



# LEAD AND DUST MANAGEMENT PROTOCOLS

## OVERVIEW

Building removal activity is projected to increase to an unprecedented volume over the next 18 months in Detroit, a city which physically ballooned when lead (pB) was inserted into the industrial production stream. Presently lead testing and abatement are not a required step in the building removal process - neither for deconstruction nor for demolition. In complement to changes in policy and a greater emphasis on code enforcement at the City and State levels, how can regional researchers, advocates, and practitioners work together to advance the known best practices for heavy metal dust management associated with the building removal process? This applied research initiative is to advance known best practices for dust suppression into practical, scalable solutions for both the contractor-supplier community and for informing and engaging neighborhood residents. Once resourced, this pilot project will mobilize an iterative, quick-turnaround feedback cycle on three series of structures, in order to test and evaluate new techniques for better containing the impact of building removal— specifically lead (pB) containing dusts— to the parcel of origin.

## RESOURCES

- Detroit Future City Implementation Office
- Others, TBD

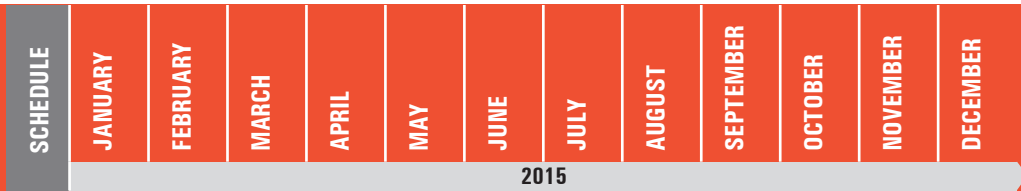
## EVALUATION METRIC

- Reduction of volume and spatial outfall (radius) of leaded dusts from a traditionally staged residential demolition.
- Number of jobsite days without incident.
- Number of residents with increased awareness of household lead exposure-management practices.
- Number of additional contracts and contractors held to revised and enhanced jobsite specifications.

## OBJECTIVES

Develop a “Detroit Dust Protocol” for lead-safe building removal practices, by:

- Evaluating how water can more effectively be used to suppress leaded dust associated with residential demolition practices, including machinery, site staging techniques, and runoff management;
- Evaluating the most impactful and resource-efficient techniques for mitigating leaded dust during cold weather (sub-freezing) conditions, when water cannot be deployed;
- Developing and evaluating the effectiveness of a pre-demolition lead-surface salvaging work plan, and
- Evaluating and establishing a protocol for managing worker lead safety and exposure on the job site.
- Advance local best practices for resident and neighborhood engagement around public health and consequences of higher-density building removal activities.
- Provide policy and process recommendations for the neighborhood scaled monitoring and management of a multi-parcel building removal process during warm and cold weather, including a quantitative analysis modeling the actual reductions in the radius of dust outfall relative to these techniques as they are deployed in Detroit, and compared to prior, established, measured results in Baltimore and Chicago.
- Harness the potential for collaborative, iterative learning through the convergence of the proposed multidisciplinary team.
- Publish results to guide policy, mobilize implementation and uptake in Detroit and other communities interested in managing demolition for public health.



## INITIATIVE VITALS

**CONTRIBUTING ORGANIZATIONS:**  
Detroit Future City, others to be announced

**DFC REPRESENTATIVES:** Erin Kelly

**INITIATIVE SCALE:** Citywide

**INITIATIVE START:** Winter 2015

**RELEVANT PLANNING ELEMENTS:**  
Economic Growth, City Systems,  
Neighborhoods, Land and Building Assets

## DFC APPROACH

The Detroit Future City Implementation Office convenes a project team, participates in fundraising efforts; contributes to project execution, provides strategic coordination, and advocates for better articulation of lead (pB) based standards for residential demolition.

## IMPLEMENTATION STRATEGIES & ACTIONS

- D** IMPROVE SKILLS AND SUPPORT EDUCATION REFORM
- G** ACTIVELY MANAGE CHANGE
- A** ADDRESS QUALITY OF LIFE CHALLENGES THAT AFFECT ALL DETROITERS
- D** LINK PUBLIC FACILITY AND PROPERTY DECISIONS TO LARGER STRATEGIES
- 3** INFORM, EDUCATE, AND EQUIP KEY STAKEHOLDERS



Diagram Credit: Erin Kelly