUNTABLE FOR CRANE OPERATIONS ON THE SITE;**
- 3) THE LEGISLATION ADDRESSING THE USE OF TECHNOLOGY SOUNDS GREAT—BUT IT MAY OR MAY NOT EVEN EXIST FOR ALL CRANES.**
- 4) INTRO. 1442 ESTABLISHING A TIERED SYSTEM FOR THE ENFORCEMENT OF SAFETY REGISTRATION NUMBERS CANNOT BE ACHIEVED BECAUSE DOB LACKS THE RESOURCES, TECHNOLOGY AND ANALYTICS TO DEVELOP AN EFFECTIVE SYSTEM.**



**5) WITHOUT ADEQUATE ENFORCEMENT, ANY EFFORTS TO REGULATE CONSTRUCTION SAFETY ARE JUST EMPTY WORDS. IN ORDER TO ACHIEVE THE GOAL WE ALL SEEK—NYC NEEDS TO ESTABLISH A NEW REGULATORY AGENCY TO ENFORCE CONSTRUCTION SAFETY—THE NYC CONSTRUCTION SAFETY ENFORCEMENT CORPORATION.**

**WITH RESPECT TO THE CRANE RULES, THE MAJOR FLAW IN ALL OF THE BILLS DRAFTED ARE THEY APPLY ALL OF THESE PROVISIONS IN A STANDARDIZED “ONE SIZE FITS ALL” WAY. THERE IS NO STANDARD “ONE SIZE FITS ALL” WAY TO APPLY THESE PROPOSALS TO THE DIFFERENT MODEL CRANES THAT THE NYC BUILDINGS DEPARTMENT HAS APPROVED FOR USE IN NYC. EACH OF THESE PROPOSALS MUST BE WRITTEN IN A WAY THAT WILL ENSURE THAT EACH INDIVIDUAL MODEL CRANE AND ITS OPERATION WILL MEET CONSTRUCTION SAFETY STANDARDS IN ORDER TO PROTECT THE PUBLIC AND WORKERS.**

**THERE IS NO GREATER EXAMPLE OF THIS “ONE SIZE FITS ALL” DEFINITION OF CRANE SAFETY THAN IN INTRO. 1422 CRANE WIND RESTRICTIONS AND INTRO. 1431 LIFT DIRECTOR.**

**INTRO.1422 CRANE WIND RESTRICTIONS. AS YOU CAN SEE, NYC HAS APPROVED MANY DIFFERENT MODELS FOR USE. ESTABLISHING ONE STANDARD FOR EVERY ONE OF THESE CRANES MAKES THE CRANE OPERATION MORE UNSAFE THAN IT IS TODAY. UNDER THE CURRENT RULES, EVERY SINGLE TIME, THE WIND SPEED MEETS THE PROPOSED LEVELS, IT MUST BE COMPLETELY PARKED, LOWERED OR DISASSEMBLED. HOW DANGEROUS DO YOU THINK DISMANTLING AND ERECTING THE CRANE ON A PUBLIC STREET IS WHEN THE NATIONAL WEATHER SERVICE REPORTED THAT WIND SPEEDS REACHED THE SINGLE STANDARD THIS LEGISLATION CREATES 23% OF THE DAYS LAST YEAR?**



**THE BUILDINGS DEPARTMENT'S OWN INVESTIGATIVE REPORT ON THE 60 HUDSON  
STREET/WORTH STREET CRANE ACCIDENT STATES**

**"NYC DOB REGULATIONS REQUIRE THE CRANE OPERATOR TO UNDERSTAND AND  
FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. . . THE OPERATOR'S MANUAL  
LOCATED IN THE CAB COVERED REQUIREMENTS THE OPERATOR SHOULD FOLLOW  
IN CASE OF WIND/WEATHER RELATED EVENTS", (P.4).**

**WOULDN'T NEW YORKERS BE SAFER IF CRANE WIND RESTRICTIONS WERE ESTABLISHED FOR  
EACH OF THE INDIVIDUAL CRANE MODELS USED IN NYC BASED ON THE SPECIFICATIONS  
DEVELOPED BY THE MANUFACTURER FOR THAT CRANE AND IN THE OPERATOR'S CRANE?**

**WE THINK SO AND ARE PROPOSING SOME MINOR AMENDMENTS TO THIS LEGISLATION THAT  
WILL LEAD US TO OUR MUTUAL GOAL OF STRENGTHENING CRANE SAFETY FOR THE PUBLIC  
AND FOR THE WORKER.**

**INTRO.1431 LIFT DIRECTOR. WE WOULD LIKE TO SUPPORT THIS PROPOSAL AND HAVE  
SUBMITTED SOME PROPOSED AMENDMENTS FOR YOUR REVIEW. ESSENTIALLY, THE BILL AS  
WRITTEN DOES NOT CREATE A SINGLE POINT OF ACCOUNTABILITY OR RESPONSIBILITY IN  
CRANE OPERATIONS. IT MERELY ADDS ANOTHER LICENSED PERSON TO THE PROCESS WHICH  
NOW MEANS THERE ARE 4 PEOPLE, THE CRANE OPERATOR, CRANE SAFETY COORDINATOR,  
OSHA COMPETENT PERSON AND SITE SAFETY MANAGER INVOLVED IN MAKING DECISIONS  
ABOUT THE CRANE OPERATION. SO WHO IS IN CHARGE? IT SHOULD BE THE LIFT DIRECTOR  
IN CONSULTATION WITH THE CRANE OPERATOR WHO HAS THE FINAL DECISION-MAKING  
AUTHORITY AND RESPONSIBILITY.**



**ENFORCEMENT. WITHOUT EFFECTIVE ENFORCEMENT—CONSTRUCTION SAFETY REGULATIONS ARE JUST EMPTY WORDS. AND THAT IS WHY WE ARE RECOMMENDING A NEW APPROACH—ESTABLISHING A NEW PUBLIC BENEFIT CORPORATION--- THE NYC CONSTRUCTION SAFETY ENFORCEMENT CORPORATION.**

**AS CURRENTLY STRUCTURED, THE NYC BUILDINGS DEPARTMENT DOES NOT HAVE THE CAPACITY OR THE TOOLS TO EFFECTIVELY ENFORCE CONSTRUCTION SAFETY ON ALL THE PROJECTS THEY ARE RESPONSIBLE FOR.**

**THIS IS NOTHING NEW. THIS ADMINISTRATION AND CITY COUNCIL HAVE SIGNIFICANTLY INCREASED FUNDING FOR CONSTRUCTION SAFETY OVER THE LAST SEVERAL YEARS AND STILL—WE HAVE AN UNPRECEDENTED AMOUNT OF FATALITIES ON NYC CONSTRUCTION SITES. WHY? BECAUSE IT TAKES MORE THAN JUST MONEY TO OVERCOME THE HISTORICAL OBSTACLES THE BUILDINGS DEPARTMENT HAS FACED FOR DECADES.**

- **DOB ENFORCEMENT OFFICERS ARE OVERWORKED, UNDERPAID AND LACK THE TECHNICAL TRAINING NECESSARY TO REGULATE A COMPLICATED INDUSTRY AND AS A RESULT, RECRUITING NEW INSPECTORS IS VIRTUALLY IMPOSSIBLE;**
- **THEY LACK THE TECHNOLOGY AND DATA NECESSARY TO IDENTIFY UNSAFE CONTRACTORS, TO IDENTIFY WHAT SIZE AND SCOPE OF PROJECT IS EXPERIENCING FATALITIES, ACCIDENTS, ETC.—AND THEN ASSIGN THEIR INSPECTION STAFF TO REGULARLY INSPECT THOSE CONSTRUCTION SITES TO IMPROVE CONSTRUCTION SAFETY BOTH FOR THE PUBLIC AND FOR CONSTRUCTION WORKERS.**

**THE NYC BUILDINGS DEPARTMENT HAS NONE OF THOSE TOOLS.**



**INTRO.1442 ESTABLISHING A TIERED SYSTEM FOR ENFORCEMENT OF SAFETY REGISTRATION NUMBERS. IT IS FOR ALL OF THE REASONS OUTLINED ABOVE THAT THE BTEA MUST OPPOSE THIS LEGISLATION. IT IS PRECISELY BECAUSE OF THE LACK OF RESOURCES AND TECHNOLOGY CAPABILITY OUTLINED ABOVE THAT THE CITY COUNCIL AND ADMINISTRATION DID NOT MOVE FORWARD WITH IMPLEMENTING THIS PROPOSAL SEVERAL YEARS AGO.**

**THAT IS WHY THE BTEA IS RECOMMENDING TODAY, THE ESTABLISHMENT OF A NEW PUBLIC BENEFITS CORPORATION "THE NYC CONSTRUCTION SAFETY ENFORCEMENT CORPORATION", SO A NYC AGENCY RESPONSIBLE FOR PROTECTING PUBLIC SAFETY CAN HAVE THE RESOURCES AND TOOLS IT NEEDS FOR EFFECTIVE CONSTRUCTION SAFETY ON THE SITES THAT MOST NEED IT.**

**THE NEW AGENCY COULD BE FUNDED BY THE FEES AND FINES THE AGENCY ALREADY COLLECTS IN ORDER TO MINIMIZE THE COST IMPLICATIONS TO THE TAXPAYER. CREATING THIS NEW AGENCY WILL RESULT IN A BETTER PAID, BETTER TRAINED, AND BETTER UTILIZED INSPECTION WORKFORCE THAT WILL ACHIEVE BETTER RESULTS.**

**UNLESS WE FIX THE LONG STANDING INSTITUTIONAL BARRIERS THE BUILDINGS DEPARTMENT HAS BEEN PLAGUED WITH FOR DECADES, WE WILL JUST CONTINUE TO "SHUFFLE THE DECK CHAIRS ON THE TITANIC" OF CONSTRUCTION SAFETY.**

**THANK YOU.**



# **Building Trades Employers' Association**

Louis J. Coletti  
*President & CEO*

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1422:

Int. No. 1422

By Council Members Chin and Crowley (in conjunction with the Mayor)

A Local Law to amend the administrative code of the city of New York, in relation to crane wind restrictions

Be it enacted by the Council as follows:

Section 1. Section BC 3319 of chapter 33 of the building code of the city of New York is amended to add new sections 3319.11 to read as follows:

**3319.11 Wind restrictions for cranes.** The following wind restrictions shall apply to cranes that require a certificate of on-site inspection.

**3319.11.1 Special provisions for configurations that require certain actions to be taken at 20 mph or less.** ~~No crane that utilizes a luffing lattice jib lattice boom, lattice jib, or lattice mast during the course of the job shall be placed into a configuration in which the manufacturers' wind restriction for the "in the air parking position" is 20 mph (32kph) or less unless: that requires, at a wind speed of 20 mph (32 kph) or less, the boom or boom/jib combination to be laid down, placed in a jackknife position, or other special protective measures to be implemented, unless:~~

~~1. At the end of the shift, or as weather conditions warrant, the boom or boom/jib combination is laid down, jackknifed, or other special protective measures are implemented.; and~~

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~~This provision shall not apply to cranes with fixed jibs.~~

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~~2. The crane is set up and operated within a safety zone, where:~~

~~2.1. The distance from the crane to the boundary of the safety zone is equal to or greater than the length of the boom, jib, and any other attachments; and~~

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~~2.2. All areas within the safety zone are closed to the public;~~

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**3319.11.2 Special provisions for configurations that require certain actions to be taken above 20 mph but at or under 30 mph.** ~~No crane that utilizes a luffing lattice jib lattice boom, lattice jib, or lattice mast during the course of the job shall be placed into a configuration in which the manufacturers' wind restriction for the "in the air parking position" is between 21 mph (33.80kph) and 30 mph (48kph) unless: that requires, at a wind speed above 20mph (32 kph) but at or under 30 mph (48 kph), the boom or boom/jib combination to be laid down, placed in a jackknife position, or other special protective measures to be implemented, unless at the end of the shift, or as weather conditions warrant,~~

~~the boom or boom/jib combination is laid down, jacked, or other special protective measures are implemented; and one of the following:~~

~~1. The crane is set up and operated within a safety zone that meets the requirements of item 2 of Section 3319.11.1; or~~

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2. A plan for monitoring and securing the crane is submitted to the department and approved by the department, the fire department, and the department of transportation. Such plan must be specific to the site and, at a minimum, detail the:

- 2.1. Safeguards to be provided for the public and adjoining property;
- 2.2. Monitoring protocols and thresholds for wind and other conditions;
- 2.3. Communication protocol for when thresholds are exceeded; and
- 2.4. Emergency response procedures for when thresholds are exceeded.

This provision shall not apply to cranes with fixed jibs.

**3319.11.3 Orientation.**

**3319.11.3.1 Orientation for the assembly/disassembly director.** No person shall perform the duties of an assembly/disassembly director for a crane that meets the requirements of Section 3319.11.1 or 3319.11.2 until the assembly/disassembly director has successfully completed an orientation conducted by a qualified person designated by the equipment user. Such orientation shall, at a minimum, review the applicable manufacturer assembly/disassembly procedures and the approved assembly/disassembly plan for the crane in the configuration to be assembled or disassembled.

**3319.11.3.2 Orientation for the lift director.** No person shall perform the duties of a lift director for a crane that meets the requirements of Section 3319.11.1 or 3319.11.2 until the lift director has successfully completed an orientation conducted by a qualified person designated by the equipment user. Such orientation shall, at a minimum, review the applicable sections of the approved crane notice plan in relation to site conditions, crane location and configuration, and traffic and pedestrian controls, and the applicable sections of the wind action plan with regard to the wind speed thresholds for the crane in the configurations to be operated.

**3319.11.3.3 Orientation for hoisting machine operator.** No person shall operate a crane that meets the requirements of Section 3319.11.1 or 3319.11.2 until:

- 1. The hoisting machine operator has, within 30-days of commencing operation of the crane, successfully completed an orientation conducted by a qualified person designated by the equipment user. Such orientation shall, at a minimum, review the applicable sections of the approved crane notice plan in relation to site

conditions, crane location and configuration, and pick, swing, and landing zones, and the wind action plan for the crane in the configuration to be operated, as well as the controls, computer displays, operator aids, and safety devices for the specific make, model, and configuration of crane to be operated; and

2. The equipment user has verified that the hoisting machine operator has, within ~~30~~ days one year prior to the orientation, completed appropriate manufacturer training, or, if available and within a 100-mile radius of the location in which the crane will be operating, ~~completed~~ simulator training specific to the make, model, and configuration of the crane to be utilized or to a comparable make, model and configuration. Such training shall, at a minimum, simulate the sequence specified in the wind action plan to raise and lower the boom or the boom/jib combination in the configuration to be operated. The simulator training shall take place at a facility operated by an educational institution or school chartered, licensed or registered by the New York state department of education, a New York state department of labor-approved training provider registered apprenticeship program, or an entity acceptable to the crane manufacturer.

**3319.11.3.4 Documentation.** Successful completion of an orientation required by this section shall be documented in the form of a letter, signed and dated by the qualified person who performed the orientation. Such letter must, at a minimum, state the name of the person who conducted the orientation, the name of the person to whom the orientation was provided, the date of the orientation, and the topics covered. Such letter shall be maintained at the jobsite by the equipment user, and made available to the commissioner upon request.

§ 2. This local law takes effect immediately except that this local law shall not apply to the use of a mobile crane at a construction site where a certificate of on-site inspection for the use of such crane at such site is issued prior to July 1, 2017; provided that this exception shall not apply to a mobile crane that is a crawler crane. As used in this section, the terms certificate of on-site inspection, mobile crane and crawler crane are as defined in chapter 33 of the New York city building code.

Int. No. 1431

By Council Members Grodenchik and Crowley (in conjunction with the Mayor)

A Local Law to amend the administrative code of the city of New York, in relation to the registration and duties of lift directors

Be it enacted by the Council as follows:

Section 1. The schedule of fees in section 28-401.15 of the administrative code of the city of New York, as amended by local law number 141 for the year 2013, is amended by adding a new entry for lift director registration to read as follows:

LICENSE TYPE	INITIAL FEE	RENEWAL FEE	ADDITIONAL FEES
<u>Lift director registration</u>	<u>As provided by dept rules.</u>	<u>As provided by dept rules.</u>	<u>As provided by dept rules.</u>

§ 2. Chapter 4 of Title 28 of the Administrative Code of the city of New York is amended by adding a new article 424 to read as follows:

**ARTICLE 424**  
**LIFT DIRECTOR REGISTRATION**

**§ 28-424.1 Lift director required.** No crane or derrick for which a certificate of on-site inspection is required, or for which use is required to be supervised by or is supervised by a licensed master rigger, may be used unless a lift director is present at the site at all times when:

1. The crane or derrick is picking a load;
2. The crane is traveling at the site, including but not limited to being moved onto or off of cribbing or up or down a ramp;
3. The crane or derrick is being placed into a parked condition or otherwise being taken out of service;
4. The crane's or derrick's boom/jib is being laid down or jackknifed;
5. The crane's or derrick's boom/jib is being raised from a laid down or jackknifed position; or
6. Other special protective measures for wind are being installed or removed.

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~~4828-3961-9648.3~~

**Exception:** The requirement for a lift director does not apply to the assembly or disassembly of a crane or derrick, nor to the use of an assist crane or derrick during assembly/disassembly, provided an assembly/disassembly director is supervising the assembly/disassembly operation in accordance with rules promulgated by the commissioner.

**§ 28-424.2 Registration required.** On and after July 1, 2018, it shall be unlawful for any person to act as a lift director or to perform the duties of a lift director unless such person is registered as a lift director pursuant to this article.

**§ 28-424.3 Qualifications.** Applicants for a lift director registration shall submit satisfactory proof establishing that the applicant:

1. Is a licensed master rigger; or

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2. Possesses a valid certification as a lift director from an organization acceptable to the commissioner and accredited by the National Commission for Certifying Agencies (NCCA) or the American National Standards Institute (ANSI); or

3. Is a Competent Person as defined by the Occupational Safety and Health Administration capable of discharging the responsibilities listed in The American Society of Mechanical Engineers National Standards for Mobile and Locomotive Cranes, "ASME B30.5-2011 Section 5-3.1.3.2.2, Lift Director.

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~~Has satisfied the training requirements for a rigging supervisor in accordance with section 3316.9.2 of the New York city building code and has successfully completed a department approved training course for lift directing that is at least 32 hours in length. Such lift directing training course shall cover topics relating to mobile cranes, tower cranes, and derricks, including, but not limited to, roles and responsibilities of site personnel, operational planning, weather warnings, conducting on site meetings, and log and reporting requirements. Successful completion of a lift directing training course shall be based upon passage of a written exam, and evidenced by the issuance of a certificate card that is in accordance with the provisions of item 2.5 of section 3316.9.2 of the New York city building code; and, beginning for applications submitted on or after July 1, 2018;~~

~~3.1. Has at least two years' experience within three years prior to application supervising rigging operations in the city in accordance with section 3316.9.1 of the New York city building code;~~

~~3.2. Has been licensed as a New York city hoisting machine operator for at least three years prior to application; or~~

~~3.3. Is a master rigging foreman designated in accordance with rules promulgated by the commissioner.~~

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§ 3. Section 3319.2 of the New York City building code, as added by local law number 33 for the year 2007, is amended to read as follows:

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**3319.2 [Operation.** Riggers and hoisting machine operators shall be licensed as required by Chapter 4 of Title 28 of the Administrative Code.] **Personnel.** Personnel shall comply with Sections 3319.2.1 through 3319.2.3.

**3319.2.1 Hoisting machine operators.** The hoisting machine operator shall be licensed as required by Chapter 4 of Title 28 of the *Administrative Code*.

**3319.2.2 Riggers.** Rigging work must be supervised in accordance with Section 3316.9.1 and where required, riggers must be licensed in accordance with Chapter 4 of Title 28 of the *Administrative Code*.

**3319.2.3 Lift directors.** Lift directors shall be designated and perform the duties required by Sections 3319.2.3.1 through 3319.2.3.10.

**3319.2.3.1 Equipment user to designate.** The equipment user must designate a lift director and ensure a lift director is present at the site when required by Section 28-424.1 of the *Administrative Code*. The equipment user may only designate a qualified and competent person to serve as the lift director. Beginning July 1, 2018, lift directors must be registered in accordance with Chapter 4 of Title 28 of the *Administrative Code*.

**3319.2.3.2 Designation of existing personnel.** Personnel at the site who perform other tasks, including but not limited to the rigging supervisor required by Section 3316.9, may be designated to serve as the lift director, provided they meet the qualification requirements for a lift director and can fulfill the responsibilities of a lift director. Where the use of the crane or derrick is supervised by a licensed master rigger, the lift director must be licensed as a master rigger or a designated as a master rigging foreman in accordance with rules promulgated by the commissioner.

**Exceptions:**

1. Hoisting machine operators may not serve as the lift director at the same time they are operating a hoisting machine or supervising the operation of a hoisting machine by a learner.
2. A site safety manager, site safety coordinator, registered construction superintendent, concrete safety manger, or construction site fire safety manager who is serving in such role at the site may not serve as the lift director.

**3319.2.3.3 Notification to the department of the lift director.** The equipment user must notify the department of the designated primary lift director prior to the commencement of work. If a designated alternate lift director will be acting in the place of the primary lift director for a period longer than two consecutive weeks, the department must be so notified by the equipment user. The equipment user must immediately notify the department of any permanent change of the primary lift director.

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Exception: For a crane or derrick whose crane or derrick notice application was submitted prior to July 1, 2018, notification to the department is not required. A letter designating the lift director, signed and dated by the equipment user, must be kept at the site and available for inspection by the commissioner upon request.

**3319.2.3.4 Responsibilities of the lift director.** The primary lift director, or a designated alternate lift director, must be present at the site at all times when required by Section 28-424.1 of the *Administrative Code*. The primary lift director, or in the event that an alternate lift director will be acting in the place of the primary lift director, the alternate lift director, must be capable of discharging the responsibilities listed in The American Society of Mechanical Engineers National Standards for Mobile and Locomotive Cranes, "ASME B30.5-2011, Section 5-3.1.3.2.2, Lift Director" as set forth below: is responsible for ensuring the following, either by personally performing the task, or directly overseeing and assigning personnel to perform the task:

- 1. (1) being present at the job site during lifting operations. Formatted: Font: Times New Roman
  - (2) stopping crane operations if alerted to an unsafe condition affecting those operations. Formatted: Font: Times New Roman
  - (3) ensuring that the preparation of the area needed to support crane operations has been completed before crane operations commence. Formatted: Font: Times New Roman
  - (4) ensuring necessary traffic and pedestrian controls are in place to restrict unauthorized access to the crane's work area. Formatted: Font: Times New Roman
  - (5) ensuring that personnel involved in crane operations understand their responsibilities, assigned duties, and the associated hazards. Formatted: Font: Times New Roman
  - (6) addressing safety concerns raised by the operator or other personnel and being responsible if he decides to overrule those concerns and directs crane operations to continue. (In all cases, the manufacturer's criteria for safe operation and the requirements of this Volume shall be adhered to.) Formatted: Font: Times New Roman
  - (7) ensuring precautions are implemented when hazards associated with special lifting operations are present. Such operations include, but are not limited to, the following: Formatted: Font: Times New Roman
    - (7.1) multiple crane lifts Formatted: Font: Times New Roman
    - (7.2) lifting personnel Formatted: Font: Times New Roman
    - (7.3) pick and carry operations Formatted: Font: Times New Roman
    - (7.4) mobile cranes operating on barges. Formatted: Font: Times New Roman
  - (8) ensuring that the applicable requirements of ASME B30.23 are met when lifting personnel. Formatted: Font: Times New Roman
  - (9) informing the crane operator of the weight of loads to be lifted, as well as the lifting, moving, and placing Formatted: Font: Times New Roman
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locations for these loads.

~~(10) obtaining the crane operator's verification that this weight does not exceed the crane's rated capacity.~~

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~~(11) ensuring that a crane's load rigging is performed by a person selected or assigned by the crane user or crane user's representative as being competent to perform specific duties.~~

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~~(12) ensuring that the load is properly rigged and balanced before it is lifted more than a few inches.~~

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~~That the crane or derrick is located and configured in accordance with the approved crane or derrick notice plans prior to the start of each shift and whenever the crane or derrick is relocated or reconfigured;~~

~~2. That site conditions match the approved crane or derrick notice plans prior to the start of each shift and whenever the crane or derrick is relocated or reconfigured;~~

~~3. That traffic and pedestrian controls are in place, prior to the start of and throughout;~~

~~3.1. The work shift;~~

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~~3.2. Any crane or derrick relocation;~~

~~3.3. Any laying down or jackknifing of the crane's or derrick's boom/jib;~~

~~3.4. Any raising of the crane's or derrick's boom/jib from a laid down or jackknifed position; or~~

~~3.5. Any other special protective measures for wind are being installed or removed.~~

~~4. That the hoisting machine operator, rigging supervisor, and rigging crew members, including signalpersons, possess the proper license, foreman card, certification card, or training card, as appropriate, prior to their commencement of work at the site;~~

~~5. That the hoisting machine operator and rigging supervisor are present throughout the shift;~~

~~6. (13) That weather conditions and forecasts are monitored as warranted;~~

~~7. (14) That, in coordination with the hoisting machine operator and the rigging supervisor, operations cease when warranted by weather conditions or forecasts and an evaluation of current crane or derrick operations, anticipated pick times, and the lead time required to stop picks and park or secure the crane~~

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or derrick in accordance with the approved wind action plan, or where a wind action plan is not required, in accordance with the specifications of the crane or derrick manufacturer;

- ~~8. That, at the end of the shift, or as weather conditions warrant, the hoisting machine operator has ceased operations;~~
- ~~9. That, where required, the hoisting machine operator has completed a written record prior to leaving the site;~~
- ~~10. That, when warranted during out of service periods, appropriate personnel return to the site and take further steps to secure the crane or derrick;~~
- ~~11. That, when carrying loads over an occupied building, the top two floors are vacated or proper roof protection is in place prior to the start of such operation in accordance with rules promulgated by the commissioner;~~
- ~~12. That, prior to a critical pick, a licensed master rigger or registered design professional verified compliance with the critical pick plan in accordance with Section 3316.9.1;~~
- ~~13. That, prior to operating near overhead power lines, there is compliance with rules promulgated by the commissioner for the operation of a crane or derrick near an overhead power line;~~
- ~~14. That, prior to hoisting personnel with a crane or derrick, there is compliance with rules promulgated by the commissioner for the hoisting of personnel;~~
- ~~15. That required frequent inspections of the crane, derrick, and rigging equipment are performed prior to the start of the shift;~~
- ~~16. That the crane operator is informed of the weight of loads to be lifted, as well as the lifting, moving, and placing locations for these loads;~~
- ~~17. That the crane operator's verification has been obtained that this weight does not exceed the crane's rated capacity;~~
- ~~18. That constant communication is maintained between the operator, rigging supervisor, and signalpersons; and~~
- ~~19. That the load is properly rigged for the lifting conditions before it is lifted more than a few inches.~~

**3319.2.3.5 Ordering corrective action and notification to the department. If the lift director discovers a violation of one or more of the items identified in Section 3319.2.3.4,**

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~~the lift director must immediately notify the appropriate personnel to correct the condition, and if necessary, order the crane or derrick and rigging operations to stop. If the violation is not promptly corrected, the lift director must notify the department of the violation. Upon the condition being corrected, or where it is not corrected, upon the lift director notifying the department of the violation, any responsibility the lift director has, as it pertains to their role as the lift director, arising out of, or as a result of the existence of that condition, will cease.~~

~~**3319.2.3.6 Authority to stop operations.** The lift director, hoisting machine operator and rigging supervisor each have authority to order crane, derrick and rigging operations to stop. When the lift director orders operations to stop, the hoisting machine operator and rigging supervisor must take appropriate action to safely implement the directive. The lift director may not overrule the hoisting machine operator or rigging supervisor when the hoisting machine operator or rigging supervisor orders operations to stop.~~

~~**3319.2.3.7 Does not diminish responsibility.** The presence of the lift director does not relieve, alter, or diminish any responsibility or obligation of any other party, including but limited to the equipment user, hoisting machine operator, rigging supervisor, site safety manager, site safety coordinator, or construction superintendent.~~

~~**3319.2.3.8 Ensuring personnel understand duties.** The lift director is responsible for ensuring that personnel involved in crane or derrick operations understand their responsibilities, assigned duties, and the associated hazards.~~

~~**3319.2.3.9 Pre-shift meeting.** Prior to the start of every shift the lift director must lead a pre-shift meeting with the hoisting machine operator, rigging supervisor, signalpersons, and the supervisor of the flagpersons and pedestrian traffic managers. This meeting may be conducted via radio or phone.~~

~~**3319.2.3.9.1 Meeting topics.** The following topics must be discussed at every meeting:~~

- ~~1. The day's planned operations;~~
- ~~2. Pedestrian and traffic controls;~~
- ~~3. Current weather conditions and forecasts; and~~
- ~~4. As applicable, signaling/communication protocols for tandem picks, multiple crane or derrick operations, and operating in the blind.~~

~~**3319.2.3.9.2 Additional meeting topics.** The following topics must also be discussed at the initial meeting, and at any subsequent meeting where tasks, personnel, or crane or derrick configurations have changed:~~

- ~~1. Roles of personnel;~~

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2. ~~Objects to be lifted/lowered, including a review of their weights, lifting points, and any special considerations;~~
- 
3. ~~Rigging equipment to be used;~~
- 
4. ~~Site conditions;~~
- 
5. ~~Pick and landing zones;~~
- 
6. ~~Fall, crush, electrical, and other hazards;~~
- 
7. ~~In-service and out of service wind thresholds for the crane or derrick; and;~~
- 
8. ~~Permit validity.~~

~~**3319.2.3.10 Review of plans.** Prior to the lift director's initial commencement of work with the crane or derrick at the site, each time the crane or derrick enters into a new phase, and each time relevant sections of plans are amended, the lift director must review the applicable sections of the approved crane or derrick notice plan in relation to site conditions, crane or derrick location and configuration, and traffic and pedestrian control; the applicable sections of the approved wind action plan with regard to the wind speed thresholds for the crane or derrick; and, as applicable, relevant rigging plans. It is the responsibility of the equipment user to verify that the lift director has reviewed the relevant materials, as required, and to notify the lift director each time the crane or derrick notice plans, the wind action plan, or rigging plans, are amended.~~

~~**Exception:** Where a certificate of on-site inspection is not required, all of the above requirements apply, except that in lieu of the above requirement to review the applicable sections of the approved crane or derrick notice plan and the applicable sections of the wind action plan, the lift director must instead review the applicable sections of the crane or derrick manual with regards to the setup, founding, lift or swing restrictions, and the wind speed threshold for the crane or derrick configuration to be utilized, as well as, where prepared, any plans or drawings with regards pertinent site features, obstacles, and restrictions, the location and configuration of the crane or derrick at the site, and matting or dunnage.~~

§ 4. This local law takes effect immediately except that this local law shall not apply to the use of a mobile crane at a construction site where a certificate of on-site inspection for the use of such crane at such site is issued prior to July 1, 2017; provided that this exception shall not apply to a mobile crane that is a crawler crane. The terms used in this section shall have the meanings ascribed to such terms in the New York City building code.

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## Building Trades Employers' Association

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### BUILDING TRADES EMPLOYERS' ASSOCIATION CONTRACTORS SAFETY PROFILE

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January 25, 2017

Honorable Margaret Chin  
City Councilmember, District 1  
Legislative Office  
250 Broadway, Suite 1882  
New York, NY 10007

Re: **Intro No. 443 - Crane Modernization**  
**Intro No. 1403 - Required Anemometers**  
**Intro No. 1421 - Requiring Cranes to be Equipped with GPS Systems**  
**Intro No. 1422 - Crane Wind Regulations**  
**Intro No. 1431 - Lift Director**  
**Intro No. 1435 - Requiring Cranes to have Data Logging Devices**  
**Intro No. 1446 - Crane Licenses**

Dear Councilwoman Chin,

You, as well as your fellow Councilmembers should be commended for focusing attention on how to strengthen construction safety in New York City.

Attached, you will find 1) a summary of the BTEA's position on each of the above legislative proposals and 2) a profile of BTEA Contractors Safety Record.

This letter will focus on Intro No. 1422 Crane Wind Restrictions and Intro No.1431 Lift Director.

### **Intro No. 1422 - Crane Wind Restrictions**

The BTEA must oppose the bill as written. However, if amended, the BTEA could support legislation with Crane Wind Restrictions. The BTEA is drafting potential amendments for your consideration and hope to submit it to you early next week.

As written, establishing Crane Wind Restrictions as those which have been proposed would make crane operations more **UNSAFE** than they are today.

This proposal poses a greater risk to the public and workers by forcing the crane to stop operations, jackknife, lower or dismantle cranes any time the wind speed approaches the levels prescribed in the bill.



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It is important to note that **NONE** of the five (5) crane accidents that have occurred in New York City from 2008-2016 were caused by wind. Attachment 4 shows a chart describing the causes of those crane accidents.

One of the problems in the way all of the legislation has been drafted is that all of the proposals apply a specific standardized application to all cranes and do not differentiate between the numerous crane models utilized in New York City. Effective crane safety requires safety standards that apply to each individual crane model. There is no one size fits all that will enhance crane safety.

**The BTEA recommends wind restriction requirements be established that follow individual crane model manufacturers specifications.** Every model crane, after extensive study and testing by the manufacturer of that crane model has established standards in which:

- The wind speed which each model crane can safely operate;
- Determines what should be done when the operation approaches that threshold
- The procedures the operator should follow in wind/weather related events.

All of these requirements are included in the crane operator's manual located in the cab of the crane and are reviewed by the crane operator. DOB regulations require the operator to understand them.

Another reason for utilizing manufacturers specifications for crane wind restrictions is because those are the standards that the NYC Buildings Department currently use in measuring crane safety operations.

In the recent 60 Hudson Street (Worth Street) crane collapse investigation, the city's engineering consultant cited the following reasons, among others, to the Buildings Department for the cause this tragedy:

- "CTS concludes that the operator failed to follow DOB regulations and **MANUFACTURERS REQUIREMENTS** to secure the crane overnight... (p.4)



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- New York City DOB regulations require the operator to understand and follow the **MANUFACTURER RECOMMENDATION** (BC3301.1.3), and to secure the boom when leaving the site (IRNYC 3319-01 (p)(2)(v1)... (p.4)
- At the end of the work day, the operator decided to leave the crane boomed up with the main boom at 88° and the luffer jib between 67° and 70°, and left the site for the evening, which was against the **MANUFACTURERS RECOMMENDATIONS**... (p.8)

If the Buildings Department regulations currently require following **MANUFACTURER SPECIFICATIONS** in the operation of cranes, legislation should be adopted that require manufacturers specifications to be followed for the wind restriction requirements of each individual crane model.

That will improve crane safety.

**Safety Zone.** This provision should be deleted because it makes crane operations more unsafe and is impractical.

Attached is a photo of a recent crane dismantling in Manhattan. The contractor had to close the street to pedestrians and traffic for some 4 - 5 hours and had difficulty dismantling the crane because of the adjacent buildings being so close together.

Manufacturers specifications describe how to secure every crane safely.

Dismantling the crane every time wind conditions meet the wind speed in the legislation rather than following manufacturers specifications means the crane must be dismantled and then erected again. This makes it more dangerous to the public and workers.

### **Intro No. 1431 Lift Director**

The BTEA must also oppose this legislation as written and is drafting a proposed amendment for the City Council's consideration that we hope to submit early next week.

In the legislation as written, there is no single line of authority or accountability for the Lift Director and the set of tasks and responsibilities outlined are complicated, confusing and onerous.

Currently there are several licensed individuals involved in the operation of a crane: Master Rigger, OSHA Trained Competent Person, Site Safety Manager, Crane Operator.

Under the legislation, the crane operator has the sole authority and responsibility for deciding if the crane should stop operations. Then why is a Lift Director necessary?



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The BTEA's amendment would keep that decision with the crane operator, but give ultimate authority, responsibility and accountability for the decision to keep operations going or shut down to the Lift Director after consulting with the crane operator.

While we support the provision that the Lift Director be registered with the NYC Buildings Department, section 3319.2.3.4 Responsibilities, it is written in such a manner that seems to have less to do with the Lift Director's responsibilities and everything to do with finding someone to blame, a "gotcha" in the event of an accident.

Our amendment will recommend that this section be deleted and replaced with the requirements outlined specifically for Lift Director in the American National Standards Institute (ANSI) which is one of the certification organizations listed in 28-424.3 Qualifications, paragraph 2 of this legislation.

The ANSI requirements are the most stringent and clearest when it comes to prescribing the responsibilities for Lift Director.

### Summary

The BTEA will shortly be submitting to you and the City Council proposed amendments for the Crane Wind Restriction and the Lift Director legislation.

We want to support legislation that will strengthen and increase crane safety and believe we can of the amendments we propose are adopted.

Once again we applaud you for focusing attention on how to strengthen construction safety in New York City and look forward to working with you to achieve our mutual goals.

Best regards,

Louis J. Coletti  
President & CEO

Cc: BTEA Board of Governors  
Member Association Executives



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Crane Accident - Date	Date	Report Written	Wind a Factor?	Cause	Actions Taken	How Regulations Were Implemented
East 51st Street (MN)	March, 2008	Arup Engineering	NO	Rigging failure	Regulations regarding rigging, training and reporting	Council Legislation, DOB Rules
East 91st Street (MN)	May, 2008	Arup, MN District Attorney, CTL Engineering, HRCO	NO	Turntable crack	New Inspection protocols for crane parts and operations	DOB Rules
249 Madison Ave / East 40th Street (MN)	June, 2015	Deemed accident	NO	Operator error	None	N/A
Worth Street / Tribeca (MN)	February, 2016	DOB and OSHA Findings and Violations, Mayoral CTWG	NO	Operator error	Wind restrictions enforced, Lift Director created	Commissioner's Order, Proposed Rules, and new legislation
81-10 134th St / Union Turnpike (QN)	November, 2016	No reports yet, DOB Commissioner states "wind not a factor"	NO	Operator error	None	N/A



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**The Construction Safety Act, a group of 21 bills relating to construction, have been introduced and will have a Hearing on Jan 31<sup>st</sup>. The bills have been categorized below in the following groups:**

### General Contractors:

- 1) **Introduction 1442** - This bill would create a tiering system for identifying those general contractors, concrete contractors and demolition contractors with excessive violations/incidents and accidents, subjecting them to greater scrutiny and enforcement, and, where necessary, suspending them from doing construction work
  - a. **Position:** STRONGLY OPPOSE Unworkable for many reasons which include: punishing contractors who work under same Registration, comparative classification, naming a "person in control" and DOB resources

### Crane Safety Legislation

- 2) **Introduction 443** - This bill would phase out the use of older cranes by imposing an age limit on cranes operating in New York City.
  - a. **Position:** No position However, much like used cars, older cranes should be judged by maintenance and use, not age
- 3) **Introduction 1403** - This bill would require all cranes to be equipped with an anemometer at the top of the boom
  - a. **Position:** Potentially support Change the language to require the anemometer to be positioned at the highest floor of crane operations
- 4) **Introduction 1421**, This bill would require installation of equipment on cranes, including a GPS tracker
  - a. **Position:** Oppose The technology isn't readily available nor would DOB have the capacity to track
- 5) **Introduction 1422** - This is a bill would establish the 30mph wind restrictions for the operation and disassembly of cranes, establish a safety zone, and require training for operators on the configuration of crane they will next use
  - a. **Position:** Oppose as drafted Would work on changes to the language that exclude the safety zone, and amend the bill to exclude parking, lowering in certain instances and referencing manufacturers standards

- 6) **Introduction 1431** - This bill would create the position and require a trained Lift Director to be onsite during crane operations
  - a. **Position:** Oppose as drafted We are rewriting the bill to follow the ANSI standards for the Lift Director and set a direct chain of command for crane operations decisions. This will not eliminate the need for the LD, but will designate person in control of crane operations.
- 7) **Introduction 1435** - legislation which will require cranes to be equipped with lift data logging devices.
  - a. **Position:** Oppose The technology is encrypted by the manufacturer
- 8) **Introduction 1446** - This is a bill that would establish a new licensing endorsement (B1 and B2) standards for operators of particularly large, complex cranes.
  - a. **Position:** No position

#### **Worker Training:**

- 9) **Introduction 1447** - This bill would require additional training for construction workers such as through a NYS approved apprentice programs.
  - a. **Position:** No position

#### **General and Administrative:**

- 10) **Introduction 81** - This bill would consolidate accident/fatality information in one place by requiring the Department of Buildings to maintain a comprehensive list of all construction-related injuries and fatalities, and would ensure prompt reporting of violation information by DOB to OSHA.
  - a. **Position:** No position
- 11) **Introduction 744** – This bill establishes a prevailing wage requirement for covered workers in city financially assisted projects and facilities
  - a. **Position:** No position
- 12) **Introduction 1404** - This bill would increase civil penalties for immediately hazardous, major and lesser violations
  - a. **Position:** Oppose. The existing penalty structure was recently restructured and can best be addressed in the upcoming Code revision
- 13) **Introduction 1419** - This bill would increase penalties for builders at sites that have a history of “unsafe practice”, particularly where those violations result in death or injury, up to \$1.5 million dollars.
  - a. **Position:** Oppose. There is a legal threshold for fines and penalties.

- 14) **Introduction 1432** - This bill would require training and transparency requirements for certain projects receiving city financial assistance
- a. **Position:** No position
- 15) **Introduction 1433** – This bill requires DOB to post reports on accidents and injuries
- a. **Position:** Oppose Many unworkable provisions. However, this would push less scrupulous contractors to deny emergency treatment to workers driving accident reporting even further underground
- 16) **Introduction 1436** – This bill requires DOB to post a report on the applicants for SSM and SSC licenses and the time it takes to receive an answer to their application.
- a. **Position:** Support Would require DOB to evaluate applications for licenses in a timely fashion, or report otherwise
- 17) **Introduction 1437** – This bill requires DOB to establish a “penalty ratio” for the size of buildings to determine if a site has “excessive violations” and increase civil penalties
- a. **Position:** STRONGLY OPPOSE Requires DOB to create a formula for an acceptable amount of hazardous vious within a twelve-month period, which is problematic. Also, the bill does not distinguish between violations issued and adjudicated and found to be “in violation”
- 18) **Introduction 1448** - This bill would expand site safety plan requirements to smaller construction sites, four stories and above
- a. **Position:** Support Does get to the heart of where real accidents and fatalities occur. Would require large influx of DOB resources

**Site Specific Regulation:**

- 19) **Introduction 1429** - This bill would require that site managers conduct a task-specific safety orientation for all new workers before performing any dangerous or out-of-the-ordinary work at the site in different languages.
- a. **Position:** No position
- 20) **Introduction 1445** - This bill would require additional safeguards, such as more extensive guardrail and netting requirements, to help prevent falls at construction sites.
- a. **Position:** No position, potential support Too prescriptive in its description of how to cover shaftways.
- 21) **Introduction 1444** – This bill would require that site managers conduct a site-specific safety orientation for all new workers and hold meetings before performing any dangerous or out-of-the-ordinary work at the site in different languages.
- a. **Position:** No position



**Building Trades  
Employers' Association**

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January 24, 2017

Honorable Helen Rosenthal  
City Councilmember 6<sup>th</sup> District  
Legislative Office  
250 Broadway, Room 1744  
New York, NY 10007

**Re: Intro No. 1442 – Enforcement of Safety Registration Numbers and Repeal of  
Section 28-420.5 of the NYC Administrative Code**

Dear Councilwoman <sup>Helen</sup>Rosenthal,

The membership of the Building Trades Employers' Association (BTEA) applauds your concern and efforts with regard to increasing construction safety in New York City, as well as your Councilmember colleagues.

The BTEA consists of 26 trade contractor associations representing 1800 construction managers, general contractors and specialty trade subcontractors, including general contractors, concrete and demolition contractors who register with the NYC Building Department under the Safety Registration requirements of the Building Code.

BTEA construction managers and general contractors represent 16 of the top 20 largest construction companies in NYC according to Crain's NY Business. In 2015 these firms and the subcontractors they employ had a combined revenue was \$20 billion.

They are the safest high rise builders in New York City. Attached to this letter is a "Construction Safety Profile" of data from government regulatory agencies which proves it.

Respectfully, we must oppose Intro No. 1442. The City Council and Bloomberg Administration did not implement this program in 2012 for a variety of reasons:

1. The proposed system is overly complicated and subjective;
2. The proposed system is premised on substantial data errors and shortcomings acknowledged in the city's own Louis Berger Group consultant report to the Buildings Department.



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3. Adjudicated Environmental Control Board Violations are not objective criteria for determining a Company's safety record and/or performance;
4. The Buildings Department lacks the financial resources and organizational capacity necessary to effectively administer and monitor the system proposed;
5. The proposed system is Manhattan high rise centric;
6. The Buildings Department has sufficient power and authority to require additional safety provisions be taken on individual projects.

Attached you will find several reports which outline in detail how and why the City Council, the Administration and industry reached this conclusion several years ago:

1. A BTEA Position Paper based on the reports below, which was the basis for the City Council and Administration recognizing this proposal would not be successful;
2. A Summary Report of the BTEA Position Paper;
3. A Summary of the CUNY Report findings;
4. A report by the City University of New York which analyzed the NYC Building Department's consultant report on establishing the system, The Louis Berger Group;
5. A study by HR&A Advisors looking at *Policies and Tools for Promoting Safety in the Construction Industry* which includes a look at methodology in other cities across the U.S.

The safety of our workers and the public has always been, and remains the number 1 priority for BTEA contractors – our safety record proves it.



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We applaud your efforts, and those of your Council colleagues for your focus on improving worker and public safety. BTEA members pledge and look forward to continue to work with you, your Councilmember colleagues and the Administration on ways to achieve our mutual goal of making construction sites safer for NYC residents and construction workers.

Best regards,

Louis J. Coletti  
President & CEO

Cc: BTEA Board of Governors  
Member Association Executives



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**BUILDING TRADES EMPLOYERS' ASSOCIATION**  
**REPORT ON**  
**NYC BUILDINGS DEPARTMENT**  
**PROPOSED SAFETY REGISTRATION PROGRAM**  
**NOVEMBER 15, 2012**

**Background**

The New York City Council enacted Local Law 8 of 2009 that concrete, demolition and general contractors obtain a Safety Registration Number from the New York City Department of Buildings in order to do business in NYC. Section 28-420:05 of the legislation requires the Buildings Department “to submit to the Mayor and City Council recommendations for the establishment of objective criteria on which the commissioner may base a determination to commence a proceeding to suspend, revoke or refuse to renew a safety registration number as well as the data used in the analysis and formulation of such recommendations.”

The NYC Buildings Department retained The Louis Berger Group, Inc. which prepared a report dated April 29, 2011, in order to establish the above recommendations. This report has been submitted to the City Council for its review.

Local Law 8 of 2009 also states that the City Council “shall review and may amend this provision to incorporate standards for the revocation and non-renewal of a safety registration number”.

The Buildings Department held several “stakeholders” meetings with industry representatives, including meetings which included participation with their consultant.

With respect to these “stakeholder” meetings, the Louis Berger report states in Chapter 6, Stakeholder Input on page 26:

“There was a general consensus across all four committees that adjudicated ECB violations should form the basis for the development and enforcement of safety criteria”, page 26.

Nothing could be farther from the truth. **Representatives from the construction industry have been consistent and vocal in their opposition to the use of complaint data and adjudicated ECB violations as a basis for the development of safety criteria—and remain opposed to the use of this data for determining safety performance.** The reasoning is discussed later in this Summary Report and is spelled out in detail in the BTEA’s other reports.

The City Council, Bloomberg Administration and Buildings Department are to be commended for undertaking an effort to be the first city in the nation to establish objective criteria in which to determine construction safety performance as an indicator in the registration of construction contractors. It is a difficult and formidable task in which they have invested substantial taxpayer dollars, time and effort in an industry which is highly complex, fragmented and for which data is virtually impossible to be collected for almost any purpose.

The significant challenge in meeting the legislative intent of Local Law 8 Of 2009 is best described by the Louis Berger Group report to DOB when it says on page 25 of its report:

In our literature search, the study team did not identify research work that specifically outlines approaches to set thresholds based on which governments can revoke, suspend, or not renew licenses.

### **BTEA Methodology In Developing Its Conclusions and Recommendations**

The BTEA commissioned three (3) reports in its efforts in an effort to determine an objective set of criteria in which to assess contractor safety performance:

- 1) An HR&A Advisors report A Case Study of Policies and Tools For Promoting Safety In The Construction Industry. The purpose of this report is to identify effective ways to enforce fair and equitable standards to achieve the highest level of construction safety for the

public and workers and to improve the means and methods by which contractors' safety performance can be measured and monitored;

- 2) A Baruch College School of Public Affairs Report Assessing The Validity and Utility of the NYC Department of Buildings Safety Registration Data. This report is an analysis of the DOB data management system (BIS) Business Information System and its capacity to implement the recommended proposal submitted to DOB for the use of complaint data. DOB has since determined not to utilize complaint data for this project. However, the same issues with managing the city's data management system for complaints exist for Environmental Control Board Violations since it is part of the same data system used by DOB. As such, the conclusions and recommendations reached with respect to complaints are applicable for ECB violations.
  
- 3) A Report by Professor John Goering, Ph.D. Baruch College School of Public Affairs and PH.D. Program in Political Science report which reviewed the city consultant's report prepared by The Louis Berger Group.

Full copies of all three (3) of these reports are attached with this Executive Summary.

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on a review of the three (3) reports commissioned by the Building Trades Employers' Association and a review of the Louis Berger Group report to the NYC Department of Buildings, the BTEA makes the following conclusions and recommendations:

#### **Conclusions**

1. The proposed system is overly complicated and subjective;
  
2. The proposed system is premised on substantial data errors and shortcomings acknowledged in the city's own Louis Berger Group consultant report;
  
3. Adjudicated Environmental Control Board Violations are not objective criteria for determining a Company's safety record and/or performance;

4. The Buildings Department lacks the financial resources and organizational capacity necessary to effectively administer and monitor the system proposed;
5. The proposed system is Manhattan high rise centric;
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**1. The proposed system is overly complicated and arbitrary.** The system proposed by the city's consultant is overly complicated and subjective in any form, no much less as a first step in a historic effort to establish a new system to evaluate contractor safety performance.

The system proposed by the Louis Berger Group to the Department of Buildings consists of:

- 1) Five (5) tiers in which safety registrants are placed based on their safety record;
- 2) Varies by size of firm;
- 3) Uses seven (7) different data sources, some of which DOB does not yet collect;
- 4) Has six (6) mitigating factors
- 5) Has a final manual review of data
- 6) Is reviewed every six (6) months

After reviewing all of the above data, some of which DOB does not yet even collect or does so in a sporadic fashion now, the DOB staff would then "assign" a Safety Registrant to one of five Tiers. This is much too complicated and subjective given the nature and newness of what is being attempted and the potential business impact to the trade contractors involved.

In his review of the Louis Berger Group report to DOB, Dr. John Goering of the Baruch College School of Public Affairs says in his report on page 10:

The Berger Report recommends what appears as an unduly complicated,

burdensome and data-fragile system of recommendations for DOB to implement their version of a new safety registration system.

. . .the combination of multiple data sources that are full of recognized errors, inevitable limitations and incompatibilities unlikely to create a clear, fair, cost-effective and unimpeachable enforcement system.

Among a number of related concerns, as this proposed safety system is untested, it remains unclear what the correct weighting and utility of the various data distinctions would be in effectively evaluating and then predicting safety performance.

**2. The Proposal Is Premised Upon Substantial Data Errors and Shortcomings Acknowledged by the Louis Berger Group Report to DOB.** The city consultant's report acknowledges the shortcomings of the BIS data system by stating in its report on page 45:

This fractionalized system represents a challenge for development and implementation of performance measures since seemingly related attributes such as safety registrants and their ECB violations are not readily connected.

In its section on Data Management Recommendations, the Louis Berger report states on page A-12:

To ensure that future DOB data maintains a high level of integrity, the DOB should begin to overhaul how it collects, integrates and manages its data.

The report further recommends on page A-12-13:

1. The current data management structure at DOB is not contiguous and therefore creates groups or inconsistent duplicates within the total data base structure.

2. The current data management approach enhances the possibility of data entry Error since both parties (ECB's AIMS and DOB's BIS systems) input the same data field
3. DOB focus on the management of their database with the sole purpose of eliminating data obstructions.
4. DOB create a data dictionary for the AIMS and BIS databases.
5. DOB institute validation checks and routines.

**3. Adjudicated Environmental Control Board Violations Are Not Objective Criteria For Determining A Company's Safety Record and/or Performance.** In its Technical Appendix to their report, the Louis Berger Group states in its assessment about Adjudicated Environmental Control Board Violation Data:

- ECB Violation Records could not be fully linked to the Safety Registration data because of missing data and other data issues;
- Many of the ECB Violations are not directly linked to contractors;
- A significant amount of the license information entered into the ECB tables cannot be linked to licenses and therefore safety registrants;
- A large portion of the data can be attributed to incorrect data entry. The lack of proper data input inhibits the ability to extract meaningful data relationship from the database rendering it less effective at drawing conclusions;
- The Louis Berger Group identified consistent errors in the coding of violations over time in the ECB table.

Based on these data shortcomings alone is sufficient reason as to why the use of Adjudicated Environmental Control Board Violations should not be used as an indicator of a Safety Registrant's Safety performance.

The HRA&A Advisors report A Case Study of Policies and Tools For Promoting Safety In The Construction Industry also reviewed the issue of using ECB violations as a criteria for safety performance and found:

The HRA&A Report on pages 6-7 shows that:

- the reported number of ECB violations issued increased nearly 50% from 46,000 to 76,000 from 2005 to 2009. (can we put chart in here);
- At the same time, the percentage upheld **declined from 30% to 24% for the same period—an 18% increase.**

The decline in the upholding rate suggests a higher percentage of violations issued that did not stand up in court. The decrease in the number of violation notices upheld by the Board may also suggest that the subjective factors unrelated to an overall increase in safety violations drove the escalation in the rate of violation notice issuance.

The HRA&A report on page 9 also addresses the inconsistency in the quality of inspections by DOB inspectors as well as the subjectivity in interpreting building code violations can only be attributed to the lack of training of inspectors and the broad definition in at least some of the building code requirements.

For example, the Louis Berger Group report to DOB suggests the use of Adjudicated Immediately Hazardous Violations as a safety performance indicator based on the fact that:

Over 40% of the violations cited during the study period were classified as Immediately Hazardous Violations, page.

Yet, the Louis Berger Report to DOB recommends the agency improve its ability to focus on “really serious violations” and finds there is too broad a definition of Immediately Hazardous Violations (Class 1):

We have included a recommendation for a closer examination of violation severity as a factor in the application of the framework. DOB may wish to consider expansion of

the classification system to accommodate an additional category describing the most serious infractions, pages 43-44.

The HRA&A report on page 10 identifies additional reasons which support the conclusion that ECB violations are a poor metric for assessing the safety record of a contractors citing:

- \* Duplicative inspections by multiple city agencies
  - \* Complexity of process for clearing Notices of Violations
- Resources available to analyze data which is described in more detail in the next section of this support report.

The HRA&A report goes on to say on pages 18-19 and pages 24-26:

The reliability of metrics is contingent upon accurate data inputs. The collection of accurate and comprehensive data requires standardized procedures and a well-trained staff.

In reviewing best practices, the report cites the US Department of Labor Occupational Safety and Health Administration's uniform inspector assessment and training called its Functional Competency Model which ensures consistency in inspection reports and details the training of their inspection staff. Compare this to the limitations of DOB inspectors because of a lack of funding and broad definition in building code criteria.

The system proposed by the city's consultant to DOB, in many ways is reminiscent of the city Health Department's restaurant letter-grade rating system. Here is what a recent editorial by the New York Post said about that system:

For the record: Excessive complexity and unfettered discretion, combined with an oppressively heavy fine schedule, breed contempt for government and are an invitation to corruption.

**4. The Buildings Department Lacks The Financial Resources and Organizational Capacity to Effectively Administer and Monitor This Overly Complicated System.**

The Bloomberg Administration has backed up its commitment to public safety over the years by significantly increasing the financial resources it and the City Council has allocated to the Buildings Department for enforcement efforts.

The Department has, as each year goes on, been able to collect more and better data that will allow it to more effectively monitor construction safety.

At its recent 2012 Build Safe/Live Safe Conference, the Department of Buildings presented the most comprehensive set of construction safety data done in any city in the world. Just a few years ago, the best data available to the industry and to policy makers was the data on fatalities that DOB and OSHA outlined annually at the BTEA Safety Conference.

The DOB data now provides such information as:

- Construction Related Accidents
- Construction Related Accidents by Cause
- Construction Related Accident, Injury and Fatalities
- Accidents by Cause, Challenges and Trends
- Worker Fell Contributing Factors by Worker Error, Contractor Error and Material Failure
- Related Trends Over the Last 3 Years

This takes an extraordinary amount of time, money and organizational capacity to accomplish. Central to the feasibility for the Department to establish and maintain a valid, accurate, fair and effective system such as the one proposed in the Louis Berger Report—along with its current responsibilities in the economic environment government, as well as the private sector, is unrealistic and impossible to achieve.

In reviewing the DOB consultant report, Dr. John Goering of the Baruch College of Public Affairs said it best:

The Berger Report fails to address the organizational capacity, staffing and training needs and the need for any additional computer systems necessary to add on to the capacity of the Department of Buildings in order for the Agency to implement the improvements and requirements for the complex new system they have recommended.

. . . it appears hazardous to add additional major new responsibilities on top of the Agency's existing duties especially where there are reasons to be concerned about the adequacy of Agency staffing, training and funding levels to accomplish all of the data management safety reviews and staff changes necessary for a prompt, full and fair implementation of the suggested safety registration system, page 19.

This point was reinforced in a January 27, 2011 NY Times article written by Vivian Marino which showed that budget cuts at DOB have already reduced the number of staff available for the Agency's current workload. Given the outlook of 2012 and future NYC operating budgets challenges and competing priorities—we believe the best approach is to begin a system for evaluating the safety performance of contractors affected by the Safety Registration program, test it, and build upon it using that age old saying KISS—Keep It Simple. . . .

**5.The Consultant's to the Buildings Department Proposed System Is High-Rise and Manhattan Centric.** In one of the only measurable statistical factors on construction safety is the data on construction fatalities compiled by the New York Regional Office of the Occupational Safety Administration which shows since 1973:

- 73% of construction fatalities in NYC have occurred on non-union Construction projects less than 10 stories and outside of Manhattan

High-rise buildings in Manhattan will of course have more ECB violations than other projects because they are subject to a greater number of inspections; more inspections mean more violations are issued.

When analyzing the relationship between jobs and violations, the Louis Berger Group report to DOB states on page A-24:

As expected, safety registrants with more jobs tend to have more violations. The number of jobs positively affects the number of violations.

Page ES-3 of the city consultant Louis Berger Group report states:

While we cannot test the effect of inspections on violation rates directly because of the lack of data regarding the number and type of inspections by job, two findings suggest that the number of inspections positively affects the number of violations:

- 1) Smaller businesses (GC123) have a lower violation rate than larger businesses. Because GC 123 have smaller jobs that are typically subject to fewer inspections, the GC123's lower violation rate may be a reflection of the fewer inspections.
- 2) Assuming the same number of jobs, registrants with at least one proactive Buildings Enforcement Safety Team (BEST Squad) job have more violations than other registrants. Because BEST jobs are subject to frequent proactive inspection, the positive effect of BEST status on the number of violations may be related to the BEST inspection regime.

The Louis Berger Report goes on to say about this issue on page A-34:

While it is important for the DOB to keep track of the registrants with the Highest number of violations, this measure is unsuitable as the sole measure In a fair enforcement system because it does not take into account a registrant's

Workload. Registrants with more work have more risk and therefore Are likely to have more violations even if they respect safety regulations to

The same degree as registrants with less work.

New building jobs, specifically, are more likely to generate violations.

However, the current data does not allow us to do this calculation because most Violations records do not have job numbers, making it impossible to know with Which job type a violation is associated.

#### **6.The Buildings Commissioner Has Sufficient Power and Authority To Protect Public Safety.**

The NYC Administrative Code provides the Commissioner broad discretion to take steps to protect public safety. The Department has in fact taken aggressive action on job sites to do so and we expect will continue to do so.

#### **Establishing Objective Criteria From Which To Determine An Effective Safety Registration Program.**

The research shows that a critical element of reducing construction accidents and fatalities is to identify both leading indicators and lagging indicators that demonstrate a contractor's future performance and lead to the prevention of accidents and fatalities before they occur.

There is much academic research to support the use of leading indicators. With respect to New York City, the best example is the Buildings Department own Major Projects Initiative. According to the Buildings Department 2011 Annual Report "This enhanced approach enables us to better communicate and enforce expectations, proactively address non-compliance—and help keep sites safer for everyone." The results are impressive:

According to the 2011 DOB Annual Report, "This structure changed the way we regulate. Expanding upon our standard duties, we work with developers, construction managers and contractors in pre-construction planning and bi-weekly meetings, and coordinate joint inspections with multiple agencies. **This enhanced approach enables us to better communicate and enforce expectations, proactively address noncompliance—and help keep sites safer for everyone**", page 24.

82% fewer Stop Work Orders

49% fewer violations for complex projects

40% fewer accidents

The HR&A Advisors report on pages E 1-3, found that the most effective practices based on a review of other national best practices by public and private sector organizations include:

- Defining High Quality Metrics
- Assessing Availability of Accurate Data
- Creating Predictable and Accountable Data

The report recommends the use of Experience Modification Ratings as a high quality metric which could be used for this initiative and the following is taken from page 15 of the report:

“The EMR is a standard metric developed by the worker’s compensation insurance industry to set premiums. It compares the ratio of a company’s actual losses based on worker compensation premiums to expected losses based on industry averages. The National Council on Compensation Insurance (NCCI) developed the formula for calculating EMR’s and is one of the largest providers of workman’s compensation data in the nation. The NCCI equation is as follows:

$$\text{EMR} = \frac{\text{Actual Primary Losses} + \text{Weight} \times \text{Actual Excess Losses} + \text{Ballast Value}}{\text{Expected Excess Losses} + \text{Ballast Value}}$$

The equation compares the ratio of actual losses to expected losses based on industry averages. The *ballast* values adjust for the difference in company size; the *weighting values* apply a greater weight to loss frequency over loss severity. In New York State. . . the New York Compensation Ratings Board (NYCIRB) creates these metrics for businesses with annual premiums of at least \$ 5000”, pages 15-16.

The report goes on to state on pages 16-17 that the benefits of EMR as a rating system are:

- It adjusts for differences in company size;
- It does not fluctuate wildly because they rely on a rolling Average of three years of data;
- It more heavily weighs loss frequency over loss severity. This mitigates the impact of “bad luck” that influences losses.

EMR measures are not perfect—there is no metric methodology that exists in the nation that can be cited and used as objective criteria for public policy purposes and thus, NYC is breaking new ground.

The benefit of using EMR despite any weaknesses is the fact that EMR's are used by the insurance industry which suggests that it is a strong metric for assessing contractor safety.

The HRA&A report conducted a study to better understand how other cities measure and monitor contractor safety, pages 11-19. They could not find any city on a similar scale as New York that had adopted a similar safety registration system to monitor contractor performance. In fact:

Buildings departments in many cities left safety inspection to OSHA and focused on scheduled inspections for building code compliance, p.11

In doing so, HRA&A identified Harvard University's Online Contractor Rating System which the university used for building its own projects across its 12 million square foot portfolio. That system used a range of over 30 criteria, both leading and lagging indicators, in order to assess contractor safety performance. Since implementing the system, Harvard staff identified the following positive outcomes in the construction of their facilities:

- There is a higher awareness of contractor safety in the Boston area
- Contractor scores have improved annually
- Contractors complete higher quality projects

New York City is embarking upon a national experiment by seeking to create criteria by which to measure the safety performance of safety registrants. It is uncharted territory and we should proceed cautiously—the implications of not doing so can have a disastrous impact on the construction industry and ultimately the city's ability to grow and build.

Experience Modification Ratings are a nationally and industry wide accepted and effective tool in measuring the safety performance of contractors: unsafe contractors will quickly be priced out of the insurance market and will not be able to compete and build in NYC. EMR's are the most effective, fairest criteria in which to begin this initiative.



**BUILDING TRADES EMPLOYERS' ASSOCIATION**  
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PROPOSAL FOR  
ESTABLISHING OBJECTIVE  
CRITERIA TO DETERMINE THE  
BASIS TO SUSPEND, REVOKE  
OR REFUSE TO RENEW  
SAFETY REGISTRATION  
NUMBER

Final comments to be submitted to the BTEA no later than October 15, 2012.

**SUMMARY OF PROPOSED  
CONCLUSIONS & RECOMMENDATIONS  
IN RESPONSE TO CITY'S  
GC SAFETY REGISTRATION PROPOSAL**

**CONCLUSIONS**

1. The system proposed is overly complicated with safety performance determined by subjective criteria.
2. The system proposed is premised on substantial data errors and shortcomings in data management.
3. Adjudicated ECB violations are not a basis for determining a company's safety record.
4. The Department of Buildings lacks the financial resources and organizational capacity necessary to effectively monitor the proposed system.
5. The proposed system is Manhattan High Rise centric.

**RECOMMENDATIONS**

1. Registrants should be required to submit a corporate safety plan which describes its corporate safety compliance policies and procedures in order to be certified.
2. As part of the Safety Corporate Plan, registrants should be required to describe what information it collects from first – tier subcontractors. At a minimum, the following information should be collected:
  - a. Experience Modification Rates for the most recent 3 years along with a copy of the insurance carrier or state fund verifying the EMR data;
  - b. The 3 most recent years OSHA No. 300/200 log;
  - c. The most recent 3 year total of employee fatalities.
3. A Safety Review Board for each Safety registrant category (3) should be established with the authority to suspend, revoke or refuse to renew a Safety Registrant using the model currently used for the Plumbing and Electrical Licensing Boards.

**9.21.12**

**SAFETY REGISTRATION DRAFT 2**

**Background**

The New York City Council enacted Local Law 8 of 2009 requiring that concrete, demolition and general contractors obtain a Safety Registration Number from the New York City Department of Buildings in order to do business in NYC. Section 28-420:05 of the legislation requires the Buildings Department “to submit to the Mayor and City Council recommendations for the establishment of objective criteria on which the commissioner may base a determination to commence a proceeding to suspend, revoke or refuse to renew a safety registration number as well as the data used in the analysis and formulation of such recommendations.”

The NYC Buildings Department retained The Louis Berger Group, Inc. which prepared a report dated April 29, 2011, in order to establish the above recommendations. This report has been submitted to the City Council for its review.

Local Law 8 of 2009 also states that the City Council “shall review and may amend this provision to incorporate standards for the revocation and non-renewal of a safety registration number”.

The Buildings Department held several “stakeholders” meetings with industry representatives, including meetings which included participation with their consultant.

With respect to these “stakeholder” meetings, the Louis Berger report states in Chapter 6, Stakeholder Input:

“There was a general consensus across all four committees that adjudicated ECB violations should form the basis for the development and enforcement of safety criteria”, page 26.

The consultant's conclusion is without any basis of fact. **Representatives from the construction industry have been consistent and vocal in their opposition to the use of complaint data and adjudicated ECB violations as a basis for the development of safety criteria—and remain opposed to the use of this data for determining safety performance.**

The City Council, Bloomberg Administration and Buildings Department are to be commended for undertaking an effort to be the first city in the nation to establish objective criteria in which to determine construction safety performance as an indicator in the registration of construction contractors. It is a difficult and formidable task in which they have invested substantial taxpayer dollars, time and effort in an industry which is highly complex, fragmented and for which data is virtually impossible to be collected for almost any purpose.

The significant challenge in meeting the legislative intent of Local Law 8 Of 2009 is best described by the Louis Berger Group report to DOB when it says:

In our literature search, the study team did not identify research work that specifically outlines approaches to set thresholds based on which governments can revoke, suspend, or not renew licenses, page 25.

### **BTEA Methodology In Developing Its Conclusions and Recommendations**

The BTEA commissioned three (3) reports in its efforts to determine an objective set of criteria in which to assess contractor safety performance:

- 1) **A Case Study of Policies and Tools For Promoting Safety In The Construction Industry**, by HRA&A Advisors. The purpose of this report is to identify effective ways to enforce fair and equitable standards to achieve the highest level of construction safety for the public and workers and to improve the means and methods by which contractor safety performance can be measured and monitored;

- 2) Assessing The Validity and Utility of the NYC Department of Buildings Safety Registration Data. A report done by the Baruch College School of Public Affairs. This report is an analysis of the DOB data management system (BIS) Business Information System and its capacity to implement the recommended proposal submitted to DOB for the use of complaint data. DOB has since determined not to utilize complaint data for this project. However, the same issues with respect to managing the city's data management system for complaints exists for Environmental Control Board Violations since it is part of the same data system used by DOB. As such, the conclusions and recommendations reached with respect to complaints are applicable for ECB violations.
  
- 3) A Report by Professor John Goering, Ph.D. Baruch College School of Public Affairs and PH.D. Program in Political Science report on the city consultant's report submitted by The Louis Berger Group to the NYC Department of Buildings.

Full copies of all three (3) of these reports are attached with this Executive Summary.

### CONCLUSIONS

Based on a review of the three (3) reports commissioned by the Building Trades Employers' Association, the BTEA makes the following conclusions and recommendations:

**1. THE PROPOSED SYSTEM IS OVERLY COMPLICATED AND SUBJECTIVE.** The system proposed by the city's consultant is overly complicated and based on subjective determinations and should not be used as a first step in a historic effort to establish a system to evaluate contractor safety performance.

The system proposed by the Louis Berger Group to the Department of Buildings is comprised of:

- 1) A five (5) tier system in which safety registrants are placed based on their safety record;
- 2) Varies by size of firm
- 3) Uses seven (7) different data sources, including data which DOB does not yet collect
- 4) Has six (6) different mitigating factors
- 5) Has a final manual review of data
- 6) Is reviewed every six (6) months

After reviewing all of the above data, the DOB staff would then “place” a Safety Registrant in one of the five Tiers. This system is extremely complicated. The determination of what tier a given contractor is placed is based on too many individual factors, some information in which DOB does not yet collect, and is based on the subjective decision of DOB employees.

In his review of the Louis Berger Group report to DOB, Dr. John Goering of the Baruch College School of Public Affairs says in his report:

The Berger Report recommends what appears as an unduly complicated, burdensome and data-fragile system of recommendations for DOB to implement their version of a new safety registration system.

The combination of multiple data sources that are full of recognized errors, inevitable limitations and incompatibilities are unlikely to create a clear, fair, cost-effective and unimpeachable enforcement system.

Among a number of related concerns, as this proposed safety system is untested, it remains unclear what the correct weighting and utility of the various data distinctions would be in effectively evaluating and then predicting safety performance, page 10.

The City's Louis Berger Group Report conducted a broader literature review to identify effective practices in safety performance measurement. Their conclusion:

"In our literature search, the study team did not identify research work that specifically outlines approaches to set thresholds based on which governments can revoke, suspend or not renew licenses, page 25.

The Berger Report outlines the difficulties in setting these thresholds by referring to a report from Jimmie Hinze, a construction safety expert from Florida University who states:

"...the underlying reason for the industry's high rate is its uniqueness; the nature of the site and the parties involved tend to be different every time," page 25

He points out that;

"...these unusual challenges do not justify the greater frequency of accidents but instead only signify that safety must be dealt with differently in construction than in other industries, page 25.

## **2. THE PROPOSAL IS PREMISED UPON SUBSTANTIAL DATA ERRORS AND SHORTCOMINGS.**

The city consultant's report by Louis Berger acknowledges the shortcomings of the BIS data system by stating:

This fractionalized system represents a challenge for development and implementation of performance measures since seemingly related attributes such as safety registrants and their ECB violations are not readily connected, page 45.

In the section on Data Management Recommendations, the Louis Berger report states,

To ensure that future DOB data maintains a high level of integrity, the DOB should begin to overhaul how it collects, integrates and manages its data, page A-12.

The report further recommends:

1. The current data management structure at DOB is not contiguous and therefore creates groups or inconsistent duplicates within the total data base structure.
2. The current data management approach enhances the possibility of data entry error since both parties ( ECB's AIMS and DOB's BIS systems) input the same data field.
3. DOB focus on the management of their database with the sole purpose of eliminating data obstructions.
4. DOB create a data dictionary for the AIMS and BIS databases.
5. DOB institute validation checks and routines, pages A-12 & A-13.

In the Technical Appendix to their report to DOB, the Louis Berger Group states in its assessment about Adjudicated Environmental Control Board Violation Data:

- ECB Violation Records could not be fully linked to the Safety Registration data because of missing data and other data issues;
- Many of the ECB Violations are not directly linked to contractors;
- A significant amount of the license information entered into the ECB tables cannot be linked to licenses and therefore safety registrants;
- A large portion of the data can be attributed to incorrect data entry. The lack of proper data input inhibits the ability to extract meaningful data relationship from the database rendering it less effective at drawing conclusions;
- Consistent errors were identified in the coding of violations over time in the ECB table, pages A1-3.

These data shortcomings alone provide sufficient reason why the use of Adjudicated Environmental Control Board Violations are not an effective indicator of a Safety Registrant's Safety performance and should not be used in making any determination about a contractor's safety record.

The HRA&A Advisors report A Case Study of Policies and Tools For Promoting Safety In The Construction Industry also reviewed the issue of using ECB violations as a criteria for safety performance. This report found that:

1. the reported number of ECB violations issued increased nearly 50% from 46,000 to 76,000 from 2005 to 2009.
2. At the same time, the percentage of ECB violations upheld in court declined from 30% to 24% for the same period—an 18% increase, pages 6 & 7.

The HRA&A report shows the inconsistency in issuing violations by DOB inspectors as well as the subjectivity in interpreting building code violations which can be attributed to the lack of training and the broad definition in at least some of the building code requirements.

For example, the Louis Berger Group report to DOB suggests the use of Adjudicated Immediately Hazardous Violations as a safety performance indicator based on the fact that:

Over 40% of the violations cited during the study period were classified as Immediately Hazardous Violations, page 18.

Yet at the same time, the Louis Berger Report to DOB recommends the agency improve its ability to focus on “really serious violations” and finds there is too broad a definition of Immediately Hazardous Violations (Class 1):

We have included a recommendation for a closer examination of violation severity as a factor in the application of the framework. DOB may wish to consider expansion of the classification system to accommodate an additional category describing the most serious infractions, pages 43-44.

The HRA&A report identifies additional reasons which support the conclusion that ECB violations are a poor metric in assessing the safety record of contractors by citing:

- \* Duplicative inspections by multiple city agencies
- \* Complexity of the process for clearing Notices of Violations
- \* Resources available to analyze data which is described in more detail in the next section of this support report, page 10.

The HRA&A report goes on to further state on pages 18-19 and pages 24-26:

- \* The reliability of metrics is contingent upon accurate data inputs.
- \* The collection of accurate and comprehensive data requires standardized procedures and a well-trained staff.

In reviewing best practices, the HR&A report cites the US Department of Labor Occupational Safety and Health Administration's uniform inspector assessment and training called its Functional Competency Model which ensures consistency in inspection reports and details the training of their inspection staff. Compare this to the limitations of DOB inspectors because of a lack of funding and the broad discretion DOB inspectors have in interpreting the building code with respect to issuing building code violations.

### **3.THE BUILDINGS DEPARTMENT LACKS THE FINANCIAL RESOURCES AND ORGANIZATIONAL CAPACITY TO EFFECTIVELY ADMINISTER AND MONITOR THIS OVERLY COMPLICATED SYSTEM**

The Bloomberg Administration has backed up its commitment to public safety over the years by significantly increasing the financial resources it and the City Council has allocated to the Buildings Department for enforcement efforts.

In reviewing the DOB consultant report, Dr. John Goering of the Baruch College of Public Affairs said it best:

The Berger Report fails to address the organizational capacity, staffing and training needs and the need for any additional computer systems necessary to add on to the capacity of the Department of Buildings in order for the Agency to implement the improvements and requirements for the complex new system they have recommended.

It appears hazardous to add additional major new responsibilities on top of the Agency's existing duties especially where there are reasons to be concerned about the adequacy of Agency staffing, training and funding levels to accomplish all of the data management safety reviews and staff changes necessary for a prompt, full and fair implementation of the suggested safety registration system, page 19.

This point was reinforced in a January 27, 2011 NY Times article written by Vivian Marino which showed that budget cuts at DOB have already reduced the number of staff available for the Agency's current workload. Given the outlook of 2012 and future NYC operating budgets challenges and competing priorities—we believe the best approach is to begin a system for evaluating the safety performance of contractors affected by the Safety Registration program, test it, and build upon it using that age old saying KISS—Keep It Simple. . . .

At its recent 2012 Build Safe/Live Safe Conference, the Department of Buildings presented the most comprehensive set of construction safety data done the City has ever proposed. Just a few years ago, the best data available to the industry and to policy makers was the data on fatalities that DOB and OSHA outlined annually at the BTEA Safety Conference. The DOB data now provides such information as:

- Construction Related Accidents
- Construction Related Accidents By Cause

- Construction Related Accident, Injury and Fatalities
- Accidents By Cause, Challenges and Trends
- Worker Fell Contributing Factors By Worker Error, Contractor Error and Material Failure
- Related Trends Over The Last 3 Years

The implementation of the proposed system will require an extraordinary amount of time, new financial resources and expanded organizational capacity to deliver a flawed product. At a time when the City budget faces overwhelming challenges, it is impossible to conceive that the financial resources, both capital and operational budget dollars, are available to implement this proposal.

#### **4. THE CONSULTANTS TO THE BUILDINGS DEPARTMENT PROPOSED SYSTEM IS HIGH-RISE AND MANHATTAN CENTRIC.**

High-rise buildings in Manhattan will of course have more ECB violations than other projects because they are subject to a greater number of inspections; more inspections mean more violations are issued.

When analyzing the relationship between jobs and violations, the Louis Berger Group report to DOB states:

As expected, safety registrants with more jobs tend to have more violations. The number of jobs positively affects the number of violations, page A-24.

The City's consultant Louis Berger Group report goes on to state:

While we cannot test the effect of inspections on violation rates directly because of the lack of data regarding the number and type of inspections by job, two findings suggest that the number of inspections positively affects the number of violations:

- 1) Smaller businesses (GC123) have a lower violation rate than larger businesses. Because GC 123 have smaller jobs that are typically subject to fewer inspections, the GC123's lower violation rate may be a reflection of the fewer inspections.
  
- 2) Assuming the same number of jobs, registrants with at least one proactive Buildings Enforcement Safety Team (BEST Squad) job have more violations than other registrants. Because BEST jobs are subject to frequent proactive inspection, the positive effect of BEST status on the number of violations may be related to the BEST inspection regime page ES-3.

The Louis Berger Report also states that:

While it is important for the DOB to keep track of the registrants with the highest number of violations, this measure is unsuitable as the sole measure in a fair enforcement system because it does not take into account a registrant's workload.

Registrants with more work have more risk and therefore are likely to have more violations even if they respect safety regulations to the same degree as registrants with less work. New building jobs, specifically, are more likely to generate violations.

However, the current data does not allow us to do this calculation because most violations records do not have job numbers, making it impossible to know with which job type a violation is associated, page ES-4.

## **RECOMMENDATIONS**

The construction industry has a responsibility to work in partnership with government in taking every precaution it can to ensure public and worker safety.

Construction is an inherently dangerous industry. It has the highest worker fatality rate relative to other industries across the United States according to the most recent statistics provided by the U.S. Department of Labor Occupational Safety and Health Administration.

Local Law 8 was enacted to create a system for holding contractors accountable for construction safety. In addition to the provisions requiring general concrete and demolition contractors to obtain a Safety Registration from the NYC Department of Buildings in order to do business, the law also requires Safety Registrants to:

1. Maintain a directory of subcontractors working on each project at the worksite;
2. Maintain special inspection reports as specified in the building code at each worksite;
3. Upon request, submit a plan to reduce the rate of immediately hazardous violations.

In keeping with the intention and spirit of Local Law 8, the following recommendations are made in order to achieve those objectives:

### **1. REGISTRANTS SHOULD BE REQUIRED TO SUBMIT A CORPORATE SAFETY PLAN IN ORDER TO OBTAIN A SAFETY REGISTRATION NUMBER.**

Much like the required Site Safety Plan, registrants should be required to describe their company's Corporate Safety Policies and Procedures. In addition, they should be required to report their Experience Modification Rate for the most recent 3 years along with a copy of their insurance carrier, or state fund (on their letterhead) verifying the EMR data.

The equation compares the ratio of actual losses to expected losses based on industry averages. The *ballast* values adjust for the difference in company size; the *weighting values* apply a greater weight to loss frequency over loss severity. In New York State. . . the New York Compensation Ratings Board (NYCIRB) creates these metrics for businesses with annual premiums of at least \$ 5000:.

The report goes on to state that the benefits of EMR as a rating system are:

1. It adjusts for differences in company size;
2. It does not fluctuate wildly because they rely on a rolling Average of three years of data;
3. It more heavily weighs loss frequency over loss severity.  
This mitigates the impact of “bad luck” that influences losses, page 16 & 17.

EMR measures are not perfect—there is no metric methodology that exists in the nation that can be cited and used as objective criteria for public policy purposes and thus, NYC is breaking new ground. The benefit of using EMR despite any weaknesses is the fact that EMR's are used by the insurance industry which suggests that it is a strong metric for assessing contractor safety.

The HRA&A report conducted a study to better understand how other cities measure and monitor contractor safety. They could not find any city on a similar scale as New York that had adopted a similar safety registration system to monitor contractor performance. In fact:

Buildings departments in many cities left safety inspection to OSHA and focused on scheduled inspections for building code compliance, p.11

With respect to New York City, the best example of how to improve safety is the Buildings Department own Major Projects Initiative.

According to the 2011 DOB Annual Report “This structure changed the way we regulate. Expanding upon our standard duties, we work with developers, construction managers and contractors in pre-construction planning and bi-weekly meetings, and coordinate joint inspections with multiple agencies. **This enhanced approach enables us to better communicate and enforce expectations, proactively address noncompliance—and help keep sites safer for everyone.**”

82% fewer Stop Work Orders

49% fewer violations for complex projects

40% fewer accidents (page 24)

New York City is embarking upon a national experiment by seeking to create criteria by which to measure the safety performance of safety registrants. It is uncharted territory and we should proceed cautiously—the implications of not doing so can have a disastrous impact on the construction industry and ultimately the city's ability to grow and build.

Comments on  
**Safety Registration Report Study: Final Report**  
The Louis Berger Group

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January 2012

[The views and opinions expressed in this report represent only those of the author and not those of CUNY, Baruch College, its officials, or staff.]

# RECOMMENDATIONS

- ◆ Delay implementation of the proposed system until DoB has the necessary resources & recruited and trained the staff necessary to fully implement whatever final safety system is selected.
- ◆ Use a simplified set of rankings to ease administration and burden on the agency & industry.
- ◆ Initiate a pilot demonstration to test the simplified system to show it has corrected the data system problems and errors, added the needed information, and fully informed the industry of what will be required of them.
- ◆ Link the simplified system to industry led front-end training of contractors and subcontractors.

## SUMMARY

- ◆ The Berger Group proposes a complicated, burdensome safety registration system
- ◆ Premised upon acknowledged substantial data errors & system shortcomings
- ◆ With no assessment of the organizational needs & capacity of DoB to effectively manage the proposed system

## The Construction industry is diverse & appears inherently risky

- ◆ OSHA reports higher levels of accidents & fatalities in the industry
- ◆ Smaller firms devote less attention to safety training & management
- ◆ Brennan Center report describes higher fatalities at firms using non-union labor
- ◆ Unclear what *causes* accidents and therefore how to cure

## An unduly complicated safety registration system

- ◆ Five basic tiers- premium to suspension
- ◆ Varied by size of firm
- ◆ Using seven different data sources
- ◆ With six mitigating factors
- ◆ A final manual review of data
- ◆ Repeated every 6 months

## Premium Performers

- ◆ Below industry averages of OSHA incident rates over the last year;
- ◆ Experience Modification rates below 1.0;
- ◆ Below median performance on all other measures;
- ◆ A safety management program in place;
- ◆ No sustained fatal accidents in the prior six months

## Rampant Data Errors and System Flaws

- ◆ Report acknowledges missing & erroneous data
- ◆ Uninterpretable codes
- ◆ “Dirty” data
- ◆ Too many immediately hazardous violations
- ◆ Uncertain validity of ECB case dismissals
- ◆ Lack of timely reporting
- ◆ Arbitrary cut offs on performance

## Crucial Missing Information

- ◆ Berger acknowledges missing information on property ownership; flipping registration numbers
- ◆ Missing building size information
- ◆ Missing building cost data
- ◆ Missing linkages among the various DoB and ECB data systems

## Is DoB up to the job?

- ◆ No objective assessments of the adequacy of agency staffing levels & training
- ◆ Recent reports from the State Comptroller & local community boards questioning staffing adequacy for current responsibilities
- ◆ Potential for substantial numbers of appeals to ECB of downgrades given the risk of losing the right to build

# Baruch COLLEGE

SCHOOL OF PUBLIC AFFAIRS

## Pathways to Improved Safety at New York Construction Sites:

### The Validity & Utility of Safety Registration Data

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February 2011



**Comments on**  
The Louis Berger Group  
Report to  
The New York City Department of Buildings

**“Safety Registration Report Study: Final Report”**

Date of Preparation: April 29, 2011

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Date of Comments: December 2011

NB: The views and opinions expressed in this report represent only those of the author and not those of CUNY, its officials, or staff.

## **Prefatory Comments:**

In early Spring 2010, the School of Public Affairs at Baruch College of CUNY was asked by the Chancellor's Office of CUNY to provide methodological and analytic advice and assistance to the Building Trades Employers Association of New York in their analysis of data and policy issues related to a pending 2009 New York City Council requirement to establish a new system for the safety registration of most building contractors operating within New York City.

As part of this research, in July 2010, we submitted a formal, written FOIA request to the New York City Department of Buildings (DoB) requesting access to an electronic copy of their building code violations data as they were judged central to evaluating the feasibility of creating an automated and reliable safety registration system. (Access to the city's building complaint data was already available to the public on line.)

The City failed to formally reply to this request and never provided access to these data. They offered no explanation as to why they had rejected the FOIA request. Informally I was told that the violations data files were in "poor shape" as their electronic files were not readily useable by outsiders.

The Louis Berger Group (BG) report, which is the subject of this analysis, was however provided access to an electronic copy of the City's building code violations data. The BG report indeed states that: "violations data are the most easily generated measure of contractor safety." Their report, however, includes a 38 page technical appendix which devotes considerable attention to the extensive limitations of DoB's electronic data files and systems. These data then served as the basis for the BG report which is the subject of the following comments.

## EXECUTIVE SUMMARY

### Final Recommendations

- Delay implementation of the proposed system until DoB has the necessary resources & recruited and trained the staff necessary to fully implement whatever final safety system is selected.
- Use a simplified set of rankings to ease administration and burden on the agency & industry.
- Initiate a pilot demonstration to test the simplified system to show it has corrected the data system problems and errors, added the needed information, and fully informed the industry of what will be required of them.
- Link the simplified system to industry led front-end training of contractors and subcontractors.

### Summary

- Four major observations based upon two years of research & a careful analysis of the report by Louis Berger:
  - The construction industry is acknowledge to be dangerous.
  - The Berger Group proposes a complicated, burdensome safety registration system.
  - Premised upon acknowledged substantial data errors & system shortcomings.
  - And lacking any assessment of the organizational needs & capacity of DoB to effectively manage the proposed system

## **The construction Industry is known to be risky**

- OSHA reports higher levels of accidents & fatalities in the industry
- Smaller firms devote less attention to safety training & management
- Brennan Center report describes higher fatalities at firms using non-union labor
- Unclear what *causes* accidents and therefore how to cure; causality is known to be complex

## **They have proposed a quite complicated safety registration system**

- Five basic tiers- premium to suspension
- Varied by size of firm
- Using seven different data sources
- With six mitigating factors
- Followed by a final manual review of data
- Repeated every 6 months

## **They report & acknowledge substantial data errors and system flaws**

The Berger Report acknowledges substantial problems with DoB and ECB's data and system linkages

- missing & erroneous data
- Uninterpretable codes
- "Dirty" data
- Too many immediately hazardous violations
- Uncertain validity of ECB case dismissals
- Lack of timely reporting
- Arbitrary cut offs on performance

## **As well as crucial missing information**

- Berger acknowledges missing information on property ownership; flipping registration numbers.
- Missing building size information.
- Missing building cost data.
- Missing linkages among the various DoB and ECB data systems.

**Leaving unanswered the question of whether and how DoB and ECB can manage these tasks as currently funded and structured**

- No objective assessments of the adequacy of agency staffing levels & training.
- Recent reports from the State Comptroller & local community boards questioning staffing adequacy for current responsibilities.
- Potential for substantial numbers of appeals to ECB of downgrades given the risk of losing the right to build.
- Risk of serious mismanagement unless the system is designed with less complexity, and less burden on the agencies and industry.

### **Opening Observations:**

The Berger Group (BG) has prepared a 46 page report for the City of New York in which they outline a five-tiered system for safety registration of construction firms in the city. Accompanying this basic report is an additional 38 page analysis of the data characteristics, limitations, errors, problems, and recommendations they have for improving the ability of the City to effectively administer any system related to improving worker and site safety.

I find that there are three major interconnected shortcomings, limitations, and challenges that would most likely be associated with the recommendations included in the BG report. Below, then, is a summary of the major concerns and criticisms I have of the BG report on their suggested safety registration system. I outline them below and provide greater detail in the succeeding sections.

### **An Unduly Complicated Safety Enforcement System:**

The BG recommends an unduly complicated and data-fragile system of recommendations for DoB to implement their version of a new safety registration system. The BG recommendations for a viable safety registration system include five component parts:

1. **Five basic tiers**, ranging from “premium” performance to enforcement and suspension.
2. **Varied by size of firm**: These 5 levels they advise should be adjusted and evaluated separately and differently for **3 different size levels** of contractors ranging from small (GC123s), to larger firms operating larger sites, and a third grouping of all other registrants.
3. **Using seven different data sources**: To accomplish these rankings, DoB would need to make use of data from seven (7) different sources: 5 data sources that allow relative or comparative analysis of safety and two absolute valued variables.

4. **Using six mitigating factors:** DoB is then advised to use six “mitigating” factors such as years in business, safety training, and the timely correction of violations to counterbalance the above evaluation criteria (p. 41).
5. **Finalized with a manual review of data:** Finally, GB advises DoB to conduct a “manual review of all violations, stop work orders, EMR rankings, and accident counts...” of all those in tier 4 as well as a “subset” of all others (P. 38). This apparently is to check the accuracy of data that BG knows are problematic and to correct errors before finalizing any rating. This manual review will in consequence delay the release of rankings and readjustments.

In all then, DoB is advised to gather higher quality data from multiple sources, integrate them into a fluid and complex tiered system of ratings, while creating an administrative process that would evaluate and fairly balance a potential matrix of 5x3x7x6 variables for a total of hundreds of potential data pairings. While not each of these pairings will likely occur in the real world, the combination of multiple data sources that are full of recognized errors, inevitable limitations and system incompatibilities appears unlikely to create a clear, fair, cost-effective, and unimpeachable enforcement system.

**Built upon data errors and system shortcomings that appear paralytic for the immediate adoption of the proposed safety system:**

There are a large number of reported DoB data problems, errors, and missing information that appear likely to impede the valid, accurate and comprehensive implementation of the proposed safety system. On p. 45, for example, BG state: “This fractionalized system presents a challenge for development and implementation of performance measures since seemingly related attributes such as safety registrants and their ECB violations are not readily connected.” A substantial number of additional criticisms are described in BG’s long Technical Appendix.

Their report lists and briefly describes a catalogue of data shortcomings, errors, and adjustments that they, BG, had to make to enable them to sensibly analyze the data for their report and recommendations. They offer no indication as to whether these data changes, adjustments, recoding’s, and manipulations have or will be adopted by DoB to enable the agency to utilize the same or comparable analytical categories and precision in evaluating site and contractor safety. It is however clear from my research and theirs that a substantial number of data problems would need to be addressed and corrected before any new safety enforcement system could be sensibly and fairly implemented. There is no timetable and suggested budget for the implementation of this data cleaning and adjustments.

The BG report spends considerable time addressing shortcomings of the City’s own data but does not address the accuracy and limitations of two other major categories of data that they advise must become a part of any final safety registration system: the insurance industry’s Experience Modification Rates and OSHAs categorizations of

safety. There is for example a fairly extensive literature in the fields of safety engineering and building systems management on the limits of EMRs.

It is also left unclear by BG which sources of data are most relevant in measuring and potentially predicting safety problems at the city's construction sites. Which, for example, could be most helpful in judging what the training needs might be for both contractors and the city's DoB staff? It is, then, left unclear how the Council and the City may best evaluate the cost and effectiveness of their proposed safety registration system, to know how to improve it, and to use its results to proactively anticipate safety risks.

BG makes clear that there are a large number of major data system shortcomings and incapacities that must be corrected by DoB prior to any accurate and feasible system for regular and valid monitoring the safety performance of building contractors operating within New York City. It is unclear how long these corrections might require but it is premature to build a complex, burdensome and costly safety registration system on top of the quicksand of data errors and system shortcomings that are described by BG.

DoB would prospectively require much higher levels of management skill, training, and staffing commitments than currently budgeted. It also appears probable that there will also be a need for an increase in the staff needed to adjudicate ECB violations given the prospective increased significance of such adjudications in determining whether or not a firm may be sanctioned and excluded or suspended from operating within NY City.

**With no assessment of the organizational needs and capacity of the Department of Buildings to effectively implement these system changes:**

The BG report does not address the organizational capacity of DoB to effectively implement the safety registration system it describes and recommends. This is a major shortcoming for any policy maker's ability to fully assess the risks and utility of the proposed safety system

There appear sound reasons for the City and Council to be concerned about the operational capacity of the agency based upon recent reports on the performance of DoB about whether the agency has the resources, staff, and computer capability to implement maintain their *existing* enforcement responsibilities (Marino 2011; DiNapoli 2011).<sup>1</sup> The suggestion in the recent State Comptroller's report that DoB had been unable to complete timely inspections of immediately hazardous sites because of staff shortages suggests that the Council might wish to examine the capability of the agency under planned levels of city financing to manage the added staffing, inspections, data acquisition and cleaning, and Remediation Plan review requirements of the safety

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<sup>1</sup> Thomas P. DiNapoli. 2011. "New York City Department of Buildings; Outstanding Violations." Report 2010-N-5. Office of the New York State Comptroller. (December 1).

registration as described (on p. 38 & 40, for example, BG recommends the creation of a new “unit at DoB” that would administer the proposed Safety Registration Program.)

## **Opening Comments:**

The safety of New Yorkers, including construction workers is clearly a commitment of virtually all parties engaged in building in the city. Many of the larger New York construction firms have spent years in developing principles and practices that serve to ensure the safety of workers is a focus of attention. They will typically act to ensure that general and subcontractors are all making use of the best possible safety procedures, as it is in their long-term civic and business interests.

New York though also has a varying number of smaller firms whose activities appear likely to be a source of a number of the building complaints registered with DoB, including the large number of complaints about illegal conversions of apartments and zoning code infractions, including firms operating without the necessary permits. There is then potentially a "tale of two cities" or a bifurcated construction industry with larger, global firms and smaller, ad hoc companies having quite different safety commitments and practices. This structural difference is not apparent in the BG report, except in their recommendation that the city ensure that legitimate firms identities are recorded and in their three part size system.

It would appear useful for the council to carefully consider the nature of the New York construction industry as it is configured to distinguish larger, global and national firms from those whose conduct and operations are less structured, less likely to be permanent, and potentially are more likely to be the cause of predictable building safety violations and complaints.

### ***The construction appears an inherently risky, dangerous profession:***

The safety of workers at construction sites has been an issue of concern for city officials, the construction industry, engineering researchers, and the Federal government over the past several decades. The frequency of worker deaths and accidents as reported by OSHA might suggest an almost permanent crisis of endemic worker safety throughout the United States (Hoonakker et. al. 2005). There is the observation from many studies of safety and accidents that the construction industry in this country is inherently more risk prone than many other professions. As ongoing reports from OSHA make clear, construction firms have more accidents and fatalities suggesting that no known practices or policies likely exist to create a safety prevention system that can immutably reduce accidents, injuries, and deaths to zero.

According to a range of engineering experts, including some at NASA (Greenfield 1998), there are circumstances where the complexity of an engineering problem and the interconnections among the parts of a large-scale development (such as a nuclear plant or large scale real estate development) are so complex that accidents can be seen as "normal" -- even though harmful and unwanted. This can occur when failure in one part (material, human, or organizational) may coincide with the failure of an entirely

different part. This unforeseeable combination may cause cascading failures of other parts.

The social scientist and engineering expert, Charles Perrow (1984), first coined the term "normal accidents" to refer to such engineering processes where "system unravelings" can expose hidden connections, neutralize redundancies, bypass firewalls, and exploit chance circumstances for which no engineer could reasonably plan." The largest and most complex systems appear then, in this formulation, to have the probability of "inevitable failures." These typically are those in which there are concurrent errors or failures by operators, equipment, the design, supplies or materials, and even the environment. There are potentially so many factors involved in such accidents that, Perrow argues, we need to stop "blaming the wrong people and the wrong factors and stop trying to fix the systems in ways that only make them riskier."

It would of course be inappropriate to compare the system complexity of the construction of a low or high rise office building with that of a nuclear power plant or with chemical processing. There are numerous examples of relatively simple residential construction in which there are few major engineering systems involved and few personnel decisions that might lead to a finding of such "normal" accidents. Nonetheless, the theory of normal accidents suggests that analysts of the US construction industry take care in imposing methods that are intended to improve safety when the problem being solved is more complex and fragmented than the suggested solution.

When an investigator or building inspector arrives at a scene of an accident, for example, they have a number of issues that are typically central to an investigation of causes (Abdelhamid and Everett, 2000; Huang 2003; Haslam, et. al 2005). These may include looking at: 1. operator error; 2. faulty system design; 3. mechanical failure; 4. flawed procedures; 5. inadequate training of workers; 6. management or organizational shortcomings; or 7. some combination of the above.

Many engineering experts assume that only a model that captures multiple sources of causation can fully reveal responsibilities and suggest cures (Abdelhamid and Everett 2000; Huang 2003). There is however an apparent tendency, as noted by Greenfield (1998) to cite "operator error" alone as the cause of an accident. Thus the potential complexity and scale of building systems can mean that inspectors or regulators may focus on one, simple set of causes - worker error for example - and avoid addressing the much harder sets of potentially interrelated causes.

In New York, for example, the failure of a crane which led to seven fatalities resulted in the rigging operator, Rapetti Rigging Services, being accused of manslaughter and criminally negligent homicide after the tower crane they were erecting collapsed on East 51<sup>st</sup> in March 2008 (Bray 2010: A21; Crain's 2010). However in July 2010 the New

York's State Supreme Court ruled that the contractor be acquitted. Apparently there were other parts of the crane installation which we plausibly at fault. The technical complexity of the crane installation seemingly meant that under the law the operator could not be found uniquely at fault and therefore liable.

This simple case does not prove there is no operator error and certainly not for other situations and different facts. It does however suggest that some necessary level of construction site complexity would need to be assessed before concluding that the existing system of building inspectors arriving after an accident can quickly or easily establish causes and liability.

It is usually hard to get at root causes of accidents at larger, more complex buildings (Haslam et. al. 2005). The question that arises is how can the City establish a basis by which they can carefully evaluate the component parts of those more technologically complex construction sites and systems used to erect contemporary office and residential structures? How can that information in turn be incorporated into the training procedures used for city inspectors and managers? Even more importantly, how can this information and training get updated as industry practices adapt to technological improvements? And lastly, what data base or system might best be able to capture these risks and safety infractions in a manner that helps ensure better compliance?

The above arguments about the complexity and potential inevitability of some level of accidents does not, of course, mean that nothing can be done to improve construction site safety. A question that does arise is what is the best mixture of voluntary and governmental enforcement practices that can yield the highest level of site safety practice given that the structure of the industry and the inherent risks in the business. Since worker participation is one of the critical ingredients, what are the best means to ensure that workers are trained to adopt and enact maximally safe working practices? If we must regrettably accept the fact that there can be no zero-risk, zero-accident construction sites, what are the best suited policy choices for the city to reduce construction related accidents and risks to the lowest possible level?

***Business Cycles and DoB Workload:*** The level and scale of construction activity in any city or market is, of course, powerfully affected by real estate and economic cycles, as well as by a number of additional liquidity and zoning constraints. That means that in peak periods of demand and credit availability there will most likely be substantially higher levels of building-construction activity than in recessionary or in low demand economies. This well-known fact means that during periods of intense activity, with pressure from developers, lenders, investors, and even the city to complete projects in a timely manner, that many general contractors, subcontractors, and workers may feel under considerable pressure to complete their tasks as rapidly as possible, given titular or nominal commitments to site and worker safety. This time pressure seems logically

linked to riskier actions and behavior. The correlation of high levels of construction activity with periods of high development growth suggests an additional correlation with higher levels of accidents, injuries, and potentially fatalities. This necessarily also will mean that DoB's case or work load will also be driven or affected by such cyclicity. It is unclear how an agency can be staffed to accommodate such fluctuations without some method of balancing front end training responsibilities applicable all to contractors and subcontractors and the new pattern of safety enforcement.

*Are smaller firms of concern?* A final source of concern is about the role and effects of smaller, non-union firms on construction site risk. In a report by the Brennan Center for Justice (2007), they offer a chapter on "Unregulated work in the construction industry in New York City." They collected data on violations and firm practices from 2003 to roughly 2006 and then issued their report in which they address the manner in which site risk increases with smaller, less carefully managed industry segments. They report that it is mainly small, residential contractors that take greater risks than larger companies; they "take more risks than larger companies and are less scrupulous about violating workplace laws." It is in working for these smaller firms, the authors tells us, that unsafe working conditions 'are the most harrowing."

"Unregulated workers lack protective equipment, rarely receive mandated safety training, and can be exposed to hazardous materials. " They go on to report that "...recent studies documented that at least half of Latino worker fatalities were disproportionately coming from the construction industry, largely in the non-union sector." <sup>i</sup>

There are then a handful of research analyses of parts of the US and New York construction industry that uniformly report that the large numbers of small, often non-union firms and subcontractors increases the risk of worker accidents and site safety problems.

It would then logically be a concern for policy makers as to how best to design safety registration, enforcement, and monitoring procedures that can optimize safety maintenance training and procedures at this diverse set of firms, while recognizing that the complexity and normal risks associated with building will engender some level of major to minor accidents.

In the following three sections I provide additional description and analysis of the three basic shortcomings outlined above of the proposed BG safety registration system.

## **Section 1: An Unduly Complicated Safety Registration System:**

The BG recommends what appears as an unduly complicated, burdensome, and data-fragile system of recommendations for DoB to implement their version of a new safety registration system. The BG recommendations for a viable safety registration system include five component parts:

1. **Five basic tiers**, ranging from “premium” performance to enforcement and suspension.
2. **Varied by size of firm**: These 5 levels they advise be adjusted and evaluated separately and differently for **3 different size levels** of contractors ranging from small (GC123s), to larger firms operating larger sites, and a third grouping of all other registrants.
3. **Using seven different data sources**: To accomplish these rankings, DoB would need to make use of data from seven (7) different sources: 5 data sources that allow relative or comparative analysis of safety and two absolute valued variables.
4. **Using six Mitigating Factors**: DoB is then advised to use six “mitigating” factors such as years in business, safety training, and the timely correction of violations to counterbalance the above evaluation criteria (p. 41).
5. **Finalized with a manual review of data**: Finally, GB advises DoB to conduct a “manual review of all violations, stop work orders, EMR rankings, and accident counts...” of all those in tier 4 as well as a “subset” of all others (P. 38). This apparently is to check the accuracy of data that BG knows are problematic and to correct such errors. It will in consequence delay any release of rankings and readjustments.

In all then DoB is advised to gather higher quality data from multiple sources, integrate them into a fluid and complex tiered system of ratings, while creating an administrative process that would evaluate and fairly balance a potential matrix of 5x3x7x6 variables for a total of hundreds if not thousands of potential data pairings. While not each of these pairings will likely occur in the real world, the combination of multiple data sources that are full of recognized errors, inevitable limitations and incompatibilities appears unlikely to create a clear, fair, cost-effective and unimpeachable enforcement system.

Among a number of related concerns, as this proposed safety system is untested, it remains unclear what the correct weighting and utility of the various data distinctions would be in effectively evaluating and then predicting safety performance. Because of their own uncertainty, BG recommends delaying full implementation of this system until it has been tried out, without penalty, for one year, with an additional 6 months delay before the formal inauguration of the safety registration requirements.

*It is unclear why this time period was selected and how it is possible to know whether it is sufficient time unless a staffing and budget plans would accompany the planned system. BG provides no such capability and budget assessment (see next comment). The proposed safety registration system, then, seems a somewhat risky, far distant dream rather than an imminent policy option for the City.*

***Premier performers: A potentially perverse incentive?*** The proposed safety registration categories would create a new, highest tier category of the city's "best performers" labeled "premium performance."

Because many of New York City's largest developers and builders are international or global firms most of them - to remain competitive nationally and internationally - will likely make aggressive efforts to achieve and sustain this top or premier category for business competitiveness purposes. The risk of being downgraded, like a metaphorical S&P downgrade, would likely result in fierce pressure on all parts of the safety registration system to oppose any downgrade. It is unclear, but a potential risk, that some entities would either make use of extensive litigation or perhaps pay substantial sums of money to achieve and sustain the coveted premier standing because of its short and long term economic benefits. That is, there may be perverse incentives built into this proposed system which should be evaluated carefully before being finally enacted into city code.

We are told in chart ES-2 on p. ES-6 that the definition of premium performance includes meeting all the following five performance targets on an annual or semi-annual basis:

- a. Below industry averages of OSHA incident rates over the last year;
- b. Experience Modification rates below 1.0;
- c. Below median performance on all other measures;
- d. A safety management program in place;
- e. No sustained fatal accidents in the prior six months

It is unclear whether or to what degree these five factors may relate to or correlate with each other and are therefore partially redundant. It is equally unclear what relative weight each of these would play in determining the premier standing of the city's registered builders. Should EMR's get a higher priority than an effective safety management plan? Is OSHA's rating more important than or equivalent to site fatalities? As the median performance of the entire industry is moved upwards into ever better safety management practices, does a median calculation mean the same thing as at baseline? If the median adjust upwards continually, will that put de facto pressure on the definition of what premier means? *Are relative measures then to be less preferred than absolute measures to avoid this shift or upwards bias? What is the City's and DoB's goal - relative or absolute improvements?*

Lastly, what are the incentives for larger to smaller firms to press to become one of the best performers (excluding business competitiveness reasons)? Might some competitor firms act inimically to affect the rating of their competitors, thus creating perverse effects given the near impossibility of assuring the confidentiality of firm ratings?

*What should be included in a safety management plan?* What must or should a premier safety management plan include? The content of the listed “safety management plan” (p. 36) is not described in detail. In practice, DoB will need to describe in clarifying rules or program regulations what the average as well as premier performers should include within their safety plans to be judge top tier. If there are ten elements in such a plan, for example, what happens if a firm only currently successfully includes 7 or 8 of the ten? Do they necessarily then fall into the lower tier? Will DoB offer training to new firms on the adoption and effective implementation of safety management practices and plans? Since new firms will not have EMR’s, will other variables be used to substitute for this metric in the short term? How will the effectiveness of these management plans be evaluated in relation to the other 4 criteria used to evaluate high performers?

DoB will necessarily have to offer guidance as to what should be included in such plans and closely monitor performance to ensure a prompt judgment of improvement. The higher the threshold of requirements to meet, the greater the possibilities that some firms may exit New York City or may seek to re-incorporate under a new registrant ID. Are these the intended effects which DoB wishes?

How might the industry’s own voluntary enforcement practices be used to complement and reinforce the limited resources of DoB inspectors and plan examiners?

**Section 2: Data errors and system shortcomings noted in the BG report appear paralytic for the immediate adoption of the proposed safety system:**

The BG report provides a series of comments on and recommendations about the need for additional or improved data which appear central to the effective administration of the complex safety registration and enforcement system they propose. For example, on p. ES-2, they modestly state: "Through the course of this investigation, we have found opportunities for DoB to improve the thoroughness of its data collection or to enhance it with additional information."

These shortcomings appear so pervasive and potentially so serious that the Council should carefully consider the steps necessary to ensure that DoB has re-established a viable and accurate system for recording and tracking its own existing enforcement requirements before undertaking any additional requirements of adding new data and allied enforcement duties.

Once the existing data systems have been improved and standardized as recommended by BG, they should then move to acquire timely and comprehensive data on building square footage and building costs to enable the new system to correctly track the size and complexity of construction by firms over time. This would enable DoB to better track the largest builders and construction firms, and to hopefully also begin to add data on which subcontractors may be also associated with the highest and most serious levels of violations over time.

Below I briefly reference the data problems BG cite in their main report as well as in the detailed data appendix. The purpose is not repetition but rather to highlight the quite large number of data issues and system incompatibilities that they found and that were found during my own research.

Their own report therefore offers ample reasons to be cautious about adopting a required and consequential system of enforcement before the city agency's capabilities have been strengthened and improved so that they might feasibly, fairly and correctly administer any new system for safety registration and suspension.

Below I list a series of data related problems, identified by BG and found in my own research, that appear likely to impede the City from rapidly implementing any new data driven safety management system. They include missing data; erroneous data, systemic data shortcomings, as well as a number of basic design shortcomings:

***Missing Data:***

1. **Absence of building size/square footage.** Among the central issues in establishing any workable system for targeting investigative and remedial resources is to know how large the project or development is. A rehab job of 5 or 10,000 square feet will likely require less concern and oversight than a 1 million or 10 million square development project. The absence of usable data on the

square footage of the construction sites operating in the city makes this targeting impossible. BG states: "Construction floor area has not been consistently recorded for entry in the DoB database" (ES-3) and is one of its recommendations:

2. **Missing Building or Job Cost data:** Related to the above, it appears logical and necessary for DoB to ascertain the complexity of individual jobs and the development activity of firms operating within the city. It is important, according to BG, to know the estimated or initial dollar value of construction budgets. This is another missing piece and they advise that "job cost information be regularly collected by DoB."
3. **Missing accurate information on property ownership:** Among BG's recommendations are for DoB to establish mechanisms by which they can objectively and continually track the changing names and registration numbers of firms. This is required as some firms that are suspended or penalized under one corporate identity could readily move to change firm names and registration numbers. They would thereby appear as a new firm able then to continue working in the city, despite their now invisible prior history of violations and safety failures (A-14). The falsification of corporate names for the purpose of circumventing DoB's existing system poses another risk that must be addressed before being certain that the proposed safety registration system is valid and cannot be readily circumvented.

*Systematic data errors and shortcomings:*

4. **Missing or Erroneous Data.** In their Technical Appendix, BG state they: "identified consistent errors in the coding of violations over time..." (A-3). For example, in 1991, nearly 75% of all cases had missing codes. In 2006, the percent was almost 25% and in 2008 it was 11%. By some undefined means, the error rate dropped to only .2% in 2010. More transparency about how such system improvement have occurred would make it possible to be confident that they are permanent and not idiosyncratic and temporary.
5. **Meaningless Codes still used:** The two top categories for infractions of the building violation codes were labeled "miscellaneous" by DoB, which BG states is "by its nature unclear." (P. A-5). To correct for this problem with DoB codes and erroneous data, the BG created its own system by reclassifying violations into 10 categories. The largest category, which includes nearly 5,000 violations, is however also labeled "miscellaneous." So of the roughly 10,600 violations they coded, 46% are coded in a way that makes their meaning impossible to determine, even by them.
6. **Need to remove duplicative jobs/permit data.** The BG inform us they removed duplicative information they found while trying to link the DoB's Jobs and safety registration files. This appears to mean that multiple general contractors on a site were somehow converted into a single liable entity, although they do not tell us how this was achieved. This also occurs because there are multiple permits for

any single job. There is then no transparency as to how the BG may have established a clear record of permits issues, which GCs are listed as the primary or non-duplicative entity, or even how multiple GCs on a single site might be separately held liable for accidents or safety problems which are in theory uniquely attributable to them. This lack of clarity makes it hazardous to conclude that BG has correctly created data system linkages that could or should be used by DoB as part of any or their future system improvements.

7. **Need to clean dirty data:** The BG informs us in several parts of their report that they were required to “clean” the data they obtained from DoB. This means trying to make sense of poorly coded data files, confusing data entries, or in other cases dropping data codes they found too confusing or ambiguous (e.g. p. A-8). It is unclear how much work BG spent on these changes and whether any of their system changes and adjustments were made to the permanent DoB data files and system linkages. BG tells us what they did to make sense of DoB’s data but we do not learn if any of these adaptations, adjustments, cleansings, or manipulations have now become a permanent part of the DoB data network. Has all of this work and criticism resulted in a better data system for use by the City? If not, how will DoB adapt to all the changes and problems that the BG reports throughout their Technical Appendix?
8. **Beware miraculous data transformations.** On. p. A-8, BG tells us that initially only 61% of the data from their violations data could be linked to complaints data. As shown in table 1.9 (p. a-9), this link could only be made with 56.4% of the 2010 data. By some unknown means, they assert they were able to transform or improve these data marriages up to the rate of 91% - a 30 percentage point increase. While I believe in data miracles, usually so large a reduction in data errors or problems would require more thoughtful and transparent presentation as to exactly how this was achieved in order to be replicable and therefore believable.

*Data System design concerns:*

9. **There is an apparent bias towards inspecting larger sites and contractors:** BG report that smaller firms tend to receive proportionally fewer inspections and therefore are the subject of lower levels of violations (ES-3; “smaller jobs” are “typically subject to fewer inspections...”). The decision to target larger firms may reflect the larger size, complexity or cost of those bigger buildings, but is there not a policy interest in comparably evaluating the safety performance and risk of small jobs and firms whose work may be as or more risky but is simply invisible within the current system? How can DoB know to whom they should best target their inspection and training resources if they lack data on small firm’s behavior?
10. **Should complaints be equivalent to violations?** It is puzzling that BG appears to find some logical basis for seeing citizen complaint data about building and zoning issues, as comparable to and compatible with the types and levels of

violations issued by the agency, DoB. In 2010, they tell us there were roughly 2,500 violations related to illegal conversions but 15,500 complaints. There were also 5,000 “failure to maintain” complaints in 2010 but only 2,700 violations. It is not specified how reader should evaluate the fall-off in numbers; that is, how is the larger volume of pending complaints is converted by DoB into a proportionally smaller set of violations? In the final system for rating safety registrants, which data will take greater priority and why? Are violations less subject to the biases of local neighborhood concerns, or they are truer reflection of the “real” concerns of the community? Which is of greater significance to the Council and the City? As currently presented they appear equally weighted but it is unclear whether they should be.

11. **There are too many immediately hazardous violations:** BG advises DoB to improve its ability to focus attention upon really serious safety issues (pp. 43; 46). They find that there is too broad a definition of what currently constitutes a class 1 violation such that 40% of all violations are classified as immediately hazardous. They recommend a new classification that allows the agency to focus on a new category of “most serious infractions.” This criticism and recommendation suggests, but does not clearly state, that DoB inspectors may in the past have issued an undue, unnecessary number of immediately hazardous violations. The implementation of this recommendation would, however, make it difficult to compare data pre and post change.
12. **The risk of erroneous validity of ECB case dismissals?** BG state (on p. ES-2 and 11), “most violations issued to registrants by inspectors are upheld in the adjudication process.” They say that only 8% of the violations were dismissed by the ECB. However, in a report done for my research team by ECB, their data indicate that for the last several years that a fairly sizeable proportion of cases filed by the agency against builders were later dismissed (I attach a copy of that report). We requested and obtained data from ECB regarding the total number of cases that were found in violation and then dismissed for the period from July 2007 to July 2010. In fiscal years 2008, 2009, and 2010, over one-fifth of all cases were dismissed. There were 8,068 dismissals in 2008, 9,458 in 2009, and another 12,811 in FY 2010. *In the last year then almost one-quarter of all cases (51,795) were dismissed.*<sup>ii</sup> This has then been a fairly large number of cases in which the inspectors’ allegations were found to be incorrect or inappropriate. The later data are not restricted to those who were safety registrants and may not then be fully comparable to the subset of data reported by BG, but the substantially higher rate of dismissals suggests caution about concluding that there is a high level of validity in DoB’s data on issued violations.

It appears worth clarifying with DoB and ECB whether the true rate of dismissals has been over one-fifth of all issuances or less than 10 percent, and therefore if there has been a good deal or a minimal level of errors or corrections in the inspection and violation decisions made by DoB staff. This directly relates

to any potential estimate of the workload for ECB that may result from this new safety registration and appeals system, as well as to the training needed for DoB staff. If the dismissal rate is a constant nearly one-quarter of all cases, there would presumably be a greater need for DoB staff training than if the rate is 8% and declining.

13. **The timeliness of recording corrections of violations appears problematic:** BG note (on p. ES-3; 12; 34), that the current DoB system indicates that a large fraction of violations are not addressed within the required/allowed 40 days, thus making a ranking of timely correction of violations a concern for any proposed system. Delays in ECB hearings or in the timely recording of corrections could result in errors in categorizing safety performance and then, in turn, to appeals or litigation concerning the inaccurate data recordings occurring at DoB and/or ECB. The more importance that is attached to the *timely correction* of violations, the greater the pressure there will be on staffs at both agencies to hold additional hearings and to promptly record information in ways that have not apparently previously occurred. There are clear implications in this requirement for staffing and budgets at both agencies. As this is not addressed in the BG report, it appears problematic to make recommendations about system change without specifying the feasibility of rapidly implementing the recommendations.
14. **Concern about missing effective linkages among parts of the required data system:** "The DoB cannot relate data from one table to another in a stable manner. This jeopardizes the DoB's ability to reproduce threshold metrics in a systemic way." (p. A-14). In addition, on p. 13, BG warns that "...several tables in the DoB database use a different data format making it impossible to cross reference dates between various tables such as permits and ECB violations." This BG observation appears a fundamentally basic critique of DoB's capability to manage the proposed linked system. The Council should be concerned that the required data system linkages that would be needed to effectively measure safety performance currently simply do not exist.
15. **Could EMR's play a more central role?** BG insert the use of EMR's into their system for evaluating contractor performance without any logical or analytic foundation that explains what EMRs are useful for and where they may fall short as a guide to current levels of site safety. They provide a brief assessment of the nature and known limits of EMR's (on p. 25-26; 28; 33; 44). What is not specified is that EMR's are the only measure of safety performance that is directly linked to builder's direct economic interests: namely their cost of doing business. Higher EMR's result in higher and thus potentially less competitive costs. Even with their known limits, given their relative power over such interests it would seem reasonable to suggest that EMR's are a relatively higher priority variable in assessing agency performance and superior in that none of the data gathering falls on the shoulders of DoB.

16. **The 94<sup>th</sup> percentile appears arbitrary:** On p. 32, BG recommends that only the top 6<sup>th</sup> percent of worst violators be subject to close scrutiny.
17. **Is reassessing safety rankings every 6 months too little or too much work for DoB?** BG recommends (p. ES-6) that DoB revise its assessment of safety risks and performance every 6 months, thus requiring new waves of data collection and analysis. This will add additional burden on the agency and it is possible that safety registration applicants may request more frequent quarterly assessments so that a firm could be restored to compliance more rapidly.
18. **“violations are a leading indicator of accidents.”** This statement (p. 19) by BG should not be interpreted that there is any evidence of a causal linkage since the firm made no effort to address the question of what causes accidents at construction sites in New York or elsewhere. It is reasonably well established that a complex of personal, human, job site, and institutional factors may all contribute to accidents and injuries. There is even an argument made that in large complex industrial projects that a certain level of accidents can be anticipated as “normal”. While the theory of “normal accidents” would be anathema to any policy maker or DoB principals, it does suggest that risk is an inherent feature of building tall buildings and constructing complex projects. It is also argued by some that non-union jobs, some using undocumented workers, may have higher levels of accidents because the firms devote little time to training their workers in required safety procedures.

*The lack of understanding of what causes major accidents, and for what types of firms, makes it hazardous to create a complex but flawed fabric that purports to measure risk and accidents but includes no means to know if any of the variables are causally linked to worker or employers behavior.* The City should consider whether long-term evaluation research on what causes improved safety behavior at larger and small sites would facilitate the City’s ability to re-design a system for enforcement that maximized incentives for improved behavior.

### **Section 3: DoB's Organizational Capacity is Unexamined:**

Central to the feasibility for the City to establish and maintain valid, accurate and fair system for safety registration and de-certification is the ability of the agency or organization to operate all its existing obligations in a timely, efficient, fair and credible manner. Because there have been no comprehensive recent evaluations of the organizational efficiency and effectiveness of DoB, it appears hazardous to add additional major new responsibilities on top of the agency's existing duties especially since there are reasons to be concerned about the adequacy of agency staffing, training, and funding levels to accomplish all of the data management, safety reviews, and staffing changes necessary for a prompt, full, and fair implementation of the suggested safety registration system.

The BG report fails to address the organizational capacity, staffing and training needs, and the need for any additional computer systems necessary to add on to the capacity of DoB in order for the agency to implement all of the improvements and requirements for the complex new system they have recommended. Budget cuts at the agency have already reduced the number of staff available for the current workload, without any assessment of what additional staffing and budget would be required to promptly, fairly, and consistently administer the proposed new system for safety examinations and remedies (Marino 2011).

The recent release by the NY State Comptroller of an audit of DoB violation errors suggests that there may be fundamental shortcomings in the capacity of the current DoB system, to handle existing obligations related to safety and violations management. It is therefore arguable that any addition in program operational complexity should be the subject of careful examination and evaluation before it is judged reasonable and cost effective to add additional staffing, computer analysis, data processing, and certification or registration review requirements upon a system that already appears challenged. More anecdotally, the district manager of New York's community board 11 in the Bronx said recently that "the dearth of (DoB) inspectors is shameful." The agency has a great staff, but they can't keep up with the work." <sup>iii</sup>

*No Evaluations of DoB's Data System Accuracy and Objectivity:* Again, there have been no formal or official evaluations or research on the quality and accuracy of DoB's data entry, coding, data processing, corrections of errors, or the timeliness of this major building code violations and accident reporting system. There has also been no careful research which has documented the extent to which all builders/developers operating construction sites throughout the five boroughs are equally and fairly inspected as to their compliance with all aspects of the City's building code.

There have also been no careful assessments of the degree of variation or variance among building code inspectors as they evaluate buildings with comparable construction status as to whether they are consistently rated either the most hazardous

or A rated down through the lower D rankings. No data also have been reported on the extent to which the various Borough or operating offices of the DoB have a record of having consistent or variable interpretations of how the code is to be interpreted and applied.

There are also no reports which address how carefully and routinely DoB building inspectors have been trained and then re-trained on current building technologies and the safety systems used by contractors. The Business Roundtable (1983) however took note decades ago of the need in most states for better training of building code officials. "As matters stand, undertrained building officials do an inconsistent job of enforcing building codes, and often take too long to make decisions" (p. 77).

There have also been a limited number of press reports, for example from October 2009, of "mob infiltration" into the DoB. The *NYTimes* reported that the Buildings department has "a history of corruption scandals" in which building inspectors were charged with extorting bribes to approve projects. Apparently the Manhattan District Attorney also found "corruption and incompetence" by DoB (Hauser 2009). Such case specific allegations and findings do not of course represent data covering the competence or ethical behavior of all current code inspectors. It does suggest concern about how such problems have been corrected through training, better employee selection, improved rates of pay for inspectors, or other techniques that would reduce or eliminate the threat of comparable unprofessional behavior and resulting inaccurate or falsified data. We have no information on these issues however despite a written request to DoB for guidance.

Central to the effectiveness of this enforcement oriented data-base would be questions such as: is there uncertainty, unevenness, or lack of clarity about how data are entered, changed, and reported to the public such that DoB data fail to currently provide an up-to-date, comprehensive, and objective system? The BG report provides a detailed illustration that such error may be rampant within DoB's data systems. As a subset of this larger question, can we ascertain if there currently is a clear and useable method by which DoB and building contractors can quickly and accurately list corrections to violations, thus reducing the number of any errors and false reports of unaddressed violations? Again, the BG report suggests there may well be notable problems in reporting and correcting data in a timely manner. Answering such fundamental data system design and accuracy issues is complex. The current research by both BG and myself have been initial efforts that establish that there are plausible, valid reasons for concern about the accuracy and utility of DoB's data systems for enforcement of the City's proposed "Safety Registration" requirement.

*Are Reliable Data reported by Building Inspectors?* A question that logically arises in assessing the utility of the DoB data system for targeted enforcement is whether the information or data recorded into the system is complete, timely, and accurate. Neither

the BG nor my own research included a formal evaluation of the quality of the data included in DoB-ECB data. Again, the BG report as well as my own interview data, gathered in 2010 from a range of larger building contractors, suggests there are major sources of errors that put at risk the prompt, objective, and fair implementation of any safety registration system.

Adding to these concerns are relatively recent reports that building inspectors have systemically falsified reports of building inspection tests and had been paid bribes for this falsification (Rashbaum 2010). This report was for inspectors at the City's Department of Environmental Protection but it is not inconceivable that such incentives to commit error and fraud exist in other parts of the building inspection system. An additional news account in 2009 reported that organized crime had infiltrated the Department of Buildings taking bribes to "grant building permits, expedite inspections, and overlook building violations." Six inspectors were indicted by the Manhattan District Attorney. An earlier investigation by the District Attorney that found "corruption and incompetence" in the Department of Building's Cranes and Derricks division that resulted in arrests (Hauser 2009).

A final anecdote that raises possible concerns about the utility of data reported into BIS is the apparent falsification of building complaints regarding the illegal conversion of units in buildings into apartments. There were reported complaints against buildings that no longer existed (Dwyer 2010). Apparently individuals or firms would call 311 to file the complaint, cause an inspector to be sent to the site, to be followed by contractors offering to correct the violation for the homeowner.

Policy makers then need to assess the inherent risks associated with using high priority data bases, like DoB's data, to measure safety performance. Might there be too high a risk that the data will virtually inescapably be manipulated to include fraudulent or erroneous information? Might ethical lapses and data manipulation plausibly appear where staff members feel pressure to generate incorrect numbers to meet supervisor's goals? <sup>iv</sup> Certainly, such problems can be corrected in the medium to longer term but only with a non-trivial level of funding for better paid staff, training, and supervision.

The policy concern is, then, whether the incentives to provide good quality, consistent, and fair data might be partially offset by countervailing pressures for bribery and from pressure to generate higher volumes of serious or minor allegations of violations? That is, might the increasingly costly consequences of complaints and violations under the proposed safety registration system cause people to generate false information that should not be relied upon to evaluate improvements and changes in safety management? There appears no answer to this issue suggested in the BG report but it appears prudent for the City Council to assess data system risks as they appear quite probably inherent in the proposed system, just as they occurred in the past.

## Concluding Concerns

***Unreported Safety Issues:*** There is currently no basis to know or estimate how many safety problems or accidents have been *unreported* either through complaints or through the violations issued by inspectors. Given the relatively small number of building inspectors currently employed by the city (the number of actually employed inspectors ranges from 300 to 400, and is currently 337; Marino 2011), the fact that some construction sites may not be near to any residential units that might be the source of complaints, and that some number of construction sites may not have obtained a permit or are quite small (say valued at less than \$1million), it is not unreasonable to assume that the current system fails to capture all accidents or risks in the real world, all problematic violators, and the repetition of violations by those property owners who systematically change the name of their firms as each new site gets its own unique LLC designation. That is, it is not unreasonable to suppose a level of data incompleteness about DoB/BIS information.

The under-enumeration of such real world violations appears then as a shortcoming in any planned effort to use the current DoB data system as a means to fairly, comprehensively, and objectively capture all major safety violators operating in the city and to either terminate or suspend their ability to conduct further business. DoB data are too heavily reliant upon inputs from sources whose accuracy, timeliness, and comprehensiveness cannot be assured without major commitments of additional staffing and resources.

***Front end or/and back end safety policies?*** Enforcement systems, like those used at DoB, are typically back-end or reactive actions taken during or after violations or accidents have occurred.

Preceding and in potential partial substitution to such back-end enforcement are options for more effective front-end training of construction firms, contractors, and workers in their obligations to ensure proper site safety for themselves and their co-workers. The BG report does not address any front-end options for improving the education, training and monitoring of construction sites (except those that may be incorporated into Remedial Plans). The mandatory use of worker training as well as the use of site safety managers who have the ability to impose penalties upon errant subs or workers appears as potentially a logical accompaniment to any back-end enforcement regime. *City policy would seem best designed if it includes all useful options for both front and back end safety programs; government run as well as voluntary industry supported.*

The BG report includes a “safety management plan” requirement as one of the five elements firms need to include in order to be evaluated as a premium performer. However, it seems not unreasonable for the Council to consider and inquire about the merits of institutionalizing required periodic front-end training for all city contractors

and subcontractors, using a system like Harvard's Construct Secure "Contractor Assessment Safety Program." <https://www.constructseer.com/>

Given the above concerns, I advise that the Council and City delay implementation of the proposed safety registration system until such time that the agency has demonstrated that it has corrected the data system problems and errors, added the additional needed information to fully inform the industry of what will be expected of them, and recruited and trained the staff necessary to fully implement whatever final safety system is selected.

As an alternative to the BG proposal, may I suggest the bare outlines of simplified version to ease administration. Once the above data collection and system problems have been addressed, and effective staffing and budgets developed, it seems advisable to make use of a simpler three tier system linked to some form of front end training of contractors and subcontractors. Such a system need include only three levels for evaluation: 1. Satisfactory performers; 2. Remedial level firms; 3. Enforcement and moves to suspend or terminate contractors.

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<sup>i</sup> Brennan Center report op cit.

<sup>ii</sup> These data were provided in a report from ECB staff as: "DoB Decisions rendered (total) from July 2007 to July 2010. Data obtained under FOIA in September 2010.

<sup>iii</sup> The Real Deal. 2011. "Buildings Department Struggles due to Staff Shortages in the Bronx." September 26.

**A Case Study Analysis of Policies and Tools for  
Promoting Safety in the Construction Industry:  
Implications for New York City**

HR&A Advisors, Inc.  
99 Hudson Street  
New York, NY 10013  
2011

## **Executive Summary**

**The Construction Safety Council contracted with HR&A Advisors, Inc. (HR&A) to examine nationwide best practices to inform creation of an enforcement system for the Safety Registration, Local Law 8, passed in New York City in January 2009. This legislation and the requirements it creates for industry are the first of their kind in the nation. The analysis seeks to identify effective ways for the City to enforce fair and equitable standards to achieve the highest level of construction industry safety for workers and the public, and to improve the means and methods by which building contractors' safety performance can be measured and monitored. HR&A analyzed trends in construction industry safety performance and conducted comprehensive case studies of six public and private organizations in the construction industry across the country and their methods for promoting safe work practices.**

**The construction industry is inherently a dangerous one, with the highest worker fatality rate relative to other industries across the United States in 2009. Construction in New York City is particularly dangerous as projects are conducted in a dense urban environment. More workers must function in smaller spaces and in close proximity to other buildings and street activity.**

**Both government regulations and individual company practices promote construction industry safety. In addition to sharing concern for their workers' well-being, contractors have a significant financial interest in maintaining the highest level of safety at their job sites as incident rates are reflected in premiums paid for worker compensation insurance. The unionized construction industry has been particularly active in legislative initiatives to increase industry safety in New York City. These include increasing licensing and certification requirements for various trades, defining more detailed guidance for site safety plans, and redefining coordination of site safety.**

**From the case studies, HR&A identified a framework for establishing an effective safety registration system based on best practices from buildings departments in other cities, as well as other public and private sector organizations nationwide.**

- **Use rigorous metrics to assess contractor safety, including:**
  - Measures of contractor performance that are both leading (demonstrating practices that will support a contractor's future positive performance) and lagging (demonstrating a contractor's past performance);
  - Adjustments to normalize data by contractor and job size; and
  - Adjustments for the severity of infractions.
  
- **Invest in resources and systems to ensure the integrity of the data from which selected metrics draw. Data integrity requires:**
  - Well-resourced staff/inspectors to collect the data;
  - Review processes to validate collected data; and
  - Comprehensive technical databases to monitor information on an on-going basis.
  
- **Create predictable and accountable processes for enforcement, including:**
  - Consistent application of laws and timely adjudication periods; and
  - Industry participation in implementation.

Based on this framework and its application within New York City, HR&A recommends that the New York City Department of Buildings (DOB) implement the following measures as part of the safety registration system:

1. **In measuring contractor performance, use multiple metrics that draw on accurate data and normalize by contractor and job size, such as Experience Modification Ratings (EMRs).** A multi-metric scorecard approach should include leading and lagging measures. While a contractor's past performance can be a good indicator of future performance, lagging measures (such as OSHA citations, EMRs, lost work days, etc.) do not tell the whole story of a contractor's approach to improving safety through policies and worker training. Leading measures (such as safety management policies and programs) are helpful in providing a more comprehensive assessment.

The lagging metrics must be grounded in accurate data, and normalized to ensure that companies with numerous large or complex jobs are not unfairly penalized for having more violations. EMRs already provide this normalization and are used extensively by the workers compensation industry. Use of EMRs also avoids the data quality problems that have been found associated with jobs, permit and complaint data within the City's Building Information Data System (BIS) – problems that would need to be corrected were BIS data to be referenced as part of the safety registration system.

- 2. *Ensure sufficient funding for inspector training to help DOB meet safety monitoring and enforcement goals.*** In order to measure and manage contractor safety performance accurately, DOB must use a reliable set of metrics based in accurate data. Should DOB opt for a multi-metric evaluation system that draws in part on DOB violations data, collection of accurate data is dependent upon highly trained inspectors incentivized to meet department goals. The City should ensure that DOB has the financial resources to provide up-to-date, best-in-class training for inspectors.
  
- 3. *Partner with industry to establish predictable and accountable processes.*** A Construction Safety Board for New York City could engage labor, contractors, real estate owners and developers, and researchers to find workable solutions for ensuring construction site safety. The City could enhance the process both for refining the criteria for defining "safe" contractors and for creating the procedures to ensure that unsafe contractors improve their safety practices by establishing a formal advisory role for the construction industry. Similar partnerships between government and industry have proved useful in other communities as a means to share ideas and advance safety agendas.

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## Introduction

The Construction Safety Council contracted with HR&A Advisors, Inc. (HR&A) to examine nationwide best practices to inform creation of an enforcement system for the Safety Registration, Local Law 8, passed in New York City in January 2009. This legislation and the requirements it creates for industry are the first of their kind in the nation. The analysis seeks to identify effective ways for the City to enforce standards to achieve the highest level of construction industry safety.

HR&A is an economic development, real estate, and public policy consulting firm based in New York City. The findings and recommendations included in this report are those of HR&A.

HR&A conducted a two-part study to inform implementation of the safety registration legislation:

1. The first section on *Promoting Safe Work Practices* reviews recent trends in industry safety in New York City and enforcement by the New York City Department of Buildings (DOB).
2. The second section – *Case Studies: Best Practices in Safety Regulation* – provides a series of case studies to assess how agencies and organizations in other cities manage and enforce construction safety. These case studies were developed based on in-depth discussions with staff members at the various organizations. They are intended to highlight other approaches that New York City should consider to increase the efficacy of enforcement for the highest safety standards.

HR&A also analyzed the economic and fiscal impacts of the construction industry using an IMPLAN economic model.<sup>1</sup> *Appendix: The Role of the Construction Industry in New York City* presents this analysis.

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<sup>1</sup>IMPLAN (Impact Analysis for PLANNing) is a widely-recognized modeling tool developed at the University of Minnesota with the U.S. Forest Service's Land Management Planning Unit. It generates estimates of economic output as well as secondary and induced employment and output based on a series of inputs. IMPLAN traces the pattern of commodity purchases and sales between industries that are associated with each dollar's worth of a product or service sold to a customer, analyzing interactions among 440 industrial sectors for the City of New York. IMPLAN is used for the preparation of economic impact analyses by many public and private entities throughout the U.S. Industry data is updated annually and would be specifically customized to the study area.

<sup>2</sup> An Environmental Control Board (ECB) Notice of Violation is given when a property does not comply with applicable

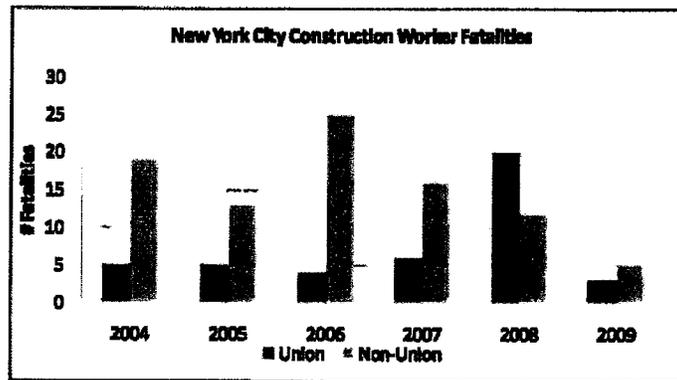
## Promoting Safe Work Practices

**Construction occupations are among the most dangerous in the United States.** Workers use heavy equipment and materials to complete complex building designs. Workers face daily risks from their own on-the-job activities as well as the activities of those around them. The following graph illustrates 2009 occupational fatalities by industry nationwide. As shown in the graph below, the construction industry reported just over 800 fatal occupational injuries, the highest number among all industries measured. The five industries shown account for 66% of the total fatal occupational injuries nationwide, suggesting risk is highly concentrated. The construction industry alone accounts for 20% of occupational fatalities across all industries measured.



Source: OSHA, 2009, Table 2 Fatal occupational injuries by Industry

The construction of high rise commercial and residential structures in an already dense urban environment is a challenging process both logistically and in the actual construction. This type of sophisticated construction requires a highly trained work force. The strength of the unionized construction industry is evident in its safety record. In New York City, the unionized construction industry had fewer fatalities in five of six years from 2004-2009 than the non-unionized construction workforce. Moreover, non-unionized workers account for only 25% of the industry. The fatality rate per worker is therefore significantly higher among non-unionized workers than among the unionized construction industry.



Source: U.S. Department of Labor Occupational Health and Safety Administration, New York Office (October 2003-September 2009)

***Both individual contractors and government regulators take responsibility for safety enforcement.*** It is in every company's interest to promote safe work practices at all levels because higher worker incident rates are reflected in higher workers compensation premiums. Companies therefore develop and implement their own safety management practices. In New York City government, DOB has the primary responsibility for enforcing safe work practices on construction sites through regularly scheduled and spontaneous inspections. In other jurisdictions, the Occupational Safety and Health Administration (OSHA) plays a primary role in enforcement on construction sites.

***The unionized construction industry has promoted safe work practices extensively.*** The unionized construction industry partnered with the Bloomberg Administration, DOB, and the New York City Council to advance a number of legislative initiatives to improve worker safety. These include increasing licensing and certification requirements for various trades, defining more detailed guidance for site safety plans, and redefining coordination of site safety. The following table highlights key local laws (LL) in which the unionized construction industry worked closely with the City.

### **Collaboration Between New York City Government and the Construction Industry:**

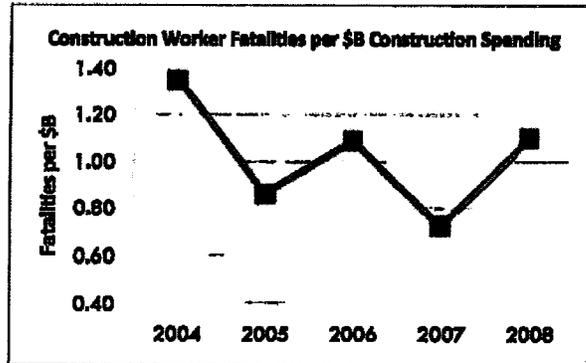
### Key Local Laws (LL)

2008
<ul style="list-style-type: none"><li>• Certification requirement for scaffolding work (LL 24)</li><li>• Structural Inspections (LL 33)</li><li>• Retaining wall inspection, maintenance, and repair (LL 37)</li><li>• Concrete safety managers (LL 40)</li><li>• Enhanced site-specific safety plans (LL 41)</li><li>• Training for tower crane workers and riggers (LL 44)</li><li>• Licensing requirements for tower and climber cranes and riggers (LL 46)</li></ul>
2009
<ul style="list-style-type: none"><li>• Safety registration (LL 8)</li><li>• Smoking prohibition at abatement sites (LL 35)</li><li>• Required painting of standpipes and sprinklers (LL 58)</li><li>• Site safety manager and coordinator requirements (LL 59)</li><li>• New requirements for standpipes and sprinklers (LL 60 and LL63)</li></ul>

While safety has always been at the forefront of the City and Industry's agendas, industry safety practices and the City's role in monitoring them underwent increasing scrutiny following several high profile accidents in 2007-2008. These accidents, such as the Deutsche Bank Fire in 2007 that killed two firefighters and the crane collapse at a residential project on East 51<sup>st</sup> Street in 2008 that caused seven fatalities, received national attention and a new focus on safety by all levels of government and the private sector.

These accidents were devastating. However it is important to consider them within the larger context of construction activity at the time. The amount of construction from 2006-2008 was at unprecedented levels, causing pressure in the industry and more competition for qualified workers. Comparing the amount of industry activities with the number of fatalities actually shows a fluctuating rate since 2004. It is also important to note that fatalities only include construction industry workers. Several incidents resulted in pedestrian fatalities, but this information is not collected by OSHA.

Appendix A Study Analysis of Policies and Tools for Promoting Safety in the Construction Industry



Sources: U.S. Department of Labor, Occupational Safety and Health Administration, New York Regional Office; New York Building Congress, FW Dodge, Public Capital Budgets/Plans, & Urbanomics; HR&A analysis

The graph below illustrates the number of inspections per billion of construction spending in New York City and suggests that from 2005-2007, the DOB inspection rate did not keep pace with the increasing rate of construction spending as the number of inspections per billion in spending declined. However, this rate reversed both following the years of several high profile construction incidents and decrease in overall spending in 2009.

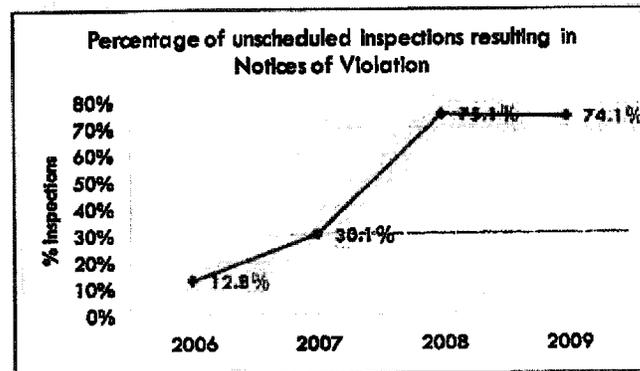


Sources: 2009 Mayor's Management Report, New York Building Congress, FW Dodge, Public Capital Budgets/Plans, & Urbanomics; HR&A analysis

An outcome of the higher numbers of inspections—particularly unscheduled ones—was significantly higher numbers of Environmental Control Board (ECB) Notices of Violation.<sup>2</sup> Based on the evidence of the dramatic increase in the rate of violation notices issued per inspection, DOB

<sup>2</sup> An Environmental Control Board (ECB) Notice of Violation is given when a property does not comply with applicable provisions of the law and includes an order to correct the violation. Organizations contesting the violation must attend a hearing at the ECB. This includes notices for both construction and existing buildings.

stepped up enforcement efforts following the accidents of 2007-2008. The percentage of unscheduled inspections resulting in Notices of Violation increased from 30% in 2007 to over 70% in 2008 and again in 2009.



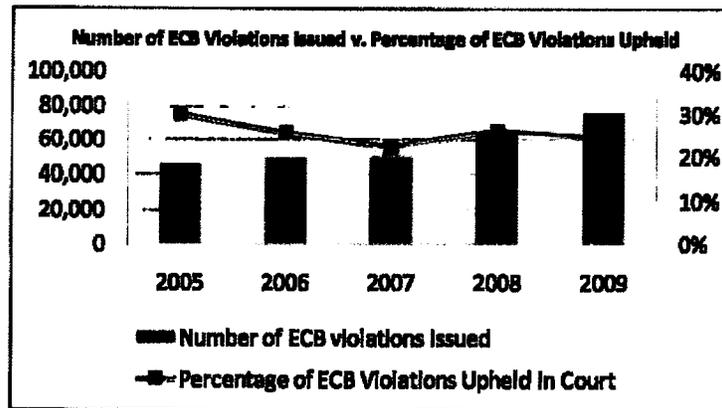
Source: 2009 Mayor's Management Report.

Additional evidence from individual contractors demonstrates the impact of the Department's enforcement efforts. Combined data from two major contractors show an 86% increase in the number of Notice of Violations issued from 2008-2009. Construction activity during this time, however, remained flat at 114 projects in 2008 and 112 projects in 2009.<sup>3</sup>

The reported number of ECB violations issued increased by nearly 50% from 46,000 to 76,000 from 2005 to 2009, illustrated on the following chart. At the same time, the percentage upheld by the Board declined from 30% to 24% from 2005 to 2009, an 18% decrease. The decline in the upholding rate suggests a higher percentage of violations issued that did not stand up in court. The parallel increase in the rate of scheduled inspections resulting in Notices of Violation and decrease in the number of violation notices upheld by the Board may also suggest that subjective factors unrelated to an overall increase in safety violations drove the escalation in the rate of violation notice issuance.

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<sup>3</sup> Mayor's Management Report, 2009.



Source: 2009 Mayor's Management Report.

Not only did DOB increase the number of Notices of Violations, it also increased the number of stop work orders issued. The increase is particularly pronounced from 2007-2008 when the number of stop work orders per billion in spending increased by 25%. This number, however, declined in 2009.



Source: 2009 Mayor's Management Report, New York Building Congress, FW Dodge, Public Capital Budgets/Plans, & Urbanomics; HR&A Analysis

While stop work orders are clearly important tools for DOB to protect the safety of the public, they do generate negative economic impacts to both the contractor and the City of New York. According to a survey of leading contractors, a typical high rise development project has approximately 175 workers on site at a time. A survey by the Real Estate Board of New York (REBNY) of large general contractors found that due to stop work orders:

- 100,000 worker days lost from 2008-2009;
- \$65 million in lost wages and benefits.

These losses also result in lost consumer spending to neighborhood businesses and lost tax revenues to the City of New York.

**Local Law 8 was developed to strengthen construction industry safety by creating a system for holding contractors accountable.** The industry worked closely with the City on the development of Local Law 8, which passed in January 2009. This law requires any entity performing work requiring a building permit to obtain a safety registration number. The number would enable DOB to track contractor safety records across a range of projects. In addition, the law requires safety registrants to:

- Maintain a directory of subcontract information on each worksite.
- Maintain special inspection reports as specified in the building code.
- Upon request, submit a plan to reduce the rate of hazardous violations.

This law also holds general contractors accountable for the safety of any work done by subcontractors on the site, although subcontractors do not have to obtain an individual safety registration number.

The text for Local Law 8 did not include specific provisions for enforcing the law. Instead, it deferred to DOB to consult with key stakeholders and develop a slate of objective criteria on which the Commissioner would base suspension or revocation of a contractor's safety registration based on poor safety practices.

Preliminary discussions regarding enforcement mechanisms focused on DOB's enforcement data as the best source of information to use as a basis for evaluating contractors. The violations data is the only comprehensive source of information on contractor activities.

**The industry raised a number of concerns about using violations data as the basis for enforcement of the safety registration law.** Construction Safety Council members identified the following weaknesses in the data that constrain its accuracy.

- **Inspection Quality Issues:**

- **Inconsistency in Inspections.** Contractors believe there are significant inconsistencies in the quality of inspections conducted by DOB staff members. While comprehensive, the Building Code cannot specify safety requirements for every single situation that arises. Some evaluations are done at the inspectors' discretion and violations may be issued for failure to safeguard general health and safety. However, within these circumstances contractors report significant inconsistencies in code interpretation. One inspector may not issue a violation for a construction practice, but a different inspector may issue a violation the following week for the same situation. The contractors assert these inconsistencies are due to a lack of training and qualified inspectors.
- **Vagueness of the Building Code.** Contractors assert the Building Code is not specific enough in its definition of the term "hazardous". As a result, there are significant inconsistencies in what constitutes a hazardous violation.

- **Violations Data Issues:**

- **Lack of a comprehensive data management system.** The DOB and the ECB maintain separate data systems. Violations information must be imported from DOB to ECB, which sometimes results in missing information and data errors.<sup>4</sup>
- **Lack of basis for comparing data.** Contractors indicated that DOB had no way to adjust for the size or complexity of projects when comparing the number of violations per contractor.

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<sup>4</sup> A comprehensive discussion of data issues related to inspections and Safety Registration is included in *Pathways to Improved Safety at New York Construction Sites: The Validity and Utility of Safety Registration Data* written by John Goering, Ph.D., et al. at the School of Public Affairs, Baruch College, The City University of New York, conducted in parallel with this study.

- **Inspections Process Issues:**

- **Duplicative inspections.** Both DOB and the Fire Department issue violations for non-compliance with the fire code, resulting in violation notices from multiple agencies for the same infraction.
- **Complexity of process for clearing Notices of Violations.** Contractors find that the process for clearing violations is unpredictable, inconsistent and plagued by data deficiencies and subjective review.
- **Resources to analyze data.** Contractors find that inspectors lack adequate training, time, and support staff to analyze inspection data accurately and follow up using an effective process.

As a result of these issues, the construction industry does not believe that the data systems are in place at DOB to enforce the safety registration law in a manner that is accurate, fair and efficient.

## Case Studies: Best Practices in Safety Regulation

HR&A conducted a study to better understand how other cities measure and monitor contractor safety. We could not find a city on a similar scale to New York City that had adopted a similar safety registration system to monitor contractor performance. In fact, buildings departments in many cities left safety inspections to OSHA and focused on scheduled inspections for building code compliance.

As an alternative, we identified a set of case studies that address practices related to the inspections quality, data quality and inspections process issues identified by Construction Safety Council members. The case studies included:

- Harvard University's Online Contractor Rating System
- OSHA's data management system and Inspector training system
- The International Code Council training system
- The Department of Development Services in Clark County, Nevada
- The City of Indianapolis Department of Buildings
- Experience Modification Ratings developed by the National Council on Compensation Insurance

The case studies suggested and are organized within this section of the report according to the following framework for establishing an effective safety registration system:

- **Use rigorous metrics to assess contractor safety, incorporating:**
  - Measures of contractor performance that are both leading (demonstrating practices that will support a contractor's future positive performance) and lagging (demonstrating a contractor's past performance);
  - Adjustments to normalize data by contractor and job size; and
  - Adjustments for the severity of infractions.

- ***Invest in resources and systems to ensure the integrity of the data from which selected metrics draw. Data integrity requires:***
  - Well-resourced staff/inspectors to collect the data;
  - Review processes to validate collected data; and
  - Comprehensive technical databases to monitor information on an on-going basis.
  
- ***Create predictable and accountable processes for enforcement, including:***
  - Consistent application of laws and timely adjudication periods; and
  - Industry participation in implementation.

While HR&A was not able to nor attempted to complete a formal evaluation of the Department of Buildings' existing processes without the agency's direct cooperation, the goal of the case studies is to highlight ways the DOB could improve its processes to enforce safety standards.

## **RIGOROUS METRICS TO ASSESS CONTRACTOR SAFETY**

The ability to collect accurate, timely, and comprehensive metrics is a critical component of management functions from Fortune 500 companies to government agencies. In implementing Local Law 8, DOB must determine the most effective way to measure contractor safety performance. Hinze and Godfrey found "The ideal measure of safety should be able to quickly measure performance at a point in time, predict trends, and quickly measure the impact of interventions to improve performance."<sup>5</sup> The following case studies provide examples of mechanisms for measuring contractor safety used by other organizations.

### **1. Harvard University's Online Contractor Rating System integrates multiple leading and lagging metrics to assess contractor safety.**

*The Harvard University Buildings Department oversees a range of construction and renovation activities across its 12 million SF portfolio. At any given time, the University has over 100 active construction projects. It maintains a database of over 3,000 active contractors. Sizes of projects range from the construction of complex, new facilities to renovations of historic buildings to minor repairs. Similarly, sizes of contractors range from multi-national firms to tradesmen with small, local firms.*

Harvard became concerned with how to manage the range of contractors to:

1. Maintain the highest safety standards and minimize accidents on a consistent basis.
2. Protect the University's reputation.
3. Manage the activities of a range of contractors effectively.

*Harvard developed an online system with a standard methodology for assessing contractor performance. The online system uses a range of over 30 criteria to assess contractor safety. The criteria are based on:*

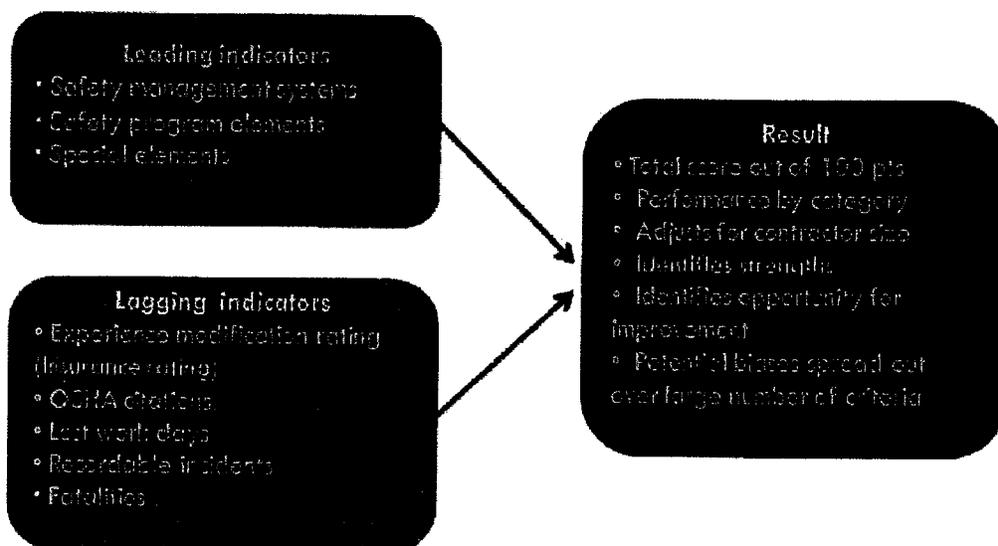
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<sup>5</sup> Hinze Jimmie and Raymond Godfrey. 2003. *An Evaluation of Safety Performance Measures for Construction Projects*. Journal of Construction Research, p. 6

- **Lagging indicators that demonstrate a contractor's past performance. These include:**
  - Number of citations from OSHA
  - Experience Modification Rate (EMRs). These rates are produced by insurance companies or workers compensation boards to measure the amount of premiums paid by a company relative to the dollar volume of claims.
  - Lost work days.
  - Recordable Incidents.
  - Fatalities.
  
- **Leading indicators that demonstrate practices that will support a contractor's future positive performance. These include:**
  - Company-wide safety management policies.
  - Company-wide safety management program (e.g, use headgear).
  - Special elements, such as a substance abuse policy, employee drug testing, and a return to work program.

Contractors enter their information into a password-protected online system. Lagging indicators are normalized based on contractor size. This adjustment allows comparison of indicators across contractors of different sizes. Certain items, such as a company safety manual, are required to receive a score. Companies lose points for failing to include other items, such as the special elements. The system also has minor customizations by contractor type, as different types of safety equipment are required for different trades.

## Harvard Online Safety Rating System



**Completion of the online forms produces a standardized safety assessment score that can be used to compare performance across contractors. The safety assessment score is on a scale of 0-100 points. Construction project managers use the scores in a variety of ways. Contractors must update information every year, so managers can track the records of contractors on multi-year projects. The scores also help managers identify firms for new projects. Low scoring contractors are not prevented from working on projects for Harvard. However, these contractors receive more oversight and are more actively managed by Harvard project managers and general contractors, in the case of trades.**

**Since implementing the system, Harvard staff members have identified a number of positive outcomes.**

- **There is a higher awareness of contractor safety in the Boston area.** Since Harvard is such a large contributor to the Boston area economy, a large percentage of firms do business with the University and have therefore been required to use the system.
- **Contractor scores have improved annually.** As contractors become more aware of the requirements to receive a high score and have had time to implement measures, scores have improved by approximately 15 percentage points since 2008. The program has

translated into improved safety entity-wide. When the program started, Harvard's incident rate was more than twice the national average, now it is less than half.

- **Contractors complete higher quality projects.** Safety and quality go hand in hand. As contractors have adopted higher safety standards, the quality of their work has improved.
- **Contractors use certificates of completion, which include scores, as a marketing tool.** The online system produces a printable certificate that contractors can hang in their offices or post electronically online.

The Harvard system has been so successful for the University that it recently spun it off as a start-up company ConstructSecure the launch the program on a national platform.

## **2. Experience Modification Ratings (EMRs) provide uniform risk assessment based on worker compensation insurance premiums.**

The EMR is a standard metric developed by the workers compensation insurance industry to set premiums. It compares the ratio of a company's actual losses based on workers compensation premiums to expected losses based on industry averages.

The National Council on Compensation Insurance (NCCI) developed the formula for calculating EMRs and is one of the largest providers of workers compensation data. The NCCI equation, which is used by organizations across the country, is as follows:

$$EMR = \text{Actual Primary Losses} + \text{Weight} \times \text{Actual Excess Losses} + \text{Ballast Value} \\ + (1 - \text{Weight}) \times \text{Expected Excess Losses} + \text{Expected Losses} + \text{Ballast Value}^6$$

The equation effectively compares the ratio of actual losses to expected losses based on industry averages. The *ballast values* adjust for differences in company size. The *weighting values* apply a greater weight to loss frequency over loss severity.

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<sup>6</sup> Everett, John G. and Willard S. Thompson (1995) *Experience Modification Rating for Workers Compensation Insurance*. Journal of Construction Engineering and Management. Volume 121, No 1. p. 69.

In New York State, the New York Compensation Insurance Ratings Board (NYCIRB), a non-profit association of licensed insurance companies, creates these metrics for businesses with annual premiums of at least \$5000. The organization develops ratings based on actuarial analyses to ensure fair and standard insurance premiums. By aggregating premium and claims information across the industry, the NYCIRB develops comprehensive metrics of company safety relative to the industry.

As claim and premium values vary by contractor size, taking a ratio creates a value that can be compared across organizations. Insurance companies use EMRs to calculate insurance premiums for future years. Companies with EMRs that are higher than the industry average pay higher premiums.

The benefits of EMRs as a rating are:

- They adjust for differences in company size.
- They do not fluctuate wildly because they rely on a rolling average of three years of data.
- They more heavily weight loss frequency over loss severity. This mitigates the impact of "bad luck" that influences losses.

#### EMR Ratio Use

Industry Average Index Value = 1.0

Alpha Company EMR = 1.2

Alpha Company will pay 20% higher premiums

However, the measure is not perfect. Weaknesses identified in research by Everett and Thompson<sup>7</sup> include:

- Payroll differences affect EMRs, even taking the weighting and ballast values into account, higher wages tend to generate a lower EMR.
- EMRs do not reflect the full cost of accidents, such as lost productivity, litigation, administrative time, wages not worked, etc.

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<sup>7</sup> Everett, John G. and William Thompson. *Experience Modification Rating for Workers Compensation Insurance*. Journal of Construction Engineering and Management. Vol. 121, No 1. March 1995.

**Despite the weaknesses, the fact that EMR is widely used by the insurance industry suggests that it is a strong metric for assessing contractor safety.**

## **SYSTEMS THAT ENSURE DATA INTEGRITY**

The reliability of metrics is contingent upon accurate data inputs. The collection of accurate and comprehensive data requires standardized procedures and a well-trained staff. Agency sponsored training—either in-house or through partnerships—is the most important tool for supporting staff development. The following case studies describe how agencies resource and manage their data collection efforts to ensure data validity, as well as training approaches that enhance staff capacity.

### **1. OSHA's uniform inspector assessment ensures consistency in inspection reports.**

OSHA's 2,000 health and safety inspectors conduct over 90,000 inspections annually nationwide. Inspectors are based out of 70 field offices across the country. The decentralized network of offices creates several challenges. OSHA must ensure that:

- Inspections are conducted consistently across offices and staff members.
- Inspections must be conducted consistently across industries.

OSHA deploys several resources to enforce inspection consistency. The first is a data management system that tracks inspection reports for consistency. The second is a competency-based training curriculum.

Inspectors enter reports into a centralized database. In addition to tracking the results of inspections for individual organizations, the system evaluates the quality of inspections across inspectors. The system aggregates data by inspector including:

- Number of hazards cited;
- Range of hazards cited;
- Level of hazards cited;
- Value of penalties proposed; and
- Time to submit file.

Tracking these statistics facilitates rigorous management and evaluation of inspector performance and consistency. The system can compare a range of data points across offices and inspectors. Examples of inputs the system flags for the central office based on outliers in the performance data include:

- An inspector who cites significantly fewer hazards than average.
- An inspector who cites a narrower range of hazards than average.
- An inspector who proposes penalties significantly higher (or lower) than average.
- An inspector who enters files too quickly (or too slowly).

*OSHA's data management system capabilities support consistent application of health and safety regulations.*

This analysis of averages and trends can identify inspectors or offices that are deviating significantly from the norms. OSHA staff can then follow up with these individuals or offices to determine whether the outliers are accurate. If deficiencies are discovered, OSHA can investigate whether the problems are due to a lack of staff training, management procedures, or outright fraud and take appropriate corrective action.

## **2. OSHA promotes staff excellence through competency-based training.**

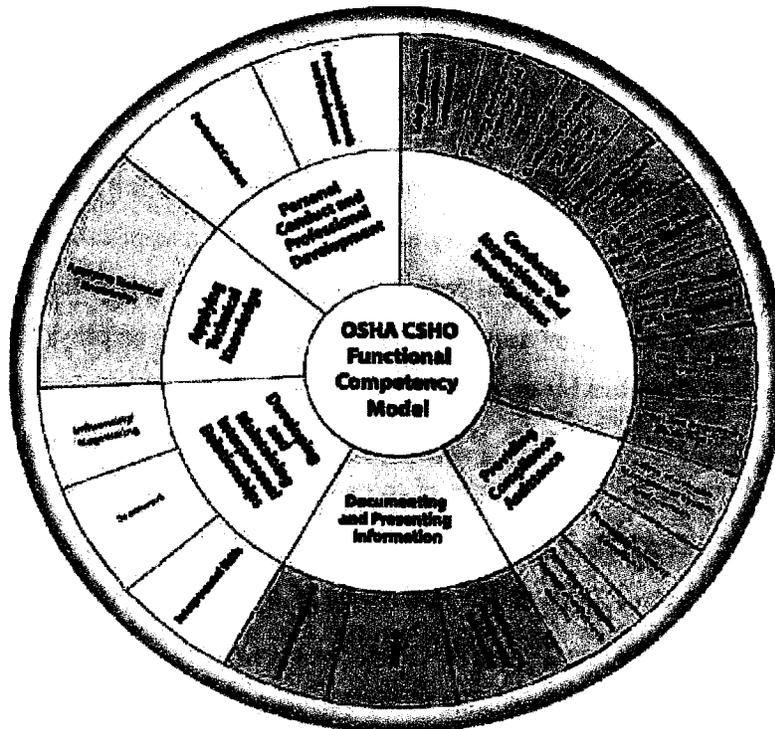
OSHA inspection staff members are dispersed in field offices across the country, which means that the central offices need to run a comprehensive training program. OSHA employs a competency-based curriculum to train inspectors on a comprehensive set of technical and professional skills. The core areas covered by the curriculum are diagrammed in the figure below.

Staff members receive rigorous training based on their experience level. During the first three years, staff undergo more intensive structured training that is tied to an individual development plan. Inspections completed by new staff members are also monitored more closely than inspections completed by more experienced personnel. Training continues to be emphasized throughout a person's career with OSHA. More experienced staff receive two weeks of classroom training and on-going access to online and other refresher courses. These efforts help OSHA maintain a cadre of inspectors with advanced knowledge and results in higher quality inspections.

### Summary of OSHA Staff Training

First 3 years	Ongoing
<ul style="list-style-type: none"><li>• Structured course requirements<ul style="list-style-type: none"><li>• Classroom</li><li>• Online</li></ul></li><li>• Training tailored to regional priorities</li><li>• On-the-job training</li><li>• Closely tracked individual development plan</li></ul>	<ul style="list-style-type: none"><li>• Staff entitled to 2 weeks of training per year</li><li>• Classroom/online</li><li>• Variety of courses on specialized skills</li></ul>

### OSHA's Functional Competency Model



Source: Occupational Safety and Health Administration

**3. The International Code Council (ICC) includes safety elements in all of its trainings.**

The ICC was established in 1994 to develop nationwide standards for construction codes. Since then, it has evolved into a membership association focused on building safety and fire prevention. It offers members a range of resources to support the development of better building codes. This includes resources to support staff training on building code interpretation. ICC offers a standard slate of courses as well as an option to customize courses for individual city needs. The New York City Department of Buildings has been working with ICC; information about the future relationship between the entities was not available.

Rather than offer separate trainings about safety, the ICC includes safety as a component of nearly every one of its courses.

**4. The Clark County, Nevada Department of Development Services is an enterprise agency, giving it the flexibility to allocate resources to attract and incentivized highly trained staff.**

The Clark County Department of Development Services is responsible for inspections, permitting, and records in the county that includes the City of Las Vegas. As a semi-autonomous agency, the Department is funded by revenues it raises from developer fees and other sources. The Department has an annual budget of approximately \$26 million and employs 230 people. Department oversight is provided by an independent oversight board/advisory committee.

The agency receives revenues from a variety of sources, including:

- Permit fees (including higher fees for expedited permits),
- Cost recovery services fees (staff time helping developers with applications, plus an additional percentage),
- Building rent from other agencies that share department-owned building.

The department does not charge “punitive” fines, but only fees to cover its costs. So, for example, if a building does not pass inspection, the owner is charged for each visit required before a passing report is issued.

As a result of this structure, the agency’s revenues fluctuate based on the volume of construction activity in real time, meaning it has the resources to hire and train staff during crunch periods. In contrast, agencies that are funded through a city government’s general fund, must request additional funding during crunch times that they may or may not receive. This process takes time. Further, agencies funded through a general budget process may be under-resourced during initial busy periods and over-resourced during slow-downs. Clark County Development Services’ autonomy means that it can respond more quickly to demands on staff time. Similarly, the department may also need to cut staff when revenues decline due to a slowdown in development activity.

The Clark County Department of Development Services allocates substantial resources towards staff attraction and retention. It has the goals of:

- Attracting and retaining a high quality work force;
- Offering competitive compensation packages;
- Providing extensive training.

According to staff members, the Department is a sought after place for employment. Staff members are paid above average salaries and are members of the union. The Department provides inspectors with high quality vehicles because they spend so much of their time in the field conducting inspections that the vehicles are equivalent of “offices”. Further, the Department provides extensive training opportunities that encourage staff to enhance their skills. Annual training includes 40 hours of county-administered safety training and specialty training (e.g., ladders and falls) that is conducted through a contract with OSHA. Staff members have formal and informal training opportunities every day.

It is important to note that the department *does not inspect for safety*. It relies on OSHA to conduct safety inspections in the County. This relationship enables the department to focus resources on supporting permitting and expediting development activity. However, if department inspectors

see unsafe conditions when they are conducting a scheduled inspection, they will refuse to complete the inspection until the condition is remedied. The department promotes safety by incorporating it into all of its activities.

## **PREDICTABLE AND ACCOUNTABLE PROCESSES**

Contractors interviewed cited significant concerns regarding inefficiencies and subjectivity within the inspections process and within the complex process for clearing Notices of Violation within New York City, challenges that together create unpredictability surrounding efforts to maintain safe conditions on building sites. Consistent, quality training of inspectors helps to control for subjectivity within inspections. Other communities have found that industry partnerships help to promote effectiveness, efficiency and predictability within adjudication and other processes.

### **1. Several cities promote industry engagement through the development of partnerships.**

Construction site safety is a priority to government agencies and the private sector alike. As such, partnerships are an important tool for bringing all stakeholders to the table, sharing ideas, and advancing a safety agenda. DOB currently has a number of partnerships that promote information sharing, such as one with the plumbing and electrical trades unions.

We interviewed two organizations outside of New York City -- the City of Indianapolis and the Clark County Department of Development Services -- which use partnerships to raise safety platforms. Clark County Development Services uses an industry board to provide feedback and oversight of department activities. The City of Indianapolis Department of Buildings actually uses an industry board to adjudicate code violations. Each board focuses on violations of the building code, such as failure to obtain proper permits or construct facilities in accordance with the requirements. Safety issues are left to OSHA. Safety issues involving the public are left to the police departments.

*Development services in Clark County, Nevada and Indianapolis work closely with OSHA to monitor construction site safety. These agencies leave overall safety enforcement to OSHA, which means the agencies can allocate resources to the enforcement of the building code.*

In Indianapolis, several trade boards comprised of industry and government representatives hear code violation cases. Board members must be qualified members of the industry (or a related one) of the board on which they sit. There are different boards for:

- General contractors (with plumbing included in this category);
- Heating and cooling;
- Electrical; and
- Demolition.

The Indianapolis Department of Buildings staff presents a report with the facts of the case from its perspective. The contractor with the notice of violation has a chance to respond. Boards generally meet on a monthly basis, which has been an adequate schedule to resolve violations in a timely manner. If an inspector sees a situation that involves a severe infraction, he may issue a stop work order. But again, OSHA inspectors have prime responsibility for safety.

The penalties issued by the board vary based on the severity of infraction and frequency in which the contractor has appeared before the board. Penalties generally are:

- 6 month probation for the contractor,
- Suspended contractor license, or
- Revocation of license.

The boards do not assess punitive fines. There is an administrative fee that covers the costs of board review time.

In conclusion, these formal partnerships create a collaborative, not adversarial, relationship between the cities and the industry. The boards also provide the industry with an ongoing voice in the interpretation and implementation of government regulations.

## Conclusion and Recommendations

The purpose of this report is to draw on lessons learned from nationwide best practices to inform creation of a safety registration enforcement system for New York City. Many buildings departments focus inspections only on code compliance and leave safety enforcement to OSHA, police, and fire departments. As such, relevant examples of safety monitoring outside New York City were limited. However, from the case studies emerged a framework for establishing an effective safety registration system based on best practices elsewhere. Applying that framework to New York City, HR&A recommends the following measures be implemented as part of the safety registration system:

- 1. In measuring contractor performance, use multiple metrics that draw on accurate data and normalize by contractor and job size, such as Experience Modification Ratings (EMRs). The construction industry is comprised of a complex network of contractors with varying levels of sophistication and experience. This variation is appropriate given the range of construction projects in New York City—from the redevelopment of the World Trade Center, to the conversion of industrial lofts into other uses, to minor repair to single-family homes. The challenge, however, is to create a fair way to measure contractor performance with regard to safety. Rules that are too stringent may drive some qualified organizations out of business. Rules that are too broad may be ineffective.*

We recommend the City consider using metrics that adjust for contractor size in order to address the complexity of the industry and variation in contractor size. The most basic would be the EMR rating, which compares contractor insurance premiums by size to industry averages. The advantage of this metric is that the data already exist. The weakness is that the City would still need to determine at what EMRs a contractor is deemed “unsafe” and what the appropriate actions are.

Another approach to developing metrics that are consistent across the industry would be to use a multi-metric scorecard, similar to the system developed by Harvard. This system provides a robust view of contractor performance by considering a range of metrics. It also sets base expectations that all firms must meet, regardless of size, and normalizes

historic performance data to make it comparable. It is critical, however, that the multiple metrics used be derived from accurate data sources.

It is tempting to look to the jobs, permits and complaints data maintained in the City's BIS system as a possible basis for establishing metrics to assess construction site safety. HR&A conducted the analysis presented here concurrently with an analysis of the availability of data sources and the quality of BIS data by John Goering, et al at the City University of New York.<sup>8</sup> The Goering analysis found a number of data entry, compatibility and other issues that severely limit BIS data's reliability and usefulness. BIS data quality would need to be substantially improved and normalized for contractor and job size to be useful as an enforcement tool.

- 2. Ensure sufficient funding for inspector training to help DOB meet safety monitoring and enforcement goals.** In order to measure and manage contractor safety performance effectively, DOB must use a reliable set of metrics based in accurate data. As noted, the simultaneous increase in the rate of scheduled inspections resulting in Notices of Violation and the decrease in the number of violation notices upheld by the ECB suggests a degree of subjectivity in the current issuance of Notices of Violation. Should DOB opt for a multi-metric evaluation system that draws in part on DOB violations data, collection of accurate data is dependent upon highly trained inspectors incentivized to meet department goals. Certainly the provision of adequate training requires that DOB be sufficiently resourced to offer these services.<sup>9</sup>

While the Department currently offers inspector training, it must make sure the training evolves with the implementation of the new legislation to ensure that inspectors are educated on the new law and enforcement mechanisms. Further, DOB should ensure that it incorporates safety elements into all of its trainings, as with ICC's course offerings.

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<sup>8</sup> John Goering, Deborah Balk, David Birdsall and Zhen Liu. 2011. "Pathways to Improved Safety at New York Construction Sites: The Validity and Utility of Safety Registration Data."

<sup>9</sup> The Enterprise Agency model used in Clark County provides a dedicated revenue source for departmental operations, insulating the Department from annual budget politics. This may be an option worthy of further exploration in New York City.

Finally, training must be provided on a regular basis and DOB must have mechanisms for evaluating its effectiveness. The OSHA model provides a rigorous training program to new hires and scheduled professional development opportunities to experienced staff. Further, OSHA's data systems have the capacity to track inspections by inspectors to identify irregularities. This system helps the agency identify inconsistencies in inspections. This information enables the agency to work with individual inspectors to improve inspection quality and improve training and other procedures to address systemic problems with inspections.

We encourage the City to consider a model that enables the Department to:

- a. Attract and retain the highest quality staff through competitive wages, performance-based salaries, and efficient hiring processes.
- b. Ensure staff has extensive access to high quality training materials through both classroom training and online resources.
- c. Ensure department databases can track staff performance by identifying irregularities in violation issuances, similar to OSHA.

Resources are limited in a constrained budget climate. However careful targeting of resources towards high quality inspector training and management can save the department resources later by increasing inspector efficiency, and by reducing errors and the administrative work to resolve them.

3. *Partner with industry representatives to establish predictable and accountable processes.* Construction site safety is a priority for government agencies and the private sector. As the Indianapolis and Clark County case studies illustrate, other communities have found industry partnerships a useful means to share ideas and advance safety agendas, and to promote a collaborative relationship between cities and industry.

A Construction Safety Board for New York City could engage labor, contractors, real estate owners and developers, and researchers to find workable solutions for ensuring construction site safety. The industry partnership could take on a variety of forms, and

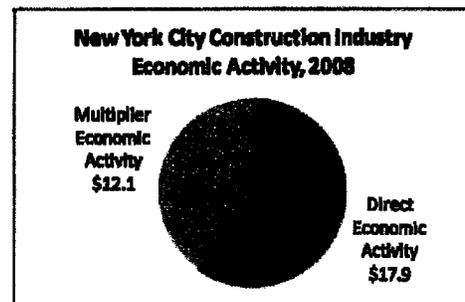
need not extend to formal involvement in violations adjudication (as takes place in Indianapolis) to be meaningful. Rather, establishing a formal industry advisory role could enhance the process for identifying and refining the criteria for defining "safe" contractors, and for establishing the procedures to ensure that unsafe contractors improve their safety practices.

## Appendix: The Role of the Construction Industry in New York City

*The development of new facilities is critical to New York City's long term competitiveness in the global market place as growing companies demand the highest quality office space. The construction industry plays an important role in the New York City economy on several fronts. The industry is directly and indirectly responsible for a large number of jobs from general contractors to plumbers to electricians to architects, a range of professions that are involved in the development of new buildings. Further, construction projects support a variety of support services from restaurants to retail stores around development sites.*

HR&A measured the economic contributions of the construction industry to the New York City economy using the IMPLAN input-output model<sup>10</sup>. This analysis assessed the direct, indirect, and induced effects of construction industry activity.

- The direct effects include effects related to direct spending and activity by the industry.
- The indirect effects include spinoff business activity resulting from the direct activity.
- The induced effects include household spending that results from the direct and indirect effects.
- Multiplier activity is the sum of indirect and induced.



The construction industry produced nearly \$30 billion in economic activity in 2008, which accounted for 4% of the City's Gross City Product. This activity included \$17.9 billion in direct

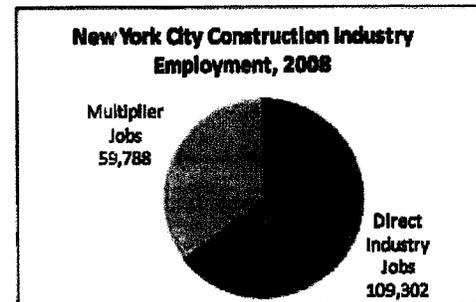
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<sup>10</sup> IMPLAN (Impact Analysis for PLANNing) is a widely-recognized modeling tool developed at the University of Minnesota with the U.S. Forest Service's Land Management Planning Unit. It generates estimates of economic output as well as secondary and induced employment and output based on a series of inputs. IMPLAN traces the pattern of commodity purchases and sales between industries that are associated with each dollar's worth of a product or service sold to a customer, analyzing interactions among 440 industrial sectors for the City of New York. IMPLAN is used for the preparation of economic impact analyses by many public and private entities throughout the U.S. Industry data is updated annually and would be specifically customized to the study area.

effects from construction projects and \$12.1 billion in multiplier activity, which included indirect and induced effects.

The construction industry activities supported the employment of nearly 170,000 New York City workers in 2008. This number includes over 109,000 direct industry jobs and nearly 60,000 multiplier jobs. In summary, every two construction jobs supports an additional job elsewhere in the economy.

These jobs generate nearly \$8 billion in labor income. This includes \$6.2 billion in direct income and \$1.6 billion in income from multiplier activities. Labor income includes both wages and the value of fringe benefits.



Economic activity and wages result in taxes to state and local jurisdictions. In total, the construction industry contributed \$1.4 billion in state and local taxes in 2008. These taxes include:

- Personal Income taxes
- Corporate Income taxes
- Sales taxes
- Property taxes
- Other miscellaneous fees.

Put another way, each \$1 of tax revenue results from every \$13 of direct construction spending. While this figure is relatively small given the size of the New York City and State economies, the industry's contributions to the city's overall competitiveness are critical.

#### ***Maintaining New York City's status as a world-class destination***

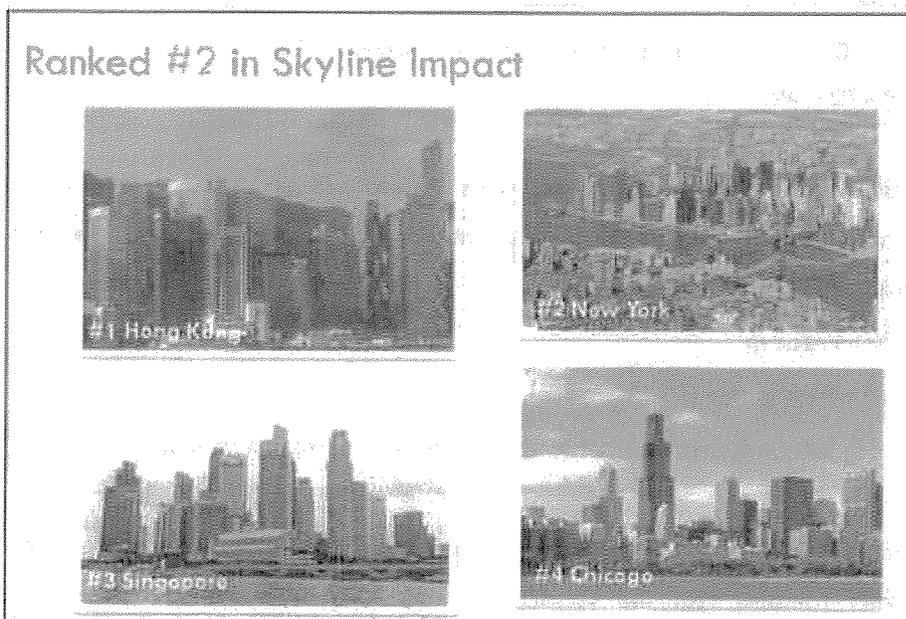
New York City is frequently ranked as one of the top five global cities. Several major consulting firms and publications create these rankings based on a variety of indicators. For example, these include the annual PricewaterhouseCoopers Cities of Opportunity Index, which compares the

performance of 21 cities across 58 key variables, and the MasterCard Centers of Commerce Index, which compares business performance of 75 cities.

New York City achieves the following rank on this sample of studies:

- #1 Overall City, Global Power City Index, 2009,
- #1 Overall Power, PWC Cities of Opportunity, 2009,
- #2 Worldwide Center of Commerce, Mastercard, 2008,
- #1 in Intellectual Capital, Technology and Innovation, Sustainability, Lifestyle assets, PWC Cities of Opportunity, 2009

In addition to economic and social indicators, the value of the quality of the physical space is another indicator tracked by some sources. PriceWaterhouseCoopers Global Cities of Opportunity Index refers to this as "Skyline Impact." In 2010, New York ranked second to Hong Kong and was followed by Singapore and Chicago.



Yet New York City is lagging behind other world class cities in the amount of space under construction. As illustrated in the following table, Manhattan has less space under construction than Bucharest as of June 2010. Further the gap with growing international cities is significant—Shanghai has fourteen times as much office space under construction. Even Moscow has over 15 times as much space.

**Office Space Under Construction, June 2010**

Market	Million SF
1. Shanghai	37.0
2. Moscow	30.2
3. Dubai	28.0
4. Tokyo	23.1
5. Seoul	16.4
.....	
34. Bucharest	2.9
35. New York City	2.6

Source: Global Office Real Estate, Mid-Year Review 2010,  
Colliers International

Construction of new facilities will be necessary not only to remain competitive with other international centers, but also to capture projected employment growth. PlaNYC projected the following for the New York City economy by 2030:

- 750,000 jobs (20% increase);
- 60 million SF of new office space (9% increase);
- Conversion of existing loft/industrial spaces to other commercial/residential uses.

While the Great Recession will undoubtedly extend the timeframe for the city to achieve these growth milestones, the fact remains that the construction industry will play a vital role in supporting the City's ongoing global leadership.

Thank you for opportunity to present testimony. My name is

REBNY represents over 17,000 owners, developers, managers and brokers of real property throughout NYC.

REBNY wants to thank the Council for taking on this important issue...

Our membership's commitment to construction safety is evident through their long track records in building NYC's and the world's most complex and sophisticated sites...

Indeed, many of bills reflect these best practices such as site-specific orientations, job talks, netting and guardrails as embodied in 1429, 1444, 1445 and 1448. We are generally supportive of these bills as they directly promote safety practices on the job site.

We are also generally supportive of a number of other bills including those on crane safety, increased civil penalties and reporting requirements. They are outlined in our 12-page memo that has been submitted.

The bills that REBNY does not support are 1447, 1432 and 744 because they have nothing to do with promoting safety at the construction site.

**Bertha Lewis**  
**Founder and President, The Black Institute**

**FOR THE RECORD**

**January 31, 2017**

Good morning Chairman Williams and members of the Committee on Housing and Buildings. My name is Bertha Lewis and I am the founder and president of the Black Institute. I'm sure you are all aware of our longstanding commitment to advocating for legislation and policies that promote equal opportunities for black and brown New Yorkers all across the five boroughs. Thank you for this opportunity to testify regarding the Council's construction bills. But let me continue on some of the points Dr. Dukes just made so I can make something clear. I need to make it clear that we are having the wrong conversation today.

Let me explain what I mean when I say we are having the wrong conversation at this time. The City Council has claimed that it wants to create good jobs and safe worksites for construction workers in New York City. The last time I checked, that should include good jobs and safe worksites for all constructions workers – including black and brown workers, and regardless of whether they are union or non-union.

None of the bills being considered today will help us provide good, safe jobs for New Yorkers of color. None of the bills being considered today will help us create new opportunities for minority- and women-owned businesses, or MWBEs, to become good, safe contractors on New York City construction sites. That is because the de Blasio administration and this City Council still has no idea how racially diverse our construction sites are, and neither the administration nor the Council yet taken the proper steps to change that.

I think everyone in this room should know that the City is required by law – Section 1305 of the City Charter – to collect information on the race and ethnicity of workers on city-funded construction sites. We now know for a fact that the data collection is not happening. That is a serious problem that everyone here needs to be aware of.

I recently testified against a City Council bill – Intro 1382 – because it would not do enough to solve this problem and make our worksites more diverse. Now I am raising the issue again because you must understand that until this problem is fixed, and until the diversity data is out there, any conversation about good jobs and safe jobs is meaningless. They aren't good jobs or safe jobs unless they are jobs for all New Yorkers, including black and brown New Yorkers.

That is why the City Council needs to pass the City-Assisted Construction Workforce Disclosure Act, which I have proposed alongside Dr. Dukes. This legislation would actually require contractors to provide the full data on racial and ethnic diversity on their job sites, along with details on whether the workers are union or non-union. And it would hit racist contractors with financial penalties if they fail to comply. Once we know how racially diverse our union and non-union construction sites really are, we can have a real discussion about good jobs and safe jobs for all New Yorkers – not just white New Yorkers.

But as long as we are here, let me say this about Intro 1447, which would create an apprenticeship mandate on many construction sites throughout the city. I know for a fact that it would not improve safety and it would instead make our worksites less welcoming to the black

FOR THE RECORD

and brown New Yorkers who need those good, safe jobs. And it would make our worksites less welcoming to the MWBEs who can barely get contracts as it stands now.

Plenty of minority workers have their OSHA certification because they know that it provides them with the training needed to stay safe on the job. Why would you now tell those workers that they need to jump through hoops to join an apprenticeship program that won't make them any safer? You need to realize that it is just going to put them at an unfair disadvantage.

So let's stop dancing around this issue of racial diversity in construction. Let's stop using the talk about safety and good jobs to exclude NYCHA residents and low-income residents and minority communities that get all the problems of construction without any of the benefits.

Mr. Chairman and members of the Committee, if you really want to create more good, safe jobs, then let's do it. But you are having the wrong conversation today. Let's do it the right way instead. Let's pass a bill to disclose the racial diversity data, let's get the racist contractors out of the business, and then let's work with good contractors and MWBEs to improve safety for all workers. Let me repeat – all workers.

FOR THE RECORD

**Dr. Hazel N. Duker**  
**President, NAACP New York State Conference**

Good morning Chairman Williams and members of the Committee on Housing and Buildings. My name is Hazel Duker, and I am the president of the NAACP New York State Conference and a member of the NAACP National Board of Directors. As you may know, the NAACP New York State Conference has been a vital programmatic component of the National Association for the Advancement of Colored People for 77 or the 104-year history of the oldest, most effective and most respected civil rights organization in the nation. Thank you for giving me the opportunity to testify in opposition to Intro 1447, which I believe will be very damaging to the communities that I have worked to promote for many years.

The NAACP has been working for decades to ensure economic equality for all people regardless of race, including advocating for increased job opportunities for minorities and MWBE firms. This legislation will work in direct opposition to our efforts in this area. Intro 1447 will mandate apprenticeships for workers on covered construction sites throughout the city. Due to the cost and difficulty of setting up a New York State-approved apprenticeship program – they can take one to two years to create and another three years before apprentices are eligible to work on City projects – these programs are generally only offered by unions. As a result, this bill would virtually require that all contracts and subcontracts on these projects be union labor. If the City Council is serious about its goal of increasing MWBE participation in city projects, you must not pass this legislation as it is currently drafted.

MWBEs are typically smaller and newer companies, which are under considerable financial constraints. These firms would be unable to devote the time and resources necessary to create approved programs, and they will be effectively barred from participating in City-sponsored projects. Given the high rates of unemployment in minority communities – nearly double that of white communities – we need to do everything we can to make these jobs and contracts available to the people who need them the most.

But now that I have laid out those points, I need to pause to raise an even more important issue. I will be blunt because it is that serious. Even beyond the negative impacts of Intro 1447, I am deeply concerned that Mayor de Blasio and the City Council are not enforcing the law to increase racial diversity on construction sites all across the city.

There is a lot of talk about safety in this room today, and I care about safety as much as anyone else in this city. But I care about making sure black New Yorkers have the same safe jobs as white New Yorkers – and right now, I just do not think that is what is happening.

But here is the real problem – we have no idea how racially diverse our construction sites really are. It has come to our attention that the City is not collecting diversity data as it should, and it is clear to us that the City Council is not acting to change that. So here is the reality – not only do we not have the diversity data we need, but now it looks like this Council is ignoring that problem and using a misleading safety argument to promote other bills that will only make our worksites less diverse.

This is very disappointing to me personally and I believe all of you should ask yourselves whether you are doing everything you can to create good, safe job opportunities for black New Yorkers in an industry that for too long has locked them out. I have limited time, so Ms. Lewis

will speak further about these problems and the proposal we have worked on together to help solve them.

I will leave you with this – the issue is not about union or non-union. The issue is not about trying to convince me that an apprenticeship will make people safer when the facts may not back that up. And the issue is not about just saying that we are improving this industry.

This issue is about justice, equity and fair opportunities for New Yorkers of color and MWBEs. Until they are a part of every discussion, we cannot truly provide the good jobs and worker protections that this Council claims to support.

Harold W. Dubler 11/31/2017  
President  
NAACP New York State Conference  
119 West 40<sup>th</sup> Street 7<sup>th</sup> Floor  
New York N. Y. 10018  
NYSNAACP@gmail.com  
212-344-7474



## NYC MASTER RIGGERS ASSOCIATION, Inc.

57-27 49th Street, Maspeth New York 11378

January 31, 2017

To:  
NYC Mayor Bill DeBlasio  
NYCDOB Commissioner Rick Chandler  
NYC Council

Re: NYC Council Public Hearing 1/31/17

Dear Council Members,

Please consider this testimony on behalf of NYC Master Riggers Association in opposition to the 2017 Construction Safety Act as it is written. Aside from causing unfair financial and procedural burdens on our membership and the crane/rigging industry, in some cases these Intros could create unsafe conditions for workers and the public. Below are NYCMRA recommendations to be added as underlined, and deletions are [bracketed].

- Int. No. 443, in BC 3319.12 Load cycle counter *(should not be required when not offered by manufacturer)*  
**In the Exception DELETE [Cranes in existence on October 1, 2014 shall comply with this section by July 1, 2015.] ADD "not required on cranes where a load counter is not offered by the crane manufacturer or where other devices are not approved by the crane manufacturer."**
- Int. No. 1403, in BC 3319.11 anemometers required *(should not be required when not offered by manufacturer, clarify that a handheld can be used)*  
**ADD " Exception: anemometers not required on cranes and derricks outlined in 3319.3 exceptions 1 thru 10. A handheld device shall be used where an anemometer installation is not possible by crane design or not offered or approved by the crane manufacturer"**
- Int. No. 1421, In BC 3319.11 Crane location device. *(Exclude all limited machines except knucklebooms)*  
**ADD "Exception: all cranes and derricks as per 3319.3 in exceptions 1 thru 9."**  
*(all "exceptions 1-9 are limited capacity machines in 3319.3 which do not require a licensed HMO or a NYCDOB registration and inspections. They are used for deliveries and hoisting of signs, pianos, artwork and small machinery. DELETE [exception 10 from 3319.3] regarding "knuckleboom cranes" as they should NOT be excluded from GPS tracking. Knuckleboom cranes are a new category of heavy use crane lacking proper rules and enforcement. All knucklebooms should have an approved prototype with annual CD inspection, a CN for crane placement on new construction sites and require a NYC licensed HMO operator of its perspective weight capacity and a Lift Director for its supervision per Intro 1431. Early designs were for "deliveries under 12 feet high from the truck to the ground" as per restriction in 3316.9.2 Exception 2. Current restrictions are to "deliveries of sheet goods and building materials under 100' high". Knuckleboom are exceeding 135' high with capacities well over 90 tons. These heavy crane types are typically disregarding current regulations without NYC licensed HMO operators or Lift Directors hoisting HVAC equipment, Generators, Structural Steel, Construction Hoists, Sidewalk Sheds and building components to existing buildings and construction sites).*
- Int. No. 1429, in BC 3310.10.1.1 Task-specific safety meetings. *(include all competent persons and licensees)*  
Each worker employed at a building site shall receive task-specific safety instructions before commencing work that (i) is required to be supervised by a **ADD "competent" person DELETE [licensed]** under this code or (ii) involves a hazardous activity, as defined in department rules.  
*(Task Specific Safety meetings should not be limited to only licensee operations. "ADD" "competent" this will capture ALL work supervised by "Riggers, Signhangers" "32 Hour Competent Persons" and "Lift Directors"*

# NYC MASTER RIGGERS ASSOCIATION, Inc.

57-27 49th Street, Maspeth New York 11378

- Int. No. 1431, in relation to the registration and duties of lift directors
- ARTICLE 424  
LIFT DIRECTOR REGISTRATION

§ 28-424.1 Lift director required. *(Clarify: Licensed Rigger shall be Lift Director when they are exempt under 250' rule of 3319.6)*

No crane or derrick for which a certificate of on-site inspection is required ~~DELETE [or for which use is required to be supervised by, or is supervised by a licensed master rigger,]~~ may be used unless a lift director is present at the site at all times when:

Exceptions:

1. requirement for a lift director does not apply to the assembly or disassembly of a crane or derrick, nor to the use of an assist crane or derrick during assembly/disassembly, provided an assembly/disassembly director is supervising the assembly/disassembly operation in accordance with rules promulgated by the commissioner.

**ADD "2. the Master Rigger or his designated foreman shall be the Lift Director for all work exempt from onsite inspection as per 3319.6 under the 250' exception from CN rule "**

§ 28-424.2 Lift Director Registration *(Licensed Riggers are already registered by license numbers)*

**ADD "Exemption:**

**Licensed Master Riggers, Master Signhangers or their Designated Rigger Foremen in accordance with rules promulgated by the commissioner."**

§ 28-424.3 Lift Director Qualifications. *(Clarify: can be licensed HMO or 32 hr. Competent Rigger who will be required to have NCCCO Lift Director Certification AND additional 32 hr. NYC Lift Director course in local law or the Lift Director can be a Licensed Master Rigger)*

Applicants for a lift director registration shall submit satisfactory proof establishing that the applicant:

1. Is a licensed master rigger; **ADD "or;"**

**ADD "2.1 Has been licensed as a New York city hoisting machine operator for at least three years prior to application; or" "2.2 has at least two years' experience within three years prior to application supervising rigging operations in the city in accordance with section 3316.9.1 of the New York city building code; and"**

**[2.] "2.3 "** Possesses a valid certification as a lift director from an organization acceptable to the commissioner and accredited by the National Commission for Certifying Agencies (NCCA) or the American National Standards Institute (ANSI); **[or] "and"**

**[3.] " 2.4"** Has satisfied the training requirements for a rigging supervisor in accordance with section 3316.9.2 of the New York city building code and has successfully completed a department approved training course for lift directing that is at least 32 hours in length. Such lift directing training course shall cover topics relating to mobile cranes, tower cranes, and derricks, including, but not limited to, roles and responsibilities of site personnel, operational planning, weather warnings, conducting on-site meetings, and log and reporting requirements. Successful completion of a lift directing training course shall be based upon passage of a written exam, and evidenced by the issuance of a certificate card that is in accordance with the provisions of item 2.5 of section 3316.9.2 of the New York city building code; ~~and, beginning for applications submitted on or after July 1, 2018-~~  
*(to include local law lessons for all persons in 2.1 - 2.4)*

~~**DELETE [3.1. Has at least two years' experience within three years prior to application supervising rigging operations in the city in accordance with section 3316.9.1 of the New York city building code;**~~

~~**3.2. Has been licensed as a New York city hoisting machine operator for at least three years prior to application; or**~~

~~**3.3. Is a master rigging foreman designated in accordance with rules promulgated by the commissioner.]**~~

# NYC MASTER RIGGERS ASSOCIATION, Inc.

57-27 49th Street, Maspeth New York 11378

3319.2.3.3 Notification to the department of the lift director. *(Add requirement for Licensed Rigger to retain notification letter onsite during work in 3319.6 Exceptions under 250' rule)*

Exceptions:

1. For a crane or derrick whose crane or derrick notice application was submitted prior to July 1, 2018, notification to the department is not required. A letter designating the lift director, signed and dated by the equipment user, must be kept at the site and available for inspection by the commissioner upon request.

**ADD "2. For a crane or derrick whose setup and use is supervised by a licensed Master Rigger under the 250' rule exception from requiring a on-site inspection, notification to the department is not required. A letter designating the Master Rigger or his designated Rigging Foreman as lift director, signed and dated by the Master Rigger licensee, must be kept at the site and available for inspection by the commissioner upon request.**

3319.2.3.4 Responsibilities of the lift director.

11. That, when carrying loads over an occupied building, the top two floors are vacated **ADD "with a notarized evacuation letter from the landlord by an electronic copy or an original available onsite"** or proper roof protection is in place prior to the start of such operation in accordance with rules promulgated by the commissioner;

19. That the load is properly rigged for the lifting conditions **ADD "and the hoist brakes checked"** before it is lifted more than a few inches.

*(Without a notarized electronic letter or original onsite there is no proof of evacuation)*

*(Standard operating procedure is to check hoist brakes should be included)*

• Int. No. 1435 in BC 3319.11 Crane data logging device. *(should not be required when not offered or approved by the crane manufacturer of small hoisting equipment exempt from HMO licensing or NYC crane registration)*

No crane shall operate unless such crane is equipped with a data logging device that is approved by the department.

**ADD "Exception: all cranes and derricks as per 3319.3 in exceptions 1 thru 9."**

*(Do NOT exclude knuckleboom cranes from required data logging devices as these are heavy use cranes in all types of crane rigging operations on occupied buildings and new construction. For this reason, Delete 3319.3 exception 10)*

• Int. No. 1447, in relation to training and qualifications of persons engaged in the construction and demolition of buildings *(exclude specialty trades that do not have apprenticeships but are required to have NYC Trade Licenses)*

§ 5. Section 3. 3310.10.3.3 Workers at other sites. Each worker at a site that is not covered by Section 3310.10.3.1 or 3310.10.3.2 shall be:

A registered apprentice or graduate of an apprenticeship program registered by the New York state or United States department of labor in the trade for which such worker is employed;

**ADD "Exceptions:**

**Specialty Trades which do not offer apprenticeships to include but not be limited to:**

1. **Master Rigger or ~~Master Rigger~~ their Designated Foremen and Rigging crew members**
2. **Industrial Rope Access Technicians**
3. **Signal persons**
4. **Flagpersons"**

Respectfully,

X 

David O'Connell

Secretary Director, NYC Master Riggers Association Inc.

**METALLIC LATHERS & REINFORCING IRONWORKERS  
UNION LOCAL 46**

1322 Third Avenue (at East 76th Street) New York, NY 10021

Phone: 212-737-0500 | Website: [www.ml46.org](http://www.ml46.org)



**Testimony to the New York City Council Committee on Housing and  
Buildings**

**In support of Intro. 1447 Construction Worker Safety and Training**

January 31<sup>st</sup>, 2017

Good afternoon council members, and thank you for your time on this vital issue. My name is Mike Anderson, and I am a Business Agent for Local 46 Metallic Lathers and Reinforcing Ironworkers, where I have been a member for 27 years, and I grew up in East Flatbush, so I'm proud to see that Intro 1447 is coming out of Brooklyn.

There has been a lot of misinformation floating around about how this bill, and the proposed training requirements, would limit access to jobs for minorities. I want to tell you that is just not true. A study put out by the Economic Policy Institute just this month found that 61.8% of all New York apprentices are minorities. The number of black apprentices has actually doubled since 1994, and black workers now comprise over 35% of apprentices. Not only that, but over half of all blue-collar construction jobs -- 55.1% --- are held by minorities. As an industry, we are enthusiastic about promoting diversity and inclusion, and are taking active steps to do so. This bill would only work to ensure that each new worker is as safe and well-equipped to do their job as possible. In our apprenticeship program, our workers log 186 hours of classroom instruction as well as eight thousand hours of field training to graduate. This is a line of work where you need specialized training is to recognize and fix unsafe conditions. That means that this kind of training is critical to saving lives on the job.

Right now, our minority workers are dying in disproportionate numbers on construction sites that do not require safety training. A 2017 NYCOSH study confirmed that minorities, particularly Latinos, are at an elevated risk of dying due to safety violations. That is who we should be protecting, and this bill is a vital step in ending an epidemic of workplace deaths in the construction industry.

I ask that everyone here join Councilman Williams, and support this bold legislation. The life you save may be your own.

**METALLIC LATHERS & REINFORCING IRONWORKERS  
UNION LOCAL 46**

1322 Third Avenue (at East 76th Street) New York, NY 10021  
Phone: 212-737-0500 | Website: [www.ml46.org](http://www.ml46.org)



**Testimony to the New York City Council Committee on Housing and  
Buildings**

**In support of Intro. 1447 Construction Worker Safety and Training**

January 31<sup>st</sup>, 2017

My name is Alma Hardaway. I am a first year apprentice in a four-year apprenticeship program with Local 46 Metallic Lathers and Reinforcing Ironworkers, and a graduate of the pre-apprenticeship program Non-Traditional Employment for Women, which helps to prepare women like me to enter into a historically male dominated field. I am from Morris Heights – a proud Bronx resident my whole life. I am here to speak in favor of Councilman Williams bill on requiring training measure for all construction workers.

By now we have all heard the numbers, 31 people have lost their lives on construction sites in the last two years. I do not want to be number 32. My safety depends not only on the knowledge and skills of my union brothers and sisters, but the training of everyone who is out there building this city.

Two weeks ago I was working on a job that is part of an open-shop model. That means we as apprentices, and the trained journeymen we learn from, work alongside people from other trades who do not have access to training. On this particular day I was working on the 11<sup>th</sup> floor. I reached down to pick up a heavy bar of steel and the wooden platform where I was standing gave way. I fell straight through from the 11<sup>th</sup> to the 10<sup>th</sup> floor, and if I'd fallen any further I probably would have died. It still gives me chills to think about it. The carpenters who built that unsafe platform work for a company that doesn't provide apprenticeship or comparable training. On that day, I learned firsthand how that lack of training puts us all in danger. In the apprenticeship programs we not only learn to work safely, we become part of a culture that takes pride in enforcing those measures, and the journeymen, the foremen, and our shop stewards reinforce that culture to keep up safe.

I believe everyone has right to work, and the right to work safely.

I have a four-year-old daughter, and my partner is also a construction worker. The safety and training requirements of this bill will help ensure that our little girl doesn't have to grow up wondering why one of us never came home.

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## **Testimony to the New York City Council Committee on Housing and Buildings**

### **In support of Intro. 1447 Construction Worker Safety and Training**

January 31<sup>st</sup>, 2017

My name is Jose Bermudez. I am 24 years old, and I live in the South Bronx. When I was six years old my mother brought me and my 5 siblings here from Honduras to seek a better life. As a construction worker who has seen a lot of unsafe work sites and had a few near misses myself, I am here to speak in favor of Intro 1447 which would provide safety and training for workers like me.

When I started in construction I worked for a company called Parkside. A worker had died on one of their sites just a few months before I started, and another died just a few months after I left. On my first day of work they had me flagging on 17<sup>th</sup> street, no flagging certificate, no training, and I almost got hit by a car. Eventually they let me start doing steel. So I went out and bought my own harness, my own tools. They said, great – follow that guy. That was the training.

The jobs were sloppy, disorganized, they were always behind, and never let up on us. It was like a sweatshop. They had a lot of workers. They especially liked to hire people who had no papers so they had no options.

I am on Parole. The parole officer wants to see pay stubs, address, and a steady work history. I was afraid to speak out about the dangerous conditions because losing my job would mean a lot of trouble for me. My last week with Parkside I almost fell through a hole in the floor.

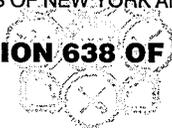
While I am immensely grateful for the opportunity I now have as an apprentice to have access to free training and work in safe environments with other trained workers, my brother is out there still working for contractors who see him as vulnerable and dispensable. All workers deserve safety on the job. All workers deserve to be treated fairly.

If there is anything we can do to make things safer we should do it. These are people's lives we are talking about.

# Enterprise Association of Steamfitters Local Union 638 U.A.

OF  
STEAM, HOT WATER, HYDRAULIC, SPRINKLER, PNEUMATIC TUBE, COMPRESSED AIR, ICE MACHINE, AIR CONDITIONING  
AND GENERAL PIPE FITTERS OF NEW YORK AND LONG ISLAND, A.F.L.-C.I.O.

## STEAMFITTERS LOCAL UNION 638 OF THE UNITED ASSOCIATION



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### Testimony in Support of New York City Council Intro #1447 - Nichalos Parboosingh, Steamfitters Local 638 Journeyman

Hello and thank you Chairman Williams and the committee for allowing me to testify this morning.

My name is Nichalos Parboosingh. I was born in Jamaica and I have called New York home for the past 9 years. I moved to the Bronx after graduating high school and got my first job in construction here in New York City. For nearly the last decade, my work in this industry has enabled me to live a better life, including being able to support my sick mother in Florida and family back in Jamaica.

While I have helped build some of the greatest and tallest buildings in the country, it has not come without great risk to my safety. In fact, until very recently, none of my employers have required or provided even the most basic safety training or equipment.

I have worked on countless dangerous jobsites throughout this city. I have worked on sites where I was 10-15 feet above solid ground without a safety harness. I have worked without appropriate tools and I have been injured as a result. Just recently, I worked on a jobsite where there was asbestos in the ceiling, but my colleagues and I did not get any extra protection or equipment.

Incidents like these ignited my desire to be safer and more aware of my surroundings, so I enrolled in OSHA workplace safety courses. The OSHA 10 certification is voluntary for construction workers in New York State and until recently, it was the only safety training I had ever received. While it provided a valuable foundation, there is still so much that I can learn. This has opened my eyes to the fact that so many of our city's construction workers have so much more they can learn to ensure they are protected.

I recently approached Steamfitters Local 638 in search of better educational and safety opportunities and to further my career. Upon becoming a journeyman in the union, I have already received printed safety guidelines, been informed about crucial safety protocols, and signed up for a welding course that will include mandatory safety training.

I begin my first job tomorrow, knowing that safety is the number one priority. I want all construction workers in New York to have the same protections I now have.

I strongly support this legislation so that we can help prevent more injuries and tragedies for those who build our city. Thank you.

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### Testimony in Favor of NY City Council bill #1447 from Aaron Diaz, 2<sup>nd</sup> Year Apprentice at Steamfitters Local 638

Hello, my name is Aaron Diaz. I grew up in Harlem and I am currently a resident of Parkchester in the Bronx. I am a graduate of the High School for Health Professions & Human Services in Manhattan and a second-year apprentice in Steamfitters Local 638.

I am a proud, lifelong New Yorker. I recently became engaged, and my fiancé and I are excited to raise a family here.

In sports, people always want to hear about homegrown talent, stories about athletes who dedicated their professional careers to the city where they learned the game.

As a member of the New York City's Building & Construction Trades, I consider myself homegrown talent, using my skills to build and maintain critical piping, fire sprinklers, and HVAC systems throughout the city.

The apprentice program that I am enrolled in is built around state-approved OSHA safety guidelines. I have been taught how to best protect myself and those around me every day while working on sites such as the MTA East Side Access project, the Con Edison steam pipe replacement maintenance job, as well as installing fire sprinklers, heating systems and AC units in public schools and college dorms.

I consider myself fortunate to have been provided with an opportunity to work in a safety-regulated environment. Seemingly every day, my experiences at my job sites are contrasted by horror stories I hear of workers being injured or even killed as a result of improper or absent safety training and equipment. Construction is one of the most dangerous jobs in the city, accounting for one in five workplace fatalities. No one should be put on a site without proper training and basic safety measures to keep them and the people on the ground safe.

I have not only been provided with the skills necessary for my career, but also with those needed to ensure that I can return home to my fiancé at night. Every worker should have that basic protection.

Safety training should be an educational standard for every skilled laborer to ensure not only their safety, but that of everyone around them. Please consider my support and those of my colleagues when deciding on passing these critical worker protections.

Thank you.

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NEW YORK CITY & VICINITY DISTRICT COUNCIL OF CARPENTERS

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Executive Secretary - Treasurer

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**Memorandum in Support**

**Intro. 744**

The New York City District Council of Carpenters and Joiners of America is a representative body comprised of nine individual locals and 25,000 union members. The District Council functions as the voice for thousands of New York City's most dedicated and skilled Carpenters, Millwrights, Dockbuilders, Marine Divers, Core Drillers, Timbermen, Cabinetmakers, Floorcoverers, and Industrial Workers.

Collectively, these hard working men and women represented by the Council **STRONGLY SUPPORT Intro. 744**, legislation mandating prevailing wage protections for construction projects receiving public subsidies.

Although it is a widely accepted belief in New York City and throughout the country that the use of public subsidies should yield a significant public benefit, many financially assisted construction projects augment the wealth of developers at the expense of community residents. The inclusion of wage mandates on projects with a public subsidy being provided generates a number of crucial public benefits including; the creation of quality, high-paying construction jobs for community residents, disposable income that is being infused back into the local economy, faster, more efficient construction that limits disruption to the community, the prevention of worker exploitation at the hands of unscrupulous contractors, safer construction sites and more. The middle class and New York City's overall economy will be uplifted as a result of intro 744.

We have seen the devastating effect the lack of wage requirements on publicly assisted projects has had throughout the five boroughs. Worker exploitation continues to be pervasive in the construction industry, with contractors paying workers subsistence wages, often times in cash. The Daily News reported that a group of 10 contractors and one developer receiving nearly \$41 million in city grants and low interest loans cheated workers out of \$11.8 million in wages.<sup>1</sup> Incidents like this one have become commonplace. In many instances, the workers are not trained and are not provided with the proper safety equipment, creating hazardous conditions for both workers and pedestrians. There has been a dramatic increase in construction worker fatalities, with 29 workers dying on the job in preventable accidents from January 2015 to

December 2016. 26 of these workers were employed on nonunion sites. The city is complicit in this rampant exploitation when it provides public subsidies without requiring any wage protections or accountability. Intro. 744 will correct his practice and demand more of developers receiving lucrative financial incentives from the city.

It is for the foregoing reasons that the New York City District Council of Carpenters urges you to **support Intro 744.**

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<sup>i</sup> Smith, Greg. "City hired firms building affordable housing owe \$11.8m to workers." *NY Daily News* N.p., 16 November 2014.

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**Committee on Housing and Buildings**

Good Afternoon. Thank you Chair Williams and all Councilmembers present, for allowing me to speak today. My name is Ennis Vines and I am a member of the New York City & Vicinity District Council of Carpenters, a representative body comprised of nine individualized locals, and 25,000 members.

I have been a member of the Carpenters Union for 16 years and am a resident of Brooklyn, NY. Prior to this, I was working as a nonunion general laborer. As a nonunion worker, I was provided with no safety training and was often put in dangerous situations. As a union member, I receive ongoing training at the Carpenters Training Center in Lower Manhattan, as well as the UBC International Training Center in Las Vegas, Nevada. Courses are offered in OSHA 10, OSHA 30, Scaffold Erector, Confined Space, CPR, Hazardous Materials, to name a few. All union carpenters are required to complete these courses in order to protect themselves, their fellow workers and the public. I've noticed a number of differences between union and nonunion jobsites. For instance, on a union jobsite, if a plank has a crack, it will be tagged and discarded immediately. On nonunion jobsites, workers are expected to walk across these planks, putting themselves at great risk. Additionally, on a union site, if there is an open shaft, it is completely boxed out to avoid a worker falling through. On nonunion sites, this may not be the case. Workers may not be aware of the proper procedures to ensure a safe worksite. The employer is responsible for the safety of their workforce, yet oftentimes they put profits above all else. Workers just want to support their families and are willing to take risks. There are nonunion jobsites that do not offer a safety orientation at the beginning of a job. This is a basic practice that can save lives. On union jobsites, all of the necessary safety equipment is provided and when any piece of equipment is lost or broken, it is immediately replaced. On nonunion sites, sometimes the equipment is not provided, and certainly not replaced. Employers on nonunion jobsites oftentimes feel no responsibility for their safety of their workers. It is not their priority. Making the greatest possible profit is their priority.

We need a safety standard for all workers. Right now union workers are protected while nonunion workers remain vulnerable. Let's act now. If employers are not taking responsibility for construction safety, let's make it our responsibility.

Thank you for taking the time to consider my testimony.

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**Committee on Housing and Buildings**

Good Afternoon. Thank you Chair Williams and all council members, for this opportunity to express, what I believe to be the opinion of the majority of Carpenters across this City, regardless of affiliation.

My name is David Caraballoso and I am the president of High Rise Concrete Carpenters Local 212, representing 1,000 members. Local 212 is an affiliate of the New York City and Vicinity District Council of Carpenters, an organization comprised of 9 local unions, representing 25,000 Carpenters and tradespersons. Our members have built and will continue to build the tallest and most complicated buildings in New York City, safely and efficiently.

I am a lifelong New York City resident. Prior to being organized, I spent half my working career in the nonunion construction sector. 64 percent of Local 212's membership are people of color. 77 percent of our recently organized members are NYC residents and 60 percent of our total membership, like myself, live right here in the five boroughs.

Local 212 is in staunch support of Intro 1447, a bill mandating safety training for all construction workers in NYC. While in the nonunion sector, I worked with little or no safety training and next to no safety direction. I have worked at great heights without fall protection, I have been exposed to work environments with poor air quality and contaminates. I have witnessed countless near misses.

Upon being organized, I have received cutting edge training in a modern facility with professional and experienced staff. I currently hold a 32 NYC scaffold certification, a 30-hour osha card, a 40 -hour rigging certification, a confined space certification, an FDNY torch operator's license, a Department of Labor mobile laser operator's license and have received countless hours of skills training.

Before joining the union and being trained, I was not even aware of some the dangers I was being exposed to. Today I am a safer more efficient carpenter, and the public at large is also safer and less likely to be impacted by construction incidents or accidents.

So today I ask all Councilmembers one question, don't all working tradespeople in NYC deserve and need safety training?

On a daily basis, I speak to many nonunion construction workers in both English and Spanish. They tell me they receive little or no training. They fear the environments they work in, but are not inclined to complain for fear of retribution. Many also suffer from language barriers and bosses are indifferent or unwilling to provide them with a translator or comprehensible training.

The facts are indisputable. Construction deaths are on the rise. 90 percent of construction fatalities occur on unorganized, nonunion jobs. Latinos like myself are disproportionately being killed. According to 2015 osha statistics, 57 percent of deadly fall victims are Latinos. However, Latinos represent only 30

percent of the workforce. That could have easily been me, since I never wore fall protection when I worked nonunion.

Intro 1447 has the potential to save lives. Every day we don't have intro 1447 is another day we are putting construction workers at risk.

Thank you for taking the time to hear my testimony

# UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA

## NEW YORK CITY & VICINITY DISTRICT COUNCIL OF CARPENTERS

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### Committee on Housing and Buildings

Good Afternoon. Thank you Chair Williams and all Councilmembers present. My name is Sinade Wadsworth and I am a member of Local 157 of the New York City & Vicinity District Council of Carpenters.

I am a lifelong resident of New York City and have been a member of the union for five years. I recently completed my apprenticeship training after receiving four years of in classroom and jobsite instruction. The first classes you take as an apprentice involve safety. These classes include OSHA 10, 4 Hour Scaffold, Construction Fall Protection, Hazardous Materials, among others. When I stepped onto the jobsite for the first time I was equipped with this knowledge and was prepared to carry out all tasks asked of me in the safest possible manner. I never felt unsafe or felt that my life was being put at risk. When I go to work, I'm not afraid I won't come home at the end of the day. Every worker should be able to share that feeling. Workers should not fear going to work. Construction is a dangerous job and there is no substitute for proper training. It is an occupation that requires a level of instruction before performing even the most basic tasks. I cannot imagine walking onto a jobsite without prior training. Every safety course I have taken was absolutely necessary to creation of a safer work environment for myself, my coworkers and the public.

30 workers have died and no action has been taken. The City of New York needs to understand that every worker that does not receive safety training is putting their life at risk. Support of Intro. 1447 demonstrates that our elected officials care about its citizens and its workforce. Construction workers are trained professionals and our laws should reflect that. I am proud to be a construction worker and I am proud of the training I have received. I am proud of the certifications I have earned. My hope is that all workers can be provided with the same opportunity.

Thank you for taking the time to consider my testimony.

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**Committee on Housing and Buildings**

Good Afternoon. Thank you Chair Williams and all Councilmembers present, for allowing me to speak today. My name is Ruben Colon and I am here representing the New York City & Vicinity District Council of Carpenters, a representative body comprised of nine individualized locals, and 25,000 members.

The New York City District Council is in support of Intro. 1447, a bill requiring all construction workers to receive safety training. Construction is a dangerous occupation and construction in New York City presents unique hazards to both workers and the public. 30 construction workers have died on the job since January 2015, with 28 occurring on nonunion sites. These deaths are preventable and are indicative of the epidemic occurring across the five boroughs. Required safety training is necessary for the protection of workers and pedestrians. As an organizer for the Carpenters Union, I visit nonunion jobsites frequently and speak with the workers there. Time and time again, I observe the same hazardous conditions. Workers are not wearing the proper safety equipment such as harnesses, hardhats and eye protection. When harnesses are worn, oftentimes they are not tied off to anything. I've also observed various instances of guardrails not being installed and excavation ditches not being properly shored or not being shored at all. Any one of these practices can be fatal to either a worker, a pedestrian or both. Simply tying off with a lanyard could have prevented a number of the worker fatalities that occurred over the past two years. The Mayor has insisted these deaths are simply due to the recent construction boom, yet all of these deaths were entirely preventable. Occupation safety expert Deborah Berkowitz was recently quoted in Crain's criticizing the Mayor's position. She stated, "Worker injuries are caused by unsafe conditions, not by careless workers," she said. "If you follow OSHA rules, workers don't get killed and injured."

I have organized a number of nonunion workers. They want training and they want the opportunity to have a career. They deserve a safe workplace and the confidence of knowing they will return home at the end of the day. We are working to provide this opportunity to as many workers as possible. According to an Economic Policy Institute study, minorities accounted for 61.8 percent of all NYC residents' apprenticeships in 2014; while that amount was only a 36.3 percent in 1994. During that same time, black apprenticeship participation doubled, increasing from 18.3 percent in 1994 to 35.1 percent in 2014. All workers deserve to feel safe in the workplace. NYC must not revert back to an era where worker fatalities are just the cost of doing business.

Thank you for taking the time to consider my testimony.

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THE

## **Committee on Housing and Buildings**

Good Afternoon, Councilmembers. My name is Marteen Green. I am a resident of the Bronx and I am a father. I've been a Construction Worker for about 15 years. In this time, I've learned the tricks of the various trades, but my focus has been Carpentry. In my time in Construction I've received little formal training. I've watched how people don't do what they know is right and safe to save time. There's a lot of pressure to get the job done and sometimes you skip doing a simple thing that may very well save your life, just to keep up. Just last summer I saw a worker who was not tied-off, take a fall and get seriously injured. The job continued without him. Many times, when a job starts, new workers get a basic safety orientation and then you're expected to know the job and know what is safe and not safe. I've seen workers that I've had to help put on a harness because they didn't know how to put it on themselves. It's a very dangerous business and training is important. Next week I will be signing up for the Carpenters Concrete Apprenticeship Program, so that I can advance my skills in Carpentry and learn the craft to the best of my ability to provide a better life for my child. I believe proper training will go a long way to helping me obtain this goal.

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FOR THE RECORD

**Memorandum in Support**

**Intro. 1447**

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Collectively, these hard working men and women represented by the Council **STRONGLY SUPPORT Intro. 1447**, legislation requiring all workers receive necessary safety training.

Construction remains a hazardous occupation, but there are steps that can and must be taken to drastically reduce or eliminate accidents and fatalities. To date, the City of New York has failed to adequately protect construction workers from the exploitative practices of unscrupulous contractors. Since January 2015, 30 construction workers have died on construction sites across the five boroughs. 90 percent of those fatalities occurred on nonunion sites. Latino and Immigrant workers are disproportionately affected by these unsafe work conditions. According to 2015 OSHA statistics, 57 percent of fatalities from falls are Latino workers, while Latinos make up only 30 percent of the construction workforce. New York's elected officials have a responsibility to protect and value the lives of workers that build our city.

Mandatory safety training requirements for *all* workers will protect both construction workers and pedestrians. By mandating apprenticeship training or its equivalent on major buildings and a bona fide training program for smaller buildings, the City will take a necessary step toward ensuring a safer and more equitable city. The City can no longer be complicit in the exploitation of its most vulnerable citizens. Workers and pedestrians continue to be at risk and the City must act immediately.

It is for the foregoing reasons that the New York City District Council of Carpenters urges you to **support Intro 1447**.

**Testimony** Dorian Diaz  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning, my name is Dorian Diaz and I am a proud member and shop steward of Laborers Local 79. I want to start by thanking committee Chair Jumaane Williams, Speaker Melissa Mark-Viverito and the entire City Council for coming together and introducing worker safety legislation to combat the current alarming rise in construction fatalities. Too many lives have been lost over the last two years due to contractor recklessness and greed. That is why, as a construction worker in this city, I strongly urge every Council member to support and swiftly pass Intro. 1447.

I can attest firsthand how the non-union industry takes advantage of workers who are desperately looking for a job. There are not many employment opportunities for individuals who come home and try to re-enter society after time in prison. I was one of those vulnerable individuals looking for a job after I returned home when a friend introduced me to the construction industry via Tradeoff Construction.

Before working for Tradeoff Construction, I had never been on a job site or worked in anything relating to construction. I arrived on my first day on the job ignorant to what would be expected of me; with zero training and with no certifications that are legally required by the Department of Buildings.

I was picked-up by a Tradeoff representative in a truck, handed a hard hat and told, “fake it to make it. It is not rocket science” after I expressed my lack of knowledge of the industry. “Fake it to you make it” was a reoccurring theme among workers employed by Tradeoff.

That was the only instruction, the only “training” I received from a non-union contractor who has no regard for human life. I knew this was not right and every day experienced the dangers of an untrained worker, but my need for a stable income forced me to comply and work under criminally negligent conditions.

I worked for two months without my OSHA 10 certification. Everyday I was asked for a copy and everyday I managed to work without it. I was put to work on scaffolding without certification or knowledge of fall protection. I was oblivious to all the dangers and hazards of what I was being asked to do by my employer. It wasn’t until my apprenticeship training that I learned the essential health and safety standards meant to keep us safe.

I am thankful I can be here today, alive and healthy, sharing my experience in hopes what I went through can shine light on the ugly truths of the non-union industry: profits matter more than life, and safety training is an inconvenience for contractors who seek the highest possible profit margins.

Intro. 1447 is not an apprenticeship mandate, but rather, it will raise the bar by implementing safety standards and requirements that mirror those set by the New York State Department of Labor.

This legislation will save lives and it must be passed now. We can no longer continue to allow the exploitation of minorities in the non-union industry. All workers deserve to work safe so they can come home to their families.

I thank you for your time and like I mentioned before, I hope I can be a voice for all those workers who are intimidated by their employers and continue to work under unsafe conditions.

Pass Intro. 1447.



**Testimony by Charlene Obernauer, NYCOSH Executive Director**

**City Council Meeting re: Construction Safety**

**January 31, 2017**

Thank you to all of the Council Members for your initiative to protect construction workers, and thank you for having me at this hearing.

Today, we come to you in the midst of a crisis. In the new release of our report, called *Deadly Skyline*, around construction safety in New York State, NYCOSH finds alarming trends. New data shows an uptick in worker fatalities in New York State and New York City, an increasing number of accidents in construction, an increase in deaths due to falls, and safety violations at 90 percent of construction fatality sites. NYCOSH also finds, as has been the case in previous reports, non-union construction sites are more dangerous. There are more fatalities on non-union sites, and NYCOSH's report has found that non-union job sites have twice as many violations as their union counterparts.

Our research also finds that Latino workers are disproportionately impacted by unsafe working conditions. They are more likely than non-Latinos to die on the job due to cases of extreme employer recklessness and disregard for human life, and they are more likely to die from fatal falls. They are also more likely to be victims of wage theft, experiencing dual exploitation by their employers.

I'd like to go through the summary of findings from the report, to highlight the risks that construction workers face on the job, and to urge the City Council to continue to investigate this issue further.

- **New York's construction industry is highly dangerous for workers, and workplace fatality rates are trending upward.** In the decade beginning in 2006 and ending in 2015, 464 construction workers died while on the job across New York State. New York State construction worker fatality rates have been trending upward.
- **Falls are the top cause of construction deaths in New York.** According to 2015 BLS data, 49 percent of deaths in New York State and 59 percent of deaths in New York City were caused by falls.
- **Nearly 2 in 3 OSHA construction site safety inspections find that employers have been violating the law, and penalties are small.** NYCOSH conducted an in-depth analysis of all construction site inspections in New York in 2014. Nearly 2 in 3 (65 percent) of site inspections found safety violations.
- **Employers that violate health and safety laws cause worker fatalities.** Almost all OSHA construction fatality site inspections find that employers had been violating



health and safety law. Safety violations were found at 87 percent of fatality sites inspected by OSHA in 2014, and over 90 percent of fatality sites inspected by OSHA in 2015.

- **Non-union construction sites are especially dangerous for workers.** In 2014 and 2015, 80 percent and 74 percent, respectively, of construction fatality sites OSHA inspected were non-union. In addition, twice the number of violations were found at non-union compared to union construction sites in 2014.
- **Misclassification in the construction industry increases risk of workplace injury.** Misclassification of construction employees is a common practice in New York's construction industry, and, according to OSHA, misclassified workers face a greater risk of workplace injury.
- **Latino construction workers face disproportionate danger of death due to falls and "willful" violations of health and safety laws.** 2015 OSHA data shows that 57 percent of the construction workers who died due to falls were Latino, although Latinos comprise 30 percent of the construction workforce. Willful violations--where the employer knew a hazardous condition exists, knew that it was a violation, and made no reasonable effort to correct it--were found at 33% of sites where Latinos died, while willful violations were found at 5 percent of sites where non-Latinos died.
- **Wage and hour violators are more likely to be safety and health violators.** In 2014, 79 percent of sites OSHA inspected with a history of wage theft were found to have safety violations, compared to 65 percent of all construction sites.

While we have recommendations at the Federal and State level, which include jailing criminal contractors and protecting the Scaffold Safety Law, we are also calling for recommendations specific to New York City, which I will highlight for you today.

### ***Require Adequate Education and Training***

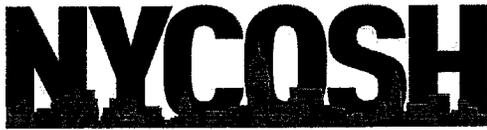
- **Require OSHA 10 or equivalent training to all New York construction workers.** The Occupational Safety and Health Administration has designed a 10-hour construction safety training program around the most common hazards construction workers face on the job conducted by OSHA-authorized instructors. New York City currently requires this OSHA 10 training for all workers on "major buildings," defined as buildings 10 stories or larger or with footprints greater than 100,000 square feet. New York City should expand the requirement to include all construction, regardless of size, target penalties at scofflaw employers, not workers, and provide adequate public funds to community organizations and workers centers who provide these trainings at low cost to make the trainings widely accessible.
- **Require apprenticeship programs and training for large construction projects.** Government-recognized apprenticeship programs provide rigorous training



requirements of hundreds or thousands of hours; combine on-the-job learning with technical instruction; and offer industry-recognized certifications that allow workers to progress in the industry. There is a clear link between this extensive training and the representation provided by unionized worksites, which traditionally use an apprenticeship program, and a lower fatality rate for workers. New York City should ensure that major construction projects use apprenticeship programs so that working in construction can provide a pathway to a good job for more of New York's low wage workers, and so that these workers can return home safely at the end of each day.

### ***Expand Monitoring & Enforcement***

- **The New York City Department of Buildings should comprehensively analyze all construction fatalities.** New York City should record all construction fatalities that occur, investigate these fatalities and work with OSHA and/or the Bureau of Labor Statistics to gather details on cause of death and safety issues at the fatality site to facilitate the development of effective health and safety policy. New York City should require companies filing for construction permits to submit OSHA violation histories.
- **Use existing city power to suspend or revoke licenses and construction permits for criminal contractors.** New York City should use its broad power over licensing and permitting to keep criminal contractors who were convicted of felonies that cause a worker death from operating unsafely and endangering workers and the public.
- **Continue to crack down on misclassification.** Misclassification in the construction industry is rampant and leaves workers more vulnerable to exploitation and workplace injury. New York's Joint Enforcement Task Force on Employee Misclassification must continue to shine a light on misclassification in the construction industry in New York.
- **Develop new enforcement strategies informed by the intersection between safety and wage violations.** Enforcement agencies need to recognize the intersection between health and safety violations and wage theft, and use this to inform their work.
- **Protect Latino and immigrant workers proactively.** Enforcement agencies should ensure that their enforcement strategies explicitly remedy inequities by targeting Latino and immigrant workers for outreach and education, making services accessible in multiple languages, protecting workers regardless of immigration status, and using proactive enforcement that does not rely on complaints.



First of all, we are generally supportive of all of the legislation here today and applaud the Council for creating initiatives to increase construction safety. We know that increased training, better enforcement, stronger penalties, and the revocation of licenses for criminal contractors is *effective* and *does* reduce injuries and fatalities on the job, and many of the bills here are an attempt at doing that.

We are also here in support of Intro 1447, which creates mandatory apprenticeship training programs in New York City; and also mandates OSHA 10 trainings on construction job sites. We recognize the importance of this legislation, due to the effectiveness of training in reducing injuries and fatalities on the job; which has been shown time and time again.

We recognize with this program—and with all effective programs—that it is imperative to target *employers* who may fail to comply with the legislation. Targeting workers who do not have OSHA 10 cards has been ineffective, and is a practice that—to my knowledge—has been discontinued by the DOB. It's the employer's responsibility to keep workers safe, and employers should be held responsible for ensuring that their workers are trained to work safely.

In addition, we applaud the Council's initiative with Intro 1433 to better count construction fatalities. In 2015, there were many inconsistencies among various agencies that counted deaths on construction jobs. The DOB counted 11 fatalities, OSHA counted 17—along with NYCOSH—and the comprehensive BLS data count showed 25 fatalities in New York in 2015. Each agency is responsible for a different aspect of construction safety; but the fact remains—New York City must count all construction worker deaths to accurately portray the crisis of construction fatalities.

Finally, we support Intro 744, to require prevailing wage on publicly subsidized construction projects. This bill is directed at the economics of a work site, but as our report has shown, there is a high correlation between employers who violate wage and hour laws and employers who violate safety and health regulations. By doing better on wages, we know that employers are more likely to improve on issues related to health and safety.

Our *Deadly Skyline* report presents a grim picture of fatalities in New York City. But it's a problem that can be solved. We hope that the Council will move towards enacting Intro 1447 and all of the bills today, and take our recommendations and continue to draft effective legislation to improve working conditions for construction workers.

Thank you for the opportunity to testify.

**NYCOSH**



# Deadly Skyline

**An Annual Report on Construction  
Fatalities in New York State**

January 2017

New York Committee for Occupational Safety and Health  
61 Broadway, Suite 1710, NY, NY 10006 | (212) 227-6440  
150 Motor Parkway, Suite 306, Hauppauge, NY 11788 | (631) 435-1857 [www.nycosh.org](http://www.nycosh.org)

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# IN MEMORIAM

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Listed below are the names and ages of construction workers who died on the job in New York State in 2015 and 2016, along with the dates and locations of the fatal incidents. The list includes only those names that could be identified from press reports and data from the U.S. Occupational Safety and Health Administration, United Support and Memorial for Workplace Fatalities, and research from the New York Committee for Occupational Safety and Health. Many names are missing. According to the Bureau of Labor Statistics (BLS), 55 workers died within the construction industry in 2015 in New York; 2016 BLS data is yet to be released.

## 2016

**Edgar Moroy-Morales, 34**

January 20, Yaphank, NY

**Konstantinos Potamousis, 62**

February 4, New York, NY

**Hector Duarte-Roque, 44**

February 18, Long Island, NY

**Manuel Sobral, 56**

February 22, New York, NY

**Jason Nichols, 42**

March 1, Long Island, NY

**Wilfredo Vasquez, 37**

March 13, Niskayuna, NY

**Alex Santizo, 21**

April 1, Brooklyn, NY

**Igor Begun, 54**

April 15, Brooklyn, NY

**Lorenzo Perechu**

April 18, Queens, NY

**Luis Mata, 32**

April 21, New York, NY

**Vitor Nobre, 55**

May 31, East Hampton, NY

**James Deragon, 47**

June 17, Rensselaer, NY

**Aaron Wellman, 40**

August 26, Darien Center, NY

**Bruno Travalja, 52**

September 15, New York, NY

**Jason C. Regatuso, 32**

September 19, New York, NY

**Wesley Waite**

September 21, Craryville, NY

**Jeffrey Langenfeld**

September 29, Buffalo, NY

**Paul Kenedy, 43**

October 11, Brooklyn, NY

**Michael Buffamante, 31**

October 26, Brooklyn, NY

**George Smith, age 47**

November 22, Queens, NY

**Elizandro Enriquez Ramos, 43**

November 22, Queens, NY

**Wilfredo Enriques, 59**

December 9, Brooklyn, NY

**Mahamoudon Marega, 30**

December 23, New York, NY

## 2015

<b>Edras Lopez, 46</b> January 6, Bronx, NY	<b>David Campbell, 31</b> June 2, Rochester, NY
<b>John Luna, 30</b> January 9, New York, NY	<b>Mark Keehley, 54</b> June 24, Rochester, NY
<b>Frank Dragotta, 61</b> January 21, New York, NY	<b>Alton Louis</b> July 8, Brooklyn, NY
<b>Eric Willes, 42</b> March 17, Binghamton, NY	<b>Adan Castaneda</b> July 16, North Castle, NY
<b>Peter Zepf, 52</b> February 24, Brooklyn, NY	<b>Dondi Brothers, 48</b> July 20, North Castle, NY
<b>Fredy Aguirre, 46</b> March 3, New York, NY	<b>Harold Lamont Durham, 40</b> August 14, Staten Island, NY
<b>Vidal Sanchez-Roman, 50</b> April 1, Brooklyn, NY	<b>Angel Muñoz, 27</b> August 23, New York, NY
<b>Carlos Moncayo, 22</b> April 6, New York, NY	<b>Juan Cerezo, 30</b> September 1, New York, NY
<b>John J. Trout, 46</b> April 21, Canandaigua, NY	<b>Fernando Venegas, 19</b> September 3, Brooklyn, NY
<b>Trevor Loftus, 40</b> April 24, New York, NY	<b>Jorge Garcia</b> September 29, Bronx, NY
<b>Christian Ginesi, 25</b> May 25, New York, NY	<b>Pedro Basilico, 26</b> October 29, New York, NY
<b>Dominic Deluca, 25</b> May 13, Bronx, NY	<b>Eugeniusz Klecha, 56</b> November 17, Staten Island, NY
<b>Christopher Hamelinck</b> May 26, Jamesville, NY	<b>Marco Morocho, 38</b> November 30, Cornwall-on-Hudson, NY
<b>Sean McCutcheon, 54</b> May 26, Guilderland Center, NY	<b>Luciano Almonte</b> December 8, Mount Vernon, NY
<b>Sharon Biesecker, 50</b> May 29, Hammondsport, NY	<b>Louis Alberto Pompoza Chicaiza, 33</b> December 24, New York, NY
<b>Michael DeFio</b> June 4, Syracuse, NY	

# INTRODUCTION

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When Carlos Moncayo, a 22-year-old Ecuadorian immigrant construction worker, had his life needlessly cut short in an unprotected excavation, the incident was not only foreseeable and preventable, but a criminal act on the part of his employer.

Moncayo is one of nearly 500 workers in New York's construction industry whose lives have been tragically cut short over the past decade. Many of these deaths were entirely preventable. The lives of construction workers who are building New York every day should never be sacrificed for the sake of higher profits.

In 2016, important steps were taken to improve conditions for construction workers. A construction safety task force, launched by Manhattan District Attorney Cyrus Vance in collaboration with NYCOSH and multiple agencies, unions, and community-based organizations has supported the use of existing criminal law to prosecute criminal contractors who needlessly endanger workers' lives. The historic conviction of Harco Construction, the company whose criminal failure to protect their workers caused Carlos Moncayo's death, was a result of the Manhattan District Attorney's diligent work on the case, as well as a heightened focus on improving construction safety in New York City.

The U.S. Occupational Safety and Health Administration took a significant step towards progress; after 25 years of keeping fines stagnant, as of August 1, 2016, the agency increased its penalties for employers who violate safety and health law. The increase, put into effect on August 1, 2016, will help deter contractors from breaking the law and has been an ongoing recommendation made in NYCOSH's annual reports on construction fatalities.

Still, much work remains. Construction workers, who spend their days building New York, must be protected to the fullest extent of the law, regardless of race, gender, or immigration status. District attorneys across New York State must follow the lead of the Manhattan District Attorney and use their existing power to prosecute criminal contractors. And when existing laws are inadequate, we must be bold and innovative to create new solutions—stronger regulations—that protect New York's most vulnerable workforce.

In this update of NYCOSH's annual construction fatality reports, NYCOSH finds alarming trends, including an uptick in worker fatalities in New York State and New York City, an increasing number of accidents in construction, an increase in deaths due to falls, and safety violations at 90 percent of construction fatality sites. NYCOSH also finds that wage and hour violators are more likely to be safety violators, and, as has been the case in previous reports, non-union construction sites are more dangerous. Not only are there more fatalities on non-union sites, but NYCOSH's report has found that non-union job sites have twice as many violations as their union counterparts.

Our research also finds that Latino workers are disproportionately impacted by unsafe working conditions. They are more likely than non-Latinos to die on the job due to cases of extreme employer recklessness and disregard for human life, and they are more likely to die from fatal falls. They are also more likely to be victims of wage theft, experiencing dual exploitation by their employers.

In response to the health and safety crisis facing New York’s construction workers, NYCOSH has a series of recommendations. NYCOSH continues its call to protect the Scaffold Safety Law, which grants injured construction workers who fall on the job the right to sue an employer who puts their life in danger. NYCOSH is also calling for new legislation to increase penalties for companies that willingly violate the law and cause a worker fatality, and to revoke the licenses of criminal contractors who were convicted of felonies in the case of a worker death. Finally, NYCOSH recommends increased training for workers, like apprenticeship programs on large construction projects, OSHA 10s on all construction sites, and licensing for elevator construction workers.

In the past two years, thirty workers have died in New York City’s construction sites; but tragically, many of these fatalities are uncounted by City and Federal agencies; and the names of many fallen workers go unknown.

New York’s construction workers build New York every day. In the warmth, in the cold; when they’re healthy, when they’re sick; whether they’re in a union or not. In the past ten years, nearly 500 of these workers have been killed while on the job. This report is dedicated to each and every one of those workers, who deserved better. All construction workers deserve a safe workplace, and we hope that this report can serve as a catalyst towards improving working conditions and preventing another senseless death on a New York construction site.

# SUMMARY OF FINDINGS

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- 1. New York’s construction industry is highly dangerous for workers, and workplace fatality rates are trending upward.** In the decade beginning in 2006 and ending in 2015, 464 construction workers died while on the job across New York State. New York State construction worker fatality rates have been trending upward.
- 2. Falls are the top cause of construction deaths in New York.** According to 2015 BLS data, 49 percent of deaths in New York State and 59 percent of deaths in New York City were caused by falls.
- 3. Over 2 in 3 OSHA construction site safety inspections find that employers have been violating the law, and penalties are small.** NYCOSH conducted an in-depth analysis of all construction site inspections in New York in 2014. Over 2 in 3 (68 percent) of site inspections found safety violations.
- 4. Employers that violate health and safety laws cause worker fatalities.** Almost all OSHA construction fatality site inspections find that employers had been violating health and safety law. Safety violations were found at 87 percent of fatality sites inspected by OSHA in 2014, and over 90 percent of fatality sites inspected by OSHA in 2015.
- 5. Non-union construction sites are especially dangerous for workers.** In 2014 and 2015, 80 percent and 74 percent, respectively, of construction fatality sites OSHA inspected were non-union. In addition, twice the number of violations were found at non-union compared to union construction sites in 2014.
- 6. Misclassification in the construction industry increases risk of workplace injury.** Misclassification of construction employees is a common practice in New York’s construction industry, and, according to OSHA, misclassified workers face a greater risk of workplace injury.
- 7. Latino construction workers face disproportionate danger of death due to falls and “willful” violations of health and safety laws.** 2015 OSHA data shows that 57 percent of the construction workers who died due to falls were Latino, although Latinos comprise 30 percent of the construction workforce. Willful violations—where the employer knew a hazardous condition exists, knew that it was a violation, and made no reasonable effort to correct it—were found at 33% of sites where Latinos died, while willful violations were found at 5 percent of sites where non-Latinos died.
- 8. Wage and hour violators are more likely to be safety and health violators.** In 2014, 79 percent of sites OSHA inspected with a history of wage theft were found to have safety violations, compared to 68 percent of all construction sites.

# SUMMARY OF RECOMMENDATIONS

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## *Require Adequate Education and Training*

- 1. Require OSHA 10 or equivalent training for all New York City construction workers.** OSHA's 10-hour construction safety training program provides workers with training on the most common hazards construction workers face on the job. New York City currently requires this OSHA 10 training for all workers on buildings 10 stories or larger or with footprints greater than 100,000 square feet, but should require the training for workers on all construction projects.
- 2. Require apprenticeship programs and training for large construction projects.** Government-recognized apprenticeship programs provide rigorous training requirements of hundreds or thousands of hours; combine on-the-job learning with technical instruction; and offer industry-recognized certifications, which allow workers to progress in the industry.

## *Extend and Defend Protective Legislation*

- 3. Preserve New York's Scaffold Safety Law.** New York State's Scaffold Safety Law protects construction workers by holding building site owners and employers fully liable for worker injuries and deaths resulting from unsafe conditions at elevated worksites.
- 4. Pass the Construction Insurance Transparency Act.** The Construction Insurance Transparency Act requires insurers providing coverage for liability under the Scaffold Safety Law to publicly disclose information about premium determinations and financial solvency.
- 5. Pass the Elevator Safety Act.** To ensure that elevator-related work is done safely, the New York State Elevator Safety Act requires that design, construction, operation, inspection, maintenance, alteration and repair of elevators be done by licensed workers.
- 6. Pass Criminal Contractors legislation.** The State should initiate new legislation to establish significant and effective penalties against contractors whose willful negligence led to a construction workers' death.

## *Expand Monitoring & Enforcement*

- 7. The New York City Department of Buildings should comprehensively analyze all construction fatalities.** New York City should record all construction fatalities that occur, investigate these fatalities and work with OSHA and/or the Bureau of Labor Statistics to gather details on cause of death and safety issues at the fatality site to facilitate the development of effective health and safety policy. New York City should require companies filing for construction permits to submit OSHA violation histories.
- 8. Expand criminal prosecutions statewide.** Across the state, district attorneys should exercise their power to hold criminal contractors accountable, when the failure to protect workers rises to the level of a criminal offense.

- 9. Use existing city power to suspend or revoke licenses and construction permits for criminal contractors.** New York City should use its broad power over licensing and permitting to keep criminal contractors who were convicted of felonies that cause a worker death from operating unsafely and endangering workers and the public.
- 10. Continue to crack down on misclassification.** Misclassification in the construction industry is rampant and leaves workers more vulnerable to exploitation and workplace injury. New York's Joint Enforcement Task Force on Employee Misclassification must continue to shine a light on misclassification in the construction industry in New York.
- 11. Develop new enforcement strategies informed by the intersection between safety and wage violations.** Enforcement agencies need to recognize the intersection between health and safety violations and wage theft, and use this to inform their work.
- 12. Protect Latino and immigrant workers proactively.** Enforcement agencies should ensure that their enforcement strategies explicitly remedy inequities by targeting Latino and immigrant workers for outreach and education, making services accessible in multiple languages, protecting workers regardless of immigration status, and using proactive enforcement that does not rely on complaints.

# 1. New York's construction industry is highly dangerous for workers, and workplace fatality rates are trending upward.

## In the decade between 2006 and 2016, 464 workers died in construction-related accidents in New York State.

New York's construction industry is highly dangerous for workers. According to the U.S. Bureau of Labor Statistics' Census of Fatal Occupational Injuries, between the start of 2006 and the end of 2015, 464 workers died in the construction industry. In 2015 alone, 55 construction workers were fatally injured in the state.<sup>1</sup>

Employing approximately four percent of the state's workforce,<sup>2</sup> the construction industry sees one-fifth of workplace fatalities.<sup>3</sup> Construction is the most dangerous industry in the country with the highest number of fatalities; and the second deadliest industry for workers in New York, after the agricultural industry (which includes agriculture, forestry, fishing, and hunting).<sup>4</sup>

New York's construction workers, in particular those who have not gone through rigorous training programs, regularly express a fear of getting injured or even killed on the job site.

## In New York State, the fatal occupational injury rate in construction is 3.7 times the overall rate.

New York State's construction fatal occupational injury (FOI) rate of 10.0 per 100,000 full-time equivalent workers is almost four times the state's overall FOI rate.<sup>5</sup> Unfortunately, contextualizing New York's FOI rate within the U.S. as a whole is difficult because, according to the BLS, FOI rates are not comparable across states nor between states and the national rate due to methodological differences in data-gathering across the locations.<sup>6</sup>

*"I worked on many job sites where the employers never gave us personal protective equipment or training."*

-Camilo, a construction worker from the Bronx at a NYCOSH training in 2016

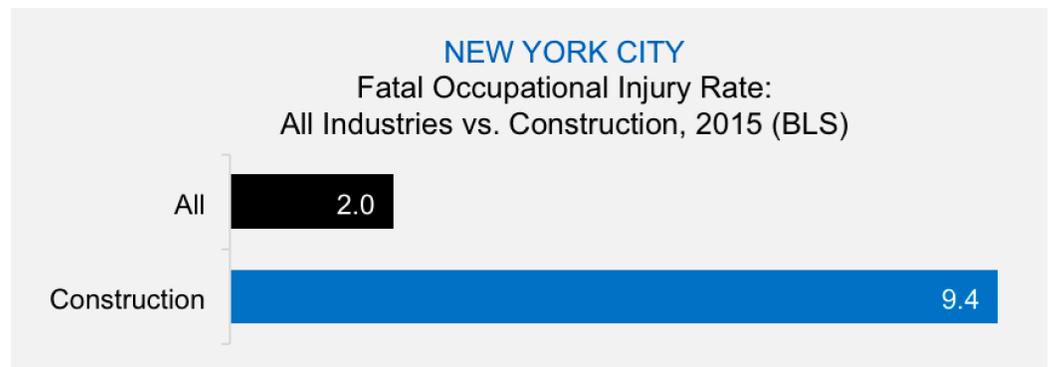


**New York City has the highest fatal occupational injury rate in construction, at 4.7 times the overall rate.**

In New York City, the construction sector sees more than one-third (34 percent) of workplace deaths,<sup>7</sup> despite the fact that it employs approximately three percent of the total workforce.<sup>8</sup> In Los Angeles and Chicago, where construction employs a similar proportion of the workforce, the industries see 32 percent and 24 percent of workplace deaths, respectively.<sup>9</sup>

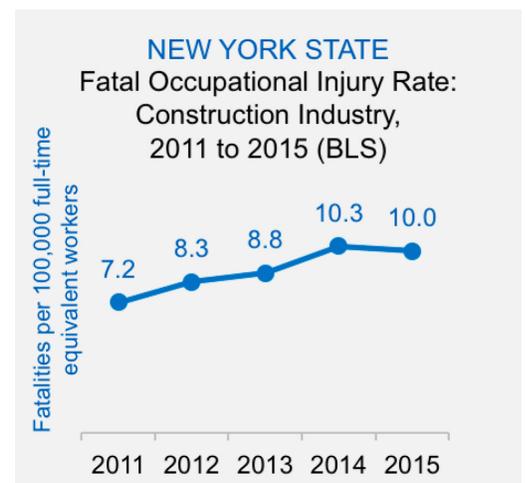
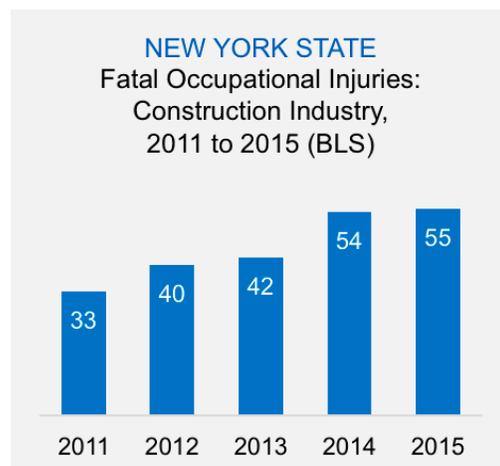
Regular news stories in 2016 have brought to light gruesome deaths of New York City’s construction workers. In December 2016, a 59-year-old construction worker, Wilfredo Enriques, fell two stories to his death at a Brooklyn construction site. Mr. Enriques was wearing a harness but was not properly tied off.<sup>10</sup> The City buildings commissioner Rick Chandler commented after the worker’s death that the tragedy was “likely preventable.”<sup>11</sup>

**The New York State construction fatal injury rate has risen almost 40 percent between 2011 and 2015.**



**Fatal occupational injuries have been on the rise in New York State and New York City in the last five years.**

Between 2011 and 2015, the number of fatal occupational injuries in New York State and New York City saw an increase. In New York State, the increase cannot be explained by an increase in construction activity alone,<sup>12</sup> because the construction fatal injury *rate* has been trending upward as well, rising almost 40 percent between 2011 and 2015. The fatal occupational injury rate for all industries in New York remained relatively constant during that same period, fluctuating between 2.1 and 2.8 per 100,000 full-time



equivalent workers.<sup>13</sup> For construction workers, the rate increased over the past five years, unlike other industries; and unexplained by an increase in construction activity.

In New York City, fatal occupational injuries in the construction industry increased from 17 in 2011 to 25 in 2015, as construction boomed.<sup>14</sup> In the past two calendar years, every two to three weeks, New York City families have mourned the loss of a construction worker, who likely died in a preventable accident.

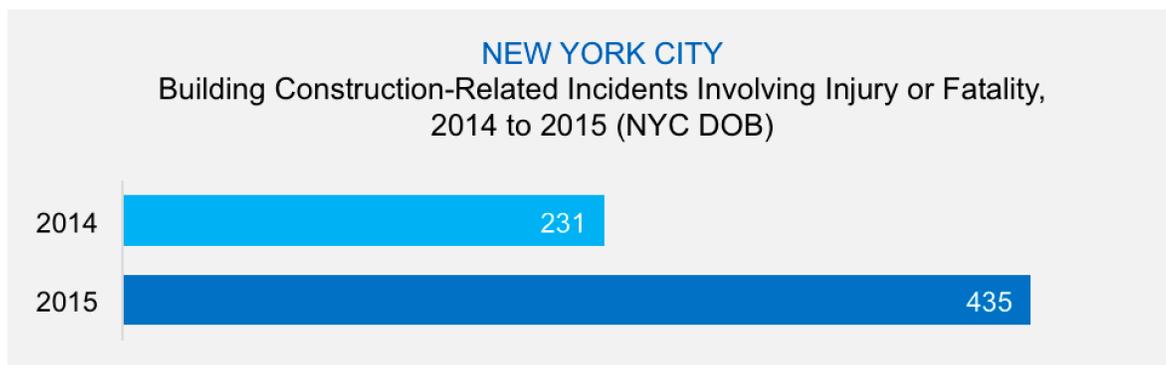


**New York City does not accurately count construction fatalities.**

The New York City Department of Buildings does not investigate and officially record construction deaths that do not threaten public safety, meaning that many construction fatalities go uncounted by the City agency. In 2015, the Department of Buildings investigated just 11 construction deaths, while the Occupational Safety and Health Administration (OSHA) investigated and reported 17 deaths.<sup>15</sup>

**Between 2014 and 2015, building construction-related incidents involving injuries or fatalities almost doubled in New York City.**

According to New York City Department of Buildings, construction-related incidents involving injuries or fatalities have risen in the last five years, skyrocketing between 2014 and 2015. There were 128 construction-related incidents in 2011, 176 in 2012, 186 in 2013, 231 in 2014, and 435 (an 88 percent increase over the previous year) in 2015.<sup>16</sup>

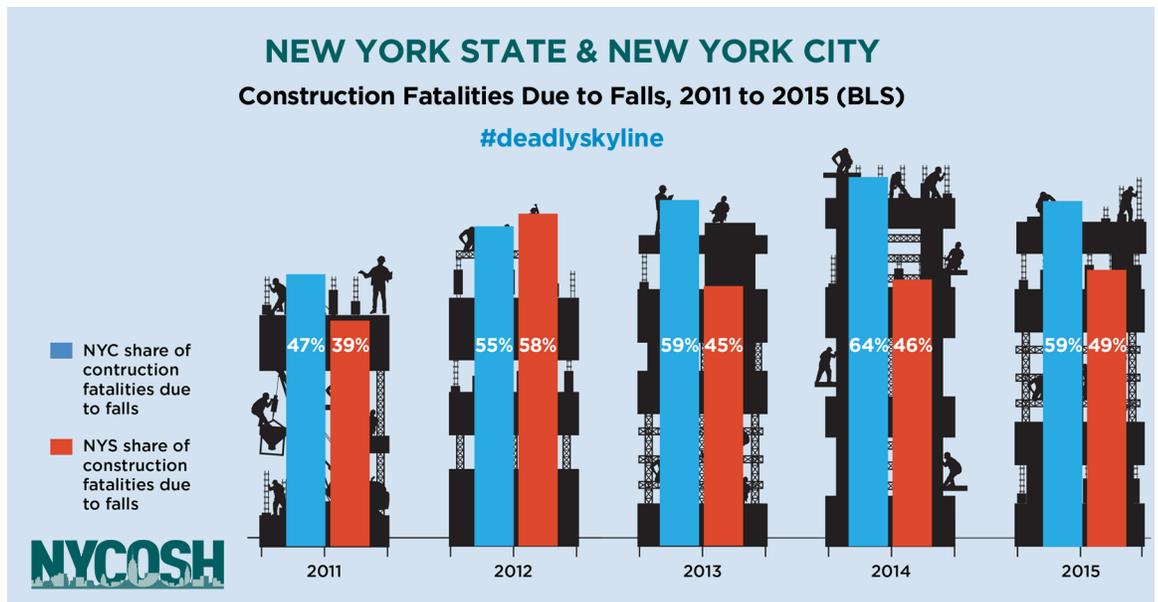
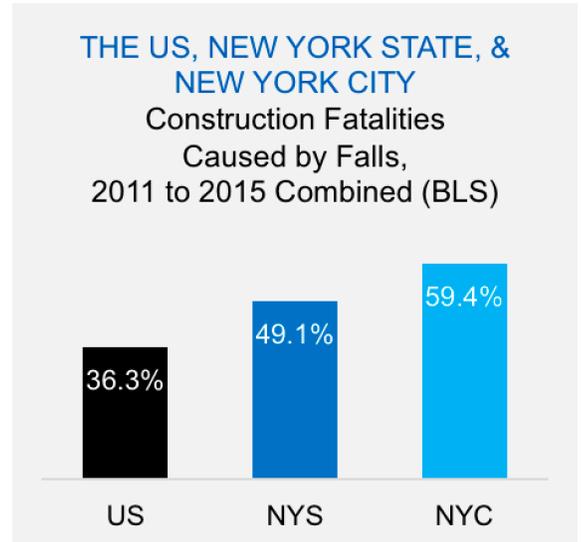


## 2. Falls are the top cause of construction-related deaths in New York.

**Deaths dues to falls are the top cause of construction-related deaths in New York State and New York City. The share of fatalities due to falls has been trending upward.**

In New York State, about half (49.1 percent) of construction-related deaths in the five years comprising 2011 to 2015 were the result of falls.<sup>17</sup> In New York City during that same period of time, about three in five (59.4 percent) of construction deaths were fall-related.<sup>18</sup>

Many fatal falls are preventable. OSHA regulations around the proper construction of scaffolding and the mandatory and proper use of personal protective equipment like harnesses on active construction sites are intended to prevent workers from falling to their death. However, the failure of construction employers to take mandated fall prevention measures results in preventable worker fatalities.



**Five of 31 New York State construction deaths OSHA investigated in 2015 were elevator-related.**

According to OSHA inspection data, five out of the 31 construction fatalities it investigated in 2015 were elevator-related; four occurred in Manhattan. Three of the deaths involved falls down elevator shafts, and two deaths were the result of workers being crushed by elevators.<sup>19</sup>

Elevator construction workers regularly describe dangerous working conditions and a fear for their life on the construction site. 25-year-old Christian Ginesi was an Air Force veteran who told a friend, “It’s not like the Air Force. It’s not safe out here,” referring to his job as an elevator construction worker.<sup>20</sup>

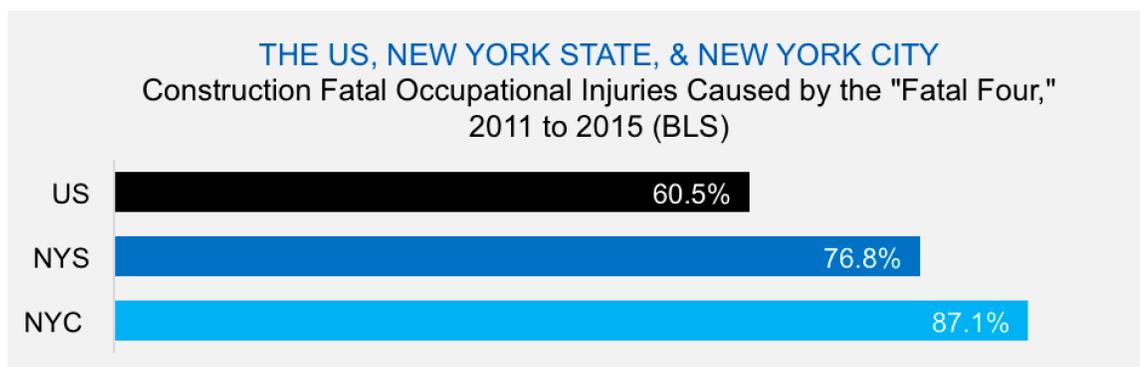
In 2015, Mr. Ginesi was installing an elevator door frame at a Manhattan construction site when the elevator he was in lost power and stalled five feet above the landing. When Mr. Ginesi attempted to jump from the elevator to the landing, he fell 25 stories to his death. An investigation by the Department of Buildings discovered that the company, G-Tech, was unlicensed to work in New York City and was powering the elevator with a jerry-rigged electrical system that failed and resulted in Mr. Ginesi’s death.<sup>21</sup> G-Tech was hit with a series of fines. Mr. Ginesi’s death was preventable.

**The “Fatal Four”—falls, electrocutions, struck by object, and caught-in/between equipment or machinery—cause almost all construction deaths in New York.**

Nationally, the most common causes of fatal occupational injuries in the construction industry—dubbed the “Fatal Four” by OSHA—are falls, electrocutions, struck by object, and caught-in/between equipment or machinery. According to BLS data for the five years comprising 2011 to 2015, the Fatal Four were responsible for 76.8 percent of construction-related fatalities in New York State and 87.1 percent in New York City.<sup>22</sup>

*“I used to work for an elevator company doing a remodel. The elevator was on the second floor in an open elevator shaft. We told the boss, who was the owner of the company, that he had to secure the elevator so we could work safely underneath it, but he didn’t.”*

—Jose Luis, a construction worker from Brooklyn said at a NYCOSH training in 2016.



**3. Over 2 in 3 OSHA construction site safety inspections find that employers have been violating the law, and penalties are small.**

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The Occupational Safety and Health and Safety Administration is charged with enforcing workplace safety regulations established by the Occupational Safety and Health Act (1970). New York’s 13 OSHA offices conduct routine and complaint/referral-based inspections of worksites across the state. Each year, OSHA inspects two to three thousand construction worksites in New York.

**Construction has boomed in New York State and industry fatalities have been increased, but the number of OSHA construction site inspections has declined.**

The number of OSHA construction site inspections decreased between 2013 and 2015, from 1891 to 1585 respectively.<sup>23</sup> OSHA has just 66 inspectors in its New York State staff to investigate worksite safety across all industries.<sup>24</sup>

**In 2014, safety violations were found at more than two-thirds of all construction sites in New York.**

NYCOSH conducted an in-depth analysis of the over two thousand construction site inspections conducted by OSHA in New York in 2014. Over 2 in 3 (68 percent) construction site inspections found that employers were violating OSHA safety standards. In cases where violations were found, the average fine was \$3,673.<sup>25</sup>

The average fine amount will increase in coming years, as OSHA penalties increased by 78 percent on August 1, 2016, the first increase since 1990.<sup>26</sup> The higher fine amounts should serve as a stronger deterrent against violations.

Type of Violation	Maximum Penalty Prior to August 1, 2016	Current Maximum Penalty
Serious, Other-Than-Serious, Posting Requirements	\$7,000 per violation	\$12,471 per violation
Failure to Abate	\$7,000 per day beyond the abatement date	\$12,471 per day beyond the abatement date
Willful or Repeat	\$70,000 per violation	\$124,709 per violation

Low fines, combined with the difficulty of proving criminal negligence under the law, helps create an industry where fines and other penalties are not strong enough to deter employers from violating the law. This was exemplified plainly in the case of Carlos Moncayo.

On April 6, 2015, 22-year-old Carlos Moncayo left his family's home to go to his construction job, never to return. Carlos died that day from the injuries he sustained when an unshored trench caved in around him just moments after a safety inspector had declared the trench unsafe and declared to the foreman that no workers should go inside. Mr. Moncayo's death could have been prevented given well documented and repeated warnings of the dangerous excavation practices that were willfully ignored by the general contractor Harco Construction and their site supervisor Alfonso Prestia; as well as by subcontractor Sky Materials, and the company's foreman Wilmer Cueva.

The warnings on the non-union site went unheeded in the months, days, hours and even in the minutes leading to the tragedy. Both the New York City Building Code and OSHA regulations require excavations of more than five feet to be reinforced; warning of the imminent danger was issued by an inspector when the trench reached seven feet; the depth of the excavation had reached 14 feet when it collapsed and crushed Carlos to death. The site was a crime scene.

Harco Construction, Alfonso Prestia, Sky Materials, and Wilmer Cueva each played a willfully reckless role in the tragedy and were named as criminal defendants, indicted and charged in New York State Supreme Court with Manslaughter in the Second Degree, Criminally Negligent Homicide, and Reckless Endangerment in the Second Degree. The charges were brought by Manhattan District Attorney, Cyrus Vance and the cases were prosecuted by Assistant District Attorney Diana Florence.

In June of 2016, Harco Construction was convicted in a bench trial of Manslaughter in the Second Degree, a class C felony, 1 count; Criminally Negligent Homicide, a class E felony, 1 count; Reckless Endangerment in the Second Degree, a class A misdemeanor, 3 counts. The company was sentenced to conditional discharge and the court ordered that the company fund a public service announcement campaign focused on warning construction workers and the public about health and safety, particularly about trench hazards, or pay the legally mandated maximum \$10,000 fine if they failed to comply. The most the company could be fined based on state laws that govern company wrong-doing, was only \$10,000 partly because several charges were in the same category. Harco's attorney defiantly emphasized that the company was not guilty, would not comply and would rather just pay the minimal fine, which is all they did in the end. The judge on the Harco trial referred to the weak state laws that allow a corporation to get away with a nominal fine despite a manslaughter conviction—sending the message that companies can continue to act with impunity.

Following a deadlocked jury, Harco's site supervisor Alfonso Prestia got probation and community service for criminally negligent homicide in a plea deal. As reported by *Newsday*, in regard to Prestia's sentencing, Carlos Moncayo's family didn't want to undergo another trial.

While the Sky Materials trial was still pending as of January 2017, the company's foreman Wilmer Cueva was convicted by a New York State Supreme Court jury of Criminally Negligent Homicide and Reckless Endangerment and sentenced to 1-3 years in prison on December 15, 2016.

Until state law is changed to ensure all corporations and individuals involved are sufficiently punished for taking a life, those responsible for worker safety on job sites will likely not make safety a priority.



**This is the trench where Carlos Moncayo was crushed to death.**

**The most commonly found violations related to failure by employers to take fall prevention measures.**

The most commonly issued safety citations in 2014 related to measures meant to prevent falls. Over 46 percent of the almost 4,000 safety citations issued related to fall protection, scaffold safety, or stairway/ladder safety. Fatal falls were the top cause of construction fatalities in 2014, so these violations too often result in worker fatalities. Violations of training and hazard communication standards accounted for 14 percent of all violations.

#### 4. Employers that violate health and safety laws cause worker fatalities.

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**Almost all OSHA construction fatality site inspections find that employers had been violating health and safety law. Safety violations were found at 87 percent of fatality sites inspected by OSHA in 2014, and over 90 percent of fatality sites inspected by OSHA in 2015.**

According to BLS, there were 54 fatal injuries in the construction industry in New York State in 2014 and OSHA inspected 30 of those fatality sites. Safety violations were found at 26 out of 30 fatality sites; willful violations were found at one site; and repeat violations were found at one site.

BLS data indicates that there were 55 fatal occupational injuries in New York State in 2015; OSHA has inspected 31 of those fatality sites, and has open investigations at three more sites. Safety violations have been found at 28 out of 31 of fatality sites; willful violations were found at five sites; and repeat violations were found at two sites.

In other words, more than 87 percent of the time in 2014 and 90 percent of the time in 2015, construction worker deaths were preventable, and the employer was at fault. Employers regularly endanger their workforce by not following regulations and workers die as a result. Given these statistics, it is reasonable to suspect after any construction fatality, that the death was preventable.

**In 2015, the average OSHA fatality fine increased to \$21,644; up from \$14,156 in 2014.**

At construction fatality sites where safety violations were found in 2014, the average number of violations was 2.7. Penalties issued at fatality sites with violations ranged from \$0 to \$140,000, and the average penalty levied was \$14,156. At construction fatality sites where safety violations were found in 2015, the average number of

*“My employer has not given me any kind of training on health and safety in the past two years. Employers I work for don’t care about the safety of workers.”*

–Cesar, a construction worker from the Bronx said at a NYCOSH training in 2016.

### Almost all OSHA inspections of construction fatality sites in New York State found safety violations.

- **87%** of fatality sites inspected by OSHA in 2014 and more than **90%** inspected in 2015, had safety violations.
- In both 2014 and 2015, safety violations were found at **100%** of construction sites with fall-related deaths.



violations was 3.1. Penalties issued at sites with violations ranged from \$0 to \$140,000, and the average penalty levied was \$21,644.

**In both 2014 and 2015, safety violations were found at 100 percent of construction sites where fall-related deaths occurred.**

Of the 22 fall-related deaths investigated by OSHA in 2014 and 2015, 100 percent occurred at sites where safety violations were found. In 2015, violations related to fall prevention were found at 13 out of the 14 sites where fall deaths occurred, and training-related violations were found at 7 of 14 of those sites. This data shows that workers who are eligible to sue under the Scaffold Safety Law—100 percent of the time in 2014 and 2015—were not at fault and therefore should be able to hold their employers accountable in a court of law.

## 5. Non-union construction sites are especially dangerous for workers.

### **Non-union construction sites see a disproportionate share of worker fatalities.**

According to OSHA inspection data, in 2014 and 2015, New York State's non-union construction sites saw a disproportionate share of construction fatalities. In 2014 and 2015, 80 percent and 74 percent, respectively, of construction fatality sites OSHA inspected were non-union.<sup>27</sup>

### **Twice the number of violations were found at non-union compared to union construction sites in 2014.**

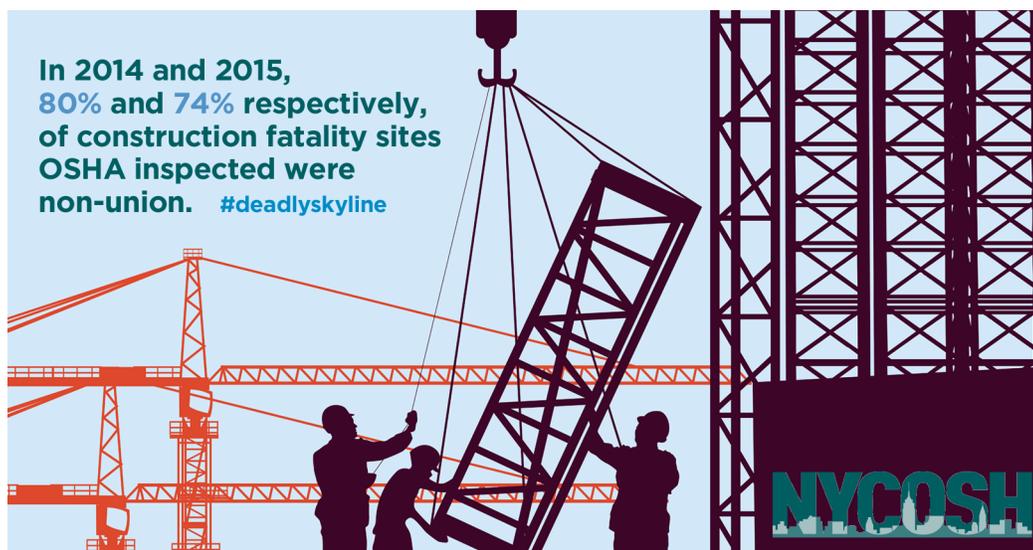
NYCOSH conducted an in-depth analysis of 2014 OSHA New York construction site inspection data and found, on average, more than twice the safety violations at non-union sites compared to union sites. OSHA inspections of non-union construction fatality sites in New York State in 2014 found cases of "willful" and repeat violations. There were no willful or repeat violations found at union sites.<sup>28</sup>

### **Over 93 percent of companies on OSHA's "Severe Violators" list are non-union.**

OSHA's Severe Violators Program "focuses on recalcitrant employers that endanger workers by committing willful, repeat or failure-to-abate violations." Non-union companies are over-represented on the Severe Violators list: 41 of the 44 New York-based construction companies on the list are non-union.<sup>29</sup>

*"I've worked in [non-union] construction for ten years, in carpentry and masonry. No employer has ever given me any kind of health and safety training."*

-Camilo, a construction worker from the Bronx said at a NYCOSH training in 2016.



## 6. Misclassification in the construction industry increases risk of workplace injury.

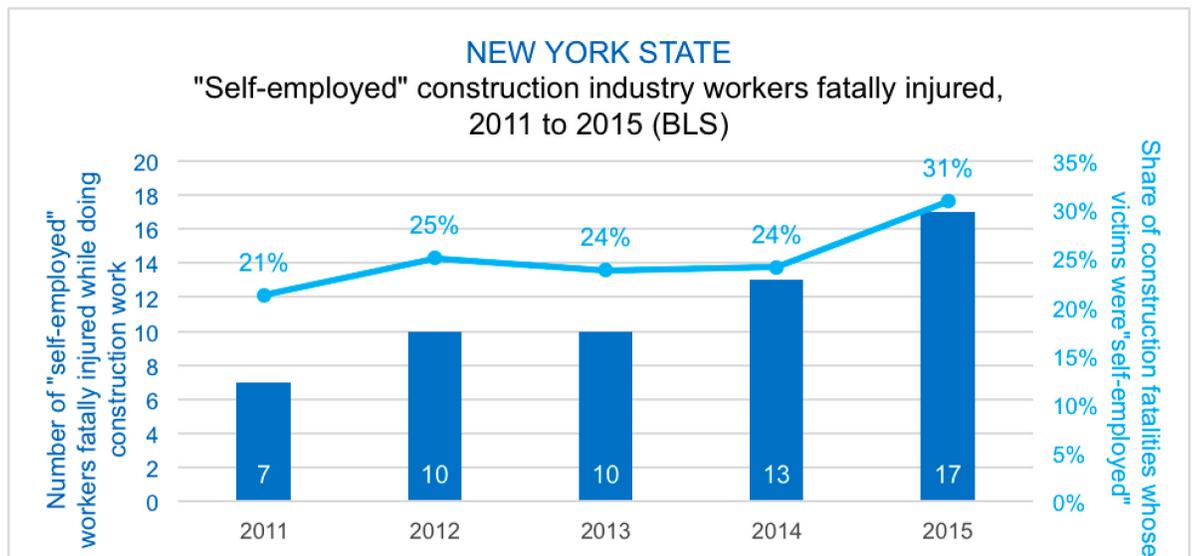
Misclassification of construction employees is a common practice in New York's construction industry, according to studies by the Fiscal Policy Institute and New York State's Joint Enforcement Task Force on Employee Misclassification.<sup>30</sup> Misclassification takes two forms: improper classification of employees as independent contractors and "off-the-books" employment of workers.<sup>31</sup>

In 2010, New York State passed the Construction Industry Fair Play Act, which has facilitated agency investigations of misclassification and enforcement of labor law. The legislation created a "presumption of employment" in the industry unless an employer can meet stipulations of a three-part test to prove independent contractor status. Agency sweeps of New York's construction industry in 2014 discovered \$2.7 million in unreported wages, \$104,000 in unpaid unemployment insurance premiums, and identified 230 misclassified workers.<sup>32</sup>

**Almost one-third of New York State construction industry fatalities were of "self-employed" workers in 2015.**

**Over the past five years, an increasing share of the workers who have been fatally injured in New York's construction industry were designated as "self-employed."**

Between 2011 and 2015, the number of workers the BLS designates as "self-employed" who died within New York's construction industry rose from 7 to 17, which represents an increase from 21 percent to 31 percent of fatalities—almost one-third of construction industry fatalities were of "self-employed" workers in 2015.<sup>33</sup> Self-employed workers fall outside of OSHA's jurisdiction, so these worker fatalities are not investigated by the agency, and thus little is known about their cause and how they might have been prevented through better safety practices. Given high rates of misclassification in New York's construction industry, whether any of these "self-employed" workers who were fatally injured were employees misclassified as self-employed workers warrants investigation by the New York State Department of Labor.<sup>34</sup>

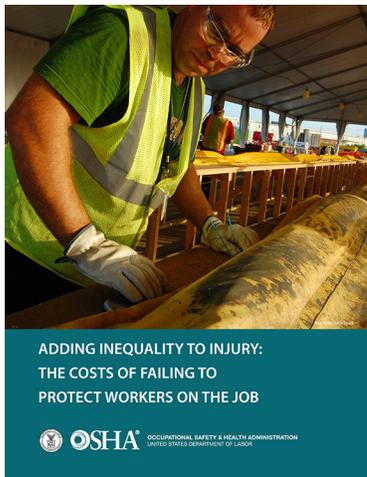


## According to OSHA, misclassified workers face a greater risk of workplace injury.

According to the Occupational Safety and Health Administration, “in the construction industry, the proportion of the workforce misclassified as independent contractors is substantial.” OSHA explains how misclassification increases workers’ risk of injury;<sup>35</sup>

Employee misclassification increases workers’ vulnerability to occupational injury as well as financial exploitation and discrimination. Employers with misclassified workers do not pay Social Security, Medicare, and unemployment insurance taxes, workers’ compensation insurance premiums, and are unlikely to pay a premium for overtime work; these financial savings for employers come at the cost of critical worker protections. Employers who misclassify employees impede workers’ access to the following:<sup>36</sup>

- the right to a minimum wage, overtime pay, and paid rest breaks under the Fair Labor Standards Act (FLSA);
- the right to an unemployment benefit; the right to equal access to 401(k) and retirement benefits offered by employers under the Employee Retirement Income Security Act (ERISA);
- protection against discrimination on the basis of factors like age, race, gender, or disability, enforced by the Equal Employment Opportunity Commission (EEOC);
- the right to organize under the National Labor Relations Act (NLRA);
- the right to a safe and healthy workplace under Occupational Safety and Health (OSH) Act; and,
- the right to workers’ compensation in case of occupational injury.



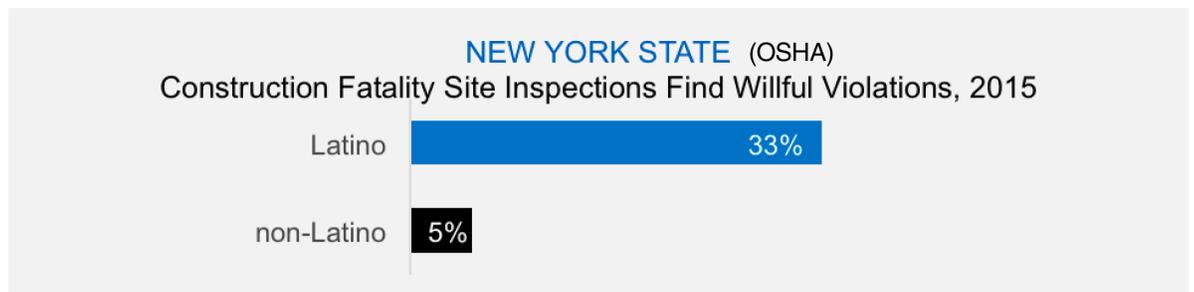
Misclassifying workers increases the likelihood of work injuries through two mechanisms. First, by misclassifying wage employees as independent contractors, employers do not have to worry about the OSHA requirement to provide a safe workplace, since the OSHA law does not cover the self-employed. Second, these employers avoid paying workers’ compensation insurance premiums (as well as unemployment insurance and other benefits and taxes). The misclassifying employer is no longer concerned about workers’ compensation premiums rising following a work injury, so is less likely to invest in safety. The result is increased risk of work injuries at workplaces where employees have been misclassified, and, when those injuries do occur, the injured workers, their families and the taxpayer bear the costs, subsidizing the employers’ hazardous operations.

7. Latino construction workers face disproportionate danger of death due to falls and “willful” violations of health and safety laws.

**In New York State construction sites where Latinos perished, employers were almost 7 times as likely to have committed “willful” violations of health and safety laws.**



In 2015, “willful” violations were found at 33 percent of sites where Latinos died, while willful violations were found at 5 percent of sites where non-Latinos died. If the level of OSHA penalties levied for safety violations at construction fatality sites is considered a proxy for severity of violation, worksites where Latino workers were killed, were on the average, more unsafe than those where non-Latino workers died. The average OSHA penalty levied for safety violations at worksites where Latinos died was \$40,989, compared to \$15,873 at worksites where non-Latino construction workers died.<sup>37</sup>

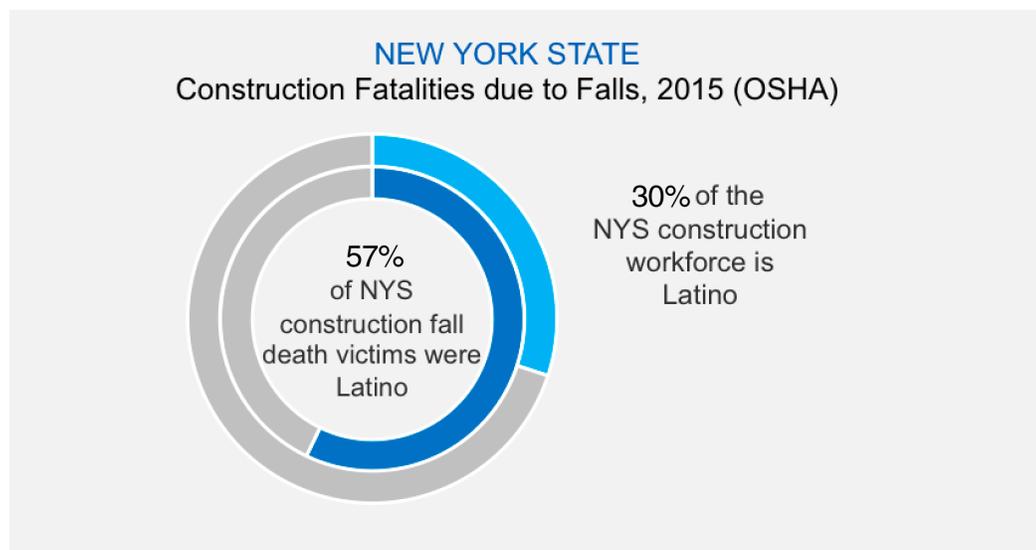


In April 2016, 27-year-old Luis Mata was working at a Greenwich Village construction site when a plank from scaffolding being dismantled fell on his head. He was wearing a hard hat, but the impact caused severe neck and back injuries that resulted in his death. The New York City Department of Buildings issued a violation for “failure to safeguard all persons and property during construction.” The worksite had a history of safety violations, including at least two related to façade safety,<sup>38</sup> and received a stop-work order from the Department of Buildings in the past related to scaffolding.

These kinds of fatalities—where an employer knew the risk that they were putting the workers in, but did not correct the problem—occur disproportionately for Latino construction workers, who often are the sole financial providers for their families. Mr. Mata’s family friend, Luis Perez, stated that Mr. Mata was “the only support” to his mother in Mexico. Mr. Mata was the victim of an exploitative contractor, and died in a preventable accident.<sup>39</sup>

### **New York’s Latino construction workers are more likely than non-Latino construction workers to lose their lives due to workplace falls.**

According to OSHA fatality site inspection reports, New York’s Latino construction workers are more likely than non-Latino construction workers to lose their lives due to workplace falls. 2015 OSHA fatality site inspection reports show that 57 percent of the construction workers who died due to falls were Latino, even though Latinos comprise 30 percent of the construction workforce.



*“I have worked in dangerous conditions when replacing the roofing on a house, when I was working from very high. I didn’t take any action [to improve job safety] because I needed the job, and I would have gotten fired. If we didn’t do the work, even though it was dangerous, we would be fired.”*

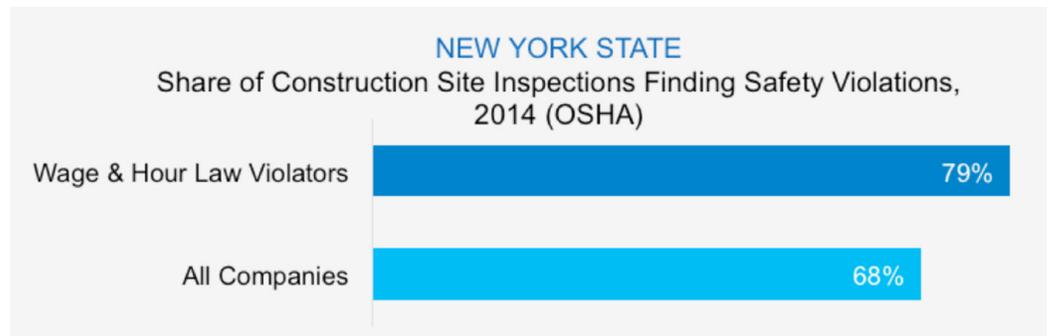
–Mauricio, a construction worker from Queens said at a NYCOSH training in 2016.

## 8. Wage and hour violators are more likely to be safety and health violators.

In 2014, 68 percent of OSHA construction site inspections in New York State found safety violations. In the same year, 42 construction companies with a history of wage and hour violations (they owed a total of \$762,776.85 in back wages) were inspected by OSHA, and 33 (79 percent) were found to have safety violations.<sup>40</sup>



This data shows that wage and hour violations can serve as an indicator for health and safety violations and vice versa. Multiple agencies are responsible for enforcing worker safety inspections at any given workplace, including the U.S. Department of Labor Wage and Hour Division, OSHA, the New York State Department of Labor, New York City



Department of Buildings, New York State Workers' Compensation Board, New York State Division of Human Rights, and the New York City Department of Consumer Affairs. In other industries, agencies have been able to maximize their resources by collaborating in investigations; cross-training investigators; and sharing data to identify potential violations.

As many studies have shown over the past several years, in addition to having a disproportionate injury and fatality rate, as discussed above, Latinos are also more likely to have their wages stolen, especially immigrant Latinos. In a 2009 report by

the National Employment Law Project, Latinos were nearly six times more likely to be victims of minimum wage violations than white workers. Foreign-born Latinos had twice the rate of violations of U.S.-born Latinos. Therefore, Latinos, and particularly immigrant Latinos; are exploited doubly by employers, who provide them with unsafe working conditions and then rob their wages.<sup>41</sup>



**Wage and hour violators in New York State are more likely to be safety violators. #deadlyskyline**

**79% of construction sites inspected with a history of wage theft were found to have OSHA violations.**

**NYCOSH**

The infographic features a light blue background with silhouettes of construction workers and cranes in orange and black. The text is in a bold, sans-serif font. The NYCOSH logo is in a stylized, blocky font with a city skyline silhouette underneath.

# RECOMMENDATIONS

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## ***Require Adequate Safety Education and Training***

### **1. Require OSHA 10 or equivalent training to all New York construction workers.**

The Occupational Safety and Health Administration has designed a 10-hour construction safety training program around the most common hazards construction workers face on the job conducted by OSHA-authorized instructors. New York City currently requires this OSHA 10 training for all workers on “major buildings,” defined as buildings 10 stories or larger or with footprints greater than 100,000 square feet. New York City should expand the requirement to include all construction, regardless of size, target penalties at scofflaw employers, not workers, and provide adequate public funds to community organizations and workers centers that provide these trainings at low cost to make the trainings widely accessible.

### **2. Require apprenticeship programs and training for large construction projects.**

Government-recognized apprenticeship programs provide rigorous training requirements of hundreds or thousands of hours; combine on-the-job learning with technical instruction; and offer industry-recognized certifications that allow workers to progress in the industry. There is a clear link between this extensive training and the representation provided by unionized worksites, which traditionally use an apprenticeship program, and a lower fatality rate for workers. New York City should ensure that major construction projects use apprenticeship programs so that working in construction can provide a pathway to a good job for more of New York’s low wage workers, and so that these workers can return home safely at the end of each day.

## ***Extend and Defend Protective Legislation***

### **3. Preserve New York’s Scaffold Safety Law.**

New York State’s Labor Law §240 (commonly referred to as the Scaffold Safety Law) protects construction workers by holding building site owners and employers fully liable for worker injuries and deaths resulting from unsafe conditions at elevated worksites. Given the high rate of fall-related deaths in New York’s construction industry, and the high rate of safety violations related to fall prevention, preserving the Scaffold Safety Law is critical to protect New York’s construction workers.

### **4. Pass the Construction Insurance Transparency Act.**

The Construction Insurance Transparency Act (S03392-A/A04718-A) requires insurers providing coverage for liability under the Scaffold Safety Law to publicly disclose “pertinent facts related to their premium determinations and financial solvency.” According to the legislation, “The determination of premiums for [construction] liability insurance policy in this state has, unfortunately, gone on too long in obscurity, with even those who bear the cost of premiums unable to learn why prices are set as they are.”<sup>42</sup>

### **5. Pass the Elevator Safety Act.**

In 2015, five out of 31 construction fatalities in New York City were elevator-related. To ensure that elevator-related work is done safely, the New York State Elevator Safety Act (S01945/A01787) “requires the licensing of persons engaged in the design, construction, operation, inspection, maintenance, alteration and repair of elevators.”

The legislation has been passed in the New York State Assembly, but has not made it to the Senate floor.<sup>43</sup>

#### **6. Pass Criminal Contractors legislation.**

The preposterously low penalties given to Harco Construction despite its conviction for manslaughter, criminally negligent homicide, and reckless endangerment, for the death of Carlos Moncayo highlight the need to establish significant and effective penalties that actually spur employers to protect their workers on the job. For too long, workers' deaths on the job have been quickly dismissed as "unfortunate accidents," regardless of the role played by employers, contractors, and owners in contributing to their death. New York should re-envision the framework to increase penalties against corporate entities, so that criminal contractors cannot continue using their corporate structures to evade accountability and continue business as usual.

### ***Expand Monitoring & Enforcement***

#### **7. The New York City Department of Buildings should comprehensively analyze all construction fatalities.**

Currently, the New York City Department of Buildings investigates and records on its official count only those construction worker deaths involving a threat to public safety, leaving OSHA to investigate and report on all deaths of construction employees (the deaths of self-employed workers are not investigated by OSHA) in the city. New York City should record all construction fatalities that occur, and either investigate these fatalities or work with OSHA and/or the Bureau of Labor statistics to gather details on cause of death and safety issues at the fatality site to facilitate the development of effective health and safety policy. New York City should require companies filing for construction permits to submit OSHA violation histories.<sup>44</sup>

#### **8. Expand criminal prosecutions statewide.**

The Manhattan District Attorney has led the way on prosecuting criminal construction contractors; and the Brooklyn District Attorney followed suit. Across the state, district attorneys should exercise their power to hold criminal contractors accountable, when the failure to protect workers rises to the level of a criminal offense.

#### **9. Use existing city power to suspend or revoke licenses and construction permits for criminal contractors.**

Although OSHA has jurisdiction over workplace safety standards, New York City has broad power within its licensing and permitting processes to keep criminal contractors from operating unsafely and endangering workers and the public. Employers like Harco Construction and Formica Construction, where the owners, managers, or corporations were convicted of felonies that cause a worker death should face consequences in their applications for licensing to work on residential construction or permitting for commercial projects. City policies must hold employers accountable in cases of criminal conviction in a worker death - to do otherwise sends a message to companies and workers that construction employers can break the law with impunity.

#### **10. Continue to crack down on misclassification.**

Misclassification in the construction industry is rampant and leaves workers more vulnerable to exploitation and workplace injury. The latest report issued by New York's

Joint Enforcement Task Force on Employee Misclassification (JETF), in 2015, identified 230 misclassified workers in New York's construction industry, and revealed \$2.7 million in unreported construction worker wages, and \$104,000 in unpaid unemployment insurance premiums by construction employers.<sup>45</sup> The Task Force must continue to shine a light on misclassification in the construction industry in New York, as well as other industries that seek to evade worker protections laws by using a strategy of worker misclassification.

### **11. Develop new enforcement strategies informed by the intersection between safety and wage violations.**

Enforcement agencies need to recognize the intersection between health and safety violations and wage theft, and use this to inform their work. Health and safety complaints can trigger wage and hour inspections, and vice versa; investigators can be cross-trained for greater efficiency in enforcement; data can be shared and analyzed to help target enforcement efforts. Through its Nail Salon Task Force, New York State has already demonstrated that this is possible, implementing cross-training for investigators to review compliance with wage and hour, workers compensation, and appearance enhancement laws. Considering the massive scope of wage and health and safety violations, the lack of resources for enforcement, and the ease of data sharing through technology, continued compartmentalization at federal, state, and local levels does not serve the workers who are struggling against exploitation; who are disproportionately immigrants and/or Latinos.

### **12. Protect Latino and immigrant workers proactively.**

NYCOSH reports have consistently shown that Latino and/or immigrant workers are repeatedly exploited by employers who willfully violate safety and health regulations on the job. Enforcement agencies should ensure that their enforcement strategies explicitly remedy inequities by targeting Latino and immigrant workers for outreach and education, making services accessible in multiple languages, protecting workers regardless of immigration status, and using proactive enforcement that does not rely on complaints. No one group should be unfairly left outside the protection of the law; no worker should die because of his or her race, language, national origin, or immigration status.

# CONCLUSION

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Increasing construction fatalities in both New York City and across the State in the past ten years is cause for concern and alarm. In the past ten years, New Yorkers have witnessed the deaths of 464 workers; with data suggesting that in the past two years, between 87-90 percent of these deaths are preventable. NYCOSH has compiled a list of recommendations consistent with our research findings, which show that construction is dangerous, particularly for non-union workers; and that education and training, as well as increased enforcement and penalties for violators are effective deterrents to worker fatalities.

For enforcement to be effective, all workers must feel comfortable reporting unsafe working conditions and labor violations. Federal, state, and local agencies must proactively protect Latino and immigrant workers regardless of their immigration status, because not doing so endangers both the safety of the individual and the safety of the workforce as a whole. Failure to protect the most marginalized sectors of the workforce will have a catastrophic effect on all construction workers *and* New Yorkers, as reporting safety violations is critical to preventing workplace accidents that can cause worker and pedestrian injuries and fatalities.

# ENDNOTES

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1. U.S. Bureau of Labor Statistics, Current Employment Statistics, Census of Fatal Occupational Injuries, "Fatal occupational injuries by selected worker characteristics and selected industry, New York State and New York City, all ownerships, 2006 - 2015." Data available at <https://data.bls.gov/gqt/InitialPage>.
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# NYCOSH

Publication was supported by a grant from the New York State Department of Labor, Contract #C150482. The content is solely the responsibility of the authors and does not necessarily represent the official views of the New York State Department of Labor.



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January 31, 2017

**Matt Caruso**

President

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Testimony Re: Construction Safety Act

My name is Matthew Caruso, I am the owner of Construction Realty Safety Group Inc, one the largest Safety Consulting Companies in the 5 boroughs. We provide safety oversight on many of our cities construction projects, and we work for union, non-union, merit shop, open shop contractors.

I am a member of many safety organizations, (for example: Building Trades Employers' Association Safety committee, Building Contractors Association Safety Committee, Manhattan Borough President Gale Brewers Safety Working Group, American society of safety engineers, Associated Builders and Contractors, Crane rule advisory committee, Etc). I have participated in many of the safety groups focusing on addressing the industry wide safety issues, as well as the code writing groups. I have met with many city officials to discuss my position on the Construction Safety Act.

My position is clear. Safety first! However, safety gets caught up in the union/nonunion debate, and the facts get distorted, but City Council has jumped into action. In the face of less than adequate regulation and enforcement both by DOB and OSHA, twenty-one bills have been introduced to the Council and bundled to form the Construction Safety Act.

In the construction industry, there are good contractors and bad contractors, and they exist on both sides. There have been many newly formed groups with their own statements and opinions on how many fatalities there have been, who is responsible, and what to do about it. Some of these groups old and new have organized and created "best safety practices" for their members like BTEA, BCA, NYCA, ABC, which is commendable. These groups have focused on education, training, collaboration and a desire for self-improvement and operating at a higher standard. This is something the entire industry should duplicate and strive for. They provide a resource for their contractors to get assistance and expertise when it comes to safety.

With regards to the specific bills being proposed:

When one examines the current regulations that exist for Construction Safety, you realize 95% of the tools needed exist but are only applicable to certain size projects etc. I suggest those rules be expanded on and into the market that needs them, the under 10 story projects

The concept of a newly created of 3<sup>rd</sup> Party independent oversight is a great idea. The legislation of how it will be done and who will do it is unclear but it must include industry experts as well as city and government officials

Fines should certainly be enhanced and the certification of individuals surrounding the incident should be held accountable for representation, fines, civil (and yes if blatant) Council prosecution. Taking any persons' livelihood is an enormous threat to ensure proper compliance.



## 1 Construction Safety Registration:

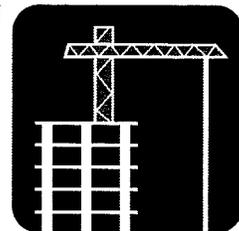
- The registration should be expanded to all contracts for all permits. A tracking mechanism should be developed to identify blatant non-compliers.
- If the safety registration is suspended or revoked permits cannot be pulled

## 2 SSM, SSC, CFSM:

- All these policies exist and carry a certificate. The responsibilities are clear but one also must realize that this a handful of people to monitor a 10+ story site and at its peak over TCO. Therefore, existing jobs must have a safety program which identifies:
  - A competent person for each site
  - The organization and hierarchy for safety of the site
  - Regular Meetings
    - Full job meetings
    - Daily tool box talks and shape ups to review tasks
    - JHA's for complete/high hazard tasks
    - Regulations—100% fall pit as well as PPE issues
- A site safety plan that is required by code submitted and approved which in effect illustrates the safety plan for every phase of construction.

## 3 The Revised Construction Superintendent Requirements: projects 9 stories and under

- DOB should consider Construction Superintendents to designate other safety personnel and make use of the Qualified Person that was created for Local Law 11 work.
- This will allow the Construction Superintendent to have someone qualified in safety to help him that is onsite full time.
- Qualified safety person would be designated by the Licensed superintendent and meets specific criteria set by NYC DOB. Additionally, it but doesn't pull from the licensed safety professional pool – given the recent supply and demand issues this is a compromise that will allow for onsite safety but not hinder the rest of the industry and still put the responsibility on the licensed professional



**4 Step up licensing efforts with regards to SSM, SSC, Licensed Superintendent:**

- There still seems to be a delay in the background investigation. There is too much redundancy, requiring pay stubs, w2, social security earnings, and supervisor letters all to verify 1 place of employment. In this industry an individual could work for 15 different companies in 1 year.
- A temporary license that expires in a year is an alternative – limit the background or give a candidate time to assemble the information = this would put more licenses out in the industry more quickly.

**5 All jobs should be an approved DOB Safety Plan project to permit:**

- Site safety plans force the project to plan for safety, identify the safety issues of the project, focus on adjacent properties and the public. The site safety plan is a “living” document constantly being updated for methods, logistics, job conditions, etc and the licensed professional is required to maintain this document.
- Ultimately the enforcement will be up to a city inspector but it makes the licensed professional responsible and gives an additional item for the inspectors to review and monitor safety compliance.

**6 Safety Training:**

- The worker
  - All workers must have some safety training.
  - 10 hour OSHA is not enough. It is a basic safety awareness class = more training is needed
  - Current DOB Codes do not require any safety training on construction projects under 10 stories, this is where much of the safety day says 70% of accidents and fatalities occur.
  - One only needs to look at the recent fatalities where the owner of the company, wearing a harness, went into a controlled access zone, didn't tie off and fell.
  - A second situation was a machine operator with 20 years of experience who violated the basic safety principals of his position resulted in a fatal accident.
  - Although it is not a popular position, Human Error is a cause of many accidents. A proper “foundation” of training must be identified and required for all workers and that training has to be enforced past a 10 hour OSHA but at the same time the worker has to acknowledge his own responsibilities for safety.

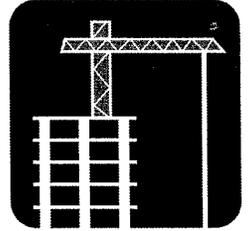
**7 Orientation:**

- Job site orientation and training for every worker should be mandatory on every project. This will allow the worker to be familiar with the safety protocols of the site. Evacuation procedure, emergency protocol and medical procedures etc.
  - Enforcement is key by the safety team
  - If a worker is reckless, he goes home.
  - If a contractor doesn't comply, maybe carry a fine system, as a means for the GC/CM to gain compliance.
  - The threat of major fines and/or criminal prosecution is a huge incentive for contractors and workers to comply.

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In conclusion, a change is needed in the construction industry and in order to effectuate change, it requires proper regulations from the city on all construction projects, increased enforcement, proper incentives and appropriate punishments for non-compliance. There must be a Safety Advisory Board, or Panel that is comprised of industry experts, NYC DOB staff, and City Council members that is tasked with monitoring everyone including DOB's performance and their policies and procedures as well as the Industry and all Contractors. The reporting of information is key to the success of these proposed regulations and the suggested Safety Advisory Board.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Matt Caruso', written over the text 'Respectfully Submitted,'.

**Matt Caruso**

President

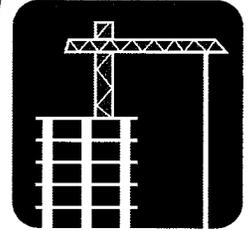
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January 31, 2017

**Matt Caruso**  
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Testimony Re: Construction Safety Act  
Memorandum of Position

- Int. No. 81 This bill seems to be an attempt of collaboration with osha for reporting the same information with regards to accidents, deaths, etc which is necessary. I support this bill but ask: will fraudulent osha cards be a part of this?
- Int. No. 443, in relation to crane modernization this is a good law. Embrace it completely. Limits the Crane age, together with it's manufactured parts, to 25-years with certain qualifications, up to a max of 30-years of life with exception to commissioner approval makes complete sense:
- Int. No 744 This is the prevailing wage bill – no comment
- Int. No. 1403, in relation to requiring anemometers on cranes This is another good law except clarification is needed as to where to locate the device to take readings : the boom? the load? Ground floor? In the cab?
- Int. No. 1404 and 1419: My concern is that these heightened fines 500k-1.5 M are serious and DOB must use them correctly. Too many accidents have occurred and individual worker error was a huge factor. When will these be used? In the case of HARCO, company was found guilty they received a minimal fine which doesn't seem appropriate. Given the other bills relating to tiered contractors everything needs to be monitored and these large fines must be accessed after due process.
- Int. No. 1421, GPS trackers – if this is possible to put in place it should be done immediately
- Int. No. 1422, in relation to crane wind restrictions – this means on occasion, DOB is over ruling MFG and EOR spec's. This is a concern. There should at least be a process where special projects and or equipment can obtain a "variance" if this is passed. Some cranes are approved for 40 mph wind operation.
- Int. No. 1429, No. 1444 -excellent law, fills gaps on under 10 stories where no orientation or safety meetings are required per DOB. Osha tool box talks already a requirement on every job. But this address the biggest issue. Shortfall of safety regulations on under 10

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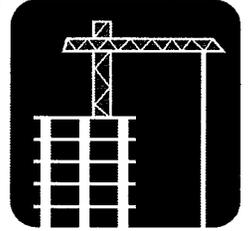


- Int. No. 1431, lift directors: providing another responsible party for crane operations is helpful
- Int. No. 1432, I believe as an entire industry all projects should require a formalized safety training program for every worker. The majority of accidents occur on projects under 10 stories where no safety training or orientation is required.
- Int. No. 1433, department of buildings to report on all construction incidents that result in an injury or fatality to a member of the public or a construction worker. I support this bill. Reporting of information is key, identifies trends and can assist in overall management of the industry
- Int. No. 1435, data logging devices : I support this bill.
- Int. No. 1436, in department of buildings to report on site safety managers and coordinators I completely support this law but request to add licensed superintendents to the list.
- Int. No. 1437, in relation to increasing the civil penalties for construction sites with excessive violations, this Law seems very ambiguous. In theory I agree this is needed. Only after due process. Too many violations are written due to inspector CYA or overturned in ECB once violation is adjudicated. Good contractors have no problem, and bad contractors should have greater fines and be watched more. I think the methodology needs work. But the concept I agree with
- Int. No. 1442, enforcement of safety registration numbers - Finally when this law was introduced the industry was concerned about being tracked and watched. Penalized from one project to the next, while I agree there are good and bad projects within the same CM firm, this is a stride toward accountability of past actions. Once again, my concern is accurate violations, after ECB, and a quality control unit must be placed to watch and oversee the enforcement unit.
- Int. No. 1446, endorsements for class B hoisting machine operators this will make it harder to obtain the current B license that covers everything = can only mean more qualified operators.
- Int. No. 1447, This is the Apprenticeship Mandate: I again agree that as an entire industry all projects should require a formalized safety training program for every worker.

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- Int. No. 1448, requiring site safety plans and a monitoring program for buildings more than four stories in height: I think plans are excellent start. My concern is this may create a huge demand of licensed safety personnel that the industry cannot meet. Perhaps a long-term goal, but at the very least modify the new super rule to include safety monitoring from another individual and utilize the Qualified safety professional role utilized in LL11 projects where the licensed professional is ultimately responsible for the safety compliance and is required for certain high risk operations.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Matt Caruso', written over a white background.

**Matt Caruso**

President

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## FOR THE RECORD

New Settlement Apartments' Community Action for Safe Apartments strongly supports Intro. 1447 (Councilmember Williams) on Worker Safety & Training, which will make construction sites safer and save the lives of the public and construction workers.

As a member of the Bronx Coalition for a Community Vision, which is focused on shaping the upcoming rezoning of 73 blocks along Jerome Ave in the Southwest and Northwest Bronx to facilitate the construction of privately owned housing, we are deeply concerned about what kind of jobs this new construction will create.

The Jerome Ave rezoning is the largest proposed land change in the Bronx since Co-Op City in 1973. It will change the use of land to facilitate the displacement of the manufacturing, auto and industrial spaces and to facilitate the construction of more than 4,000 privately owned residential apartments, providing housing for more than 12,000 people, and creating more than 4,000 construction jobs.

But who will the housing be for? Who will build the housing? How will this impact the displacement pressures on the mostly rent-stabilized tenants who live in the surrounding blocks? And how will this impact the immigrant, Dominican auto industry?

There is nothing in this scope about the jobs needed to create more than 4,000 units of housing or the safety requirements for those jobs. 4,000+ units of housing will create about 4,000+ construction jobs.

Our neighborhoods have a 15% unemployment rate. Only 60% of the population over 16 participates in the labor force. If we are creating jobs in our neighborhood, we need to create jobs *for* our neighborhood. And not just any job, but safe, well-paying jobs. Moreover, we don't want jobs—we want pathways to careers. With more than 4,000+ workers needed to build these buildings, we need to ensure that they come through state approved apprenticeship programs and that they are safe jobs.

Creating construction jobs without safety requirements is simply unacceptable. Real standards for real construction training are an absolute must to protect construction workers and those in and around construction sites. The proposed legislation requires for major buildings (10 stories and above, and demo in buildings 4 stories and above, employees shall be in one of the following categories;

1. apprentices in registered apprentice programs;
2. graduates of such programs;
3. or a worker that is experienced, trained and skilled that has received training commensurate with that required of apprentices in related instruction and on the job training in accordance with standards set forth in the New York State labor law and DOL regulations

This provision simply defines what was previously accepted as "training commensurate with that required for graduates of apprentice programs" in a way that is consistent with existing

law and rule. For other buildings, the proposed legislation requires workers be in one of the following categories;

1. apprentices in registered apprentice programs;
2. graduates of such programs;
3. or a worker that is experienced, trained and skilled that has received training commensurate with that required of apprentices in related instruction and on the job training in accordance with New York State standards established by law and regulation;  
or
4. A worker that has successfully completed a bona fide construction site safety training program

This proposed legislation will:

- Save lives
- Promote construction site safety
- Utilize existing standards for training already deemed appropriate by the state legislature
- promote both the state and federal public policy favoring apprenticeship training
- protect workers from employers that put profit over safety training

With Intro 1447, the city can act now to pass legislation to make sure work sites are safe and that workers are protected.

The city cannot and should not facilitate the creation of 4,000+ construction jobs in the Bronx, without making sure they are high quality, safe and well-paying jobs, for the Bronx.



**Construction Safety Act - Committee on Housing and Buildings Hearing  
January 31, 2017 | 9:30AM**

Good morning, my name is Eduardo Redwood and I am a member leader of the organization NICE, based in Queens, NY.

I am here today to give testimony on how workplace accidents have disproportionately affected me and my community in the construction industry.

Today, I can tell you some of the reasons that a high percentage of accidents and deaths in construction within the Hispanic and immigrant community:

- Because we largely lack opportunities to join the unions, often due to lack of adequate documentation.
- Without the support of the unions, we seek out organizations like NICE who support us and offer us trainings and legal advice, like in cases of wage theft.
- Also, without the unions, our communities are exposed to risks of companies seeking to exploit us. These same employers that never provide adequate personal protective equipment. For example, in my experience, I have had employers that have given me used belts that had been exposed to water, sun and rain. And to be able to use a newer and safer one, I would have to buy it from my own salary -- a salary far less than made in a union.

We hope that whatever bill approved regarding accidents in construction prioritize Hispanic immigrants and/or the organizations that work with us. It is important to recognize that the labor industry includes workers with different immigration statuses and for that reason, these new measures should protect everyone.

TESTIMONY OF PAUL O'CONNOR  
FINANCIAL SECRETARY-TREASURER, PLUMBERS LOCAL NUMBER 1

BEFORE

**FOR THE RECORD**

THE COMMITTEE ON HOUSING & BUILDINGS

JANUARY 31, 2017

Good morning, Chairman Williams and Members of the Committee on Housing & Buildings. My name is Paul O'Connor, and I am the Financial Secretary-Treasurer of Plumbers Local Number 1. Thank you for the opportunity to testify here today.

I would like to echo the comments of my colleague, Business Manager Michael Apuzzo, and express strong support for Introduction 1447. This legislation requires such apprentice-standard training regardless of union status of the contractor or the worker. It does so by applying existing training standards already spelled out by the state legislature and DOL regulations, furthering both state and federal apprenticeship training policy. With apprentice programs as the new benchmark for sufficient training, the legislation will protect all workers including the most vulnerable construction workers - exploited non-union workers who for too long have not trained in apprentice programs. This must change. Real and enforceable standards for robust construction training are imperative to protect construction workers and all people in and around construction sites.

Let us not forget the tragedies that have brought us here today. There has been an epidemic of construction worker deaths in the last few years in our city. Most of these death have occurred on non-union sites, where workers have not received proper training. This lack of training is contrasted against construction sites where contractors participate in New York State or Federal registered apprentice programs. Despite what critics might say, this is not special interest legislation—unless of course the critics should have us believe that dead construction workers are a special interest.

This proposed legislation puts safety first over profit and is a strong and needed step towards local construction safety standards that reflect the values of the city in which we live—where even one life lost on a construction site is one too many.

Please pass Intro. 1447 as soon as possible.



BUSINESS MANAGER  
SECRETARY TREASURER  
**Joseph Azzopardi**

President  
**John Drew**

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[www.dc9.net](http://www.dc9.net)

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## MEMORANDUM IN SUPPORT

Intro. 1447

A Local Law to amend the administrative code of the city of New York in relation to establishing a prevailing wage requirement for covered workers in financially assisted facilities.

District Council 9, International Union of Painters & Allied Trades, and our over 10,000 members and families, rises in strong support of Intro. 1447 on worker Training & Safety which will make construction sites safer and save the lives of the public and construction workers.

Currently, the only requirement for worker training is "OSHA 10" This training just isn't enough to protect the public and construction workers. Not when there have been so many deaths in the past 2 years. DC9 represents some of the most dangerous construction trades in the nation, the amount of training required to do some of this work should not be limited to the bare minimum.

Construction remains a hazardous occupation, but there are steps that can and must be taken to drastically reduce or eliminate accidents and fatalities. To date, the City of New York has failed to adequately protect construction workers from the exploitative practices of unscrupulous contractors. Since January 2015, 30 construction workers have died on construction sites across the five boroughs. 90 percent of those fatalities occurred on nonunion sites. Latino and Immigrant workers are disproportionately affected by these unsafe work conditions.

Mandatory safety training requirements for all workers will protect both construction workers and pedestrians. By mandating apprenticeship training or its equivalent on major buildings and a bona fide training program for smaller buildings, the City will take a necessary step toward ensuring a safer and more equitable city. The City can no longer be complicit in the exploitation of its most vulnerable citizens. Workers and pedestrians continue to be at risk and the City must act immediately.

City Council has helped develop the 1<sup>st</sup> ever Civil Service Apprenticeship program for NYCHA residents. A program that shows what happens when city government and labor work together.



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## Support INTRO 1447

Good Morning, my name is Ramona Sandoval.

I am 28 years old and I am a 2<sup>nd</sup> year painter apprentice with DC9.

Being the child of undocumented parents is never an easy thing. Being brought here from Mexico when I was 2, my future was all but sure. In my time as an adult I have had many dead-end jobs including: Housekeeper, Cashier, Bike messenger, and stockroom clerk.

In 2014 I received DACA which gave me the ability to enter the construction industry as an apprentice. Which is probably the best thing I ever did. I was embraced by DC9 and my brothers and sisters on the jobs site. Learning everything from CPR, to Hazardous communication, I am currently learning how to read blueprints, to hopefully one day be a foreman on a construction site. Opportunities I wouldn't have anywhere else, and opportunities I wouldn't have without my training.

As you have heard and will hear many times today, 28 of the 31 construction deaths have taken place where workers did not receive adequate safety training. It's been very hard for me to understand that if New York is as progressive as it claims to be, why has it taken so long for our elected officials to do anything?

The business community will always fight regulations that will decrease their bottom lines. Remember the fight for 15, or the rallies for paid sick leave? They all said businesses would be decimated and jobs would be lost. So why are we listening to them now?

Despite my future being uncertain in this country I firmly stand in solidarity. I believe in this program, and what it has to offer. So, do you want to protect not only people like me but all those that can be affected by it? In a world that we are currently in, and folks want to talk about protecting immigrants like me, where we have a president that doesn't want people who look me, in the country. I must ask myself does NY REALLY want to protect me?



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My name is Saleena Soumari.

Last week I read an article in the Daily News, entitled "NYCHA Tenants Oppose Apprentices Plan for Construction Workers."

As a NYCHA tenant, currently participating in an apprenticeship program that is specifically geared toward recruiting NYCHA residents - I was appalled.

District Council 9, of the International Union of Painters and Allied Trades worked with the City for years to attain the first ever, fully funded Civil Service Apprenticeship program last year. The \$26 million apprenticeship program - funded by the New York City Council - provides entry into civil service construction work for New York City Housing Authority residents.

The mission of the program is to provide middle-class employment to diverse and lower income New Yorkers. Of the current apprentices, 86 percent are women and 96 percent are minorities.

According to Speaker Melissa Mark Viverito, "The Civil Service Apprenticeship Program not only has the potential to lift hundreds of New Yorkers into the middle class. It will also provide training for sustainable long-term jobs in high-skilled trades, helping to reduce unemployment."

She is right. As a first-year apprentice, I am earning \$25.50 per hour with full benefits. However, I can expect to earn up to \$42 per hour once I become a journey woman.

We all know what is happening here.... Powerful forces in the real estate industry - who have been exploiting African American and Latino workers for years - are trying to drive race into a discussion that should be about safety and training.

Bill 1447 is not about race, NYCHA residency, or unions. It is about raising the standards of safety and training for all workers. The other side will continue to drive narratives that will preserve their bottom line, but I urge you to ignore the empty rhetoric and focus on the facts.

There have been 31 construction fatalities over the past two years. 90% of those fatalities occurred on sites that lacked the rigorous training standards that are a part of apprenticeship programs.

What else do you need to know?



# NEW YORK CITY CENTRAL LABOR COUNCIL AFL-CIO

President  
VINCENT ALVAREZ

Secretary-Treasurer  
JANELLA T. HINDS



## Testimony of Alex Gleason, Policy Associate New York City Central Labor Council, AFL-CIO

### New York City Council Committee on Housing and Building

January 31, 2017

Good morning, my name is Alex Gleason, and I am the Policy Associate at the New York City Central Labor Council, AFL-CIO. Comprised of 1.3 million members across 300 affiliated unions, the Central Labor Council advocates for lifting the floor on wages and standards for workers across the City. The New York City Central Labor Council strongly endorses Introduction 1447, in relation to training and qualifications of persons engaged in the construction and demolition of buildings. With thirty construction worker deaths in two years, and twenty-seven fatalities on non-union sites, the time for the New York City Council to act is now.

Introduction 1447 would work to improve safety on New York City's construction sites, thereby helping to protect workers and the public. It is imperative construction workers receive the training necessary to keep them safe on the job. As it stands, New York City's only safety training requirement for construction workers is a 10-hour training course administered by the Occupational Safety and Health Administration. New York City should adopt more stringent safety and training requirements, outlining the processes for training workers to keep themselves and others safe on construction sites. Under Introduction 1447, the City would establish training regulations for building projects to include greater safety precautions.

The practical necessity for greater safety requirements underscore a sad reality: we are regressing as a City. We will be the first generation—perhaps since our great-grandparents—to experience such prolific development with such little oversight and widespread mistreatment. We gawk at the glistening glass condos, while the workers who built them are exploited; slipping further towards conditions apropos for a Dickens novel or Upton Sinclair column, but in the year 2017. This should cause all New Yorkers to pause, and carefully consider what constitutes a good, just society where working class people can persevere and thrive.

Understanding the high number of construction fatalities over the last few years, it is imperative the City works to increase the safety of working men and women in the construction industry. Thirty workplace fatalities in two years constitutes a safety emergency that must be addressed swiftly. Working men and women cannot afford to wait any longer for these critical safety regulations. The New York City Central Labor Council recommends the passage of Introduction 1447. Thank you for your time and consideration.

TESTIMONY BY DAWANNA WILLIAMS, DABAR DEVELOPMENT PARTNERS  
1-31-17

My name is Dawanna Williams and I am the founder and managing principal of Dabar Development Partners. Dabar is an emerging development firm and an MWBE with more than a decade of experience in real estate investment and development.

We were founded in 2003. At Dabar, we have developed or acquired more than 345 housing units valued at around \$100 million both in New York City and along the East Coast. We currently have over 400 units under development or under contract.

I'm very excited about the opportunities I've had to partner with the City of New New York on building or preserving high-quality housing. We are a high touch organization and we understand socioeconomic dynamics at the neighborhood level. We would like to continue bringing our commitment to high-quality affordable housing projects in New York City.

**Bill 1432 - Training and transparency requirements for certain projects receiving city financial assistance- presents a stumbling block for firms such as mine.**

The bill prohibits city financial assistance for any project unless the developer executes an agreement with the city that all covered contractors will have an apprenticeship program. The problem:

- Onerous for emerging and MWBE developers
- Many contractors and developers are completing their firsts projects and cannot have covered this criteria prior to starting their business

The bill covers projects that are funded in small part (e.g., energy credit) with city financial assistance with a value as little as \$1M. The problem:

- Profit margins on small deals are very small. To implement an apprenticeship program would require the contractor to work for nearly free

While size is a consideration of the bill, i.e., construction, alteration or demolition on more than 100,000 SF of floor area OR more than 50 dwelling units is helpful, it's a hardship for developers in early stage of careers. The problem:

- Current OSHA and construction guidelines are sufficient. We cannot legislate human error. We have to ensure the current rules are more effectively followed.

The bill requires quarterly disclosures by each developer. The problem:

- Amid the barrage of paperwork and new disclosures added over the past few years that are now currently required, e.g. new controlled inspections, new HireNYC and updated sponsor review, the job of a developer is becoming a big paper chase without the desired improvements being achieved. Also, the cumulative effect of many of these new requirements already increase worker safety and provide apprenticeship training. Controlled inspections are completed by independent parties who ensure that work is being completed property. HireNYC, which is operated through local non-profit labor training organizations ensures that appropriately trained and ready local laborers are hired for construction jobs. Updated sponsor review criteria at both the city and state seek to find and cure any findings of violations in last 10 years of local, state, and federal employment, bankruptcy and real property laws.

I respectfully submit that, rather legislate redundant and overlapping laws, that the city counsel work with the real estate industry to effectively comply with existing regulations, as they already provide for adequate worker safety and training. Thank you for your time.

**TESTIMONY OF TOM GORDON**  
**CO-DIRECTOR OF TRAINING, LOCAL 14-14B**  
**INTERNATIONAL UNION OF OPERATING ENGINEERS, NYC**  
**BEFORE**  
**NEW YORK CITY COUNCIL HEARINGS ON CONSTRUCTION SAFETY**

**TUESDAY, JANUARY 31, 2017**  
**CITY HALL**  
**NEW YORK CITY**

GOOD MORNING, MADAM SPEAKER, COMMITTEE CHAIRS, AND MEMBERS OF THE CITY COUNCIL, THANK YOU FOR YOUR EFFORTS TO MAKE OUR CONSTRUCTION SITES SAFER FOR WORKERS AND ALL NEW YORKERS.

MY NAME IS TOM GORDON AND I AM CO-TRAINING DIRECTOR OF IUOE LOCAL 14-14B. PRIOR TO ASSUMING MY POSITION AT THE TRAINING CENTER, I OPERATED HEAVY EQUIPMENT AND TOWER CRANES FOR NEARLY 30 YEARS, MOST RECENTLY OPERATING MANY OF THE TOWER, SLIDER AND CRAWLER CRANES AT THE WORLD TRADE CENTER.

I AM A MEMBER OF THE NEW YORK CITY CRANE RULE REVISION (R-19) COMMITTEE; AND I SERVE ON NUMEROUS OTHER LOCAL AND NATIONAL SAFTY AND RULES COMMITTES.

IN THE INTERESTS OF TIME I WILL SUBMIT A COPY OF MY C/V ALONG WITH MY TESTIMONY.

I WILL ALSO LIMIT MY COMMENTS TO TWO SPECIFIC PIECES OF LEGISLATION: INTRO 1431, WHICH ADDRESSES THE QUALIFICATIONS FOR REGISTRATION AS A NEW YORK CITY LIFT DIRECTOR; AND INTRO 1446 WHICH WOULD CREATE A NEW B-2 HOIST MACHINE OPERATOR LICENSE.

LET ME BEGIN BY ADRESSING THE REGISTRATION AND DUTES OF LIFT DIRECTORS. I WILL FOCUS ON SECTION 28-424.3 QUALIFICATIONS.

AS IN ANY PROFESSION, SUCCESS BEGINS WITH PROPER SCHOOLING, TRAINING, PRACTICE AND EXPERIENCE. IN FACT, THE WHERE, WHEN, AND HOW THAT SCHOOLING, TRAINING AND EXERIENCE HAD BEEN OBTAINED AND APPROVED IS AS CRITICAL AS THE TRAINING AND EXPERIENECE ITSELF.

FOR EXAMPLE, DID YOU KNOW THERE ARE SCHOOLS WHERE, FOR LESS THAN ONE THOUSAND DOLLARS, ANYONE CAN OBTAIN A LIFT DIRECTOR CERTIFIICATION IN TWO DAYS?

AS YOU CAN SEE THE CERTIFYING BODY IS AS CRITICAL AS THE CERTIFICATION ITSELF. IF WE WANT TO ENSURE ONLY THE MOST QUALIFIED CANDIDATES ARE REGISTERED AS LIFT DIRECTORS IN NEW YORK CITY.

THE CURRENT LANGUAGE ALLOWS FOR CERTIFICATION FROM EITHER THE NATIONAL COMMISSION FOR CERTIFICATION AGENCIES (NCCA) OR THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).

WHILE WE RESPECT THE NCCA, IT IS SELF-GOVERNED WITH NO THIRD PARTY OVERVIEW OR REVIEW OF ITS PROCESS. CONVERSELY, ANSI'S STANDARDS REQUIRE OUTSIDE REVIEW AND ARE REVIEWED ANNUALLY.

THERE ARE NUMEROUS AND SIGNIFICANT OTHER DIFFERENCES AS TO HOW EACH OF THOSE AGENCIES AWARD THEIR ACCREDITATIONS. RATHER THAN GOING THROUGH EACH OF THEM, I WILL ALSO SUBMIT A POINT-BY-POINT COMPARISON WITH MY TESTIMONY.

ALONG WITH THE ANSI ACCREDITATION, WE BELIEVE ANYONE SEEKING TO REGISTER AS A LIFT DIRECTOR MUST HAVE TOWER CRANE TRAINING.

IN PARAGRAPH 3: WE BELIEVE THAT ALL CANDIDATES MUST HAVE SUCCESSFULLY COMPLETED THE NEW YORK CITY 32-HOUR LIFT DIRECTOR COURSE; AND HAVE SUCCESSFULLY PASSED AN ANSI APPROVED TEST.

IN PARAGRAPH 3.1: WE BELIEVE THE EXPERIENCE THRESHOLD SHOULD BE RAISED FROM THE CURRENT TWO YEARS, TO FIVE YEARS OF EXPERIENCE PRIOR TO THE APPLICATION.

FINALLY, ANY APPLICANT MUST HAVE BEEN AN 'A' LICENSED HOIST MACHINE OPERATOR FOR AT LEAST FIVE YEARS PRIOR TO APPLICATION. AS CURRENTLY WRITTEN ANYONE HOLDING A 'C' LICENSE COULD POTENTIALLY BE OVERSEEING TOWER CRANE OPERATIONS.

THIS NOT ONLY DOESN'T MAKE SENSE, IT IS INHERENTLY DANGEROUS.

IN FACT, IT WOULD PERMIT EXACTLY WHAT INTRO 1446 IS APPARENTLY ATTEMPTING TO PREVENT WITH THE INTRODUCTION OF THE B2 HMO LICENSE.

WHILE WE HAVE NO PROBLEM WITH THE CONCEPT, THE WORDING OF INTRO 1446 IS TOO VAGUE. IN FACT, AFTER REVIEWING THE LANGUAGE WE COULD NOT FIND ANYONE WHO COULD EXPLAIN WHAT IS MEANT BY *OPERATING CRANES WITH COMPLEX BOOMS*.

YES, WE DO NEED A NEW STANDARD FOR OPERATING CRANES WITH EXTRAORDINARY BOOM COMBINATIONS. A B2 LICENSE ESTABLISHED AT A NEW THRESHOLD AT 300-FEET WOULD ACCOMPLISH THAT GOAL WHILE MAINTAINING THE INTEGRITY OF THE EXISTING 'B' LICENSE.

WE ARE PREPARED TO ASSIST AND WORK WITH THE CITY IN THE DEVELOPMENT OF THE CRITERIA IN ESTABLISHING A B2 LICENSE.

THANK YOU FOR YOUR TIME.

I WILL BE HAPPY TO ANSWER ANY QUESTIONS.

**Thomas Gordon**  
Co-Director of Training  
International Union of Operating Engineers  
Local 14-14B  
141-57 Northern Boulevard  
Flushing, New York 11354  
718-939-0600

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**Employment**

7/ 2014 to Present: Co-Director of Training Local 14-14B I.U.O.E. New York City.

12/2013 to 6/2014: Master Mechanic World Trade Center site for Local 14.

2007 to 2014: Crane Operator World Trade Center, Freedom Tower Collavino Construction and D.C.M. Erectors - Operated Favco Tower Crane and TD1500 Slider Crane. Operator on Liebherr Crawler and Manitowoc Crawler Cranes with long boom luffers.

2006 to 2007: Crane Operator for Cross County Construction on Favco and Kodiak Tower Cranes on high-rise concrete jobs.

2003 to 2006: Crane Operator for Integrated Structures on various Liebherr Truck Cranes from 90 tons – 300 tons and Tadano Mobile Crane. Performed steel erection and various rigging jobs involving but not limited to air conditioning units and generators.

2000 to 2003: Crane Operator for Underpinning & Foundation on various Manitowoc, Lima and Link Belt Crawler Cranes as well as Juntaan dedicated Pile Driver working on various pile driving, sheeting and auger cast pile jobs.

1998 to 2000: Shop and road mechanic for multiple crane and heavy equipment contractors.

## **Certifications**

Class B Non-Friction/Friction Unlimited New York City Hoisting Machine Operator License

Class A Unrestricted New York State Crane Operator Certificate of Competence

N.C.C.C.O. Certified to operate

- Lattice Boom Truck Crane
- Lattice Boom Crawler Crane
- Telescopic Boom Crane Fixed
- Telescopic Boom Crane Swing
- Tower Crane

## **Affiliations**

Member of National Safety and Health Committee for International Union of Operating Engineers.

Member of National Training Site Committee for International Union of Operating Engineers.

Member of International Union of Operating Engineers Mobile Crane Manual Rewrite Committee.

N.C.C.C.O. accredited Practical Examiner for:

- Lattice Boom Truck
- Lattice Boom Crawler
- Telescopic Boom Crane Fixed
- Telescopic Boom Crane Swing
- Tower Crane

Member of N.C.C.C.O. Pile Driver Task Force to develop testing criteria for future Pile Driver Certification.

## Lift director comparison

Certification or license type	Requirements or experience	Number of tests or hours of course to be taken	Approval Authority	Separate Certification for mobile and tower ?
N.C.C.C.O	Must have passed N.C.C.C.O mobile crane core test along with at least two specialty tests one in lattice boom crane and one in boom truck or cherrypicker. For Tower crane you must have passed N.C.C.C.O. Tower crane written test. N.C.C.C.O. Rigger level II written test must also be passed to acquire either mobile crane or tower lift director certification	NCCCO Lift Director core test NCCCO Lift Director Mobile Crane Specialty test. 6 Total tests Tower Lift Director Cert. NCCCO Tower crane specialty test NCCCO LIFT Director core. 4 Total Tests To acquire both mobile and tower would require a total of 8 tests	ANSI: American National Standards Institute	Separate tests and certification for mobile and tower cranes
MASTER RIGGER	Practical experience of 5 in the past 7 years, take the 30hr N.Y.C. Approved training course. Pass N.Y.C. written and practical tests and go through a background check.	30hr NYC course NYC written and practical tests	N.Y.C. Dept. Of Buildings	No separate test or requirements for tower cranes
C.I.C.	3 years experience - undocumented	16hr course with 1 written test at end of second day	NCCA	No separate test or requirements for tower cranes or mention of tower cranes
32hour Rigger Supervisor	None- NYC rig. Supervisor is for supervising the hoisting or lowering of articles on the outside of a building with hoisting equip if a licensed rigger or designated foreman is not required for such work an individual must either (i) complete this course or (ii) possess a dept. approved national rigging certification.	NYC approved 32hr Rigging Supervisor course plus NYC approved 8hr Lift Director course with 1 written test.	N.Y.C. Dept. of Buildings	No separate test or requirements for tower cranes

## Who are ANSI and NCCA?

### ANSI

The American National Standards Institute (ANSI) is a non-profit federation of government agencies, organizations, companies, academic and international bodies, and individual members. In addition to its national activities, ANSI is the sole U.S. representative to the International Organization for Standardization (ISO). Through ANSI, the U.S. has direct access to the ISO standards development processes. Part of ANSI's responsibilities as the U.S. member body to the ISO include accrediting U.S. Technical Advisory Groups whose primary purposes are to develop and transmit via ANSI, U.S. positions on activities and ballots of international committees.

### NCCA

The Institute for Credentialing Excellence (ICE) (formerly the National Organization for Competency Assurance) is a professional membership society that provides educational, networking, and advocacy resources for organizations and individuals who work in and serve the certification industry. The National Commission for Certifying Agencies (NCCA) is the accreditation arm of ICE.

## What standards do they use?

### ANSI

ANSI accreditation is based on the international standard *ISO/IEC 17024, General Requirements for Bodies Operating Certification Systems of Persons*. The standard was published initially in 2003 and revised in 2012 by an international committee of International Organization for Standardization (ISO). Certification and testing professionals from over 20 countries (representing all continents) came together to develop this global benchmark for personnel certification agencies. The standard's development followed ISO's rigorous process for developing a global standard, based upon four principles: that ISO standards 1) respond to a need in the market, 2) are based on global expert opinion, 3) are developed through a multi-stakeholder process, and 4) are based on a consensus.

In addition to being an *International Standard* published by ISO, the ISO/IEC 17024 was also formally adopted as an *American National Standard*.

### NCCA

The NCCA accreditation program uses the *NCCA Standards for Accreditation of Certification Programs* as its basis. The standard was initially developed by NCCA in the 1970s, was updated in 2002 and is currently under revision. To develop the standards, NCCA uses a peer review process of its members and NCCA accredited organizations with an opportunity for the public to comment through an open comment period.

*ISO/IEC 17024* standard has been adopted as both an *International Standard* and *American National Standard*. Those stamps of approval mean that it was developed through an open and rigorous process involving the critique and ultimate approval of experts and stakeholders not only from across the U.S. but across the world. In contrast, NCCA's standards-development process is self-governed and the

standard self-published with no oversight or approval of its processes or final standard by any third-party.

#### **What areas do the standards cover?**

##### *ANSI*

The ISO/IEC 17024 standard covers the certifying body's organizational structure and management, the development and maintenance of the certification program, the assessment tools used initially and for re-certification and the policies and procedures related to documentation, confidentiality, security, and more. There is an emphasis on quality management, requiring elements similar to the *ISO 9001* standard on quality management systems.

##### *NCCA*

The NCCA Standards cover the certifying body's organizational structure and management; responsibilities to stakeholders; assessment instruments; and recertification.

The NCCA and *ISO/IEC 17024* standards both address having a sound governance structure and a valid and reliable exam, but the *ISO/IEC* standard also emphasizes quality throughout the certification system and requires organizations to employ such efforts as documenting a management system, conducting annual audits of their operations, implementing preventive and corrective action where needed, and controlling critical documents throughout their use. We believe a strong certification program goes beyond its governance and test, and the *ISO/IEC 17024* standard strengthens all aspects of certification operations.

#### **What is the accreditation process?**

##### *ANSI*

In the ANSI process for accreditation, the certifying body submits an application with documented evidence of how they meet each of the standard's requirements. This documentation is reviewed by two ANSI assessors, one who is a certification management specialist and the other a psychometrician (a testing and measurement specialist). Then, a site visit is scheduled and conducted where the assessors interview agency personnel, review records, and see demonstrations of how processes work. The purpose of the site visit is to validate the information described in the application.

At the end of the two-day onsite visit, the assessors report their findings to the certifying body. These may include nonconformities (meaning a standard's requirement was not met), opportunities for improvement (a requirement was met, but there are potential concerns that it could turn into a future nonconformity) or commendations (the requirements were exceeded). Any nonconformities that are identified must be corrected by the certifying body within a predefined timeframe for the organization to be accredited. The assessors continue to work with the certifying body in reviewing and approving plans of action for corrections.

Once the nonconformities have been corrected, the assessors meet with two or more representatives of ANSI's Accreditation Committee (called an Evaluation Task Group) to review the status of the certifying

body. Then, the full Accreditation Committee reviews the recommendations of the assessors and the Evaluation Task Group and makes the accreditation decision.

An accredited certifying body must submit an annual report for review; and in alternate years a one day on-site visit is required. In five years, the organization starts the accreditation process over.

This process used by ANSI to accredit certification bodies is based on an international standard (*ISO/IEC 17011*). Adherence to a rigorous internationally recognized accreditation process ensures that the ANSI process conforms to the highest accreditation standard and represents the best practices in accreditation. ANSI is the only personnel certification accreditation body in the United States to meet these globally accepted practices for accreditation bodies. It voluntarily undergoes audits from peer agencies across the globe to ensure its conformance to *ISO/IEC 17011*.

### *NCCA*

In the NCCA process for accreditation, the certifying body submits an application with documented evidence of how it meets the standards. A Commission reviews the application and makes accreditation decisions at its regular meetings. Two Commissioners are designated to complete a detailed standard-by-standard review, one focusing on compliance with program administration standards and the other on compliance with psychometric standards. The written results of these two reviewers' feedback are shared with the full Commission. At the Commission meeting, the full Commission discusses each application. After discussion and consideration, the Commission makes a decision by a majority vote of the Commissioners. The decision may be to approve accreditation, deny accreditation or delay a decision pending receipt of further information.

Once accredited, the organization is required to submit an annual report form attesting to the status of the certification program, throughout the accreditation period. Accreditation is for a period of five years, after which a new application must be submitted and the process starts again.

While NCCA's process begins and ends with a paper application, ANSI requires an onsite assessment where organizations have to prove they are doing what their application says. In addition, ANSI conforms to an International Standard, *ISO/IEC 17011*, and even voluntarily undergoes reviews by global accreditation peers to ensure it is following best practices in its administration of the accreditation program. NCCA does not comply with any such global standards nor does it undergo such peer review. In short, NCCA does what it believes to be best practice; ANSI subjects itself to third-party review to prove it.

The cost of NCCA accreditation is significantly less than ANSI, but the value of ANSI accreditation is worth that extra cost. Most believe ANSI accreditation to be more rigorous for two primary reasons: 1) Its scope is broader. While it includes governance and psychometric requirements as does NCCA, it also has expanded requirements for a quality management system, among other areas, and 2) It requires onsite assessments where certifying bodies are "put to the test" and must prove to expert assessors that they are doing what their paper documentation states. NCCA's accreditation is based on a paper review alone. There are no interviews of personnel, no record reviews and no demonstrations of systems.

The primary purpose of personnel certification is to ensure public safety by through valid assessments. Certifications accredited to the highest accreditation standard are even more important in areas relating to public safety, health, and national security. It is for these reasons government agencies and regulators rely of ANSI accreditation as the gold standard in personnel certification accreditation.

NCCA vs. ANSI Comparison Chart

<b>The Certification Body is Required to Specifically Document Practices for:</b>	<b>NCCA</b>	<b>ANSI</b>
Organizational/Management Structure	✓	✓
Assessment/Examination Mechanisms	✓	✓
Records and Document Controls	✓	✓
Confidentiality	✓	✓
Security	✓	✓
Appeals and Complaints	✓	✓
Top Management Review	X	✓
Internal Auditing	X	✓
Corrective Actions	✓	✓
Preventative Actions	X	✓
Threat Analysis	X	✓
<b>Accrediting Body meets ISO 17011 for Accrediting Bodies:</b>	<b>X</b>	<b>✓</b>
<b>The Accreditation Process Includes:</b>		
On-Site Audit by Accreditation Personnel	X	✓
On-Site Review of Certification Body Records	X	✓
On-Site Demonstration of Management Systems	X	✓
In-Person Interviews of Certification Body Staff	X	✓

Carmen Rivera

FOR THE RECORD

New Settlement Apartments' Community Action for Safe Apartments strongly supports Intro. 1447 (Councilmember Williams) on Worker Safety & Training, which will make construction sites safer and save the lives of the public and construction workers.

As a member of the Bronx Coalition for a Community Vision, which is focused on shaping the upcoming rezoning of 73 blocks along Jerome Ave in the Southwest and Northwest Bronx to facilitate the construction of privately owned housing, we are deeply concerned about what kind of jobs this new construction will create.

The Jerome Ave rezoning is the largest proposed land change in the Bronx since Co-Op City in 1973. It will change the use of land to facilitate the displacement of the manufacturing, auto and industrial spaces and to facilitate the construction of more than 4,000 privately owned residential apartments, providing housing for more than 12,000 people, and creating more than 4,000 construction jobs.

But who will the housing be for? Who will build the housing? How will this impact the displacement pressures on the mostly rent-stabilized tenants who live in the surrounding blocks? And how will this impact the immigrant, Dominican auto industry?

There is nothing in this scope about the jobs needed to create more than 4,000 units of housing or the safety requirements for those jobs. 4,000+ units of housing will create about 4,000+ construction jobs.

Our neighborhoods have a 15% unemployment rate. Only 60% of the population over 16 participates in the labor force. If we are creating jobs in our neighborhood, we need to create jobs *for* our neighborhood. And not just any job, but safe, well-paying jobs. Moreover, we don't want jobs—we want pathways to careers. With more than 4,000+ workers needed to build these buildings, we need to ensure that they come through state approved apprenticeship programs and that they are safe jobs.

Creating construction jobs without safety requirements is simply unacceptable. Real standards for real construction training are an absolute must to protect construction workers and those in and around construction sites. The proposed legislation requires for major buildings (10 stories and above, and demo in buildings 4 stories and above, employees shall be in one of the following categories;

1. apprentices in registered apprentice programs;
2. graduates of such programs;
3. or a worker that is experienced, trained and skilled that has received training commensurate with that required of apprentices in related instruction and on the job training in accordance with standards set forth in the New York State labor law and DOL regulations

This provision simply defines what was previously accepted as "training commensurate with that required for graduates of apprentice programs" in a way that is consistent with existing

law and rule. For other buildings, the proposed legislation requires workers be in one of the following categories;

1. apprentices in registered apprentice programs;
2. graduates of such programs;
3. or a worker that is experienced, trained and skilled that has received training commensurate with that required of apprentices in related instruction and on the job training in accordance with New York State standards established by law and regulation;  
or
4. A worker that has successfully completed a bona fide construction site safety training program

This proposed legislation will:

- Save lives
- Promote construction site safety
- Utilize existing standards for training already deemed appropriate by the state legislature
- promote both the state and federal public policy favoring apprenticeship training
- protect workers from employers that put profit over safety training

With Intro 1447, the city can act now to pass legislation to make sure work sites are safe and that workers are protected.

The city cannot and should not facilitate the creation of 4,000+ construction jobs in the Bronx, without making sure they are high quality, safe and well-paying jobs, for the Bronx.

**Testimony** Tafadar Sourov  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning, my name is Tafadar Sourov. I am 22 years old, a Bronx resident and I recently was recruited into Laborers Local 79 apprenticeship program. I want to thank Chairman Jumaane Williams and the entire City Council for allowing me to speak today on my experience as a first year apprentice with the Laborers.

Before working as a construction worker, I enrolled in college for several years. After several loans, I decided it was financially unattainable. I knew a few friends who were Local 79 apprentices and I decided to go for it. After so much college debt, it was refreshing to know that I would have a career in the building trades as a skilled laborer with zero debt because my union and signatory contactors made an investment in me. I applied through the general recruitment and have been in the program since January of this year.

I started day one of my training without knowing anything about the industry. The first three weeks were spent on ensuring my first time on a job site was not my last. But rather, the beginning of a safe and long career as a trades person. We went through classroom training where we became certified in OSHA 10, learned how to protect our bodies from injuries and were made aware of the hazards we face as construction workers.

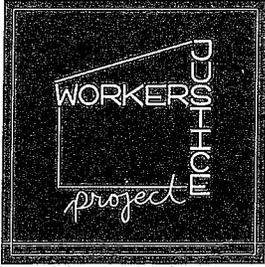
The safety aspect was stressed enough that I now have the basics to be able to determine what to do if I encounter unsafe working conditions. I have three more years of training until I reach my goal of becoming a journeyman.

As a new apprentice, I want to be able to have a career in construction and through the safety training I received, and will continue to receive, I am confident I will live a long, successful life.

Safety is in our best interest. We all deserve to go home and Intro. 1447 will protect *all* workers. Construction is a dangerous industry. I want to work safe. I want this workforce to be safe.

City Council must act now to prevent any more deaths.

Pass Intro. 1447.



# WORKER'S JUSTICE PROJECT

Tuesday, January 31, 2017

## TESTIMONY

### Presented to:

New York City Council  
Committee on Housing and Buildings  
Chair, Jumaane D. Williams

### Prepared by:

Gregorio Palestina, Member of Worker's Justice Project (WJP) & Construction Worker

1447

### **Int. No. 144, in relation to training and qualifications of persons engaged in the construction and demolition of buildings**

Good morning, Mr President Jumane D. Williams & members of the New York City Council Committee on Committee on Housing and Buildings. My name is Gregorio Palestina and I have been working in construction for 10 years. I am member of the Bay Parkway Community Job center, which is part of Worker's Justice Project (WJP), we appreciate the opportunity to speak to today about the bill 1447 that proposes that we shall be trained and certified through an apprenticeship program if we want to work on major building construction work sites and even in the demolition or general labor.

This bill it's not really clear for me. I am a member of Worker's Justice Project (WJP) and I have been trained in health and safety. Also, I recently became a health and safety trainer as well. At our job center we have lot of skilled workers and we have been working in the industry for many years. Every day we are looking for better opportunities that will allow us to provide a better life to our families. The Worker's Justice Project is working so hard to help us and train us in becoming better leaders in our community so we can use our voice and power to change the unsafe culture that exist in the construction. Most of the workers in the construction are immigrant workers from different countries.

I am worried about this bill, because it make me feel as if you are trying to exclude immigrant construction workers from working in construction, unless now the unions are now opening their doors to undocumented immigrant workers and you all can guarantee that I will be able to get into these apprenticeship programs.

We are grateful, and feel so proud to be part of an organization that is training us in OSHA-10 and is giving us the opportunity health and safety instructors so we can educate more workers. Last year, we trained more than 400 workers in OSHA-10 and we are also working with the Department of Buildings to educate more workers. As you can see, we want to be trained and want more health and safety trainings to be available to us. Please, before you all approved this bill and exclude us from working in construction, take a time to think who is really building this city, who are the workers that are dying and how you plan to protect us. We are just fathers and mothers who want to support our families and working in construction is our way to work and be able to provide to our families.

I want you to support us and I do dream of one day joining a union and working with them shoulder to shoulder in creating of new safety programs that will ensure all workers have access and organizing for better working conditions, especially immigrant undocumented construction workers will have equal access.

The New York City is our home and we hope you see us as part of your family. We are human beings just looking for better opportunities. Let's help each other. Every immigrant construction workers wants to work and come back home with their families. So let's work together and the change the culture of unsafety in construction, but together!

I'm live alone in New York, but in Mexico I have family that depends on me. I have two kids and work so hard to support my family.

TESTIMONY OF MICHAEL APUZZO  
BUSINESS MANAGER, PLUMBERS LOCAL NUMBER 1

BEFORE

**FOR THE RECORD**

THE COMMITTEE ON HOUSING & BUILDINGS

JANUARY 31, 2017

Good morning, Chairman Williams and Members of the Committee on Housing & Buildings. My name is Michael Apuzzo, and I am the Business Manager of Plumbers Local Number 1. On behalf of the nearly 6,000 hard-working men and women who are the unionized plumbers that are members of my organization, I thank you for this opportunity to testify and to express the unequivocal support of Plumbers Local Number 1 for Introduction 1447.

We support this legislation because it will save lives—those of construction workers and members of the public alike—and because it levels the playing field for all workers by requiring substantial and rigorous training for every construction worker regardless of his or her union membership status. We in the building trades and our unionized contractors have long recognized the value and necessity of apprenticeship training programs. And we invest millions of dollars each year to ensure that our workforces are not only the best trained in their crafts, but more importantly are the best trained in proper safety protocols. Intro. 1447 will make construction sites safer by ensuring that every worker receives the same robust safety training that union apprenticeship programs offer to their apprentices.

The New York State Legislature has declared it to be the public policy of this state “to develop sound apprenticeship training standards and to encourage industry and labor to institute training programs.”<sup>1</sup> The New York State Department of Labor oversees apprentice programs and makes sure that they adhere to specified standards for training. These programs teach workers how to perform construction in a safe and efficient manner.

Currently, in the absence of an apprentice program requirement imposed by a collective bargaining agreement or otherwise, employers, putting profit over safety, do not train workers sufficiently or maintain safe work sites. Recent statistics show that for the period 2014 to 2015 safety violations were found in up to 90% of inspections on construction sites where construction deaths have occurred. For some contractors, workers are treated as expendable and temporary tools used to maximize profit. This has been proven in the increase in construction site deaths in 2015 and 2016.

For these reasons, I strongly urge that the Members of this Committee support Intro. 1447 and that the full Council pass this legislation as soon as possible.

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<sup>1</sup> N.Y. Labor Law, Article 23, §810.

**Testimony** Dorian Diaz  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning, my name is Dorian Diaz and I am a proud member and shop steward of Laborers Local 79. I want to start by thanking committee Chair Jumaane Williams, Speaker Melissa Mark-Viverito and the entire City Council for coming together and introducing worker safety legislation to combat the current alarming rise in construction fatalities. Too many lives have been lost over the last two years due to contractor recklessness and greed. That is why, as a construction worker in this city, I strongly urge every Council member to support and swiftly pass Intro. 1447.

I can attest firsthand how the non-union industry takes advantage of workers who are desperately looking for a job. There are not many employment opportunities for individuals who come home and try to re-enter society after time in prison. I was one of those vulnerable individuals looking for a job after I returned home when a friend introduced me to the construction industry via Tradeoff Construction.

Before working for Tradeoff Construction, I had never been on a job site or worked in anything relating to construction. I arrived on my first day on the job ignorant to what would be expected of me; with zero training and with no certifications that are legally required by the Department of Buildings.

I was picked-up by a Tradeoff representative in a truck, handed a hard hat and told, “fake it to make it. It is not rocket science” after I expressed my lack of knowledge of the industry. “Fake it to you make it” was a reoccurring theme among workers employed by Tradeoff.

That was the only instruction, the only “training” I received from a non-union contractor who has no regard for human life. I knew this was not right and every day experienced the dangers of an untrained worker, but my need for a stable income forced me to comply and work under criminally negligent conditions.

I worked for two months without my OSHA 10 certification. Everyday I was asked for a copy and everyday I managed to work without it. I was put to work on scaffolding without certification or knowledge of fall protection. I was oblivious to all the dangers and hazards of what I was being asked to do by my employer. It wasn't until my apprenticeship training that I learned the essential health and safety standards meant to keep us safe.

I am thankful I can be here today, alive and healthy, sharing my experience in hopes what I went through can shine light on the ugly truths of the non-union industry: profits matter more than life, and safety training is an inconvenience for contractors who seek the highest possible profit margins.

**Testimony** Oba Watson  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning, my name is Oba Watson. I am a father of two who works in one of the most dangerous industries there is. I am fortunate to have been provided the training needed to work safe in this industry by my union, Local 79. There are thousands of construction workers who are not as fortunate as me. I am here today to be their voice and I thank Chairman Jumaane Williams for introducing legislation that will protect all workers across this city.

I have worked in the non-union industry and I have experienced the dangers of an untrained worker. I never received adequate safety training or instructed on the hazards of working on a construction job site. My safety was never a concern to my employers. All they wanted was to get the job done as quickly as possible.

Ignorance is what kept me working under unsafe conditions. Contractors feed off this ignorance to continue to exploit the non-union workforce. We need to educate and we need to protect New York City's most vulnerable workers.

Today, as a Local 79 shop steward, I still see first-hand how the non-union sector continues to cut corners by not addressing the need to train their workforce. I am currently working on an open shop job. An open shop job is one that has both union and non-union workers on it. As a shop steward, it is my responsibility to make sure our guys are working safe, but I cannot turn a blind eye to the non-union workers who are working side by side with our guys. The non-union workers do not have the safety eye we do. I have stopped a lot of workers from performing dangerous tasks that could have lead to sever injuries. If it weren't for trained union workers working side by side with the non-union workforce, many of them would have lost the opportunity to continue to work in the construction industry.

That is why today I am strongly urging City Council to pass and swiftly implement Intro. 1447. This bill does not mandate apprenticeship training. What it does is set standards that mirror those set by the Department of Labor. Safety training is the key to keeping all construction workers safe.

An accident can end your career. As we have seen the last two years, a preventable accident can end some ones life. New York City must pass Intro. 1447 now.

**Testimony** Ricardo Pimentel  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning. My name is Ricardo Pimentel and I am here today to urge the entire City Council to pass Intro. 1447. As a foreman for Tradeoff Construction, my life and my crew's life are constantly at risk because my employer has no regard for human life. Everyday corners are cut on safety to ensure the job is done as quickly as possible. We currently work with no gloves, no safety glasses and other personal protective equipment that should be provided by our employer. There are instances of people working without a harness or zero fall protections.

I came in as a foreman for Tradeoff because I was running a 23 men crew for another non-union contractor, Construction Force. The Tradeoff foreman at the time did not know what he was doing, so they brought in me to take control. I started getting paid \$20 an hour and promised a raise once I had proven myself. In a week I had turned around the job and when I went to get a raise as promised, my employer said \$25 an hour was the most they could afford. I knew though, from paperwork, that my employer was billing contractors \$45 for my work.

We can no longer allow greedy contractors and sub contractors to continue to exploit the non-union workforce. That is why I am here today. To be the voice for many workers who because they need to provide for their families, they are afraid to speak up against the same people who are abusing their need.

To my non-union brothers and sisters: do not let your employer continue to keep you oblivious of the safety protocols they should be following. These protocols will make sure you come home to your families and able to go back to work the next day. This bill will not take our jobs away because it is not an apprenticeship mandate. The bill's purpose is to make sure all contractors and sub contractors in this city are being held to the standards set by the Department of Labor. We should not be on the opposite side of safety.

This is not a union vs. non-union battle. This is a bill that will keep us non-union workers safe.

As a non-union worker, I am asking City Council to act now and pass Intro. 1447.

**Testimony** Anthony Lowe  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

I want to thank you for the opportunity to testify today about the importance of safety and training for construction workers and Intro 1447. My message today is a simple one: construction workers need to be trained and safety guidelines need to be adhered to because there are people's lives being put at risk everyday on the job and even as we speak.

My name is Anthony Lowe and while I'm currently a Journeyman with Laborers Local 79, I got my start in construction working on non-union jobs and therefore I know firsthand what it's like to be on a job without any training or safety protocol to follow.

My first day on the job they just threw me to the wolves as I like to say. I walked on the site working for Tradeoff and was simply told to start working. There were no directions given on how to do the job or certain safety guidelines to follow, my job was to simply get things done and not ask too many questions because questions get you fired.

Tradeoff was concerned first and foremost with getting jobs done; it didn't matter how fast you had to work or what corners you were cutting to get it done, you simply had to get it done. They didn't supply me with any personal protective equipment or training for the tasks I was assigned, it was whatever I could get my hands on to protect myself. One day on the job I was told to go out on a 3-inch ledge, that was covered in ice, with a safety harness attached to a nail stud. Now even for a fit guy like myself, a nail stud is nowhere near strong enough to hold my weight in the harness as I'm on the ledge. Knowing my life was going to be at risk, I refused to do the job and somehow was able to keep my job on the site even though I refused. They typically fire people for refusing to do something like that.

Another time, the project manager told myself and other workers to use a sliding ladder to get on top of some scaffolding. However, the site safety manager was warning us not to use such a ladder for the job because it wasn't safe for that kind of work. After the second safety warning the project manager said anyone that didn't use the ladder regardless of the safety warnings would be fired. So, we all risked our lives going up the ladder and thankfully no one was hurt that day.

On jobs like these the only one looking out for my safety was me and that's not fair. Construction workers need to be trained so we know how to properly and safely perform our job. It's not fair to the workers on these jobs that are putting themselves in compromising and unsafe positions to support themselves and their families.

Having a law like Intro 1447 that establishes a baseline of training and safety guidelines for ALL construction workers will go a long way to protect and save lives. Before I joined the union, I was one of these non-union workers hoping to not get hurt on the job and you all have the power today to change that for countless people. Use that power for good and pass Intro 1447 so construction lives will no longer be on the line.

*"There is no substitute for a skilled craftsman"*

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**Testimony in Support of New York City Council Intro #1447**  
**- Thomas Goodwin, Steamfitters Local 638 Training Director**

Good afternoon, Chairman Williams, and thank you for the opportunity to testify before the committee about this important safety issue.

My name is Tom Goodwin, and I am the Training Director for Steamfitters Local 638. The 8,200 members of the steamfitters design, install and maintain fire sprinklers, piping, heating and cooling systems in tens of thousands of buildings throughout New York City.

When it comes to building high-density apartment complexes and office buildings that make up our city's rapidly growing skyline, worker safety is always our number one priority. At the end of a workday, everyone must get home safely to their families.

However, in New York City, construction workers represent less than 4% of the total workforce, yet account for almost 20% of workplace fatalities. That is completely unacceptable.

The apprentice program I represent operates an Industry Training Center in Long Island City, where apprentices complete a five-year, state-approved apprenticeship program. Worker safety is at the center of this program. A steamfitter's very first lessons are about safety regulations, equipment and protocols. We reinforce this throughout the process so that by the end, prioritizing safety is second nature.

Our apprentices receive classroom instruction in OSHA safety and health training that has, without any doubt, increased safety at the jobsites we work on. Workers are taught to recognize if and when there is a safety issue and how to correct or properly address it. Apprentices also gain real-world experience by completing on-the-job training under the supervision of an experienced steamfitter.

Construction is among our city's most dangerous industries, yet it's not uncommon for employers to simply hire workers off the street who have never stepped foot on a construction site or received any training. This act is immensely dangerous not just for the worker who being exploited, often by unscrupulous contractors, but also for passersby. Look around, our city is filled with active construction sites and millions of pedestrians pass very closely to them every day.

Often we have first-year apprentices, some coming into the union ranks from non-union sites, who speak of working on dangerous jobsites without even minimal safety training or equipment. These workers describe getting seriously hurt on those other job sites and being refused worker's compensation or getting fired for being injured on the job. Too much of our city's evolving skyline is being built upon the broken backs of people with stories like these.

There is a clear problem when there are no safety-based training standards in an industry that has had 464 workers die on the job in the last 10 years.

Why should construction workers be forced to regularly and unnecessarily risk their lives to support themselves and their families?

I want to thank City Council Speaker Melissa Mark-Viverito, the 13 co-sponsors of the current safety legislation and Manhattan Borough President Gale Brewer for standing up for worker safety. I hope that after today, everyone in this room will do the same.

**Testimony** Erika Glenn Byam  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good afternoon, my name is Erika Y Glenn Byam and I am a member of Laborers Local 79. Thank you to Council Member Williams and the committee for the opportunity to testify today on Intro 1447 and the importance of safety and skills training for ALL construction workers.

I was born and raised in East New York, Brooklyn. In 2006 after my tour with the United States Air Force, I applied to a non-profit organization, Non-Traditional Employment for Women (NEW), here in the city that helps women enter the construction industry. After being accepted into NEW's program, I started an extensive 6-weeks course that was preparing me to one day work on a construction site. Upon completion of the course, I applied to be a Laborers Local 79 apprentice and was accepted into their program.

I started as an apprentice with Local 79 and before I even set foot on a construction site, they were teaching me the correct and safe ways to do the job. The first 3-weeks as an apprentice had me in a classroom getting the proper guidance and training on our safety techniques, so I can look out for myself and fellow tradespeople on the job. Those 3-weeks changed my life forever because I am here today as an advocate, a sister, an aunt, a female union member for over 10 years.

We need safety measures and real training to be implemented on job sites so people have the same chance to work safely and return to their family that I do. I want to see all my fellow trades people go home after a hard day of work, but that isn't guaranteed for many before us today. And the way it is now isn't fair! How many must die before we understand every worker needs to be trained so they're safe on the job? It's simple: an untrained worker is an unsafe worker!

I am the face of the new age construction worker, taking down the "old New York City" with its old construction practices, practices that in part allow workers to be unsafe on the job because their employers aren't forced to train and prepare them for the work. I say it's time we end this old way of working and put forth a new one that has every worker safe on the job because Intro 1447 was passed and they were properly trained for the work.

I urge you to pass Intro 1447 to protect the lives of construction workers. Thank you!

**Testimony** Steve Williams  
**Committee** Housing and Buildings  
**Topic** Introduction 1447  
**Date** Tuesday, January 31, 2017

Good morning, my name is Steve Williams and I am here today to talk about the importance of job and safety training for construction workers.

I've worked in construction for 10 years, my brother in law got me started in the industry. When I started in construction 10 years ago, I walked right onto to the job and was told to start working. I wasn't trained or given any safety equipment, I was told to get the job done and that was it. My boss didn't care how I got it done, they just wanted it done at any cost and if you refused, you were fired.

Every job I've had since has been that way. Employers never care if I know how to do the job, they simply want it done; which means often doing jobs that require protective gear and equipment without it being there.

Once on a job I was told to use a demo saw without the proper protective gear on which could've cost me my legs but thankfully didn't. Another time I was told to cut rebar without the proper protective pants on and when you cut rebar without those pants, your own pants can catch fire from the sparks that fly as you cut. On another occasion, I was told to climb in a hole 5 feet deep that wasn't reinforced with plywood or 2x4s, meaning it could've collapsed and buried me alive as I worked. Another man on the site spoke up and told me not to go down there because it was so unsafe. I've also been told to work without safety harnesses and protective eyewear. During my time in the industry, I've lost multiple jobs for speaking up about unsafe conditions like these.

And while I'm thankful to be working, I worry everyday on the job because when you go to work in construction and it's not safe, you don't always get to come home. I always think to myself, "Will I make it home? Will I see my girlfriend and step-daughter again?"

No one should ever feel this way when they're on the job and I wouldn't if I was given the proper tools to protect myself and those around me at work. Those tools are skills and safety training and proper safety and protective gear. Without them, I will continue to work in fear, uncertain of if I will make it home someday.

Thank you for the opportunity to share my experiences today and I hope the City Council can come together to protect me and my co-worker's lives.

**LEGISLATIVE MEMORANDUM**  
**RE: CONSTRUCTION SAFETY ACT**

**Introduction**

REBNY, representing over 17,000 owners, developers, managers and brokers of real property in New York City, is pleased to submit this Legislative Memorandum outlining our various positions on the Construction Safety Act – a compendium of 21 new and previously-introduced bills. REBNY applauds the New York City Council for its leadership to make construction sites safer and to insure that every worker goes home in the same condition they arrived to the site.

REBNY's commitment and interest in construction safety is evident in our members' long track records in building New York City's and the world's most complex and sophisticated buildings with industry-leading safety practices. Some of the Council's bills reflect the practices that many of our members have already instituted on their sites.

REBNY highlighted some of these practices in during our presentation on REBNY's findings on construction safety to the City Council in November 2016. REBNY examined every violation and fatality that occurred on a construction site throughout the five boroughs from 2010 to 2015 and found that the vast majority of fatalities occurred on smaller sites of nine stories or less.<sup>1</sup> Our findings also concluded that accidents occurring on smaller sites are 43% more likely to receive a violation from the NYC Department of Buildings (DOB).<sup>2</sup>

The bills that constitute the Construction Safety Act can be categorized into Apprenticeship Training, Prevailing Wages, Site Safety, Crane Safety, Civil Penalties and Reporting Requirements, and this memorandum is organized accordingly.

REBNY appreciates the opportunity to offer the following commentary:

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<sup>1</sup> Real Estate Board of New York, Construction Safety Report. 2016. New York: Real Estate Board of New York. Retrieved January 30, 2017 from [https://www.rebny.com/content/dam/rebny/Documents/PDF/News/Research/Policy%20Reports/2010-2015\\_Construction\\_Analysis\\_Safety\\_Steps.pdf](https://www.rebny.com/content/dam/rebny/Documents/PDF/News/Research/Policy%20Reports/2010-2015_Construction_Analysis_Safety_Steps.pdf)

<sup>2</sup> Ibid.

## **Apprenticeship Training**

INTRO NO: 1432

SUMMARY: Requires contractors working on certain projects receiving City financial assistance to participate in an apprenticeship program, and requires reporting of certain information concerning such projects.

SPONSORS: Kallos, Crowley, Miller

INTRO NO: 1447

SUMMARY: Requires that all workers at building sites receive OSHA10 training, and requires that workers at virtually every construction site to either 1) be registered with a New York State or US Department of Labor approved apprenticeship program; 2) be a graduate of said program; or 3) have completed a bona fide construction site safety training program.

SPONSORS: Williams, Menchaca, Kallos, Crowley, Lancman, Miller, Dromm, Salamanca, Torres

**REBNY OPPOSES Intro Nos 1432 and 1447.** Apprenticeship programs promote craft training, not safety training. The two should not be confused with one another. Other than Intro No 1447's requirement that workers on all sites receive OSHA 10 training, these bills do little to advance worker safety.

Mandating apprenticeship programs at virtually every construction site throughout the city and at city-financed projects will stop many projects in its tracks and/or from ever being realized. Otherwise-qualified construction workers will effectively be unemployed because they will not be able to meet Intro No 1447's definition of qualified workers on building projects, or face the prospect of starting all over again by enrolling in an apprenticeship program in order to work.

Apprenticeship programs also impact the MWBE and smaller contractor community. The New York State Department of Labor outlines a rigorous regulatory regime to qualify and approve an apprenticeship program.<sup>3</sup> MWBE firms and other smaller contractors might not have the resources to establish or participate in such apprenticeship program. Even if they did, they would face stiff competition as the building construction trades dominate the apprenticeship programs in New York City.<sup>4</sup> And assuming that MWBE firms and smaller contractors were able to establish an apprenticeship

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<sup>3</sup> See, Article 23 of New York State Consolidated Laws, Section 810 et seq.; Part 601 of the New York Codes, Rules and Regulations.

<sup>4</sup> Fifty-nine percent of the 88 building construction trade apprenticeship programs are sponsored by unions or union affiliates, and nearly nine out of ten apprenticeship programs in the high-risk construction trades are

program today, an apprentice could not be graduated from such a program within the next three years due to statutory requirements, thereby, erasing any gains made by MWBE firms and smaller contractors in the construction industry.<sup>5</sup> Moreover, there must be other avenues for minority workers to gain entry into the construction trades other than union-sponsored apprenticeships as there are established patterns of discrimination against minority workers in being assigned work.<sup>6</sup>

Requiring apprenticeship programs on projects receiving city financial assistance will also negatively impact construction. The added wage costs will increase overall costs which could impede the progress made thus far toward affordable housing production. Other city-assisted projects such as educational and manufacturing facilities might be affected as the bill's broad definition of city financial assistance includes "bond financing" which heavily subsidizes non-profit development through Industrial Development Agency (IDA) bonds. Finally, mandating apprenticeship programs on virtually every construction site throughout the city will adversely affect NYCHA's fulfillment of Section 3 and other resident employment programs.<sup>7</sup>

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### **Prevailing Wages**

INTRO NO: 744

SUMMARY: Mandates that construction workers (employed for at least 90 days) on development projects receiving financial assistance from the City or on a city development is paid no less than the prevailing wage established for their respective trade. Excludes projects that receive as-of-right assistance, tax abatements or benefits; and excludes small businesses with revenues of less than \$3 Million.

SPONSORS: Crowley, Lancman, Miller, King, Kallos, Constantinides, Mendez, Gibson, Cabrera, Cornegy, Espinal, Gentile, Maisel, Mealy, Wills, Levine, Johnson, Koslowitz, Salamanca, Rose

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sponsored by unions or union affiliates. (Sources: NYSDOL, Northeastern Subcontractors Association, and National Labor Relations Board)

<sup>5</sup> See, Part 601.8 of the New York Codes, Rules and Regulations – Program Probation, Monitoring, Re-Certification & Performance

<sup>6</sup> Swarns, Rachel. (2015, December 20). New York Sheet Metal Workers Case Highlight Persistence of Workplace Discrimination. *The New York Times*. Retrieved January 30, 2017 from <https://www.nytimes.com/2015/12/21/nyregion/minority-sheet-metal-workers-in-new-york-start-getting-back-pay-after-decades-of-bias.html>

<sup>7</sup> Durkin, Erin. (2017, January 24). NYCHA Tenants Oppose Apprentice Plan for Construction Workers. *New York Daily News*. Retrieved January 27, 2017 from <http://www.nydailynews.com/new-york/nycha-tenants-oppose-apprentice-plan-construction-workers-article-1.2953990>

**REBNY OPPOSES Intro No 744.** While the bill’s ability to promote construction safety is ambiguous at best, the bill will certainly increase project costs. A report from the Regional Plan Association found that open shops which are mix of union and non-union labor have steadily increased market share from 15% in the 1970s to about 40% in 2011.<sup>8</sup> Open shops’ market share has only increased since the report’s release.<sup>9</sup> And the report’s finding that open shops are less expensive than full-union shops still holds true with cost differentials of up to 20 percent. Intro No 744 will impose the cost structure of a full-union shop on projects receiving financial assistance from the City including projects including those that receive IDA bond financing such as educational and manufacturing facilities. If Intro No 744 is enacted, these projects might never be realized due to the financial infeasibility.



### **Site Safety**

REBNY is generally supportive of the following bills with certain qualifications as described below. Indeed, many of these legislative initiatives are rooted in our membership’s best construction practices that were shared with Council last November. However, language in the individual bills could be refined to reflect the realities of construction work because each construction site is different and one-size does not fit all.

INTRO NO: 1429

SUMMARY: Requires construction workers to receive specific instructions and a review of all tasks during safety meetings at the beginning of each shift for work that is required to be supervised by a licensed person or involves a hazardous activity. Orientation is required to be made in worker’s primary language if requested. Records of all meetings must be kept.

SPONSORS: Ferreras-Copeland, Crowley

**REBNY GENERALLY SUPPORTS Intro No 1429**, however, more specificity is needed. It is not clear who at the site would be responsible for providing such instruction. Licensed site safety personnel may not have the requisite trade expertise to review all tasks and activities that every worker at the site may commence. For this reason, the bill should be limited to high risk operations such as work on

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<sup>8</sup> See, Vitullo-Martin, Julia and Cohen, Hope. *Construction Labor Costs in New York City - A Moment of Opportunity*. New York: Regional Plan Association. 2011. Retrieved January 30, 2017 from <http://library.rpa.org/pdf/RPA-CUI-Construction-Costs.pdf>

<sup>9</sup> Brenzel, Kathryn. (2016, March 1). Are Unions Losing Their Grip in NYC?? *The Real Deal*. Retrieved January 30, 2017 from [https://therealdeal.com/issues\\_articles/are-unions-losing-their-grip-in-nyc/](https://therealdeal.com/issues_articles/are-unions-losing-their-grip-in-nyc/)

foundations, superstructures, window/curtain walls, masonry, elevators, roofs, and on decks at specified time intervals.

Additionally, we are concerned about the bill's requirement to communicate in the worker's primary language if such worker identifies as being unable to communicate meaningfully in English. REBNY appreciates and recognizes the diversity of the construction workforce but points out that construction supervisors and site safety personnel are already required to communicate effectively with all workers on site.<sup>10</sup> The demands of the bill might be duplicative. Moreover, it runs the risk of employers displacing non-native English speakers on projects to avoid the bill's requirements.

INTRO NO: 1444

SUMMARY: Requires workers at all construction sites receive site-specific safety orientations.

SPONSORS: Treyger, Crowley, Miller, Salamanca

**REBNY GENERALLY SUPPORTS Intro No 1444**, however, as with Intro No 1429, REBNY is concerned about the bill's possible negative impact on non-native English speaking workers. The bill should also be limited to high risk operations such as work on foundations, superstructures, window/curtain walls, masonry, elevators, roofs, and on decks on specified time intervals.

INTRO NO: 1445

SUMMARY: Requires safety netting systems and guardrails to protect floor openings.

SPONSORS: Williams, Crowley, Miller, Salamanca

**REBNY GENERALLY SUPPORTS Intro No 1445**, however, the bill needs to reflect the practical realities of construction. Specifically, requiring vertical netting within shaftways is likely to disrupt work, and it would also complicate emergency exits from shaftways while creating new fall hazards when moved. REBNY does believe such netting would provide the same safety protections provided by the guardrail systems currently required by section 3308.7 of NYC Building Code.

Similarly, the horizontal netting proposed for section 3308.6.1.1 would create a conflict with necessary access and egress to the floors and working deck above the last level of completed stairs. REBNY recommends creating a new section applying to all sites in lieu of the proposed changes to existing code. This would enable focusing the new protections on large openings not in use through the use of an additional definition for "floor openings."

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<sup>10</sup> See, Section 3301-02 (c) (10) of Title 1 of the Rules of the City of New York.

INTRO NO: 1448

SUMMARY: Require buildings more than four stories in height to file site safety plans with the Department of Buildings and to enact and maintain a site safety monitoring program to implement such site safety plans.

SPONSORS: Williams, Torres, Crowley, Salamanca

**REBNY GENERALLY SUPPORTS Intro No 1448** and appreciates the Council’s recognition that projects below ten stories are more likely to have unsafe site conditions that contribute to fatalities. However, Intro No 1448 will meaningfully constrain DOB’s staff and resources given the large number of new plan submissions from affected projects. Given the shortage of licensed site safety personnel able to implement site safety plans, this proposal could also cause delays across a great number of projects throughout the city. More time is needed to evaluate the impact of the DOB’s new construction superintendent rules, which took effect on May 30, 2016, before increasing the personnel requirements.

Intro No 1448 should be amended so that projects below ten stories would be required to create site safety plans to be implemented by a Competent Person for Site Safety as approved by the construction superintendent.<sup>11</sup> This change would mirror DOB’s 2015 rules regarding façade project site safety plans. Increasing DOB’s full-time staff would also be necessary before DOB could approve these new plans. In the interim, the requirement could call for plans to be kept on site for random inspection.

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**Crane Safety**

INTRO NO: 443

SUMMARY: Imposes age limitations on cranes used in New York City. Cranes younger than 25 years would be operational effective 10/1/14, excluding: a) instances where crane is already in use or permits have already been filed by effective date; b) projects with cranes younger than 25 years at the time of DoB inspection and not exceeding 28 years; c) DoB Commissioner approval for cranes under 30 years old. Each crane shall be equipped with a load cycle counter by 7/1/15.

SPONSORS: Kallos, Rose, Constantinides

**REBNY TAKES NO POSITION.**

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<sup>11</sup> Ibid.

INTRO NO: 1403

SUMMARY: Requires anemometers to be installed on the boom of cranes to be operational.

SPONSORS: Williams, Chin

**REBNY GENERALLY SUPPORTS Intro No 1403** and believes that the installation of anemometers will institute the use of local wind measurements rather than relying on remote readings. However, REBNY believes that the bill should be amended to 1) specify the placement of the anemometer to the highest floor of crane operations; and 2) to measure sustained wind speed over a specified duration of time rather than 3-second wind gusts.

INTRO NO: 1421

SUMMARY: Requires all crawler cranes to be equipped with GPS devices or similarly approved devices by DOB to be operational.

SPONSORS: Chin, Crowley

INTRO NO: 1435

SUMMARY: Require all crawler cranes to be equipped with data logging devices capable of tracking crane configuration, radius of the load, status of limit switches and operator overrides, and be able to track the name and license of individuals operating the crane.

SPONSORS: Maisel, Crowley

**REBNY OPPOSES 1421 and 1435** because the technology is not readily available. Moreover, REBNY raises concerns over privacy concerns, specifically, how will the collected information be used, accessed and stored.

INTRO NO: 1422

SUMMARY: Requires that cranes which require actions to be taken at 20 MPH wind speeds or less to operate within a safety zone; requires that cranes which require actions to be taken between 20 MPH and 30 MPH to operate within a safety zone, and to submit a plan for monitoring and securing the crane is submitted to DOB, FDNY and DOT; and requires orientation for assembly/disassembly directors, lift directors and hoisting machine operators

SPONSORS: Chin, Crowley (in conjunction with the Mayor)

**REBNY OPPOSES Intro No 1422.** While REBNY appreciates the challenges that certain wind events can impose upon construction safety, the various crane manufacturers take these situations into account in designing the machinery and tabulating the load charts. REBNY believes that manufacturers' specifications should be referenced and adhered to during wind events. The implementation of a safety zone is impractical and will only restrict construction activity, lengthening project completion. Further, REBNY raises the question of simulator availability in New York City.

INTRO NO: 1431

SUMMARY: Requires registration of lift directors of cranes where on-site inspection or licensed master rigger is required, and specifies qualifications and duties of role.

SPONSORS: Grodenchik, Crowley (in conjunction with the Mayor)

**REBNY GENERALLY SUPPORTS Intro No 1431;** however, the specific duties of the lift director should adhere to ANSI standards. Furthermore, the bill needs to more specific as to the chain of command for crane operations decisions which presently contradict OSHA standards and to whom the lift director will be reporting.

INTRO NO: 1446

SUMMARY: Requires a licensing endorsement for class B hoisting machine operators operating cranes with a long boom or jib. Class B1 and B2 applicants must demonstrate competency. In addition, class B1 applicants should have 2 years of experience under a class B licensed hoisting machine operator. Class B2 applicants shall have a class B1 license and demonstrate the ability to operate cranes with complex booms.

SPONSORS: Williams, Crowley, Miller

**REBNY TAKES NO POSITION.** However, the bill aims to create a sub-classification for operators of larger, more complex cranes. REBNY reiterates its long-standing position that in order to recruit and retain the most qualified operators, the applicant pool must be expanded to include operators with out-of-city experience. This was codified in Section 104-09 of Title 1 of the Rules of the City of New York but hastily abandoned when the City of New York appealed a 2015 New York County Supreme Court (Wooten, J.) decision to invalidate licensing regulations that would have allowed certain applicants to receive credit for work experience gained in other large cities. Even though the City of New York ostensibly did not agree with the Court's decision, the City declined to appeal that part of the decision but proceed to appeal other components of the decision.<sup>12</sup> If the Council is intent on insuring that the most qualified

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<sup>12</sup> Brief of Appellant at 2, *Edward L. Christian v City of New York*, No. 102788/12 (1st Dept., February 22, 2016).

operators are available for larger, more complex cranes, it should advocate for reinstatement of the prior rule.



### **Civil Penalties**

INTRO NO: 1404

SUMMARY: Increases fines for immediate hazardous and site safety provisions of the building and administrative codes up to \$25,000 for immediately hazardous, and up to \$15,000 for major violations.

SPONSORS: Williams, Richards, Chin (by request of the Manhattan Borough President)

INTRO NO: 1419

SUMMARY: Increases the fines for building code violations of chapter 33 of the Building Code that result in a serious physical injury and/or fatality. Fines range from \$500 for lesser violations up to \$25,000 for immediately hazardous violations. Fines for violations resulting in serious physical injury or death range from \$500,000 up to \$1,500,000. Exceptions to the bill include building code violations as a result of natural or man-made disasters or work done by a city employee or city-contracted work if violations are corrected within 60 days.

SPONSORS: Mark-Viverito, Crowley, Salamanca

**REBNY GENERALLY SUPPORTS Intro Nos 1404 and 1419** as increased civil penalties are effective means to discourage bad behavior. The bill's imposition of fines for serious physical injury and death do not include any provision for relief if said injury or death are the results of a worker's negligence. Although regulatory and punitive fines are generally not covered by insurance, fines, along with other market factors, have an impact upon insurance premium rate-setting. Insurance carriers have already exited the New York City market due to strict liability laws such as the Scaffold Law.<sup>13</sup> At present, there are only a few insurance carriers willing to service the New York City construction market. These factors have led to rising insurance premiums that make up towards 10 to 12 percent of the entire construction budget.<sup>14</sup> REBNY urges to the Council to meet with insurance carriers to determine an appropriate increase amount to encourage safer practices that will not unnecessarily raise premiums.

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<sup>13</sup> Cavanaugh, Bonnie. (2013, May 10). N.Y. Labor Law for Construction Doubling Rates, Scaring Away Carriers, *Property Casualty360*, Retrieved January 27, 2017 from <http://www.propertycasualty360.com/2013/05/10/ny-labor-law-for-construction-doubling-rates-scari>

<sup>14</sup> Ibid.

INTRO NO: 1437

SUMMARY: Increases fines for construction sites in excess of the violation ratio (number of immediately hazardous violations and major violations for the past 12 months divided the site's square footage). Applicable to sites where violation ratio exceeds at least 90% of construction site violation ratios.

SPONSORS: Menchaca, Crowley, Salamanca

**REBNY OPPOSES Intro No 1437.** Using a strict ratio standard will include many violations that are being challenged and/or litigated that could unfairly skew the site toward heavier penalties. If the bill's intention is to target specific bad actors and to shut down problematic sites, existing law and regulations allow DOB to do such.

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### **Reporting Requirements**

REBNY is generally supportive of reporting that reinforces and implements safety training, but not of reporting that imposes additional demands upon city and federal agencies. If additional reporting is required, REBNY asks that 1) DOB is appropriately resourced to carry out such functions, and 2) the additional data is meaningful and can be used toward implementing change.

INTRO NO: 81

SUMMARY: Requires DoB to notify OSHA of any violations of the building code the Commissioner believes potentially endangers workers; and to submit an annual report to the Mayor and the City Council Speaker on the nature and number of these violations.

SPONSORS: Lancman, Koo, Rosenthal

**REBNY GENERALLY SUPPORTS Intro No 81.** This bill would broaden the responsibility of DOB to report on any violations it believes may "potentially" result in workplace injury and danger. The ambiguity of the term "potentially" is especially problematic because it may result in the reporting of minor workplace violations.

INTRO NO: 1442

SUMMARY: Establishes a tiered system for enforcement of safety registration numbers based on performance of contractors required to hold safety registration numbers.

SPONSORS: Rosenthal, Crowley, Salamanca

**REBNY OPPOSES Intro No 1442.** While this bill attempts to promote workplace safety by classifying “good” and “bad” contractors, REBNY believes that the individual worker’s professional responsibility and adherence to supervisor instruction and generally-accepted safety protocols must also be considered. As such, Intro No 1442 may unfairly place safety registration holders who make the best efforts to provide and implement workplace safety at risk for harsh penalties and potential revocation of their registration privileges when the violation or hazardous condition could be attributed to the worker. Furthermore, the bill does not prevent a contractor whose safety registration has been revoked from establishing another company under a different name, a practice commonly known as “shirt-changing.” And finally, Intro No 1442 would also disproportionately impact larger contractors who do more projects and are thereby, subject to receiving more violations.

INTRO NO: 1433

SUMMARY: Requires DoB to report and document on all construction related accidents that result in an injury or fatality to the public or a construction worker.

SPONSORS: Kallos, Rosenthal, Levine, Torres, Crowley, Miller, Salamanca, Barron, Gentile

**REBNY GENERALLY SUPPORTS Intro No 1433.** Currently, the DoB is required to report on construction related accidents that result in an injury to the public. While REBNY supports the Council’s effort to improve reporting of workplace injuries and fatalities, this bill will significantly expand DoB’s current reporting jurisdiction into areas that will require the site’s construction or general manager cooperation. Moreover, some of the data requested have questionable value toward promoting safety. For example, the bill calls for “whether or not the injured or deceased worker was a union member.” Rather, REBNY recommends including data points that would help safety research efforts such as what DOB permit(s) are associated with the site; total square footage of the site; and an analysis of worker responsibility to the accident, if applicable.

INTRO NO: 1436

SUMMARY: Would require DoB to report on the number of site safety managers and coordinators in addition to other statistics to the city council and post it to their website annually.

SPONSORS: Kallos, Rosenthal, Levine, Torres, Crowley, Miller, Salamanca, Barron, Gentile

**REBNY GENERALLY SUPPORTS Intro No 1436.** The availability of site safety professionals is essential to construction projects. Posting such information on a website might help the construction community to understand the general market landscape but such information can also be collected through the Mayor’s Management Report. It should also be noted that DOB has made great strides toward reviewing and approving site safety professional licenses, and that some of the factors toward license

approval are outside of DOB's control. Finally, as with any new mandate, DOB must be afforded the resources to competently implement the new responsibilities.

# # # #



January 30, 2017

Jumaane D. Williams, Chair  
Committee on Housing and Buildings  
250 Broadway, Suite 1754  
New York, NY 10007

To Mr. Williams:

The Specialized Carriers & Rigging Association (SC&RA) is an international trade association of 1,400 members from 46 nations. Our members are involved in crane and rigging operations, millwrighting, machinery moving and erecting, industrial maintenance, specialized transportation, manufacturing and equipment rental. SC&RA helps members run more efficient and safer businesses by monitoring pending legislation and regulatory policies at the state and national levels; researching and reporting on safety concerns; establishing best business practices; and providing four yearly forums where these and other relevant member issues can be advanced.

Recently 18 bills were proposed in New York City providing further regulatory oversight on crane operations. While we understand the bills were introduced to ensure safe crane operations within the City's limits, some of the proposed bills are overly onerous and impractical to modern day crane operations without any substantiated benefit to safety.

Our specific concerns include the following:

Int. No. 443 (Crane Age Limitation)

There is no research which supports the notion that the age of a crane impacts safety. In fact, the U.S.-based organization representing crane manufacturers, the Association of Equipment Manufacturers (AEM) and its international counterpart, the European Materials Handling Federation (FEM), both agree there is no correlation between a crane's age and crane accidents. Proper inspections and maintenance are the true factors in the safety and life of a crane.

In January 2015, Haag Engineering, a forensic engineering firm well known and respected throughout the industry, released its technical paper, Tower Crane Life Expectancy: An examination of recent trends to establish age limits. In its paper, Haag answered several questions posed by SC&RA, one of which was "Based on Haag's research, is there a direct correlation between a tower crane's age and accidents/incidents?" Haag's response: "No. Study results have demonstrated no correlation between calendar age and accidents. Operation, maintenance, site preparation, erection, foundation suitability and adequate tie-in bracing are the factors which affect tower crane accidents."

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SC&RA also questioned, "Based on Haag's research, is there any engineering evidence to set an arbitrary time limit on the usage of a tower crane?" Haag's Response: "No. For properly maintained and inspected tower cranes, no definable time limit for equipment retirement age is supported or derived from any engineering principles. In fact, historical data show conclusively that exclusive of cost considerations, properly maintained and inspected tower cranes can remain in service indefinitely." Haag further noted: "....no specific scientific basis or engineering foundation" in imposing crane age limitations. A copy of the full report is attached for your review.

Also noted in the proposed language is that a crane's age will be determined by the oldest component of the crane. For instance, a company could have a five-year old crane but a 10-year old headache ball. Based on the proposed language, the crane would be considered 10 years old. Again, this is impractical and unreasonable and provides no additional safety factors to the crane and rigging industry.

Cycle counters, another item called for in the bill, requires technology not readily available to the crane industry. Third party devices cannot connect or tap into a crane's proprietary software as needed to provide accurate information. More importantly, the data provided by cycle counters would be meaningless. For instance, a maximum pick with long boom is completely different than a light pick with short boom and yet a cycle counter would consider them as equal which is inaccurate. Since cycle counters don't measure the configuration of the crane, the information cannot be used to determine the loads on any given component or system of the crane.

#### Int. No. 1403 (Anemometer)

To require anemometers on all cranes, with the exception of Tower Cranes, is unreasonable and ill-founded. There is no history of accidents noting wind as the causal factor of accidents. As currently drafted, the bill introduced is extremely broad and should not be applied to all cranes. There is no safety need for anemometers on small industrial cranes and/or small boom trucks.

#### Int. No. 1421 (GPS)

The global position system (GPS) technology the City is requiring on all cranes simply does not exist. Based on New York City's current restrictive requirements that all companies must go through to secure a permit to operate a crane in the City, are GPS systems necessary? What is the purpose of requiring global positioning systems on cranes working within the City limits? These systems do not provide any additional safety factors to jobsites. In fact, based on industry and manufacturer experience, GPS signals are not consistent due to the high rise building environment of the City and an obstructed skyline. These systems will not be 100% accurate based on these issues and could erroneously force a company to shut down their crane. Furthermore, companies should not be forced to fit all their cranes with a GPS merely to make the City's job easier.



#### Int. No. 1422 (Parking Position Wind Restrictions)

This bill should be limited to cranes which have parking position charts published by the crane manufacturer such as cranes with luffing lattice jibs. To require this of all cranes is infeasible as many crane manufacturers do not currently publish these charts. In their absence, such cranes fall into the two onerous categories covered by this proposed law, which we believe, was not the intent of the bill's sponsors.

It is also our understanding that the training and simulators described in this bill do not exist for all makes and models of cranes. Such a request is impractical and unrealistic to expect simulators be engineered and built that reasonably resemble the actual crane, given the variety of crane manufacturers, crane models, the multitude of diverse crane control systems and rated capacity limiters. While some model-specific simulators exist, they quickly become obsolete and are used in a general fashion to give generic type crane training. The request is impractical and such a broad-based product is not even remotely offered in today's market. Another important aspect to note is that most crane manufacturers do not "qualify" as private sector training companies.

#### Int. No. 1431 (Lift Director)

The language proposed in this bill creates many more layers than necessary for safe crane operations. OSHA and ANSI B30.5 have defined the responsibilities of a Lift Director. We respectfully request this criterion be reviewed and reconsidered as requirements for Lift Directors within the City. Harmonization of responsibilities and requirements among the three organizations/agencies will ensure safer work sites. The continual change in requirements on a federal and then city level leads to confusion on jobsites. For instance, Item 3319.2.3.4.18 requires the lift director to ensure that constant communication is maintained between the operator, rigging supervisor, and signalman while OSHA requires that a dedicated line of communication exist between the operator and signalman only; no one else can be in the chain.

#### Int. No. 1435 (Data Loggers)

What is the purpose of this bill? Data loggers are devices that work in the background to monitor specific conditions as programmed by the crane manufacturer. Data loggers do not provide a full picture of a crane's work throughout any given time but rather a small snapshot in time. Until recently, cranes were not regularly fitted with data loggers. These machines cannot be retrofitted with third-party data loggers because such devices cannot communicate with the crane's proprietary software. In many cases, information gathered by data loggers are not transmitted in user-friendly documentation but rather requires a manufacturer to decipher the information and provide it to the end user. It is impractical for the City to require this information on/from any cranes.

On the issue of operator information entered into the data loggers, these devices do not accept owner/operator input. Therefore, no company is able to record the name and license number of the operator within the current systems. All companies will immediately be out of compliance and we are forced to ask the question, what safety purpose does this language serve?



SC&RA recognizes and supports the City's desire to make crane operations safer within the City. Our concern is the expeditious nature of the introduction of these bills and the City Council's meeting within 2 weeks. This does not allow adequate time to discuss our concerns and make the necessary changes in order to ensure compliance. As noted previously, many of the bills include technology unavailable or requirements that do not provide any additional safety factors to construction sites within the City. We ask that the City Council delay any vote on these bills to allow industry the due process necessary to ensure fair, viable and equitable bills for the industry and safety.

Best Regards,

A handwritten signature in dark ink, which appears to read "Beth A. O'Quinn". The signature is fluid and cursive.

Beth A. O'Quinn  
Vice President

cc: Crane & Rigging Group Governing Committee  
Joel M. Dandrea

# **TOWER CRANE LIFE EXPECTANCY**

*AN EXAMINATION OF RECENT TRENDS TO ESTABLISH AGE LIMITS*

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# TOWER CRANE LIFE EXPECTANCY

## AN EXAMINATION OF RECENT TRENDS TO ESTABLISH AGE LIMITS

Over the past decade there have been increased discussions and attempts around the world to set and/or legislate a maximum service life of tower cranes, and in some cases mobile cranes based solely on their age. As a result of the recent publication *Crane Accidents: A Study of Causes and Trends to Create a Safer Work Environment, 1983-2013*, Jim D. Wiethorn, P.E., the Specialized Carriers and Riggers Association (SC&RA) approached Haag Engineering Co. to evaluate and compare the basis of these claims to our experience in crane accident analyses and Crane Study results. SC&RA submitted questions which their membership wanted addressed that relate specifically relate to the ages of the cranes. As part of our analysis, we examined the Crane Study results with respect to the crane ages at the time of the incidents to the actual causative factors of the accidents, with an emphasis on tower cranes. Additionally, we researched and addressed a variety of issues raised in support of and rebuttal to proposals for regulations in various parts of the world. The purpose of this analysis was to determine if any correlation exists between crane accidents and ages of cranes, to evaluate whether basis for these claims would suggest an age limit for such equipment.

### HISTORICAL RESEARCH

The earliest known policy to stipulate calendar ages of cranes as a limit to their service lives was enacted in **Singapore** during October 2006, although development of the regulation first began in April 2004. The guidelines address imported tower cranes with both current registration and those seeking first time use in the country. The statutes governed the introduction of *used* tower cranes from other countries that met the following criteria.

1. First Time Use of A Tower Crane:

- *Model and type-approved for use in Singapore and accompanied by a recent (not more than 2 years) inspection certificate from the statutory authority from the country it was used.*
- *Any tower crane not manufactured in Singapore that is 5 years or older shall be subjected to an inspection by a third-party inspection agency acceptable to the Commissioner for Workplace Safety and Health.*
- *Used tower cranes are not permitted in Singapore if the unit is 1) from a country that does not have requirements on statutory inspection; 2) the crane is 15 years or older (date of manufacture); 3) or the tower crane has an inspection certificate from a country that was last issued more than 2 years ago.*

## 2. Existing Tower Crane Certificates:

- *A tower crane not manufactured in Singapore whose existing certificate is 8 or more years old shall undergo a third-party inspection before each installation.*
- *If the tower crane is 15 years or older, it will not be allowed to be used unless the owner obtained a letter from the manufacturer certifying that the crane can be safely used for a longer period of time.*
- *Tower cranes 20 years or older will not be allowed for use.*
- *Non-destructive tests shall be carried out by an accredited testing company in accordance with the Singapore Accreditation Council, SINGLAS (Singapore Laboratory Accreditation Scheme) guidelines for the particular scope of testing.*

Other requirements include a crane layout plan (clearly showing zones of influence) in conjunction with AE (Architect/Engineer) certification that the crane was erected in accordance with the plan; confirmation that the crane operator is registered and that the lift supervisor, riggers, and signalmen have approved zones of operations. Further, all personnel so noted are required to sign the plans confirming clear understanding of their responsibilities. Additional guidelines include a requirement that all foundations and braces be designed and their installation is confirmed by a professional engineer. The professional engineer also must confirm that the tower crane was installed/erected in accordance with plans.

In 2007 Mr. Dale Curtis, P.E., submitted a petition to **Cal/OSHA** recommending a change to Section 4884 of the GISO (General Industry Safety Orders), amending it to require that all hammerhead and luffing tower cranes older than 20 years not be climbed and/or tied to any structure. Furthermore, he also proposed that cranes older than 20 years be used only as freestanding tower cranes and that any tower crane older than 30 years not be used on construction sites. Mr. Curtis cited the following problems as being common to older tower cranes:

1. Operating manuals for older tower cranes are often incomplete and do not show accurate values for foundation reaction forces and other forces needed for the engineer to design struts to tie-in to the adjacent structure.
2. The manufacturer's technical and service bulletins are often not included in the operation manual.
3. Technical support may be unavailable if the manufacturer is no longer in business.
4. The crane owner is not always able to furnish a competent technician for either climbing or dismantling the crane. The crane user/contractor may therefore have to locate a competent technician elsewhere.

5. The crane owner may not have high-wear original equipment manufacturer (OEM) replacement parts readily available. Thus, questionable material and salvage parts may be used to replace worn-out parts.
6. Owners of some older tower cranes write “bare-rental” contracts in which the crane user (contractor) assumes responsibility and liability for on-going maintenance, engineering for tie-in struts, climbing and dismantling expenses. Some crane users do not or are not financially able to take-on these responsibilities.
7. Almost all tower cranes which are climbed/raised to higher configurations are subsequently tied-in to the adjacent structure. Tie-in collars for old cranes often appear to be worn out and without new connection components. Some collars appear to have been salvaged from other tower cranes. Older collars may require engineering services to show additional strengthening necessary. Some engineering firms do not have the expertise to recognize these problems.
8. When cranes are climbed to increased heights, the old climbing cages and related components should be in “like-new” condition. It is almost impossible for crane owners to provide older climbing assemblies in good condition.
9. Many years of usage contribute to metal fatigue which can negatively affect the safe operation of tower cranes. The amount of fatigue in older tower cranes is not always evident without thorough examination.

The Cal/OSHA Division’s evaluation and response to the petition was as follows:

*The Division’s evaluation, dated and received on December 12, 2007, indicated that it is not aware of accidents as a result of aging tower cranes. Tower cranes are required to be inspected by a licensed crane-certifying agency as well as by the Division. In addition to the inspection, the annual certification must include detailed non-destructive testing of the critical tower crane parts. If safety deficiencies are found on the tower crane, the crane will not be certified until the deficiencies have been corrected.*

*The Division reported that a tower crane manufacturer’s representative was contacted regarding the condition of older tower cranes, and the representative indicated that the condition of a crane is more dependent on how well it is maintained, rather than its age. Furthermore, the Division noted that older cranes are generally designed more conservatively (i.e. “overbuilt”) than newer cranes which are computer-designed; thus older cranes may have longer service lives.*

*The crane certification program and the permitting system used by Cal/OSHA have been effective in preventing accidents involving tower cranes. If there are older tower cranes with safety deficiencies, they can be handled on an individual basis with the existing standards. Therefore, the Division recommends that the petition be denied.*

The Division was very precise in identifying numerous sections of ASME B30.3-Tower Cranes, which addressed virtually all of Mr. Curtis' concerns, as well as the implementation of those requirements by licensed professionals in California in denying the request.

The **Crane Industry Council of Australia (CICA)** published an interesting corollary to the Singapore regulation in May 2012 relative to the new Safe Work Regulations being introduced in most of their states. Concerning the effects of eliminating barriers to used crane imports, CICA stated, "It cannot be underestimated just what an impact this decision in the mid 1980's had on the Australian crane industry. The concept of self-regulation was in its infancy and not understood by the majority of crane operators....The used cranes issue has changed forever the structure that was accepted at the time, but enabled certain segments of the crane industry to import sub-standard cranes that have lowered the levels of safety." The document addresses serious problems with sub-standard imports and even counterfeit cranes. CICA stated, "It can be construed; we are the dumping ground for cranes that have passed their economic life in Asia, or for that matter, any other Country in the World. No other Country to our knowledge supports such an open ended situation with regards to the age, or condition, of used imported cranes."

CICA recommended consistent, stringent independent inspection procedures and verification of past maintenance history for cranes less than 10 years of age; cranes between 10 and 20 years old; and, cranes in excess of 20 years old.

A different approach to addressing the ages of tower cranes was proposed on May 15, 2013, when the **Ontario Ministry of Labour (MoL)** issued a profile of proposed changes to Ontario Regulation 213/91 of the Occupational Health and Safety Act (OHSA) for improving tower crane safety. The far-reaching amendment to the Regulations was 156.1 New - Design. The design requirements would mandate that all existing tower cranes be updated to meet more current standards as follows:

- (1) A tower crane that is being put into service in Ontario for the first time,
  - a. *shall be designed and manufactured in accordance with the European standard EN 14439:2006 or EN 14439:2009, Cranes – Safety – Tower Cranes;*
  - b. *shall meet the requirements in the document, Electrical Specification for Tower Cranes, ESA SPEC-00X-13, published by the Electrical Safety Authority; and,*

- c. *shall have control equipment incorporating solid state devices, a programmable logic controller and/or software systems in operating and control circuit, designed and installed to meet circuit performance classification that is control reliable meeting category 3 or better in accordance with,*
    - i. *ISO 13489-1, Safety of Machinery-safety related parts for control systems, or*
    - ii. *EN 954-1:1996, Safety of Machinery-safety related part of control systems – Part 1: General Principles for design.*
- (2) After a SPECIFIED DATE, a tower crane, other than one described in ss.(1), that is erected on a project,
- a. *Shall be designed and manufactured in accordance with CSA-Z248-04; and,*
  - b. *Shall comply with the requirements in ss. (1)(b) and (c).*

In response to the proposed regulation, the **Ontario Formwork Association** (OFA) issued a commentary to the New Design requirements which cited numerous problematic issues including cost of the upgrades, responsibility for the design following upgrades, manufacturer resistance to upgrades of existing designs, and availability of technicians to service the latest electrical and electronic upgrades. Further, OFA noted that the EN standards state that they are not intended to and do not apply to cranes built prior to issue date of the new standard. Additionally, the OFA stated that the MoL should be examining the qualifications, knowledge, schooling and work ethics of existing maintenance personnel as a source of addressing tower crane safety, and last referenced the decision of Cal/OSHA where it established logic that well-maintained cranes have a long operating service life.

On December 10, 2013, Mayor Bloomberg and Buildings Commissioner Limandri announced new legislation to limit the calendar age of cranes operating in **New York City**. The announcement stated that the “25 year age limit will remove older cranes from operation and improve the safety of crane operations at construction sites. Cranes would be removed from service based on the original date of manufacture, or based on the age of the crane’s oldest component, whichever is greater.” Further, “crane owners would be required to outfit all cranes with load cycle counters to record data regarding every lift that a crane performs, which the City of New York believes is critical to setting maintenance schedules and overall operability over a crane’s service life”. The announcement of the pending new regulation stated:

*“New York City has some of the toughest crane regulations in the world, and we enforce crane regulations more stringently than anywhere else,” said Mayor Bloomberg. “Since 2008, the City has adopted more than 25 new construction safety laws, conducted tougher inspections and raised licensing standards for crane operators. This legislation builds on those efforts by*

*ensuring only state-of-the art, highly reliable equipment is transforming New York City's skyline."*

According to the report, since 2008, the Department has increased its oversight of crane operations across the City, including expanded inspection checklists, more training for crane inspectors, updated exams, stricter licensing requirements and several new laws and requirements, such as:

- *Requirement of national certification and mandatory re-testing every five years for licensed crane operators;*
- *Requirement of detailed plans for the erection/dismantling of a tower crane;*
- *Requirement of a safety meeting before the erection, jumping, and dismantling of a tower crane;*
- *Requirement of tower crane workers to receive a 30-hour safety training course;*
- *Requirement of an inspection and certification by the engineer of record prior to jump or climbing;*
- *Prohibition of the use of nylon slings unless recommended by the manufacturer; and*
- *Requirement of a third-party engineer inspection of a tower crane before an approval for erection.*

## THE ARGUMENT

The restriction of service life due to age of a crane appears to have originated in the Asian Pacific where there had been no prior restrictions on used cranes brought in from various countries. It was the most obvious issue addressed by CICA in that Australia was basically a “dumping ground” for old and worn out cranes which had exceeded their economic life and for counterfeit cranes. In prior years, maintenance and testing records were not required, resulting in thousands of cranes being imported into their country at the expense of safety. When records were supplied for cranes from other countries, language barriers limited document review regarding proper testing and maintenance. It is well documented that Singapore has progressed in the development of new local crane manufacturers, and the protection and support of those companies may be at least one underlying motive for implementing age limits on imported cranes. However, like Australia, Singapore is a growing country with what appears to be limited control of crane imports until the mid-2000s when the new regulations were implemented which addressed a more controlled and regimented layout, design and erection of tower cranes. Singapore further enhanced their new standards by requiring personnel involved in the erection and use of a tower crane to sign the layout plan demonstrating their understanding of their respective responsibilities. New York has improved crane safety during the past decade by

implementing necessary inspection procedures for various tower crane procedures. However, New York also has included a new nuance by imposing a new requirement for load cycle counters. New and more sophisticated technology on cranes appears to be the position of the Ontario MoL for safer crane operations. This is a simple and logical conclusion, but will more technologically savvy cranes be safer?

Proper maintenance, documentation and ongoing inspection and testing of cranes, remains the foundation for crane longevity as noted by Singapore, Australia, Cal-OSHA, and the City of New York. The alternative to allowing insufficient maintenance and inspection/testing is limiting the age of a crane; however, abuse and improper operation of any mechanical equipment has no age limit and can cause severe damage over a short period of time. Certainly structural, mechanical, hydraulic, pneumatic, and electrical degradation is inevitable as a crane ages. Crane maintenance is more intense with an aged crane since components naturally wear with use, because metal fatigue develops with repeated severe cycles, and because systems become inoperable, break due to impact or misuse, and deteriorate from environmental conditions.

With aged cranes, the original crane manufacturer often discontinues support a series or line of cranes. With mergers and acquisitions, the acquiring company often refuses legal responsibility for the design of cranes manufactured by an acquired company even though they will fabricate spare parts according to drawings contained in the purchased assets. Knowledgeable maintenance personnel for components of aged cranes also may become hard to find, and at some point, the crane may require complete overhaul. These issues and conditions increase maintenance costs and reduce the economic service life of a crane. Component replacements, system modifications, and continued aging of the crane, at some point may dictate a risk assessment before allowing continued crane operation. Risk assessment should be conducted on a crane by crane basis.

However, as with any manufactured item, specific maintenance requirements must be met to achieve the ultimate service life of that piece of equipment. Proactive maintenance of cranes and crane systems can eliminate component and system failures. Preventative maintenance needs to be performed routinely per manufacturer schedules. Preventative maintenance inevitably increases the service life of a crane. Manufacturer maintenance schedules should be followed as standard practice since preventive maintenance produces the desired results of maximized component life, reduced component failure and reduced overall cost. Failure to follow manufacturer maintenance requirements will reduce the service life of any equipment.

Inspection requirements and maintenance schedules vary widely for the various crane components. For example, manufacturers require that maintenance personnel regularly perform

inspections on hydraulic systems by checking filters, filter indicators, and the hydraulic fluid reservoirs daily. Manufacturers typically require that the hydraulic fluid be changed every two years or when the crane is remobilized to another job site, since particulate contamination of hydraulic fluid can cause premature hydraulic component failures. Particulate contamination within hydraulic fluid is an obvious concern, since hydraulic components are machined precisely and have very tight clearances between moving parts. The hydraulic fluid lubricating film keeps moving parts within hydraulic components separated and reduces wear. Many hydraulic components have mechanical clearances of only a few thousandths of an inch. Such tight clearances between moving internal parts make them highly susceptible to damage caused by particulates in the hydraulic fluid. Failure to heed to manufacturer inspection and maintenance schedules for hydraulic systems can reduce greatly the service life of the hydraulic components. Even so, worn hydraulic components are replaceable, and accelerated hydraulic system wear may not reduce the overall service life of a crane.

Components of cranes that endure regular movement through crane operations, cylinders, winches, motors, pumps, and other components, wear with use. Typically, these components operate for long periods before either rebuilding or replacement becomes necessary. These components have a combination of bearings, bushings, seals, and/or piston (wear) rings that require replacement. Winch brake systems have brake linings and/or friction discs that also need replacement. Excessive wear of these crane components causes losses in performance and efficiency. In other words, these components lose responsiveness and tend to develop sluggish movements, sloppy movements, slower speeds, increased vibrations, and slippage during crane operation. These are indications that crane component maintenance is needed. Manufacturer service manuals address these performance inefficiencies within the trouble-shooting sections of their manual, as well as required actions to eliminate ineffectiveness of these components. Following these manufacturer recommendations will maximize component life. Manufacturers usually provide lists of replacement parts within their manuals to facilitate regular maintenance practices. If some component is worn excessively and cannot be rebuilt, replacement of the Original Equipment Manufacturer (OEM) component will not reduce overall service life of the crane.

Structural deterioration is very long term issue. Design codes and historical performance typically result in structures being exceedingly robust. American Welding Society (AWS) design criteria assume that welded connections are flawed from the onset of fabrication and that fatigue crack initiation life is gone from first use. (Total fatigue life is the sum of initiation life plus propagation life.) These design criteria for dynamic structures assume that fatigue cracks evolve from entrained flaws and that service life is governed solely by crack propagation. Inspection criteria usually are defined such that multiple inspections are done during that period

while crack growth is in the subcritical region. That is, if an existing structural crack is not detected during one inspection, there will be several subsequent inspections at later dates which should detect the crack long before it becomes catastrophic. Often, no catastrophic failure occurs even with a sizable crack present within a structure. Fatigue cracks which form in structural members should be visually obvious during routine inspections. In critical applications, inspection intervals are specified such that multiple inspections occur prior to the crack growing to critical size. Likewise, large structural displacements during operation should alert crane personnel that a structure is failing. Large deflections and progressive buckling symptoms often occur prior to catastrophic collapse.

Common commercial inspection techniques (mag particle, fluorescent particle, dye penetrant) readily detect surface cracks at sizes much smaller than critical size. However, quality inspections cannot be conducted on structures encrusted with dirt, grime and thick layers of paint. Inadequate inspection procedures and improper surface cleaning are the greatest causes of cracks reaching critical size and causing structural failures. Even when inspection practices are inadequate, opening, closing and rubbing of crack surfaces causes spalling or cracking of the paint, dislodges grime and forms readily visible rust stains.

Inspection requirements can increase due to environmental conditions. Cranes operated in coastal regions, even for short durations, can experience deleterious corrosion attack. Chlorine from salt water and fog is particularly insidious to structural components. Cranes close to the shoreline need more frequent inspections of its structural components. Corrosion rates for metals increase the closer metals are to the shoreline, since the amount of salt in the air is greatest near the ocean. Winds carry salt air and moisture inland and provide an environment in which salt accumulations form on metal surfaces of cranes. Salt accumulation on metal surfaces, along with high humidity, accelerate the reactions which cause corrosion. Corrosion rates are higher when high humidity keeps the surfaces damp longer. Over time, and even beneath paint films, chlorine corrosion will degrade steel members into dust. Therefore, more frequent periodic inspections and regular maintenance of crane structural components are necessary to prolong the service lives of these cranes operating near a shoreline.

National consensus standards address inspection and maintenance emphasizing the importance of these requirements. ASME B30-*Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings*, includes in all its volumes INSPECTION, TESTING, AND MAINTENANCE as part of the requirements for the use of that equipment. ASME B30.3-2012 expanded its requirements to include a new category, 3-2.1.5-MAJOR INSPECTIONS which addresses nondestructive testing and disassembly of specific components on a five-year schedule for more thorough examination normally not included in other inspections. Cal/OSHA referenced ASME

B30.3 in their decision not to implement age restrictions. Cal/OSHA decided proper maintenance, inspection and testing would suffice to assure crane integrity. If proper maintenance and testing protocol is established and performed on a crane as recommended by the manufacturers and by national standards, the economic service life of a crane will end when the costs of inspection, testing and maintenance exceed the income the machine can produce. Certainly, proper inspections, testing and maintenance are the cornerstones of proper crane operations and equipment longevity.

Some jurisdictions, including the City of New York, want to incorporate service life cycle-counters on cranes. Life cycle analysis and prediction becomes much more complicated when loading events do not have equal or symmetric magnitudes per cycle. Asymmetric loading events probably is why crane manufacturers currently provide no end of service life definitions for their equipment. However, attempts are continuing in other critical applications to devise methods and instruments which count and predict accumulated fatigue damage. Earliest applications included data recorders for strain gages applied at critical locations in military aircraft. Systems continued to evolve which utilized instruments which discriminated between damaging and non-damaging events. Other systems with greater sophistication calculated the relative damage per event and predicted residual life. Part of the challenge has been to identify which locations were most effective to monitor. In aircraft, critical locations are known as the result of very sophisticated design and analyses procedures. In other equipment, usually designed based on historical performance behavior or from the use of accepted design manuals (e.g. AISC Steel Design Manual), critical locations are not known specifically.

Likewise, older cranes which have been operating for many years present particular challenges because the extent of accumulated damage at any structural location is unknown and no load histories exist. Without knowing the extent of accumulated damage, no predictions or measurements of remaining service life are possible. This renders application of cycle counting in older cranes unrealistic. First, no data exists on prior use, so accumulated fatigue and overload damage is unknown. Second, maintenance during the life of a crane can vary substantially, particularly cranes operated under divergent conditions, cranes owned by several different entities, and cranes operated by many different people. The current state of maintenance also is contingent on daily inspections, actions and lubrication performed by the company using the crane during any specific interval. During bare rentals, national standards designate the crane user (lessee) to be responsible for all inspections, maintenance and required testing. The crane owner has little or no control while the machine is in the possession and control of others. Timely and proper documentation by the user during a bare lease is mandatory to ensure all inspections be conducted and conditions be evaluated properly. These records become part of the crane historical data and a basis for future maintenance and repair.

Suggestions regarding the means by which to count cycles in cranes include counting the number of “picks” and recording load line forces, strains on the boom, and tower strains. Although instrumentation can be devised which will measure forces, strains, accelerations and deflections, no consistent algorithm exists by which to convert reliably any of these factors into accumulated damage or residual life. In fact, installing such instrumentation into an older crane would result in erroneous data and instill false confidence. With no historical data to input, the instrumentation will consider an older crane to be a new with a full complement of service life left to be consumed. Reliance on such instrumentation would potentially supplant the use of vigorous and competent inspections and lead to missed opportunities to discover cracks and other mechanical damage.

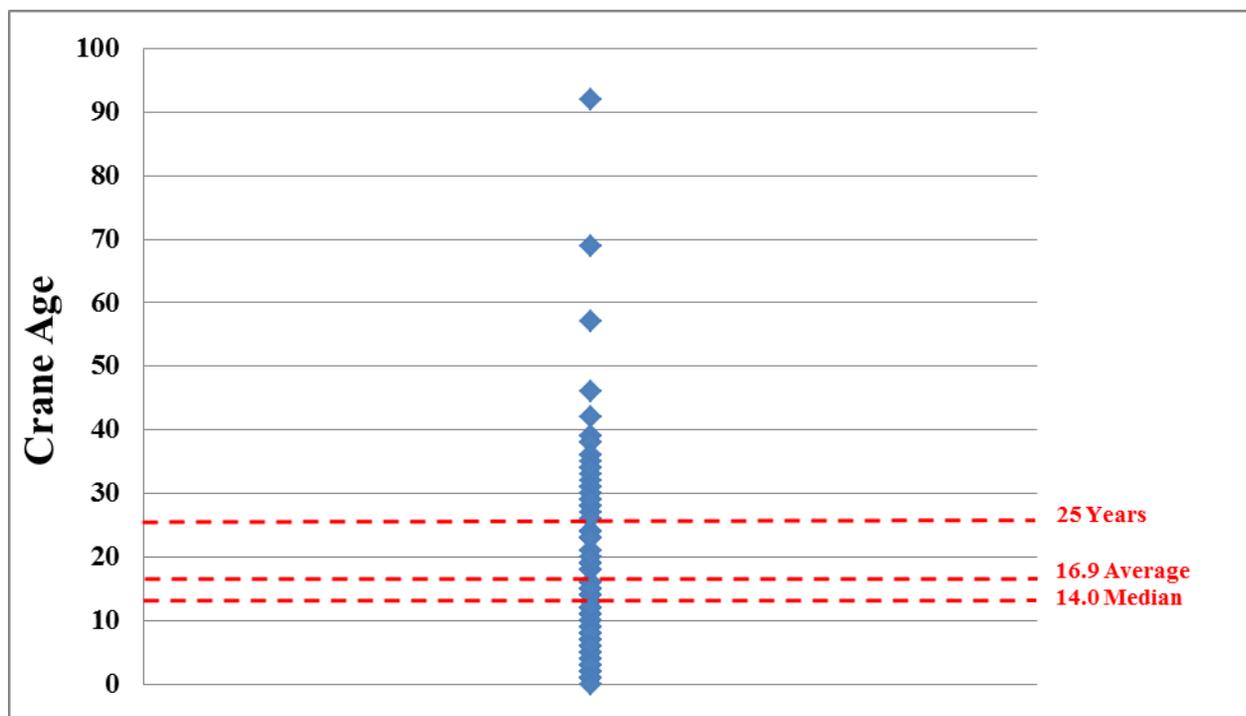
Ultimately, some “end of life” criteria must be defined. We have discussed this specific issue with multiple crane manufacturers and designers, and currently no ends of life definitions are available. Although sophisticated life-extension technologies exist for older equipment, implementation often includes extensive inspection, refurbishment and replacement of components. Life extension programs are cost effective for capital-intensive equipment such as aircraft and power plants, but probably not for cranes.

Finally, fatigue manifests as the result of cyclical loading, and has no direct correlation with the calendar age of a crane or of any of its components. A recent example occurred in New York City when a boom hoist wire rope failed as a result of fatigue after only 6 months of use. The incident occurred as a result of the type of use, and was completely unrelated to calendar age of the wire rope. Instead, it was the result of lifts resulting in high stress cyclical loading. Different crane components have different useful service lives, depending on how the crane is used and how well the crane is inspected and maintained. Twenty-five years is not only an arbitrary “shelf-life” for a crane, it could very easily mislead crane users into a false sense of security with cranes under 25 years of age.

## **CRANE STUDY RESULTS**

During July 2014, we published the results of a study of crane accidents that dates back to 1983. Our analysis and experience was based on the evaluation of over 800 crane accidents since 1987. The study involved complete analysis of 507 crane accidents at the time of publication. As part of our study, we identified the manufacturing date of the crane for each incident, as well as the age of the crane at the time of the incident in order to determine if there was a correlation. Of the accidents included in our study, we were able to identify the exact age of the crane 125 times.

Our study indicated a range of crane ages from 0 to 92 years with the average age of 16.9 years and a median of 14 years. A total of 78.4% of the cranes involved in incidents were less than 25 years old, and we found no discernable pattern to indicate calendar age of the cranes was a contributing factor. We did identify several accidents associated with condition of the crane, although the circumstances had resulted from severe abuse or neglect, including one that had only two annual inspections in 15 years and little or no maintenance. Site supervision is required to confirm that all cranes brought onto a construction site have undergone current inspection requirements. Many construction companies require a complete annual before a crane is brought onto the site or have an independent inspection company perform the inspection for the company.



*Incident Crane Age*

We considered the factors associated with calendar age that can cause or contribute to crane incidents. These include wear, metal fatigue, material degradation and operational abuse. All crane manufacturers have inspection requirements to verify that wear and materials degradation are within specific limits. However, metal fatigue does not always present itself in a manner easily observable during a typical inspection. New York City, recognizing this, previously instituted stringent inspection requirements for critical crane components.

We also considered safety improvements through operational aids in newer cranes compared to 25-plus year old cranes. Our study examined the use of more advanced technologies and particularly, operational aids to assist operators during lifting operations. A lift is successful when the process is thought out and planned. A lift will not be successful because a crane is new. A lift is successful because all parties thought through the process, provided accurate information, and used a crane capable of performing the lift. It has been our experience that lifts become dangerous when the lift director or operator rely on the crane (computer) itself to ensure limits are not exceeded rather than conducting a proper and thorough analysis and devising a plan to ensure limits are not exceeded.

## FINDINGS

Our experience, research, accepted engineering principles and study results do not support an arbitrary calendar age limit for mobile or tower cranes as proposed by several entities. Although the positions of the various organizations, governmental agencies and individuals vary, the core requirements for proper inspection, maintenance and testing mandated by ASME and OSHA remain embedded in their primary requirements for crane safety and ongoing operations. From an engineering perspective, there is no basis for setting a specific calendar age for cranes. Our study of crane accidents confirmed this fact. As noted in our discussion, all equipment must be maintained in accordance with requirements of the manufacturers to ensure proper operation and longevity. Implementing procedures to confirm proper conduct of specified maintenance, inspection and testing is paramount and must be confirmed by crane owners, users, inspectors and governmental agencies.

Answers to questions submitted by SC&RA on July 21, 2014 follow and are appended to this paper.

Respectfully submitted,

**HAAG ENGINEERING CO.**

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Jim D. Wiethorn, P.E.

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Anthony E. Bond, P.E.

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Matthew R. Gardiner, P.E.

---

Edward P. Cox, P.E., PhD

---

Ray A. King, E.I.T.

## **SPECIALIZED CARRIERS & RIGGING ASSOCIATION**

Tower Crane Life Expectancy-Questions

(Submitted July 21, 2014)

### **1. Based on Haag's study, how many accidents/incidents were due to a crane's age?**

None. Cases with which we have been involved that were associated with condition of the crane were associated directly with lack of maintenance or abuse during operations. No crane that was operated and had been maintained in accordance with consensus national standards has been involved in any accident which we have investigated.

### **2. How does a tower crane manufacturer define their cranes' "life expectancy" and does it vary from manufacturer to manufacturer?**

Manufacturers do not define a "life expectancy" for their cranes. Crane designers may apply design criteria for load cycles predicated on the crane lifting at least 85% to 100% of its capacity during every lift with the understanding that such will not happen. This is particularly true of tower cranes which rarely make consistent lifts approaching allowable capacities. Proper maintenance and use will assure service exceeding any projected "life expectancy". Conversely, the lack of maintenance and operational abuse will reduce greatly the estimated "life expectancy". Both maintenance and operational issues cannot be controlled by the manufacturer; therefore, no life expectancy ever is addressed by the designer. Ultimately, some "end of life" criteria must be defined. We have discussed this specific issue with multiple crane manufacturers and designers, and currently no end-of-life definition has been devised. Although sophisticated life-extension technologies exist for older equipment, implementation often includes extensive inspection, refurbishment and component replacements. Life extension programs are cost effective for capital-intensive equipment, such as aircraft and power plants, but probably not for cranes. During a bare lease owners do not have control of the equipment; control of the inspection and maintenance; and, operational control during the lease period and must rely on the contractor renting the crane to perform the required tasks and operate within chart allowables.

### **3. Some cities and states have indicated a desire to have tower crane owners count crane "cycles". How can a tower crane owner count a crane's cycles?**

Suggestions how to count cycles in cranes include counting the number of "picks", recording load line forces, recording boom strains, and recording strains on the tower.

Although instrumentation can be devised to measure forces, strains, accelerations and deflections, there is no consistent algorithm to convert reliably any of these factors by which to estimate cumulative damage or residual life. In fact, installing such instrumentation into an older crane will result in erroneous data and potentially instill false confidence. With no historical data to input, the instrumentation will consider the old crane to be new with a full complement of service life left to be consumed. Reliance on such instrumentation potentially would supplant the use of vigorous and competent inspections of crane components and lead to missed opportunities to discover cracks and other mechanical damage.

**4. Does a tower crane's life cycle vary on usage? Please explain.**

Yes. Refer to Question 2.

**5. Does the manner in which the tower crane has been maintained and serviced have a direct correlation to the longevity and continued safe use of a tower crane?**

Yes, in both positive and negative manners. OSHA regards replacement of a worn part with a "replacement in-kind" to be a safe maintenance practice. Replacement parts considered replacement in-kind must provide the same functionality and performance, but need not be geometrically identical or made from the same materials. So long as the replacement part is fit for its intended purpose, no engineering analyses are required, and the worn part merely is swapped for the replacement. Considering the number of component parts and the number of crane manufacturers no longer in business, the OSHA criterion is the best alternative to assuring safety and continued economic use. Retrofitting non-replacement in-kind parts is permitted, along with re-rating the maximum load, provided an engineering analysis justifies adaptation of different or alternatively designed parts.

**6. Can proper inspections of the tower crane prolong its life expectancy?**

Yes. Proper inspections and indicated maintenance are key elements to prolonging the life of a tower crane. Regular inspections documented accurately provide a road map of historical information regarding condition of the crane. Competent inspections at appropriate intervals also should detect cracking and other structural problems prior to development of a critical condition. It is imperative that bare leased equipment is properly inspected, repaired and operated during the lease and then documented in order that the owner of the equipment is aware of issues that could affect the longevity of the crane.

## **7. What key indicators affect the life expectancy of a tower crane?**

Proper maintenance and timely inspections in conjunction with operations within allowable constraints are key factors to longevity and minimal wear. The most vulnerable period for a tower crane is during a bare lease when the lessee has complete control of the equipment and of its maintenance/inspections. Proper maintenance and timely competent inspections coupled with proper erection and disassembly by crews with appropriate experience and expertise are crucial to assure a long, trouble-free service life. Post-disassembly inspections, repairs and maintenance should verify the crane has no dangerous deterioration issues. It is imperative that bare leased cranes are properly maintained and documented during operation as the unit will not be re-assembled in the yard when returned from the work site.

## **8. Based on Haag's research, is there a direct correlation between a tower crane's age and accidents/incidents?**

No. Study results have demonstrated no correlation between calendar age and accidents. Operation, maintenance, site preparation, erection, foundation suitability and adequate tie-in bracing are the factors which affect tower crane accidents.

## **9. Does the age of a tower crane directly relate to its life expectancy?**

We have determined there is an "economic life" of tower cranes, as there is with all other construction equipment. Recent changes to ASME B30.3 includes a section *Major Inspections* which in addition to normal maintenance, requires specific elements of tower cranes be examined and even dismantled at 60-month (5-year) intervals. (Owners may decide to conduct inspections based on a specified hours of operation of such components.) The costs of regular ongoing maintenance plus replacement of worn or damaged parts and subsequent major inspections increase with age. These maintenance and repair costs ultimately reach or exceed the potential revenue that the equipment can generate. It then is no longer economically feasible to maintain and operate the crane.

## **10. Based on Haag's research, is there any engineering evidence to set an arbitrary time limit on the usage of a tower crane?**

No. For properly maintained and inspected tower cranes, no definable time limit for equipment retirement age is supported or derived from any engineering principles. In fact, historical data show conclusively that exclusive of cost considerations, properly maintained and inspected tower cranes can remain in service indefinitely.

**11. Singapore recently invoked an age limitation of 25 years on tower cranes. Based on Haag's research, have you found any documentation to support this limitation?**

No. It is interesting to note that Singapore has adopted a very systematic approach to tower crane safety that mirrors that of ASME B30.3, including responsibilities, maintenance, assembly/disassembly, site layout, inspections, and certifications. Their limitation is applicable strictly to older tower cranes being brought into the country, cranes whose historical use and maintenance records are inadequate and cannot prove the cranes have been inspected properly on a periodic basis. Such tower cranes could not be permitted for erection in the United States under similar circumstances. No basis or reasoning was provided relative to the final 25-year age limitation which, as presented, has no scientific basis or engineering foundation.

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Name: Steve Williams (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: worker

Address: \_\_\_\_\_

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Name: Justice Favor (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Local 79

Address: \_\_\_\_\_

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Date: 01/31/17

Name: OMAR HENRIQUEZ (PLEASE PRINT)

Address: 2380 WILLOW ST. WANTAGH NY 11793

I represent: NOLON-NATIONAL DAY-LABORED ORG. NETWORK

Address: 197 LAFAYETTE ST. LOS ANGELES

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Name: Jack Kellerman

Address: \_\_\_\_\_

I represent: \_\_\_\_\_

Address: ALIGN

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Name: Gonzalo Mercado

Address: 130 Glenwood Ave. SI NY 10301

I represent: La Colmena

Address: 774 P. Richardson St SI NY 10302

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Date: 1/31/2017

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Name: Anthony Williams

Address: 14 Gilbert Pl Amityville NY 11701

I represent: \_\_\_\_\_

Address: \_\_\_\_\_

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Name: Robert S Altman

Address: \_\_\_\_\_

I represent: Queens + Bronx Building Assoc.

Address: \_\_\_\_\_

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Name: Gonzalo Mercedes

Address: 774 Park Richmond Ave. 2FL. ST NY 10302

I represent: La Colmena

Address: 130 Glenwood Ave. ST NY 1030

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(PLEASE PRINT)

Name: Erin Sweeney

Address: 99-45 60th Ave, 4C, Corona, NY 11368

I represent: myself

Address: address as listed

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Date: \_\_\_\_\_

Name: CAROL PENNINGTON (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Building & Construction Trades  
Address: Council of Greater NY

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Name: MARTIN ABE ALLEN (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: P.P.E.E.  
Address: \_\_\_\_\_

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Date: 1/31/17

(PLEASE PRINT)

Name: Alex Gleason

Address: agleason@nyccio.org

I represent: NYC Central Labor Council, AFL-CIO

Address: 275<sup>th</sup> 7<sup>th</sup> Ave 18<sup>th</sup> floor  
10001

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Date: 1/31/17

(PLEASE PRINT)  
Name: Grafe A. Brewer

Address: 1 Centre Street

I represent: Manhattan Borough President

Address: \_\_\_\_\_

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(PLEASE PRINT)  
Name: EMMIS VINES

Address: 1561 BROOKLYN AVE

I represent: NYC DEC

Address: 365 HUDSON

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I intend to appear and speak on Int. No. 1432 Res. No. \_\_\_\_\_  
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Date: \_\_\_\_\_

(PLEASE PRINT)  
Name: Dawanna Williams

Address: Dabar Development

I represent: \_\_\_\_\_

Address: \_\_\_\_\_

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Date: 1/31/17

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Name: Mark Jacamo

Address: 1399 Franklin Ave Apt 200

I represent: Site safety manager applicant

Address: \_\_\_\_\_

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Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Kwambe Price

Address: 9007 Schenck St

I represent: \_\_\_\_\_

Address: \_\_\_\_\_

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I intend to appear and speak on Int. No. 1432 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Joseph Collo Sr

Address: 240 Myrtle Ave

I represent: New York State Association

Address: Minority Contractors

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in favor  in opposition

Date: 01/31/17

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Name: ROMAR HENRIQUEZ

Address: 2380 WILLOW ST. WASTASH, N.Y. 11793

I represent: NORON NATIONAL DAY CAREER ORGANIZING NETWORK

Address: 674 S. LAFAYETTE AVE PL. L.A. CA 90057

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Date: \_\_\_\_\_

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Name: Fredericks munden

Address: 1205 MYTIE AV Brooklyn NY

I represent: \_\_\_\_\_

Address: 1446-2007

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in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Matt Campo

Address: 1399 Franklin Ave. Apt. 200

I represent: BKA CRI - EMP.

Address: \_\_\_\_\_

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Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Carmen Vega-Rivera (on panel)  
Address: 388 Grand Concourse 3A  
I represent: Community Actions for Safe Apts  
Address: 35 Marcy Place Bx, NY

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Date: \_\_\_\_\_

(PLEASE PRINT)

Name: VICTOR U. OLDS  
Address: 253 Broadway NY NY  
I represent: Mayor's office of Contract Services  
Address: \_\_\_\_\_

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Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Ashley Putnam  
Address: \_\_\_\_\_  
I represent: Office of Workforce Development  
Address: \_\_\_\_\_

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I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

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Date: 1/31/16

(PLEASE PRINT)

Name: Gregorio Palestina

Address: 1502 West 6 Ave D-4

I represent: WORKERS JUSTICE PROJECT

Address: \_\_\_\_\_

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I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Antonio Sanchez

Address: 8973 Bay Parkway Brooklyn NY

I represent: Workers Justice Project

Address: Laura Guallo

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Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/16

Name: Gregorio Palestina  
Laura Guallo

Address: 8973 Bay Parkway 1/31/17

I represent: Workers Justice Project

Address: \_\_\_\_\_

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I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Maritza Silva-Tarrell

Address: \_\_\_\_\_

I represent: ALIG

Address: \_\_\_\_\_

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Appearance Card

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I intend to appear and speak on Int. No. VARIOUS Res. No. \_\_\_\_\_

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Date: \_\_\_\_\_

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Name: CARL HYM

Address: 570 LEXINGTON AVE

I represent: REBNY

Address: 570 LEXINGTON AVE

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Date: \_\_\_\_\_

(PLEASE PRINT)

Name: James Bifulco

Address: \_\_\_\_\_

I represent: CONSTRUCTION SAFETY ADVISORY

Address: COMMITTEE

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Name: LOUIS COLETTI

Address: President

I represent: Building Trades Employers

Address: 1430 Broadway

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Name: William Shurman

Address: Executive Director

I represent: Allied Building Metals

Address: \_\_\_\_\_

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RSVP(1)

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in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Ate (Abdul) Kouko-Akpo R

Address: \_\_\_\_\_

I represent: myself

Address: \_\_\_\_\_

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RSVP(1)

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Date: 1/31/17

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Name: Juan Paredes

Address: \_\_\_\_\_

I represent: Myself

Address: \_\_\_\_\_

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RSVP 2

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Jolie Milstein

Address: NYSAFAH

I represent: \_\_\_\_\_

Address: \_\_\_\_\_

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Appearance Card

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Commissioner R. Chandler

Address: \_\_\_\_\_

I represent: Department of Buildings

Address: \_\_\_\_\_

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Tim Hogan Deputy Commissioner for

Address: Enforcement

I represent: Department of Buildings

Address: \_\_\_\_\_

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Appearance Card

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Alex Fisher Deputy Commissioner for

Address: Legat. to Regulatory Affairs

I represent: Dept. of Buildings

Address: \_\_\_\_\_

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THE CITY OF NEW YORK**

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in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: ELI NEGRON

Address: 3534 Bx Blvd Bx NY 10467

I represent: IRONWORKERS LOCAL 580

Address: 501 W 42 ST NY 10036

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I intend to appear and speak on Int. No. 11447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/13/17

(PLEASE PRINT)

Name: Anthony Plave

Address: \_\_\_\_\_

I represent: Labors Local 79

Address: \_\_\_\_\_

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Appearance Card

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in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: John Lupton

Address: \_\_\_\_\_

I represent: Labors Local 79

Address: \_\_\_\_\_

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THE CITY OF NEW YORK**

Appearance Card

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Ruben Colon

Address: \_\_\_\_\_

I represent: NY Dist Council of Carpenters

Address: \_\_\_\_\_

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in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Dorian Diaz

Address: \_\_\_\_\_

I represent: Laborers Local 79

Address: \_\_\_\_\_

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THE CITY OF NEW YORK**

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in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Tafadar Sarof

Address: \_\_\_\_\_

I represent: Laborers Local 79

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1446/1441 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/2017

(PLEASE PRINT)

Name: RICHARD STREETEX

Address: 141-57 NORTHERN BLVD FLUSHING NY

I represent: IUE Local 14-14B 11354

Address: \_\_\_\_\_

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I intend to appear and speak on Int. No. 1431-1446 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1-31-17

(PLEASE PRINT)

Name: THOMAS GORDON

Address: \_\_\_\_\_

I represent: I.U.O.E. LOCAL 14-14B

Address: FUSHING NY

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1440 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Bertha Lewis

Address: \_\_\_\_\_

I represent: Black Institute

Address: \_\_\_\_\_

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1440 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Charlene WILKINS

Address: PAC-

I represent: NYCHA Residents

Address: \_\_\_\_\_

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: HAZEL N. DUKES

Address: 10 WEST 135<sup>th</sup> ST #4E NYC 10019

I represent: NAACP

Address: 119 West 40<sup>th</sup> St New York, NY 10018

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/2017

(PLEASE PRINT)

Name: Peter Rescigno

Address: 1430 Broadway Floor 8 NYC

I represent: New York Electrical Contractors

Address: 1430 Broadway, Floor 8 NYC

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1446 & 1431 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1-31-17

(PLEASE PRINT)

Name: Allen Wright

Address: 141-57 Northern Blvd

I represent: Local 14

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. 1408

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: BRIAN SAMPSON  
Address: 6369 COLAMER DR SYRACUSE, NY  
I represent: ASSOCIATED BUILDERS CONTRACTORS  
Address: 6369 COLAMER DR SYRACUSE 13057

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Matt Caruso  
Address: 307 W. 38th St NY NY 10018  
I represent: Construction + Realty Safety Group  
Address: 307 W. 38th St NY NY 10018

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Joshua Rege  
Address: 878 Old Albany Shaker Rd, Latham NY  
I represent: Associated Builders + Contractors  
Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1-31-2016

(PLEASE PRINT)

Name: GREG SIZEMORE

Address: 940 1ST NW WASHINGTON DC

I represent: ASSOCIATED BUILDERS AND CONTRACTORS

Address: 140 1ST NW WASHINGTON DC

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: MICHAEL ANDERSON

Address: 1322 3RD AVE, NEW YORK NY 10021

I represent: LOCAL 46

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Alma Hardaway

Address: 134 W. 186th St. Bx, NY 10453

I represent: Local 46 Metalworkers & Reinforcing Ironworkers

Address: 1322 3rd Ave NY, NY 10021

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Sinade Wad Carron

Address: 200 DYCKMAN STREET NYC NY

I represent: NYC DCC

Address: 395 HUDSON STREET

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Ulysses Williams

Address: \_\_\_\_\_

I represent: Labrecs Local 79 and ICBW

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Albert Ortiz Jr

Address: \_\_\_\_\_

I represent: International Association of Heat and  
Frost

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Eduardo REDWOOD (+ Christina Fox interpreting)

Address: 4110 95<sup>th</sup> St, Elmhurst

I represent: NEW IMMIGRANT COMMUNITY EMPOWERMENT

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31

(PLEASE PRINT)

Name: Jeffrey Gimer

Address: 36 36 37<sup>th</sup> Street + 402 LLC

I represent: Association of Electrical Contractors

Address: 36 36 37<sup>th</sup> Street 402 LLC

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Shi Greene

Address: 45 51st St. Weehawken NJ Apt C2

I represent: Local 79 & Pathways to Apprenticeship

Address: 520 8th Ave, Manhattan

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Anthony Loue

Address: 1510 prospect Place Brooklyn NY 11213

I represent: Local 79

Address: 520 8 av Ny, Ny

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Barrie W. Sm.

Address: \_\_\_\_\_

I represent: President 100 Black Construction Workers

Address: & Business Agent for Local 79

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1516960 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Jose Bermudez

Address: 277 west 127th St

I represent: Local 46

Address: NY

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

Name: Charles Demaree (PLEASE PRINT)

Address: 61 Broadway, Ste 1710 NY NY

I represent: NYCOSH

Address: 61 Broadway Ste 1710 NY NY

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Gary La Barbera (President) (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Building and Construction Trades Council

Address: of Greater New York

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Michael Apuzzo (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Plumbers Local 4

Address: \_\_\_\_\_

◆ Please complete this card and return to the Sergeant-at-Arms ◆

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Tom Goodwin

Address: 30-32 48th Ave

I represent: Steamfitters Local 638

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Adolpho Parboosi

Address: 291 Bids side Ave, Mt. Vernon, NY 10533

I represent: Steamfitters Local 638

Address: 30-32 48th Ave.

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Kambi Price

Address: \_\_\_\_\_

I represent: Non-union worker

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Reginald H. Bolt

Address: 134 20 225 St

I represent: PPEE

Address: 796 MacDonough St

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Gus Diamantis

Address: \_\_\_\_\_

I represent: DC 9 Dir of Training

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Saleena Saumari

Address: \_\_\_\_\_

I represent: DC 9 NYCHA Apprentice

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Davan Lomax

Address: \_\_\_\_\_

I represent: Political Director for the

Address: Painters (DC9)

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Ramona Sandoval

Address: \_\_\_\_\_

I represent: DC9 Apprentice

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Sinade Woodsworth

Address: \_\_\_\_\_

I represent: NY Dist. Council of Carpenters

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_  
 in favor  in opposition

Date: \_\_\_\_\_

Name: Emmis Vines (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: N.Y. Dist Council of Carpenters

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_  
 in favor  in opposition

Date: \_\_\_\_\_

Name: David Caraballaso (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: N.Y. Dist. Council of Carpenters

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. all Res. No. \_\_\_\_\_  
 in favor  in opposition

Date: 1/31/17

Name: Michael Arantes (PLEASE PRINT)

Address: 11 Hanover Square

I represent: Safety Professional Assoc.

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL  
THE CITY OF NEW YORK

2/3

Appearance Card

I intend to appear and speak on Int. No. 1447 etc Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Lorenzo Gallo

Address: 76 Beaver St.

I represent: The Safety Group

Address: same

THE COUNCIL  
THE CITY OF NEW YORK

3/3

Appearance Card

I intend to appear and speak on Int. No. 911 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Greg Wolyniec

Address: 61 Broadway

I represent: Human Condition Safety

Address: \_\_\_\_\_

THE COUNCIL  
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 01/31/17

(PLEASE PRINT)

Name: JASON CHADEE

Address: 1916 ROCKAWAY PARKWAY BROOKLYN N.Y 11236

I represent: IRON WORKERS LOCAL 361

Address: 89-19 97 AVE, ORONS PARK N.Y

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 11/31/17

(PLEASE PRINT)

Name: Bryan Brady

Address: 35-23 36th St Astoria NY 11106

I represent: Iron Workers Local 40 and 361

Address: 451 Park Avenue South N.Y. N.Y.

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31

(PLEASE PRINT)

Name: SAVET A. WATSON

Address: 110-24 144th St Grand Prof.

I represent: LOCAL #580 Ironworkers

Address: 501 W 42nd St Prof NY

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 11/31/17

(PLEASE PRINT)

Name: Rich Falasca

Address: 501 W 42nd St NY NY 10036

I represent: LOCAL 580 Ironworkers

Address: 501 W 42nd St NY NY 10036

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Shi Greene

Address: \_\_\_\_\_

I represent: LABORERS LOCAL 79

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Erika Glenn-Bjorn

Address: \_\_\_\_\_

I represent: LABORERS LOCAL 79

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Ricardo Pimentel

Address: \_\_\_\_\_

I represent: NON-UNION WORKER

Address: \_\_\_\_\_

◆ Please complete this card and return to the Sergeant-at-Arms ◆

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

[ ]

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: David Carapaloso

Address: \_\_\_\_\_

I represent: carpenters

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

[ ]

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

*e. madson*  
 in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Ruben Colon

Address: \_\_\_\_\_

I represent: carpenters

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

[ ]

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Manteen Green

Address: 395 Hudson

I represent: carpenters

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

493-1402-1421  in favor  in opposition

1429-1431-1435-1447

Date: 1/31/17

Name: David O'Connell (PLEASE PRINT)

Address: 92 Riviera Drive Kiss Park NY 11759

I represent: NYC MASTER RIGGERS ASSOCIATION INC

Address: 57-27 49th St. Maspeth NY 11378

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Shadab Wadsworth (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: CARPENTERS

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

Name: Berrie Smith (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Laborers Local 79 & 100

Address: BLACK CONSTRUCTION WORKERS

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Carl Johnson (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Plumbers Local 1

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Paul O'Connor (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Plumbers Local 1

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

Name: Wendy Webb (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Apprentice Program Field Director

Address: for Laborers Local 79

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Pat Purcell

Address: \_\_\_\_\_

I represent: ENY LECET

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Lou Montenegro

Address: \_\_\_\_\_

I represent: Elevator Constructors Local 1

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Charlene Obermayer

Address: \_\_\_\_\_

I represent: NY COSM

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Carmen Vega Rivera

Address: \_\_\_\_\_

I represent: CASA

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Maritza Farrell

Address: \_\_\_\_\_

I represent: ALIGN

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/31/17

(PLEASE PRINT)

Name: Jonathan Weston

Address: \_\_\_\_\_

I represent: NY CC

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1441 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Carole Rattrey (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: N.Y. Ironworkers Dist Council

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Coster Price (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Ironworkers Dist. Council

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Richard Fasala (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Ironworkers Dist Council

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Alma Haraway (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Metallic Leathers Local # 46

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Mike Anderson (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Metallic Leathers Local # 46

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

Name: Jose Bermudez (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Metallic Leathers Union #46

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

[ ]

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor     in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Sam Watson

Address: \_\_\_\_\_

I represent: Ironworkers Dist Council

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

[ ]

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor     in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Bryan Brady

Address: \_\_\_\_\_

I represent: N.Y. Ironworkers Dist Council

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

[ ]

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_

in favor     in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Eli Negrón

Address: \_\_\_\_\_

I represent: Ironworkers Dist. Council

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_  
 in favor  in opposition

Date: \_\_\_\_\_

Name: Jason Chadee (PLEASE PRINT)

Address: \_\_\_\_\_

I represent: Ironworkers Dist Council

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 1447 Res. No. \_\_\_\_\_  
 in favor  in opposition

Date: \_\_\_\_\_

Name: Aaron Diaz (PLEASE PRINT)

Address: 106 E 116 St Apt 4

I represent: Local 638

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms