David Whitaker, Esq.
Director
Irvin Corley, Jr.
Executive Policy Manager
Marcell R. Todd, Jr.
Senior City Planner
Janese Chapman
Deputy Director

John Alexander
LaKisha Barclift, Esq.
M. Rory Bolger, Ph.D., AICP
Elizabeth Cabot, Esq.
Tasha Cowen
Richard Drumb
George Etheridge
Deborah Goldstein

City of Detroit
CITY COUNCIL
LEGISLATIVE POLICY DIVISION

208 Coleman A. Young Municipal Center
Detroit, Michigan 48226
Phone: (313) 224-4946 Fax: (313) 224-4336

Christopher Gulock, AICP
Derrick Headd
Marcel Hurt, Esq.
Kimani Jeffrey
Anne Marie Langan
Jamie Murphy
Carolyn Nelson
Kim Newby
Analine Powers, Ph.D.
Jennifer Reinhardt
Sabrina Shockley
Thomas Stephens, Esq.
David Teeter
Theresa Thomas
Kathryn Lynch Underwood
Ashley A. Wilson

TO: Honorable Detroit City Council

FROM: David Whitaker, Director
Legislative Policy Division Staff

DATE: October 14, 2019

RE: Resolution Submitting Bond Proposal and Authorizing the Issuance of Not to Exceed $250,000,000 in Unlimited Tax General Obligation Bonds, Series 2020 for the Purpose of Paying the Cost of Eliminating Blight in the City of Detroit through Demolition and Other Blight Remediation Activities

Introduction

The Office of the Chief Financial Officer (OCFO) proposes issuing up to $250 million in Unlimited Tax General Obligation (UTGO) bonds[1] to finance the cost of eliminating blight in the City of Detroit through demolition and other blight remediation activities, including the demolition of the remaining abandoned houses and the rehabilitation of some houses ("blight elimination/demolition program") by end of fiscal year (FY) 2025. In addition, the OCFO proposes placing this bond issue on the March 2020 Presidential Ballot for voter approval. The up to $250 million in UTGO blight bonds, if approved by City Council and the citizens of Detroit, would be paid off from property taxes based on the City of Detroit's propert tax debt millage.

In addition, the Administration desires to complement the $250 million in UTGO blight bonds with $250 million in general fund surplus dollars over the course of five years ending in FY

[1] Unlimited tax general obligation (UTGO) bonds are voter-authorized bonds paid off from property taxes based on the City of Detroit's property tax debt millage. In contrast, limited tax general obligation (LTGO) bonds are non-voter bonds and paid for out of the City's general fund and are not paid for out of property taxes based on the property tax debt millage.

2025, a total of $500 million, for the blight elimination/demolition program. Given the enormity of this program, the Legislative Policy Division (LPD) had many questions on the UTGO blight bonds, and on the merits of the blight elimination/demolition program. Attachment I represents LPD's list of questions with responses[2]. We are extremely appreciative receiving these responses to our questions from the OCFO. Where appropriate, LPD will reiterate or speak to responses throughout this report.

Attachment II represents Council President Brenda Jones's questions on the blight elimination/demolition program with responses. Attachment III represents Council President Pro Tempore Mary Sheffield's questions on the program with responses.

It is important to note that in this report LPD focuses primarily on the fiscal aspects of the blight elimination/demolition program. However, LPD really encourages the reader of this report to read LPD's, Council President Jones's and Council Prsident Pro Tempore Sheffield's questions and responses to these questions in their entirety, since many important non-fiscal and policy related aspects of the blight elimination/demolition program are addressed, such as: plans to ensure local Detroit based businesses are utilized to perform demolition work; plans to help Detroiters become job ready for demolition program; foreclosure prevention[3]; the Administration's response to concerns raised by Nancy Kaffer of the Detroit Free Press regarding proposed blight bonds; information on the city of Philadelphia's and city of Baltimore's past blight remediation programs; planning process accompanying the blight elimination/demolition program; plans to grow the City of Detroit after the blight elimination/demolition ends in FY 2025; and lessons learned from redevelopment of 10 strategic neighborhoods in the City of Detroit that started in 2016 that could be applied to the blight elimination/demolition program.

Attachment V represents the OCFO's "The Road to 2025: Eliminating Residential Blight in Detroit" presentation on the blight elimination/demolition program. This presentation provides a brief history of the City of Detroit's past efforts to remove blight, a description of the City's blight elimination/demolition efforts coming out of bankruptcy, a description of the Administration's proposed blight elimination/demolition program, funded by the proposed UTGO blight bonds and general fund surplus dollars, and a description of the merits of the program.

Attachment VI represents the OCFO's "City Council Blight Removal Bond Concerns Addressed" presentation on questions raised by LPD and Council members. This presentation

[2] LPD notes that the current demolition program conducted by the City, the Detroit Building Authority and the Detroit Land Bank Authority has been plagued with allegations of misconduct and inefficiency. These allegations have resulted in investigations by, but not limited to, the Detroit Auditor General. LPD has received information that the Auditor General's audit containing its findings and recommendations regarding the City's demolition program will be completed prior to the City Council's winter recess. It is LPD's belief that the Auditor General's report would be of great benefit to City Council's deliberations regarding the policy implications relative to the approval of the $250 million Blight Elimination Bond request.

[3] In addition to responses from the Administration regarding foreclosure prevention as a measure to avoid adding vacant properties to the demolition list, on Wednesday. October 9, 2019, Mayor Duggan announced the "Pay as You Stay" program. This program necessitates State legislation. If passed, it is anticipated this legislation would help approximately 31,000 Detroit homeowners stay in their homes by dramatically reducing the amount they owe on their back taxes and lowering their monthly payments. Attachment IV represents more detail on the "Pay as You Stay" program.

also provides an overview of the Administration's efforts to prevent foreclosures and plans to redevelop land in the City of Detroit after the blight elimination/demolition program ends in FY 2025.

OCFO's Rationale for the UTGO Blight Bonds

The OCFO proposes to sell up to $250 million in UTGO bonds to help finance the blight elimination/demolition program for the following reasons:

1. The City does not have any existing UTGO bonds available for the blight elimination/demolition program. According to the OCFO, there are no remaining UTGO bond funds that could be used for the blight elimination/demolition program. None of the authorizations for the 2018 UTGO bonds would encompass demolition activity.

2. FY 2020 general fund surplus dollars appropriated for blight elimination/demolition is anticipated to be spent by June 30, 2020. LPD notes that the FY 2020 budget contains $77.6 million for blight remediation ($73 million is from general fund surplus dollars): $13 million for land bank operations (Non-Departnental); $10 million for blight reinvestment (Non-Departmental); $30 million for Housing and Revitalization Department (HRD) residential demolition; $10.7 million for HRD commercial demolition; $10 million for HRD emergency demolition; and $3.9 million for blight remediation-board up program General Services Department (GSD).

   Even with this level of appropriated dollars in FY 2020, the OCFO indicates in order to prevent a slowdown in the demolition pipeline, the OCFO will propose to accelerate $50 million in blight funding this winter to be able to continue demolitions in April-June 2020 and to start abatement for demolitions to be done July-September 2020. Following completion of the FY 2019 CAFR, this will be made possible by $20 million from a one-time, non-recurring FY 2019 income tax revenue and acceleration of $30 million of the FY 2021 blight appropriation from general fund surplus dollars.

   LPD questioned whether any of the FY 2020 appropriations identified above for demolition and blight remediation could be freed up for the winter demolition program in FY 2020 to eliminate or reduce the need to advance FY 2021 residential blight appropriation of $30 million to FY 2020. The OCFO indicates that current projections show all existing appropriations being contracted for FY 2020 ending June 30, 2020, and thus, they will be unavailable for this winter's demolition procurement.

   LPD questioned would the accelerated appropriation of $30 million from the FY 2021 residential blight appropriation cause a shortfall of general fund surplus dollars for FY 2021. The OCFO indicated the acceleration of the FY2021 blight appropriation allows the Administration to procure demolitions that will happen over the following year through June 30, 2020. If the Administration waits until the funding is appropriated in July, the City will have missed half of the demolition season. Starting in July of 2020, the OCFO anticipates having bond funds to continue the current pace of the program. The OCFO feels it is important to continue the program consistency that the Administration has built over the last 5 years to keep annual production consistent.

   The OCFO indicated that based on the Detroit Land Bank Authority (DLBA) historical record from 2014 to 2018, on average, 3,305 residential blighted properties have been demolished annually over this five year period. Under the blight elimination/demolition program, the OCFO anticipates demolishing 16,000 residential blighted properties over five years FY 2021-2025 based on an average of 3,200 demolitions per year.

3. The City is running out of Federal Hardest Hit Funds for demolition. According to the OCFO, the City of Detroit has received $265 million in Hardest Hit Fund (HHF) dollars from the U.S. Department of Treasury for demolition. Of this amount, the HHF program has $51.9 million remaining to fund the 1,587 demolished properties awaiting invoices and the 879 homes awaiting demolition. After this, the HHF dollars will have been completely exhausted and the City is not expecting anymore HHF dollars to fund future demolitions.

4. The City needs additional funding to demolish and rehabilitate remaining abandoned homes. With the assistance from the DLBA, the OCFO has projected there are about 27,200 remaining abandoned houses as of September 16, 2019 which they believe can be addressed over the next five years:

    - 3,000 should be demolished over the next 9 months with remaining HHF funding, existing Residential Blight funding for FY2020, and a portion of the proposed accelerated blight funding discussed previously.
    - 16,000 can be demolished over five years with the proposed up to $250 million in UTGO bond funding and $30 million in annual residential blight appropriations from surplus as called for in the City's Plan of Adjustment.
    - 8,200 can be addressed through the DLBA's sale and nuisance abatement lawsuit programs. The OCFO projects 1,000+ of these will require an average of $15,000-$20,000 incentive per house for renovations to allow these houses to be saved rather than demolished. The Administration has indicated that previous funding through the federal Hardest Hit Funds program could only be allocated for demolition, but under the proposed blight elimination/demolition program, the City would have more discretion. For around 1,000-2,000 salvageable homes, it could put the $15,000-$20,000 per-house demolition cost toward renovations instead.

    - Of the 19,000 demolitions, 13,300 represents DLBA houses to be demolished and 5,700 represent private houses to be demolished.
    - Of the 8,200 renovations, 6,300 represents DLBA houses to be sold/renovated and 1,900 represents private houses to be renovated per the nuisance abatement lawsuit programs.

    In accordance with the POA, with City Council approval, the City will continue to appropriate $50 million a year from available surplus for blight; $30 million will be for residential demolition, $10 million will be dedicated to commercial demolition and $10 million to other blight activities, such as tree removal, commercial corridor clean up, and lot improvement.

    As a result, the OCFO anticipates the City will end up with at least a $50 million general fund surplus each year over the five year blight elimination/demolition program ending in FY 2025. This amounts to $250 million in general fund surplus dollars that would be added to the up to $250 million in UTGO bond dollars, a total of up to $500 million designated for the blight elimination/demolition program. Obviously, it will be more difficult to achieve an annual general fund surplus of $50 million if there is some form of a recession in the near future, only moderate overall revenue growth experienced by the City of Detroit over the next five years, coupled with the pending pension obligation spike in FY 2024, labor agreement changes, etc.

5. The City needs the ability to accelerate the demolition program and focus on non-HHF areas. According to the OCFO, the bankruptcy Plan of Adjustment envisioned the City spending $30 million per year for residential demolition. If the City does not raise additional funds beyond the Plan of Adjustment, funding would allow demolition of approximately 1,500 houses a year-the standard pace of demolition in the City of Detroit prior to 2014. At that rate, the current 19,000 abandoned houses would be demolished in 13 years. The proposed blight elimination/demolition program would demolish the 19,000 abandoned houses in five years.

   In addition, the OCFO believes not only is it critical to remove residential blight in five years but it is also critical to remove residential blight in non-HHF areas. Council will recall that the HHF dollars funded demolition in federally-designated areas of the City, which represented the more denser areas of the City. Under the proposed blight elimination/demolition program, the City can now focus more on removing residential blight in the non-HHF areas.

6. Accelerating the demolition program would continue to add to the quality of life for Detroit's citizens. The OCFO has indicated that since 2014, the City of Detroit has demolished 19,000 buildings, sold 7,400 vacant houses to be rehabbed, taken legal action toward 1,600 houses to force rehab, which has resulted in a:

   - 90% average increase in City of Detroit property values (Source: Zillow, 2013-2018)
   - 46% reduction in building fires citywide since 2014 (Source: Detroit Fire Department)
   - 3% drop in violent crime and property crime for every 10 demolitions in a block group (Source: Wayne State University[4])
   - 11% drop in homicides and nonfatal shootings in areas of concentrated demolition (Source: Harvard University and University of Michigan[5])

7. It should be noted that LPD questioned would any of the blight elimination/demolition program dollars be used for board ups to help keep residential and commercial buildings as much as possible. The OCFO indicated that through blight funding, GSD has boarded up residential and commercial buildings. GSD projects there are 1,900 structures left to board up, and they are using FY 2020 blight remediation funds to do so. As part of the budget going forward, the City plans to have two crews for reboards.

Sources and Uses of UTGO Blight Bonds

The following describes how the OCFO would fund residential blight elimination for FY 2021-25:

Sources

UTGO Blight Bond Funds	$225 million

[4] A copy of this study is included as an attachment in the responses to Council President Jones's questions (Attachment II).

[5] Ibid.

$30 Million General Fund Surplus FY 2021-2025 (Plan of Adjustment)	$150 million
	$375 million
Uses	
16,000 Demolitions/1,000 Rehabs at $20,000 each	$340 million
10% Contingency for additional costs or demolitions	$ 35 million
	$375 million

Legality of the UTGO Blight Bonds

According to the OCFO, it has been determined by the City's bond counsel, Miller Canfield, that Michigan Housing Law, Act 167 of 1917, and the City's police powers, authorizes the City of Detroit to use unlimited tax general obligation bond proceeds for the purpose of blight remediation, including demolition. Based upon LPD's request, on September 20, 2019, Miller Canfield provided an attorney-client privileged legal opinion providing in more detail the City's authority to issue bonds and spend proceeds on demolition.

City Council should rely solely on bond counsel's legal opinion regarding the legality of the use of UTGO bond funds for the purpose of blight remediation, including demolition.

Need for Voter Authorization for the UTGO Blight Bonds

LPD requested the OCFO to explain why voter authorization is needed to issue UTGO blight bonds under specific State law. In response, the OCFO indicated in order to levy a dedicated millage for the bonds issued, the City must submit a ballot question to the voters:

- Pursuant to the Headlee Amendment to the Michigan Constitution, taxes for the payment of any City obligations would be limited to existing taxing power (i.e., the City's charter limit, which would be insufficient to pay debt service on these bonds); however "taxes imposed for the payment of principal and interest on ***bonds approved by the electors*** or other evidences of indebtedness approved by the electors . . . may be imposed without limitation as to rate or amount . . ." Mich. Const. art. IX, sec 6. This is the source of the ballot question requirement.

- The Unlimited Tax Election Act, 1979 PA 189, implements the above-quoted provision of the Headlee Amendment, setting forth the basic procedures and content requirements for an unlimited tax general obligation ballot measure. MCL 141.164-.165. The General Property Tax Act, 1893 PA 206, as amended, also sets forth certain content requirements for the ballot question. MCL 211.24f.

Bond Resolution for the UTGO Blight Bonds and Ballot Language

On October 9, 2019, the OCFO submitted to LPD a revised bond resolution for the UTGO blight bonds and ballot language (Attachment VII). Based on LPD's request, the revised bond resolution:

- Adds the second whereas indicating per Act 167 of 1917 and Home Rule City Act, Act 279 of 1909 that gives the City authority to issue bonds for any purpose within the scope of its powers, including blight elimination, including demolition. LPD feels this language adds transparency to the City's ability to issue UTGO blight bonds for blight elimination, including demolition given that this is the first bond sale of this kind in the State of Michigan.

- Amends the fifth whereas to indicate that the blight bonds will be issued pursuant to the City Charter, Act 279 and Act 34 of 2001 of the State of Michigan, again for the purpose of transparency.

- Removes reference to variable interest rate or rates in Section 6, third paragraph of the bond resolution, to ensure that the blight bonds will issued only on a fixed rate basis.

LPD appreciates the OCFO providing the revised bond resolution. LPD understands the revised bond resolution has been submitted to the City Clerk's Office. **Therefore, City Council should vote on the revised bond resolution when you are ready to vote on the blight bonds and ballot language.**

It should be noted that according to Section 11, third paragraph of the revised bond resolution, the proceeds of the blight bonds would be appropriated, upon receipt, to appropriation 21003 UTGO Blight Bonds for the purpose of paying all or part of the cost of blight elimination/demolition, capitalized interest, if any, and the costs of issuance of the bonds. Council should be reminded that the bond proceeds from the 2018 UTGO bond sale for capital improvement projects were appropriated based on the bond resolution.

For Council's edification, according to the OCFO bond issuance costs typically run approximately 2% on a large bond issue. These costs encompass the underwriters, rating agencies, legal and financial advisors fees. These fees are all contingent on the bond sale closing and are paid out of bond proceeds.

As Council knows, the Administration proposes to place the blight bond ballot question on the March 2020 presidential primary ballot. LPD observes however, that traditionally, there is a low turnout during the March presidential primary elections. LPD feels the blight bond ballot question should be placed on the November 2020 general presidential election where the turnout will likely be much greater. Additionally, LPD feels this November 2020 general presidential election would reflect more the will of the citizens of Detroit than the potentially small number of people who vote in the March election.

In response, the OCFO opines that waiting for the November election would unnecessarily delay demolitions. With a March election and acceleration of the FY 2021 blight appropriation, the City will be able to continue demolitions at the same pace without a slow down.

UTGO Blight Bonds Sizing Scenarios

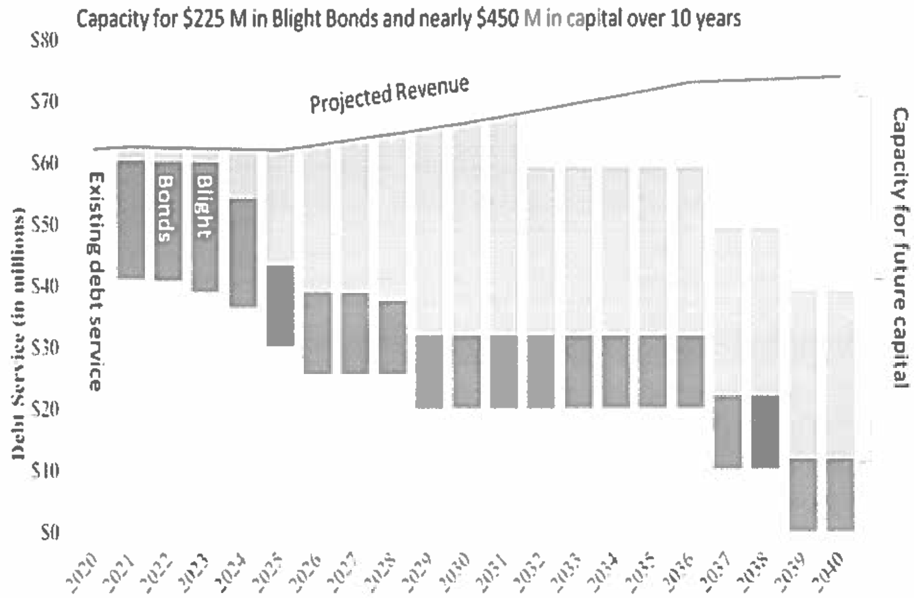
The OCFO worked with its financial advisors, Public Resources Advisory Group, Inc., to develop UTGO blight bond sizing scenarios. Attachment VIII represents the bond sizing scenarios.

To ensure no increases in the debt millage levy will be needed, the OCFO first considered a baseline scenario (scenario 1 from Attachment VIII) that included the following assumptions:

- $225 million in blight bonds (75% tax-exempt/25% taxable) are issued in two tranches over a period of three years; and

- Approximately $444 million in capital bonds (100% tax-exempt) are issued in five tranches over a period of ten years

Under this scenario, projected annual debt millage tax revenues – at the current rate of 9 mills[6],[7] – are sufficient to pay the estimated annual debt service for the life of the bonds. Scenario 1 is illustrated in the graph below:



[6] In the City of Detroit, the property taxes a homeowner pays in FY 2020 is based on a total property tax millage levy of about 68 mills, which is a combination of city, county, state and debt mills. Of the 2020 68 mills, 9 mills represent the debt millage. The $64.5 million in property tax revenue generated from the 9 mills is sufficient to pay off the debt service, or principal and interest, payments due on the existing UTGO bonds (debt) of the City of Detroit in FY 2020. When the level of debt service drops as bonds are paid off, the amount of debt millage drops and the homeowner pays less property taxes. When the the level of debt service rises as new bonds are added, the amount of debt millage rises and the homeowner pays higher property taxes. As illustrated in the graph above, the OCFO looks to maintain a property tax debt millage levy of 9 mills over the next 30 years by paying off existing UTGO bonds over time-which leaves room for more UTGO bonds, adding the proposed UTGO blight bonds and subsequently paying them off over time-leaving room for more UTGO bonds, and adding future UTGO bonds for capital improvement projects and subsequently paying them off over time, such that over time, the debt millage does not exceed 9 mills.

[7] Even though the property tax debt millage levy of 9 mills may not increase over time as explained in the previous footnote under the OCFO's blight bond proposal, the debt millage would in fact fall below 9 mills if a zero or smaller amount of the UTGO blight bonds were issued, and/or a zero or smaller version of future UTGO capital bonds were issued, resulting in lower property taxes. So to some, there would be a property tax "increase" if the UTGO blight bonds and future UTGO capital bonds were issued. For instance, the 9 mills in FY 2020 drops to about 6 mills in FY 2021 if neither the UTGO blight bonds nor future UTGO capital bonds were issued in FY 2021. To go from 6 mills back up to 9 mills could be considered a tax "increase" to some. The average taxable value for residential property in Detroit is $19,100, which at 9 mills is $172 in property tax revenue per year. The amount is $115 in property tax revenue per year based on 6 mills. However, according to the OCFO, if the UTGO blight bonds are not issued, it would take 13 years to demolish the remaining 19,000 abandoned residential properties versus 5 years if they were issued.

The graph shows as old capital bonds are paid off, there is capacity to borrow for blight removal and future capital projects without raising the existing debt millage levy of 9 mills (i.e., without raising property taxes).

To again ensure no increases in the debt millage levy will be needed, the OCFO considered a second scenario (scenario 2 from Attachment VIII) that included the following assumptions:

- $250 million in blight bonds (75% tax-exempt/25% taxable) are issued in two tranches over a period of three years; and
- Approximately $444 million in capital bonds (100% tax-exempt) are issued in five tranches over a period of ten years

Under this scenario, projected annual debt millage tax revenues – at the current rate of 9 mills – are sufficient to pay the estimated annual debt service for the life of the bonds. The greater capacity of $250 million in blight bonds is based on the following:

- Assumes compound annual growth rate of 2.2% in taxable values over five years (i.e., from $5.95 billion in 2019 to $6.64 billion in 2024)

- The projected property tax collections grow about 1% every year then grows to a little above 2% starting in 2026, based on forecasted US CPI growth, the primary driver of the revenue forecast. This is consistent with the revenue conference for the four-year plan and the ten-year financial forecast.

- Interest rates around 5% with a 30 year term. The City of Detroit issued $135 million in UTGO capital bonds in December 2018 with a 4.8 interest rate.

The OCFO is using scenario 2 to support the request to issue up to $250 million in UTGO blight bonds for the proposed blight elimination/demolition program.

The OCFO felt it was important to to "stress test" this baseline scenario (scenario 1 from Attachment VIII) to ensure further that no increase in debt mills will be needed. Therefore the OCFO considered two additional "stress test" scenarios: (1) one in which all of the blight bonds are taxable (which would mean higher interest costs to the city) and (2) one in which the city's property tax base experiences a 25 percent decrease in state equalized values.

<u>Scenario to Consider Impact of 100 Percent of Blight Bonds being Taxable (scenario 3 from Attachment VIII)</u>

If a municipal bond is tax-exempt, then the interest paid on the bond is exempt from federal income tax. This results in lower interest costs for the municipal government that issued the bonds. Whether a bond is tax-exempt or taxable depends on whether the issuer meets a number of requirements in the federal income tax code and regulations. As the OCFO continues to work with bond counsel to determine what portion of the blight bonds are tax-exempt, the OCFO thought an important stress test was to see the impact of a determination that 100 percent of the blight bonds are taxable.

Under scenario 3 (to consider impact of all taxable blight bonds), the debt millage levy needed to pay annual debt service for the life of the bonds would NOT increase. The primary impact would be that the amount of capital bonds issued over the ten-year period would need to decrease from approximately $444 million to approximately $409 million.

Scenario to Consider Impact of Recession (scenario 4 from Attachment VIII)

Another important stress test that the OCFO performed was to consider the impact of a recession. Under scenario 4, the OCFO considered the impact of a 25 percent decrease of state equalized values, beginning in tax year 2020, over a three-year period (i.e., a decrease in taxable value of over $465 million). It should be noted CFO David Massaron feels that the 25% decrease in taxable values is probably too drastic of a decrease given that SEV/taxable values in the City did not decrease by 25% during the Great Recession-also, the reappraisal process has decreased or "right-sized" property values overall).

The primary impact under scenario 4 would be that the amount of capital bonds issued over the ten-year period would need to decrease from approximately $444 million to approximately $385 million. The debt millage levy needed to pay annual debt service for the life of the bonds would NOT increase.

Impact of UTGO blight bonds on the General Fund

Under all bond sizing scenarios, since the UTGO blight bonds will be paid solely from the property tax revenues generated by the property tax debt service millage, there will be no negative impact on the General Fund, and in fact relieves the General Fund of the need to fund this level of blight removal in five years.

However, it is anticipated that there could be increased costs to the general fund if the blight bonds are approved by City Council and the voters, based on an increased level of vacant land as a result of the blight elimination/demolition program. As an example, LPD assumes as more vacant land becomes available, there could be a significant increase in grass cutting and land maintenance costs.

The OCFO also anticipates there will be some increased costs (such as grass cutting due to an increase in properties needing grass cutting) but offset by some reduced costs (reduction in fire load, reduction in costs of cleaning out DLBA back yards, reduction in crime). The OCFO is committed to work with City Council to prioritize these costs and identify any savings through the annual budget process.

The Administration also anticipates that a hedge against this increase in grass cutting is a landscape strategy in neighborhood plans. For example, boulders or trees or other strategies to decrease grass cutting costs. There will be an landscape strategy element of expanded neighborhood plans as part of the blight elimination/demolition program, and the landscape strategy will be important not only as a beautification effort but also as a cost-saving measure. The implementation of these landscape decisions will affect the five year plan for grass cutting.

LPD recognizes there may be a concern about how the City of Detroit plans to accommodate the additional debt obligations as a result of the blight bond issue with the upcoming spike in pension obligation payments starting in FY 2024. The OCFO has indicated that UTGO blight bonds are paid from the City's property tax debt millage, not from the General Fund. The debt millage can solely be used to repay UTGO bonds, and so there is no relationship between this borrowing and paying for the City's pension obligations.

UTGO Blight Bonds to be Issued Mostly as Tax-Exempt Bonds

As indicated previously, the OCFO anticipates issuing most (up to 75%) of the UTGO blight bonds as tax-exempt bonds to take advantage of lower interest rates. In addition, the OCFO indicated that since tax-exempt bonds have a lower interest rate, using them creates more bond capacity as total debt service costs are lower because of that lower interest rate.

As a result, LPD understands why the OCFO desires to issue a majority of the blight bonds as tax exempt bonds to take of advantage of lower interest rates than the higher interest rates associated with taxable bonds. However, it is extremely important that any tax-exempt blight bond proceeds be used for a public (governmental) purpose according to IRS rules[8]. If the blight bond proceeds are ever deemed to be used for a private (non-governmental) purpose, such as the exchange of bond proceeds for the benefit of a private person or entity, the blight bonds could lose their tax-exempt status and become taxable bonds, which causes an increase in the interest rates on the bonds.

Typically, the City sells tax-exempt UTGO bonds to finance various capital projects (for example, public building improvement such as fire and police station renovation, fleet management such as police, fire and general city vehicle replacement, and technology upgrade such as computer system purchase and implementation). The capital projects are for a public purpose.

However, selling UTGO bonds to finance blight elimination and demolition is atypical. To LPD's knowledge, UTGO bonds have never been sold for blight elimination and demolition in the State of Michigan. Therefore, if the blight bonds are approved to be sold by City Council and the voters, and the City sells a large portion of them as tax-exempt bonds, the City's monitoring of the use of the proceeds from the tax-exempt blight bonds will be critical.

Upon LPD's request, Miller Canfield, the City's bond counsel, has provided a memorandum giving a tax-exemption overview (please see Attachment IX). Highlights from this memorandum follows:

- In order to successfully sell tax-exempt blight bonds in the municipal bond market, the City must covenant with bond investors/holders that the interest on the bonds will remain tax exempt or not subject to federal income taxation.

- If at any time during the 30 year term of the blight bonds the use of bond proceeds are deemed used for a private purpose, the bonds could lose its tax exempt status, and the City could be subject to paying higher interest rates as if the blight bonds were issued on a taxable basis, <u>retroactive to the date of issue</u>.

- If more than 5% of the present value of the debt service on the blight bonds, called the 5% de minimis[9] limitation, is used for a private purpose at any time during the 30 year term of the bonds, then the tax-exempt blight bonds could be taxable bonds. (Note: the OCFO

[8] Section 141 of the IRS Code sets forth tests to determine if a bond is a taxable private activity bond issue.
[9] "De minimis" describes something that's too small or insignificant to be of importance.

determined the 5% de minimis limitation to be around $10 million based on bond sizing of the proposed blight bonds. This amount could change when the blight bonds go to market).

- The City must covenant to bond investors/holders that it will implement a tracking system which includes all bond-financed properties (or parcels) to measure whether a sale or disposition of bond-financed property exceeds the 5% de minimis limitation. LPD interprets this to mean that every demolition financed by the blight bond proceeds and every sale of property associated with the demolition, will have to be tracked, by parcel.

  The OCFO indicated that the Debt Management Branch in OCFO/Treasury will monitor tax compliance[10] associated with the tax-exempt blight bonds. The OCFO further indicated that a Capital Team comprised of team members from Treasury, Office of Budget, Office of Departmental Financial Services, and the Office of Contracting and Procurement will provide a rigorous oversight of the use of the blight bonds. In addition, the OCFO indicated it will work with the Land Bank's Salesforce system to track which demolitions were completed using blight bond funds. This system will be used also for reporting on the long-term use of those improved properties.

- The City must covenant to bond investors/holders to take remedial actions in the event it is deemed that the tax-exempt blight bonds are taxable bonds.

  To illustrate, if parcels of vacant land after demolition funded by the blight bonds are sold to City residents as side lots for $100, this would probably easily fall under the 5% de minimis limitation. If large parcels of vacant land after demolition funded by the blight bonds are sold to developers for an amount that exceeds the 5% de minimis limitation, or $10 million for the sake of discussion, then a remedial action could be using the sales proceeds greater than $10 million for a public purpose, such as for further blight removal or the renovation of a recreation center. Obviously, strong record keeping during the duration of the bonds will be paramount.

The OCFO notes that bond counsel's unqualified approving opinion delivered in connection with the portion of the bonds to be issued on a tax-exempt basis at time of the closing of the bond issue will include an opinion that such bonds are indeed tax-exempt, largely based on the covenants outlined above.

LPD feels the largest risk regarding the issuance of the proposed UTGO blight bonds is the City not having the level of sophistication needed to maintain proper record keeping to appropriately monitor the expenditure of UTGO blight bonds when it comes to demolition of property and any associated sales proceeds of vacant property post demolition by parcel. However, based on conversations with OCFO representatives, the City seems committed to address this issue.

In addition, LPD notes that according to IRS rules[11], 85% of tax exempt bond proceeds must be spent within three years of issuance to maintain tax exempt status. However, the demolition initiative would occur over five years. LPD asked the OCFO would the blight bonds be sold in several series to better comply with the 85% expenditure IRS rule.

---

[10] "Tax compliance" includes making sure the interest earned on in the investment of unused blight bond proceeds does not exceed the interest paid on the bonds. If this occurs, the difference is termed "arbitrage" which is subject to IRS penalties or rebates.

[11] IRS Treas.Reg. 1.148-2(e)(2)

In response, the OCFO indicated that was the plan. All four bond sizing scenarios (Attachment VIII) show it is anticipated one series being issued in FY 2020 and a second series in FY 2022. Under this plan, the OCFO expects to meet the IRS spending requirements.

Use of Taxable UTGO Blight Bonds Portion

Based on the up to $250 million UTGO blight bond scenario 2 from Attachment VIII, 25% of the blight bonds will be issued as taxable bonds, meaning the interest earned on these bonds are subject to federal income taxes. As a result, bond investors expect higher interest rates on taxable bonds than interest rates on tax-exempt bonds.

The OCFO assumes a portion of the 25% of the taxable portion will be used for housing rehab. In particular, the OCFO projects that 1,000+ of salvageable residential homes will require an average of $15,000-$20,000 incentive per house for renovations to allow these houses to be saved rather than demolished. LPD is concerned that $15,000-$20,000 for a previously vacant does seem insufficient compared with the number of houses in the bank that are severely marginalized, thereby making it difficult for a prospective owner to get financing for the rehab.

In response, the OCFO indicated although this is meant to be an average, if it uses a model similar to DLBA's rehabbed and ready program, $15-$20,000 should be adequate. To a great degree, this has do with the strength of the residential neighborhoods where the rehabilitations are undertaken. For example in a neighborhood where you can sell a house for $100,000 but the City have cost of $120,000, this model would work. That is the basic model of rehabbed and ready that has been implemented in Bagley and is now at work in neighborhoods like the Villages and Livernois-McNichols among others. The Administration anticipates there will be opportunities to deploy this model effectively in neighborhoods where demolition has taken place, in the city blocks between Strategic Neighborhood Fund neighborhoods and areas of concentrated demolition.

In addition, the Administration indicates that the full range of incentives will be finalized based on market response; however it will likely include activities ranging from:

- Simple enhancements to the property to prepare it for sale such as water line improvements, minor roof repair, removal of trash from houses, quieting of title, etc.
- Expansion of programs such as rehabbed & ready, which would for example rehabilitate a house for $115,000; and then sell that house for $100,000 as a way to improve appraised values
- New "house swap" programs modeled on Bridging Neighborhoods where requested by communities , which would allow exchange of houses in different parts of the city.

The use of the incentives programs will originate from the neighborhood planning process such as the upcoming Gratiot & 7 mile plan or the East Warren Cadiex Plan.

There is a question whether the UTGO blight bond proceeds may be used to make improvements to properties owned by individual residents. The OCFO indicated that Miller Canfield, the City's bond counsel, has advised that the use of bond proceeds to make improvements to properties on individual residents homes would be prohibited under the Michigan Constitution.

Impact of UTGO Blight Bonds on City of Detroit's Debt Affordability Metrics

The City issues bonds in accordance with its Debt Policy. Attachment X represents a copy of the Debt Policy.

The City's Debt Policy speaks to debt affordability, which is currently: 1) overall debt as a % of assessed valuation (total debt should be about 15% of full market value); 2) debt service as a % of the general fund (required annual debt service expenditures should be at about 10-15% of the City's general fund); 3) overall debt per capita (real debt per capita should not rise significantly); 4) ten-year payout ratio (a faster payout is considered a positive credit attribute); and 5) per capital to per capita income (total debt outstanding and annual amounts proposed should not cause the ratio of per capita to per capita income to rise significantly above approximately 5%).

LPD questioned how would the proposed UTGO blight bond sale impact these ratios. Attachment XI represents two versions of the City's debt metrics provided by the OCFO. The first considers the City's debt as of 7-31-19. The second considers the City's debt metrics as of June 30, 2020, and assumes that the City issued the first series of UTGO blight bonds in the amount of $175 million and the second series of the UTGO capital bonds approved in 2018 in the amount of $52.245 million. This is consistent with what is described in Scenario 1 (Base Case) from Attachment VIII.

When comparing the debt metrics as of 7-31-19 (without the second series of the UTGO capital bonds approved in 2018 and the first series of UTGO blight bonds) to 6-30-20 (includes the UTGO capital bonds and UTGO blight bonds), it appears the issuance of the first series in proposed UTGO blight bonds will not have a significant impact on key debt metrics.

LPD noticed however, that one key debt indicator as of June 30,2020, the ratio of outstanding net direct debt over operating revenues of 155% seemed high.

To address this question, the OCFO considered how the rating agencies score several factors pertaining to debt and how the issuance of the proposed UTGO blight bonds would impact these scores. The OCFO looked at our debt ratios as of 6-30-19 and compared them to a projection for 6-30-20. The 6-30-20 projection is based on Scenario 1 (Base Case Scenario).

The OCFO presented the following information (chart below) at the October 2, 2019, Budget, Finance and Audit committee. As can be seen, a ratio of debt as a percent of general fund revenues of 185% (or 1.85X) received a scorecard sub-factor of A. This was a helpful way for us to determine that 1.85X is a reasonable ratio.

As background, these statistics were calculated according to the Moody's methodology which includes PLA, MTF and HUD debt in the calculation; the original methodology used for the OCFO debt statistics only included debt for which there is General Fund and debt millage pledge. This explains the difference of the 155% figure from the original calculation to the 185% calculation.

[Rest of page is blank]

	As of June 30, 2019	As of June 30, 2020 (Post UTGO Issuance)	Impact of Proposed $227 Million Borrowing
Debt as % of General Fund Revenues	171% (1.7X)	185% (1.85X)	
Moody's scorecard for this sub-factor	A	A	No impact
Debt as % of Full Value	12.74%	10.55%	
Moody's scorecard for this sub-factor	Ba	Ba	No Impact

LPD would like to point out that although the Moody's scorecard of Ba for the debt indicator "Debt as % of Full Value" remains as Ba as of June 30, 2020 when the post issuance of 2020 UTGO capital bonds and proposed 2020 UTGO blight bonds is considered, the "Ba" score is classified as being "Poor" under Moody's methodology standards due to the relative high percentage of the City's debt when compared to the full market value of its assessed property. However, the fact that the debt service on the UTGO blight and capital bonds are paid solely from the property tax revenues based on the City's debt millage that will not exceed 9 mills over the life of these bonds, and does not impact the General Fund, mitigates this issue.

Impact of UTGO Blight Bonds on the City's Legal Debt Margin

The maximum amount of general obligation debt (both unlimited tax and limited tax) the City may have outstanding at any time is limited by State law (Act 279 of 1909, as amended). The limit is set at 10% of the City's SEV (adjusted for certain assessed value equivalents), called the or 15% if that portion which exceeds 10% is used solely for construction or renovations of hospital facilities. However, certain general obligation debt (such as financial recovery bonds, special assessment bonds, revenue bonds, self-insurance bonds, etc.) are excluded from this limit. The 10% limitation minus outstanding unlimited tax and limited tax general obligation debt equals the "general purpose debt margin", meaning the City can only borrow up to this amount.

According to the OCFO, at June 30, 2019, the City's general purpose debt margin is calculated to be $1.028 billion. An UTGO blight bond issue of approximately $250 million would decrease the City's general purpose debt margin to approximately $778 million.

Of course, if and when the UTGO blight bonds are issued, the legal debt margin will be calculated again to include current information, such as general purpose debt outstanding (as reduced by any principal payments made since June 30), 2019 SEV information, etc.

Rating Agencies's Perspective on UTGO Blight Bonds

LPD questioned what has been the reaction from rating agencies regarding the issuance of UTGO bonds for blight elimination, including demolition, given that these type of bonds are atypical.

The OCFO indicated that it has had preliminary discussions with both rating agencies (Moody's and Standard & Poor's) used by the City and they recognize the nuanced approach of using UTGO bonds to address what has been a significant long term issue for the City.

In the article entitled " Detroit wants voters to approve bonds to remove vacant homes" dated September 18, 2019 by Nora Colomer, The Bond Buyer, the following quote was included: "In today's market conditions I think Detroit could access the market at favorable rates without difficulty, notwithstanding that issuing bonds for blight removal is somewhat atypical," said Lisa Washburn, a Municipal Market Analytics managing director. "Assuming market conditions remain similar to today and that the city's finances continue to trend positive, then I'd expect that they will find a welcoming group of buyers at issuance."

In the article entitled "Duggan pitching $250M bond issue to wipe out blight by 2025" dated September 16, 2019 by Christine Ferretti, the following information/discussion was included:
"The city's financial reserves and its December return to the bond markets capital investment have earned it higher marks among rating agencies, increasing the city's ability to borrow and at lower rates.

But the city's borrowing capacity remains limited, and it must be mindful of whether a bond for demolition is the best way to commit its taxpayers in the longer term, said Matt Fabian, a partner who leads market and credit research at Municipal Market Analytics in Concord, Massachusetts.

Cities out of bankruptcy, he said, have a higher risk of economic backsliding, and that's why the city, which came out of bankruptcy with fewer assets than it had going in, "needs to be very careful with how it spends."

"It's not a typical reason that cities borrow, so it does suggest that maybe the city is not yet ready to act like a traditional city," he said. "Cities don't typically borrow for blight, but cities don't typically have the blight that Detroit has."

"It isn't magic," Fabian said. "If you're spending on one thing, you're not spending on something else."

But Massaron said the city has nearly $675 million in capital borrowing capacity for this kind of debt.

"After issuing the blight bonds, the city would have nearly $450 million to invest in other capital items throughout the city," he said. "We believe that leaves more than enough for the city's capital needs.""

Potential Impact of UTGO Blight Bonds on City's Bond Rating

There is a concern of how would the UTGO blight bonds offering affect the City's credit and bond rating, and whether this offering puts the City at greater risk of having the Financial Review Commission return to direct oversight.

In response, the OCFO indicated that this offering is not expected to affect the City's credit and bond rating. The City currently has a Moody's rating of Ba3 and an S&P rating of BB-, which are equivalent ratings. The OCFO has communicated the proposed bond and ballot authorizing resolutions to both agencies, who appreciated the analytical and nuanced approach that the City is taking to remove blighted properties either through renovation/resale or demolition. Issuing these bonds on the City's own credit would be a positive development as it relates to the Financial Review Commission (FRC). One of the conditions of the FRC waiver is that the City is able to access the capital (bond) market. While we have previously satisfied this requirement, ongoing demonstration of this ability supports self determination of the finances of the City.

When UTGO Blight Bonds could be Refinanced

LPD questioned is there a certain time period the City would have to hold unto the UTGO blight bonds before they can be refinanced to take advantage of lower interest rates.

In response, the OCFO indicated while interest rates are at historic lows, it always consider the possibility that rates could decrease in the future. Once a bond underwriter is selected through an RFP process, the OCFO plans to negotiate a call feature structure, in consultation with the City's financial advisor, to provide for the possibility of a refinancing of the bonds in the future.

Other Major Concerns associated with the UTGO Blight Bonds

<u>Average Demolition Costs</u>

The number of abandoned residential properties that will be demolished under the blight elimination/demolition program will ultimately depend on the average cost of demolition. When questioned, the Administration has quoted a range of approximately \$17,000 to \$20,500 as the average cost of residential demolition. The OCFO has indicated that the blight elimination/demolition program would include a 10% contingency of about \$35 million to provide for demolitions that may cost more than \$20,000 due to more complicated asbestos removal, etc. or additional demolitions/rehabs.

LPD questioned is there a way to reduce the average demolition cost. In response, the OCFO anticipates larger demolition packages, longer timelines, clustered properties, and increased competition from new vendors should incentivize lower costs. Furthermore, the City is investigating other avenues to reduce costs in the program, and the OCFO hopes to introduce some new cost control measures in the coming months.

Unfortunately, presently the true average cost of residential demolition is probably not determined, when administrative costs, including what is paid to the DLBA and the DBA and the cost of City employees involved in demolition are factored in.

Proceeds from Sale of Property under Blight Elimination/Demolition Program

As mentioned previously, under the proposed blight elimination/demolition program, the Administration's goal to sell 8,000 residential properties through the DLBA's sale and nuisance abatement lawsuit programs. It is also anticipated that a 1,000+ of these homes will be renovated based on an average of $15,000-$20,000 incentive per house for renovations to allow these houses to be saved rather than demolished.

LPD questioned would all the proceeds from the property sales under the demolition initiative go to the City's general fund. In response, the OCFO indicated no, with limited exceptions, the proceeds from sales of Detroit Land Bank Authority owned residential property are retained by the DLBA to support its ongoing activities. Sale of commercial property owned by the City would go to the General Fund.

Since it is indicated that proceeds from sales of DLBA owned residential property are retained by the DLBA to support its ongoing activities, LPD observes that 7,000 sales (8,000 sales minus the 1,000+ houses to be renovated based on an incentive program) over 5 years at $1,000 per sale is $7 million. Rather than allowing the DLBA to potentially build a large fund balance, LPD questioned should not the City of Detroit/DLBA agreement include a provision that after DLBA's fund balance reaches a certain threshold, like at a million dollars, any amount above that threshold would be remitted to the City's general fund. In response, the OCFO indicated it takes the DLBA revenue and fund balance into account when proposing the DLBA's annual appropriation. Meanwhile, the City's four-year financial plan does not include a budget increase for the Land Bank from the General Fund. In fact, it projects a decrease in future years. Any change from that would require City Council approval in the budget process.

To gain an understanding of sales history as a measurement for future sales, LPD questioned in the last 5 years, how many houses are coming into the land bank annually and how many are sold each year. In response, the OCFO indicated since the beginning of 2014, the land bank has taken ownership of 47,714 residential structures. To date, the land bank has also sold and closed on 7,585 homes. This period has also seen dramatic shifts in the rates of these transactions, however. Since 2014, the acquisition rate has decreased more than 95%, from 20,639 in 2014 to 247 so far this year. At the same time, the organization has increased home average home sale volume more than tenfold, from five each week in 2014 to more than 50 in 2019. The DLBA also on average has sold more than 300 side lots each month.

The OCFO also provided the following information regarding future sales targets under the blight elimination/demolition program:

- The Detroit Land Bank Authority has built an intricate infrastructure to smoothly and efficiently see property from acquisition through to re-occupancy. Over the past five years, the organization has built an experienced team with a diverse, supportive network of property preservation vendors, title companies, and renovation contractors; and land bank leadership is confident that this infrastructure can meet the sales targets outlined in the proposal. The DLBA expects to meet the sales target within five years by maintaining its current monthly sales rate.

- Land Bank staff does not anticipate facing insurmountable organizational barriers to meeting the sales targets outlined in the proposal, and so if resident demand meets expectations and the organization's budgetary needs are met, the land bank can meet the identified sales targets. The DLBA's Compliance program will help ensure all homes sold by the land bank are renovated and reoccupied.

- Land Bank staff will work closely with City counterparts to formulate and employ a holistic, layered approach to property sales and nuisance abatement action. The DLBA believes this bond proposal represents a considerable investment in the city's neighborhoods and is likely to have a strong, positive impact on property values. These changes, coupled with an effort to coordinate the efforts of nuisance abatement action, demolition, renovations, strategic amenity investments, and sales within a neighborhood, will increase resident interest in Land Bank-owned homes.

- The sales strategy underlying the bond proposal relies on land bank purchasers and existing property owners to undertake most of the proposed renovations. As such, staff do not believe these renovations will be dependent on an increase in land bank property sales or DLBA revenue. The Land Bank and City would undertake a comparatively small number of targeted renovations, but staff anticipates bond proceeds covering the financing gap for those projects. The Land Bank does not need to increase monthly sales in order to meet the sales goals underlying the proposal.

- Currently, the Detroit Land Bank Authority uses a combination of on-the-ground home inspections, neighborhood-level data, and resident feedback to decide which properties in DLBA inventory will be salvaged and sold. Through the property-by-property review and selection process, staff emphasizes responding to resident inquiries and prioritizing properties with the greatest likelihood of successful reuse. The DLBA foresees using a similar approach for targeting privately-owned homes with nuisance claims in the future.

- To ensure renovations will be spread evenly throughout the City of Detroit, most of the renovations of houses will operate on a "subsidized sale" model such as the one used by Rehabbed & Ready program. In that model, the house may be renovated for $120,000 but sold for $100,000 in the interest of increasing comparable sales which positively impacts appraised values.

  This program has been an operations for three years with great success. Selling over 60 houses with an average subsidy amount of approximately $20,000. The program will be widened and staffed up further to achieve a larger number of rehabs.

  So far it has only been able to operate in the strongest areas of the city because those areas had the benefit of prior demolitions. After the demolition is executed the Administration expects that all neighborhoods should be able to receive rehabs on that basis.

<u>Properties on the brink of vacancy</u>

LPD questioned has anyone done an analysis of the existing housing stock to ascertain how much of it is not solid, but hovering on the brink of either becoming a vacant unusable property or how many are on the final chance for a payment plan and are probably going to go into foreclosure.

The OCFO indicated that first, the Land Bank has done such an analysis as part of preparing property for its auction pipeline and its own it now program. After acquiring a property, the land bank completes a thorough interior and exterior inspection to determine the physical condition of the home and the likelihood of rehabilitation. The land bank also orders re-inspections on a periodic basis in response to resident inquiries or fires. Separately OCFO, HRD, DoN (Department of Neighborhoods) and Wayne County have been working closely to understand tax delinquency that exist and understand the risk posed by these delinquencies. Based on this work, the Administration will have more policy announcements related to foreclosure assistance as it moves through the year.

LPD questioned just because a vacant house is boarded up in accordance with the current rules and ordinance, does not mean that it is not a blight on the neighborhood that it is located in and a detriment to the remaining houses value. What steps are being made or have been made to shorten the time that a house remains in that awful but allowable condition?

In response, the OCFO indicated demolition and the resulting changes in the marketplace are the fastest way for the City to get those properties into private hands. The Administration has seen a dramatic increase in value in areas where demolition have taken place. Those kind of value changes can positively impact the uptake and improvement of those vacant boarded properties.

Additionally, the more comprehensive approach contemplated in this proposal calls for the expansion of tools that can more quickly return properties to productive reuse, such as the Land Bank's nuisance abatement program, coordinated code enforcement, and the city's accelerated forfeiture partnership with the County Treasurer's office.

<u>Administration's Forecast of Number of Vacant Properties needing demolition after blight elimination/demolition program ends in FY 2025</u>

The Administration has forecasted that the number of properties needed to be demolished will be in the range of 100-200 per year after the demolition initiative ends after FY 2025 based on other major cities. Using $22,000 as the average demolition cost for a residential property, the City's budget would still have to include an allocation of $2.2 million to $4.4 million to accommodate the demolition of the 100-200 properties.

Regarding this issue, LPD questioned/requested: Please provide the cities where the 100-200 properties per year become vacant and subject to demolition come from. Unfortunately, does not this seems a bit optimistic for the City of Detroit given its high level of poverty and many of the housing stock being nearly 100 years old and have not been properly maintained? Is not it a challenge to enforce housing codes to prevent blight? Is not the number of owner occupied tax-delinquent homes in the City of Detroit a challenge? Is this number coming down?

In response, the OCFO indicated that while the resolution before City Council is a bond issue to demolish and rehab blighted structures, the City continues to engage in a more comprehensive approach to address blight. This includes a number of tools to help Detroiters stay in their homes and holding land-owners responsible to keeping up their properties. Through data and feedback from our community, the City will continue to improve programs such as the Land Bank's nuisance abatement program, coordinated code enforcement, implementation of the rental ordinance, and foreclosure assistance as we move through the year.

Addressing Illegal Dumping with the UTGO Blight Proposal

There was a concern whether there is a plan to address illegal dumping with this bond proposal. In response, the Administration indicated that the Mayor and the Chief of Police have launched an initiative to reduce illegal dumping. Since the launch of the program, the City has reduced illegal dumping tonnage by 37%. DPD plans to continue investing in this program, given the positive results.

System of Controls, Public Policy Changes, etc. put in place to prevent programmatic problems associated with the demolition program as reported in the past

Council will recall during his March FY 2020 budget presentation to Council, Mayor Duggan indicated the City in FY 2019 is transitioning from a demolition effort controlled by the Detroit Land Bank Authority to a city-administered program. LPD questioned for the blight elimination/ demolition that would be supported by the blight bonds, if approved by City Council/voters:

a. What system of controls, public policy changes, etc. have been or will be put in place to prevent programmatic problems associated with the demolition program as reported in the past? OCFO's response:

    - Demo checklists completed by Field Liaisons
    - Abatement reporting and monitoring
    - Biweekly meetings with DEQ and representatives from the state
    - Open hole and Final Grade checklists completed by BSEED
    - BSEED monitoring backfill activities
    - Improved tracking of backfill materials through the soil platform
    - Increased transparency through the use of Salesforce and Open Data
    - Improved OCP procedures
    - Milestone reporting on progress

b. Who would be in charge as the overseer of the demolition initiative? OCFO's response: Bethany Melitz, Chief Administrative Officer

c. Which City departments would be involved to implement the demolition initiative? OCFO's response: OCP, BSEED (Buildings, Safety Engineering and Environmental Department), HRD, ODFS, OCFO

d. How many City FTEs would be needed to implement the demolition initiative? OCFO's response: Thirteen (13) City FTEs will work directly on the demolition initiative.

e. Would just City workers implement the demolition initiative, or would outside contractors be also used to implement the demolition initiative? OCFO's response: Outside vendors are used for the demolition, abatement, environmental testing, surveys and soil management. Oversight of the program is provided by DBA and City personnel.

f. Would the DBA (Detroit Building Authority) still be involved in the demolition? OCFO's response: Yes[12].

Please let us know if we can provide any more information.

Attachments

cc: David Massaron, Chief Financial Officer
John Naglick, Chief Deputy CFO Finance Director
Katherine Hammer, Chief Deputy CFO Policy & Administration Director
Tanya Stoudemire, OCFO-Deputy CFO, Budget Director
Office of the Auditor General
Stephanie Washington, Mayor's Office

[12] As indicated in footnote number 2, LPD notes that the current demolition program conducted by the City, the Detroit Building Authority and the Detroit Land Bank Authority has been plagued with allegations of misconduct and inefficiency. These allegations have resulted in investigations by, but not limited to, the Detroit Auditor General. LPD has received information that the Auditor General's audit containing its findings and recommendations regarding the City's demolition program will be completed prior to the City Council's winter recess. It is LPD's belief that the Auditor General's report would be of great benefit to City Council's deliberations regarding the policy implications relative to the approval of the $250 million Blight Elimination Bond request.

Attachment I

LPD's Questions Regarding the Proposed Blight Elimination/Demolition Program, including the up to $250 Million in UTGO Blight Bonds

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

MEMORANDUM

TO: Irvin Corley, Jr., Executive Policy Manager, Detroit City Council Legislative Policy Division

FROM: David Massaron, Chief Financial Officer, City of Detroit

DATE: September 16, 2019

RE: Blight Bond Responses

---

1. Please provide the State law that supports a demolition bond sale.

- Pursuant to the Home Rule City Act, 1909 PA 279, as amended (the "HRCA"), "each city in its charter may provide for the . . . issuing bonds for the borrowing of money, for any purpose within the scope of the powers of the city." MCL 117.4a. The City has general powers to conduct blight removal, including demolition, under the state's blight remediation statute, 1945 PA 344.
- In accordance with HRCA, the City Charter provides that "[t]he City may borrow money for any purpose within the scope of its powers, may issue bonds or other evidence of indebtedness therefore and may, when permitted by law, pledge the full faith, credit, and resources of the city for the payment of those obligations." Detroit City Charter, Sec. 8-501.

2. Please explain why voter authorization is needed to do this bond sale under the specific State law. Any legal opinion you have on this would be great.

In order to levy a dedicated millage for the bonds issued, the City must submit a ballot question to the voters:

- Pursuant to the Headlee Amendment to the Michigan Constitution, taxes for the payment of any City obligations would be limited to existing taxing power (i.e., the City's charter limit, which would be insufficient to pay debt service on these bonds); however "taxes imposed for the payment of principal and interest on ***bonds approved by the electors*** or other evidences of indebtedness approved by the electors . . . may be imposed without limitation as to rate or amount . . ." Mich. Const. art. IX, sec 6. This is the source of the ballot question requirement.
- The Unlimited Tax Election Act, 1979 PA 189, implements the above-quoted provision of the Headlee Amendment, setting forth the basic procedures and content requirements for an unlimited tax general obligation ballot measure. MCL 141.164-.165. The General Property Tax Act, 1893 PA 206, as amended, also sets forth certain content requirements for the ballot question. MCL 211.24f.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

3. Please provide bond sizing scenarios developed by the OCFO/financial advisor on this bond sale.

Attached.

4. This is related to question 2, but it's been indicated in the past that this bond sale can be done within the existing debt millage. That may be true, but how does this affect the ability to sell g.o. bonds for future capital projects? I know there's the unused bond authorization that can be used for a bond sale for capital projects in a couple of years. But I'm wondering would debt service be paid down quick enough to allow for a g.o. bond sale for capital projects in seven years or so, given the normal five year capital improvement program. Obviously, it's going to be harder to rely on surplus dollars in the future for demolition given other fiscal challenges we have (pension spike, labor contracts, etc.).

We agree that it is critical that we maintain capacity to borrow for capital projects into the future. As you can see from the scenarios we provided in answer three, we continue to have capacity to borrow into the future. In our proposed scenario of borrowing 75% tax exempt and 25% taxable, we will have nearly $450 million in borrowing capacity for capital over 10 years. We believe this is sufficient to meet our needs and capacity to complete projects.

5. Based on a conversation with Tanya a couple of months ago, I believe she said the City could run out of demolition surplus money in September 2019, even including the blight remediation dollars Council approved via the FY 2020 budget. I believe she said all demolition surplus dollars will be encumbered by September. Is that the case?

That is correct. In order to prevent a slowdown in the demo pipeline, we will propose to accelerate $50 million in blight funding this winter. Following completion of the CAFR, this will be made possible by a one-time large tax payment in FY19 and acceleration of $30 million of the FY2021 blight appropriation.

6. Based on the response to question 4, is there currently only about $13 million in unassigned surplus that could be used for demolition?

That is correct. We will wait until completion of the CAFR to confirm that we have sufficient unassigned surplus to meet this need.

7. I understand that current g.o. bond dollars can only be used for demolition that's associated with an economic development project. To your knowledge, are there any current g.o. bond dollars that can be used for this purpose?

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

There are no remaining UTGO bond funds that could be used for this purpose. None of the authorizations for the 2018 UTGOs would encompass demolition activity.

8. What's the status of HHF dollars being used for demolition?

As of August 23, there were 1,152 remaining HHF demolitions left to knock.

9. To the best you can, please explain how any available demolition surplus dollars and the demolition bond sale would address the demolition needs of the City. Please provide any projections on the level of inventory that could be added in the future even with the level of demolition to be financed from any existing and demolition bond sale dollars. At what point does the City reach a more manageable level of demolition without having to use a lot of surplus dollars and don't have to sell bonds to cover demolition?

We project there are about 27,200 remaining abandoned houses as of today which we believe we can address over the next five years.

- 3,000 should be demolished over the next 9 months with remaining HHF funding, existing Residential Blight funding for FY2020, and a portion of the proposed accelerated blight funding discussed in question 5.
- 16,000 can be demolished over five years with the proposed bond funding and $30 million in annual residential blight appropriations from surplus as called for in the City's Plan of Adjustment.
- 8,000 can be addressed through the Detroit Land Bank's sale and NAP lawsuit programs. We project 1,000+ of these will require an average of $15,000-$20,000 incentive per house for renovations to allow these houses to be saved rather than demolished.

In accordance with the POA, with City Council approval, the City will continue to appropriate $50 m a year from available surplus for blight; $30 m will be for residential demo, $10 m will be dedicated to commercial demo and $10 M to other blight activities.

10. What plans will be in place to ensure local Detroit based companies to do the demolition?

As part of the pilot procurement process this year, based on the feedback we have heard from contractors, we are deploying these inclusion strategies:

- Set maximum of 7 crews for large companies
- Push to prequalify all prospective companies this summer
- Provide site visits to new companies
- Set aside special packages for small companies

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone. 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

- Remove pollution liability insurance for all residential demolitions
- Reduce bonding requirements to 25% and solely require E-Bonds
- Explore joint ventures/mentoring

11. What plans will be in place to educate Detroiters and help them be job ready to help out with the demolition program?

Over the past two years, DESC has supported a blight removal training program and is able to provide ongoing employment assistance to interested graduates of this program. In regard to current and upcoming programs, DESC currently works with a training provider who offers a pre-apprenticeship carpentry program, and they are always looking to partner with more providers through their ongoing Funding Opportunity Announcements.

12. Would any of these dollars be used for board ups to help keep residential and commercial buildings as much as possible?

Through blight funding, GSD has boarded up residential and commercial buildings. GSD projects there are 1,900 structures left to board up, and they are using FY2020 Blight funds to do so. As part of the budget going forward, the City plans to have two crews for reboards.

SCENARIO 1 (BASE CASE):
$225 million in Blight Bonds (75% tax exempt/25% taxable)

Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
$'s in thousands											(20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	111,500	-	93,250	-	93,250	-	93,250	443,495
Total	$227,245	$-	$50,000	$111,500	$-	$93,250	$-	$93,250	$-	$93,250	$668,495
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		15,325	19,015	20,743	17,551	13,848	13,558	13,560	13,235	12,051	138,886
Future Capital UTGO DS		2,288	2,288	2,288	8,123	17,972	23,398	24,177	25,900	32,985	139,420
Aggregate Debt Service	$64,466	$80,270	$69,120	$67,022	$64,923	$62,747	$62,636	$63,413	$64,805	$65,085	$664,486
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$55,877	$57,127	$58,349	$59,602	$60,885	$566,454
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,803	6,851	4,875	2,848	782	(148)	(180)	360	(252)	35,219
Total Sources	$64,466	$80,270	$69,120	$67,022	$64,923	$62,747	$62,636	$63,413	$64,805	$65,085	$664,486

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 1
Capacity for $225 million in Blight Bonds
Capacity for $443.5 million in future Capital Bonds
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.683%
Average Annual Debt Service: $12.4 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first 4 years (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.313%
Average Annual Debt Service: $21.9 million
Term: 30 years
Debt Service: Level

SCENARIO 2 (to consider impact of improvement in taxable values): $250 million in Blight Bonds

Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
$'s in thousands											(20-29)[1]
Blight UTGO Bonds	$175,000	$-	$75,000	$-	$-	$-	$-	$-	$-	$-	$250,000
Future Capital UTGO Bonds	52,245	-	-	111,500	-	93,250	-	93,250	-	93,250	443,495
Total	$227,245	$-	$75,000	$111,500	$-	$93,250	$-	$93,250	$-	$93,250	$693,495
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		15,325	19,015	20,733	17,551	15,532	15,537	15,538	15,214	14,033	148,476
Future Capital UTGO DS		2,288	2,288	2,288	8,123	17,972	23,398	24,177	25,900	32,985	139,420
Aggregate Debt Service	$64,466	$80,270	$69,120	$67,012	$64,922	$64,430	$64,615	$65,391	$66,784	$67,067	$674,075
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$57,698	$58,992	$60,257	$61,554	$62,881	$575,996
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,803	6,851	4,865	2,847	645	(34)	(110)	388	(266)	35,267
Total Sources	$64,466	$80,270	$69,120	$67,012	$64,922	$64,430	$64,615	$65,391	$66,784	$67,067	$674,075

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 2
Assumes compound annual growth rate of 2.20% in taxable values over five years (i.e., from $5.95 billion in 2019 to $6.64 billion in 2024)
Capacity for Blight Bonds increases to $250 million
Capacity for future Capital Bonds remains at $443.5 million
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.781%
Average Annual Debt Service: $14.1 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first 4 years (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.313%
Average Annual Debt Service: $21.9 million
Term: 30 years
Debt Service: Level

SCENARIO 3 (to consider impact of all taxable Blight Bonds): $225 million in Blight Bonds (100% taxable)

Fiscal Year $'s in thousands	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total (20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	107,500	-	83,000	-	83,000	-	83,000	408,745
Total	$227,245	$-	$50,000	$107,500	$-	$83,000	$-	$83,000	$-	$83,000	$633,745
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		14,360	18,206	19,710	16,692	16,689	16,688	16,692	16,691	16,694	152,421
Future Capital UTGO DS		3,158	3,159	3,163	9,157	15,153	20,137	21,034	22,520	28,420	125,901
Aggregate Debt Service	$64,466	$80,175	$69,181	$66,864	$65,097	$62,768	$62,505	$63,402	$64,881	$65,163	$664,502
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$55,877	$57,127	$58,349	$59,602	$60,885	$566,454
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,708	6,912	4,717	3,022	804	(279)	(190)	436	(174)	35,235
Total Sources	$64,466	$80,175	$69,181	$66,864	$65,097	$62,768	$62,505	$63,402	$64,881	$65,163	$664,502

[1]Total represents amount through ten year planning horizon

Highlights of Scenario 3

Assumes 100% of Blight Bonds are taxable (and therefore higher cost of funds
Capacity for $225 million in Blight Bonds
Capacity for future Capital Bonds decreases to $408.8 millior
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds

Tax-Status of Blight UTGO Bonds: 100% taxable
Estimated TIC: 6.621%
Average Annual Debt Service: $16.0 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first three year:

Assumptions for Future Capital UTGO Bonds

Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.318%
Average Annual Debt Service: $20.5 million
Term: 30 years
Debt Service: Level

SCENARIO 4 (to consider impact of recession):
$225 million in Blight Bonds (75% tax-exempt/25% taxable)

Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
$'s in thousands											(20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	107,500	-	75,000	-	75,000	-	75,000	384,745
Total	$227,245	$-	$50,000	$107,500	$-	$75,000	$-	$75,000	$-	$75,000	$609,745
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		14,398	16,668	16,621	14,412	14,409	14,408	14,410	14,414	13,577	133,318
Future Capital UTGO DS		2,294	2,294	2,294	7,815	12,435	18,250	18,841	20,170	26,809	111,203
Aggregate Debt Service	$64,466	$79,350	$66,779	$62,906	$61,475	$57,771	$58,338	$58,926	$60,254	$60,435	$630,701
Actual and Projected Property Tax Collections	$54,325	$54,010	$52,357	$51,012	$51,370	$51,638	$52,786	$53,908	$55,059	$56,237	$532,701
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,720	6,920	4,885	3,566	46	(104)	(225)	352	(254)	35,187
Total Sources	$64,466	$79,350	$66,779	$62,906	$61,475	$57,771	$58,338	$58,926	$60,254	$60,435	$630,701

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 4
Assumes 25% decrease in state equalized values, beginning in tax year 2020, spread over three years before recovering (i.e., decrease in taxable value of over $465 million)
Capacity for $225 million in Blight Bonds
Capacity for future Capital Bonds decreases to $384.7 million
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.744%
Average Annual Debt Service: $12.7 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in years 2 and 3 (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.296%
Average Annual Debt Service: $19.5 million
Term: 30 years
Debt Service: Level

MEMORANDUM

To: David Massaron, Chief Financial Officer, City of Detroit
From: Robert Linn, Inventory Director, Detroit Land Bank Authority
Date: August 23, 2019
Re: Demolition Universe Estimate

The best estimate of vacant and abandoned houses in Detroit that need to be addressed by the City's demolition, sales, and rehabilitation programs is approximately **27,227**.

To estimate the number of demolitions required over the next five years, staff analyzed existing DLBA inventory, indicators of privately-held abandonment, foreclosure and market trends, and conducted evaluative neighborhood surveys. Through this work, staff believe that an estimated 20,117 homes are likely to require demolition, as of August 23, 2019.

We believe that there are 7,110 vacant houses that can be saved through rehab and sale, given current condition and market trends. Additionally, staff believe that a $15,000-$20,000 incentive would overcome the rehab funding gap for at least 1,126 of the 20,117 demolition candidates, allowing them to be rehabbed instead of demolished. Consequently, staff believe that a rehab incentive program would reduce the **overall number of properties requiring demolition to 18,991 and increase the number that can be rehabbed and sold to 8,236**.

ACTIVITY TO DATE

Since January 2014, the City of Detroit and Detroit Land Bank Authority have made significant progress in the effort to combat residential blight across the city. To date, the City and land bank have demolished **18,925** structures, sold **7,419** houses, and has supervised or is currently supervising the rehabilitation and re-occupancy of **1,621** homes through the nuisance abatement program. Through these efforts, the City has addressed **27,965** blighted homes already, and so has already addressed more than half of blighted homes in the City.

ESTIMATED TOTAL ABANDONED HOUSES IN CITY REQUIRING DEMOLITION

- Land bank houses currently in demolition pipeline 9,885

• Additional land bank houses projected to require demolition	3,396
• Privately owned vacant properties projected to need demolition	5,710
• Total vacant houses in need of demolition	18,991

ESTIMATED TOTAL ABANDONED HOUSES POSSIBLE TO REHAB IN CURRENT MARKET

• Land bank owned vacant houses	5,167
• Privately owned vacant houses projected to be rehabbed	1,943
• Total vacant projected rehab houses citywide	7,110

PROJECTED DEMOLITIONS PREVENTABLE THROUGH $15,000-$20,000 REHAB INCENTIVE

• Total projected rehabs only possible through $15,000-$20,000 incentive	1,126
• Total houses projected saved (with and without incentive)	8,236
Total estimate of vacant and abandoned houses in the city of Detroit	**27,227**

PROJECTED NEEDS AT END OF FISCAL YEAR

Between now and the end of the fiscal year, staff anticipate being able to make significant progress towards these goals.

• HHF Demolitions	1,152
• Demolitions currently funded by city general fund	1,062
• Additional demolitions proposed to be funded by City	1,000
• Projected vacant land bank home sales	1,300

Between these four sources, staff believe the City and land bank can address 4,514 vacant and abandoned homes before the end of the fiscal year. This would leave **15,777 homes to be demolished** after the fiscal year, and **6,936 to be sold or rehabbed**, including those requiring incentive, or 22,713 total properties requiring intervention.

ADDENDUM

UNDERLYING ASSUMPTIONS

To estimate the figures identified in this memorandum, land bank staff relied on recent experience, and made conservative linear projections that future outcomes will generally mimic recent trends.

Many of these salability projections assume present market conditions will continue unchanged. Future market changes could increase either the need for demolition or the expanded feasibility of rehab opportunities.

Some of the key assumptions underlying the estimates above are explained in more detail below.

- Historically, 12.11% of sale pipeline properties went unsold and transitioned to the demolition pipeline within two years. Accounting for the decreasing prevailing area market values of remaining inventory, staff anticipate that the demolition rate will increase dramatically. By offering a rehab incentive, however, staff believe that many of these demolitions could be prevented.
- A retrospective cohort analysis of occupied DLBA homes found that, after several years, 12% have become vacant and required demolition. Consequently, staff anticipate 385 of the organization's occupied homes will require demolition and are included in the "additional land bank houses projected to require demolition" category.
- Of the properties that are boarded but not in compliance or in NAP, 83.5% of these are in weak market areas, while 16.5% are in neighborhoods where the market is likely to support rehabilitation. A randomized exterior survey (n = 50) found that of the stronger market properties, 90% appear to be salvageable, and among weaker market areas, 60% appear to be salvageable.
- In early August, DLBA and GSD staff surveyed five representative neighborhoods, and found that overall, in those areas, 4% of blighted homes were not accounted for in this analysis. This figure is within 10% contingency recommended, but not accounted for elsewhere in this analysis.
- These are estimates, and future demolitions will be required through fire, deterioration, and future abandonment. To account for these issues, we suggest including a 10% programmatic contingency to allow for additional demolitions or rehabs.
- Thus far in the organization's experience, a small percentage (<2%) of land bank sales ended up ultimately failing compliance and joining the demolition pipeline. Staff assume future sales will face a similar experience, and this number is accounted for as part of the "Additional land bank houses projected to require demolition" category above.

By 2025, Detroit will be free of blighted houses... without raising taxes for Detroiters

Mayor Duggan's Proposal:
$250 Million Blight Removal Bond Issue on the March 2020 ballot
Bringing Blight Removal to ALL Detroit Neighborhoods

Since 2014, the City has demolished 19,000 structures. Today, we have 19,000 house demolitions to go. Without a bond issue, it would take Detroit 13 years to demolish the remaining houses.

- 3,000 should be demoed before June 30, 2020 through remaining federal Hardest Hit Fund (HHF) funding and proposed City funds.
- 16,000 abandoned houses would be demolished over five years if the proposal is approved by City Council and Detroit voters.
- The Land Bank will sell or take legal action on 8,000 houses to be rehabbed.
- By providing an average of $15,000-20,000 per house for 1,000+ renovations, we can move those houses from demolition to renovation.
- The City will address other blight like tree removal, commercial corridors and lot improvements.

- The proposal will bring demolitions to **all neighborhoods** not eligible for federal HHF without raising taxes for Detroiters.
- Even with the bond issue, Detroit will have capacity for future infrastructure investments.
- Since 2014, Detroit has demolished 19,000 buildings, sold 7,400 houses to be rehabbed, and taken legal action on 1,500 houses to force rehab, which has resulted in a:
  - 90% average increase in Detroit property values (Source: Zillow, 2013-2018)
  - 42% reduction in fire load (Source: Detroit Fire Department)
  - 3% drop in violent crime and property crime for every 10 demolitions in a block group (Source: Wayne State University)
  - 11% drop in homicides and nonfatal shootings in areas of concentrated demolition (Source: Harvard University and University of Michigan)

Detroiters will rebuild Detroit.
Since 2018, 54% of City-funded demolitions have been completed by Detroit-based businesses. We will continue to expand opportunities for Detroit-based firms to work on this program.

*In addition to Blight Removal Bond funding, the City will continue to use annual surplus for blight reduction as called for in the Plan of Adjustment.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

MEMORANDUM

TO: Irvin Corley, Jr., Executive Policy Manager, Detroit City Council Legislative Policy Division

FROM: David Massaron, Chief Financial Officer, City of Detroit
Arthur Jemison, Group Executive for Planning, Housing and Development

DATE: September 30, 2019

RE: Responses Additional Questions on Blight Removal Bond

---

1. The CFO indicated three reasons as a rationale for the doing the blight bond sale: a) the City's ability to borrow for blight and still have enough capacity to borrow for other capital needs (the bond sizing scenarios shared with LPD/City Council show an anticipated up to approximately $450 M to be raised over the next ten years, and still keep the debt mills at 9 mills with the currently outstanding unlimited tax general obligation debt service and the proposed blight bonds debt service); b) the City's ability to borrow for blight even in the midst of an economic contraction or recession and still not raise property taxes or the debt mills above the current level of 9 mills (scenario 4 considers an impact of a recession; this scenario considers a 25% decrease in taxable values but the CFO feels this is probably too drastic of a decrease given that SEV/taxable values in the City did not decrease by 25% during the Great Recession-also, the reappraisal process has decreased or "right-sized" property values overall); and c) the City's ability to meet procurement production goals in a way to successfully carry out the demolition program financed by the general fund surplus dollars and blight bond dollars, if approved by City Council/voters. Is this an accurate assessment?

Your overview is correct, but we also believe the bond sale is critical to remove residential blight in five years and get to the neighborhoods that were left out by HHF. As shown in the presentation, demolishing blighted houses has a significant impact on increasing housing values, reducing fires and reducing crime.

2. The Office of the Chief Financial Officer (OCFO) and bond counsel, Miller Canfield, has previously indicated the City has general powers to conduct blight removal, including demolition, under the state's blight remediation statute, PA 344 of 1945. Please cite the specific language under this PA 344 that gives the City general powers to conduct blight removal, including demolition.

As discussed at our meeting with LPD last week, PA 344 contains authorization to conduct demolition. PA 344 sets forth a finding that it is necessary to "rehabilitate . . . blighted areas" (MCL 125.71) and provides that "demolition of buildings" falls within the definition of

CITY OF DETROIT
Office of the Chief Financial Officer

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

the "cost of any project" under the financing provisions of PA 344 (MCL 125.77b). However, during our meeting, LPD observed that reliance on PA 344 as the foundation for the City's blight remediation and demolition program may create an implication that the PA 344's extensive procedures (unrelated to bonds) could apply to the program. In light of that observation, we found that the clear demolition authority under the dangerous buildings provisions of the Housing Law and under the City's judicially recognized police powers provide a more appropriate foundation for the City's decades-long blight removal and demolition program.

3. The OCFO's bond counsel on the blight bonds, Miller Canfield, has provided a privileged legal opinion regarding the City's authority to issue bonds and spend proceeds on demolition. Why isn't PA 344 of 1945 referenced in the Miller Canfield legal opinion? LPD may request that City Council have a closed session to discuss this legal opinion.

The answer to question 2 addresses this.

4. The OCFO provided four bond sizing scenarios on the proposed blight bonds. Is the OCFO basing the not to exceed $250 M in the blight bond resolution on scenario 2?

That is correct.

5. How much of the $250 M blight bonds would be spent on bond issuance cost?

Bond issuance costs typically run approximately 2% on a large bond issue. These costs encompass the underwriters, rating agencies, legal and financial advisors fees. These fees are all contingent on the bond sale closing and are paid out of bond proceeds.

6. On the bond sizing scenarios, the projected property tax collections grow about 1% every year then grows to a little above 2% starting in 2026. What's the basis for the 2% growth starting in 2026?

The primary driver throughout the revenue forecast is inflation, specifically forecasted US CPI growth of a little above 2% (based on forecasts from the Congressional Budget Office). Under Proposal A, taxable value can only grow by US CPI growth until a property sale occurs. Through FY 2025, the inflationary growth is partially offset by two factors: (1) the phase out of industrial personal property from the tax base per State law and (2) the gradual roll off of monthly delinquent property tax payment plans as their payment terms conclude. Once those two factors end in FY 2026, the growth trend is solely the inflation forecast of a little above 2%. These growth forecasts are consistent with the revenue conference for the four-year plan and the ten-year financial forecast.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

7. On the bond sizing scenarios, please explain how the "projected draw from trustee account" is a source to help meet aggregate unlimited tax general obligation debt service. Please also explain the huge spike in FY 2021.

The debt millage is assessed on all properties in the City and can only be used to pay debt service on voter authorized bonds. Once collected, the debt millage is deposited into a trustee account that has an accumulated balance that we plan to draw down to supplement debt service payments in FY 2020 - FY 2025. The spike in FY 2021 is planned to accommodate the new debt service beginning in FY2021, before the scheduled existing debt service decreases beginning in FY 2022.

8. Please explain how the City would have $40 M more in bond capacity by issuing the blight bonds based on a 75% tax exempt/25% taxable split.

Since tax exempt bonds have a lower interest rate, using them creates more bond capacity as total debt service costs are lower because of that lower interest rate.

9. It's understandable why the OCFO desires to issue a majority of the blight bonds as tax exempt bonds to take of advantage of lower interest rates than the higher interest rates associated with taxable bonds. However, it is extremely important that any tax exempt blight bonds be used for a public purpose. If at any time the use of blight bond proceeds are deemed used for a private purpose, the bonds could lose its tax exempt status, and the City could be subject to paying higher interest rates as if the blight bonds were issued on a taxable basis. Miller Canfield has provided a memorandum on tax exemption for 2020 blight bonds. It is extremely important that this memorandum, or one similar but perhaps in a simpler fashion, can be shared with the public, since the use of tax exempt blight bonds is such an extremely important component of the proposed blight remediation program that would be supported by the blight bonds. If Miller Canfield's memorandum on tax exemption for 2020 blight bonds is considered privileged, LPD suggests that City Council have a closed session on this privileged document to discuss it.

A summary of the tax rules related to private use, with which the City will need to comply, is attached to this document. And we note that bond counsel's unqualified approving opinion delivered in connection with the portion of the bonds to be issued on a tax-exempt basis will include an opinion that such bonds are indeed tax-exempt.

10. Would the 25% taxable bond portion of the blight bonds used for rehab program?

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

Yes, we project that a portion of the 25% of the taxable portion will be used for housing renovation.

11. According to IRS rules, 85% of tax exempt bond proceeds must be spent within three years of issuance to maintain tax exempt status. However, the demolition initiative would occur over five years. Would the blight bonds be sold in a several series to better comply with the 85% expenditure IRS rule?

That is our plan. All four scenarios we showed you anticipate one series being issued in FY 2020 and a second series in FY 2022. Under this plan , we expect to meet the IRS spending requirements.

12. Please explain the City's plan to monitor the use of the blight bonds to ensure the tax exempt status of the blight bonds would not be violated during the term of the bonds. The link https://www.gfoa.org/developing-and-implementing-procedures-post-issuance-tax-compliance-issuers-governmental-bonds provides information on post-issuance tax compliance for issuers of governmental bonds. As this information indicates, the City would need a sophisticated system to monitor 1) arbitrage and rebate and 2) use of bond proceeds and of bond-financed facilities associated with the tax exempt blight bonds.

The OCFO understands the importance of post-issuance compliance – including the requirement to conduct rebate calculations no later than five years after the bond issuance date as outlined in the Non-Arbitrage and Tax Compliance Certificate executed by the City in conjunction with the issuance of tax-exempt bonds. The Debt Management Branch is responsible for meeting this requirement and is currently looking at best practices of other local governments as we formalize our process for conducting arbitrage and rebate analyses.

To monitor the use of the 2018 UTGO bonds, the OCFO set up a Capital Team comprised of team members from Treasury, Office of Budget, Office of Departmental Financial Services (ODFS), and the Office of Contracting and Procurement (OCP). The Office of Budget (OB) establishes the account segments to be used for each project. The scope of work (SOW)/description of goods and services for anything to be paid with tax-exempt bonds must first be submitted to Treasury (Debt Management) for an initial confirmation that it is an eligible use of tax-exempt bond proceeds. From that point, OCP reviews and approves the SOW and works with ODFS regarding preparation of the requisition, after which OCP continues the procurement process. Post-procurement, OB monitors project activity. For the proposed demolition bonds, we plan to use a similar process to ensure rigorous oversight of the use of these funds.

In addition, we will work with the Land Bank's Salesforce system to track which demolitions were completed using bond funds. This system will be used for reporting on the long-term use of those improved properties.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

13. If the blight bonds are approved by City Council and the public, LPD suggests the OCFO provide an annual report to City Council throughout the life of the blight bonds to provide information that the tax exempt status of the blight bonds is being maintained.

As part of the annual independent audit, the OCFO through the Debt Management Branch is required to provide information about its debt covenants and to confirm that it has met its debt covenants. Furthermore, the Debt Management Branch must disclose if any material event notices were provided to the Municipal Securities Rulemaking Board (MSRB) through EMMA, including information on material event #6 "adverse tax opinions or events affecting the tax-exempt status of the bonds," as required under the Continuing Disclosure Undertakings executed by the City in conjunction with the bond issue.

14. Is there a certain time period the City would have to hold unto the blight bonds before they can be refinanced to take advantage of lower interest rates?

While interest rates are at historic lows, we always consider the possibility that rates could decrease in the future. Once a bond underwriter is selected through an RFP process, we plan to negotiate a call feature structure, in consultation with the City's financial advisor, to provide for the possibility of a refinancing of the bonds in the future.

15. Typically the City issues unlimited tax general obligation bonds for capital projects. Using these type of bonds for blight remediation is atypical. LPD is unaware of any municipality using unlimited tax general obligation bonds solely for blight remediation, including demolition, in the State of Michigan. What reactions has the OCFO received thus far from rating agencies on the use of unlimited tax general obligation bonds on blight remediation, including demolition?

We have had preliminary discussions with both rating agencies used by the City and they recognize the nuanced approach of using UTGO bonds to address what has been a significant long term issue for the City.

16. Does the OCFO has any indication that there is a healthy appetite in the municipal bond market for unlimited tax general obligation bonds being solely used for blight remediation, including demolition?

The current bond market has a healthy appetite for all types of municipal bonds. Part of the role of the selected bond underwriter will be to create a marketing plan for the City's planned bond structure.

17. Would the blight bonds be issued under the City's own credit?

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

Yes.

18. The OCFO anticipates an acceleration of $30 M of the FY 2021 blight appropriation, following completion of the 2019 CAFR, to help fund demolitions through June 30, 2020. If this is approved by Council, this could considerably lower the amount of general fund surplus dollars for demolition for FY 2021. How would the OCFO fill this void financially to maintain the anticipated level of demolitions in FY 2021?

The acceleration of the FY2021 blight appropriation allows us to procure demolitions that will happen over the following year. If we wait until the funding is appropriated in July, we will have missed half of the season. Starting in July of 2020, we anticipate having bond funds to continue the current pace of the program. It is important to continue the program consistency that we have built over the last 5 years to keep annual production consistent.

19. As of August 23, 2019, there were 1,152 remaining HHF demolitions left to knock. Approximately how much in HHF dollars are available to perform the remaining 1,152 HHF demolitions?

Currently, the HHF program has $51.9 million remaining. Staff anticipate this will be sufficient to fund the 1,587 demolished properties awaiting invoices and the 879 homes awaiting demolition. (These numbers are different than those reported in August because of the demolition of properties awaiting demolition and payment of invoices in the intervening period.)

20. Of the 27,200 remaining abandoned houses as of today to be addressed over the next five years, 3,000 should be demolished over the next 9 months with remaining HHF funding. How much in remaining HHF funding does this represent?

To clarify, about 1,000 of these houses will be paid for with HHF and the other almost 2,000 are City funded. See answer 19.

21. To help ensure local Detroit based companies do the demolition, the Administration looks to set a maximum of 7 crews for large companies. How many workers are typically in a crew?

Typically there are 3 workers per crew. 1 operator, 2 laborers.

22. The Administration also looks to reduce bonding requirements to 25% and solely require E-Bonds to help ensure local Detroit based companies do the demolition. Please explain how E-Bonds help in this effort.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

E-Bonds will allow for faster transaction time in the procurement process.

23. The City's Debt Policy speaks to debt affordability, which is currently: 1) overall debt as a % of assessed valuation (total debt should be about 1.5% of full market value); 2) debt service as a % of the general fund (required annual debt service expenditures should be at about 10-15% of the City's general fund); 3) overall debt per capita (real debt per capita should not rise significantly); 4) ten-year payout ratio (a faster payout is considered a positive credit attribute); and 5) per capital to per capita income (total debt outstanding and annual amounts proposed should not cause the ratio of per capita to per capita income to rise significantly above approximately 5%)? How would the proposed blight bond sale impact these ratios? Are there any long-term projections available on the impact of the ratios given that the City looks to issue up to $450 M in additional unlimited tax general obligation bonds over the next ten years?

Please note that a typographical error in the City's Debt Policy was corrected in October 2018. Specifically, overall debt as a % of assessed value should be about 15%, not 1.5%.

Attached are two versions of the City's debt metrics. The first considers the City's debt as of 7-31-19. The second considers the City's debt metrics as of June 30, 2020, and assumes that the City issued the first series of Blight Bonds in the amount of $175 million and the second series of the Capital Bonds approved in 2018 in the amount of $52.245 million. This is consistent with what is described in Scenario 1 (Base Case).

24. How would the blight bonds impact the City's legal debt margin?

At June 30, 2019, the City's general purpose debt margin is calculated to be $1.028 billion. A general obligation bond issue of approximately $225 million would decrease the City's general purpose debt margin to approximately $804 million.

Of course, if and when the blight bonds are issued, the legal debt margin will be calculated again to include current information, such as general purpose debt outstanding (as reduced by any principal payments made since June 30), 2019 SEV information, etc.

Additional questions regarding the blight bond resolution

25. The first whereas indicates where Council deems it necessary to secure additional resources to continue to pay for blight remediation, which would include demolition. For transparency purposes in the blight bond resolution, LPD feels there should be a whereas inserted under the first whereas, or language be added to the

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

first whereas, indicating that "it has been determined that Public Act 344 of 1945, section__, authorizes the City of Detroit to use unlimited tax general obligation bond proceeds for the purpose of paying the cost of the "Project"." If now Miller Canfield, bond counsel, feels another public act is better suited for this new whereas, then it should reference the more appropriate public act.

Given that PA 344 is not the sole or even primary authority for the City's blight program, as described in the answer to question 2, this revision to the resolution would be inapplicable.

26. Also for transparency purposes, LDP feels the current fourth whereas should be amended to say "...shall be issued pursuant to the City Charter, Act 279, Public Acts of Michigan, 1909, as amended ("Act 279") and Act 34, Public Acts of Michigan, 2001, as amended ("Act 34"), and pursuant to this Resolution for the purpose of paying all or part of the costs of the Project."

This suggested revision will be made in the resolution.

27. Regarding Exhibit A, Bond Proposal language, LPD has the following questions/requests:

a. **Please explain how the estimated millage to be levied in 2020 for the proposed blight bonds is 2.986 mills ($2,986 per $1,000 of taxable value) was derived.**

Response to questions 27a and 27b: The estimated millage to be levied in 2020 and the estimated simple average annual millage rate to retire the proposed bonds was calculated by the City's financial advisor PRAG (Public Resource Advisory Group) based on the assumptions from scenario 1 (i.e., the issuance of $225 million in blight bonds over two series - the first series in FY20 in the amount of $175 million and the second series in FY22 in the amount of $50 million). They began with the City's millage model and, using the estimated annual debt service for the proposed blight bonds (effectively the annual amount of revenue needed to be generated) and after making certain adjustments for different tax classifications and assumed collection rates, determined the required millage rates to generate the needed revenue.

b. Please explain how the estimated simple average annual millage rate required to retire the proposed bonds is 2.553 mills ($2,553 per $1,000 of taxable value) was derived.

See 27a.

CITY OF DETROIT
Office of the Chief Financial Officer

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

c. Not to be added to the ballot language, but please provide the estimated simple average annual millage of the current outstanding unlimited tax general obligation bonds and for the proposed unlimited tax general obligation bonds for future capital projects to show that with the average annual millage for the proposed blight bonds is added, the total average debt millage is around 9 mills over the life of these bonds. This would help explain the sentence "The total debt millage required to retire this proposed bond issue and all voted bonds of the City is estimated to remain at or below the debt millage levied by the City in 2019". Perhaps this sentence in the ballot language should be amended to say "...to remain at or below the debt millage of 9 mills levied by the City in 2019".

Scenarios 1 - 4 that were previously provided to you show the calculation of the actual and projected property tax collections using 9 mills.

d. If available, please provide the debt service schedules over the next 30 years on the outstanding unlimited tax general obligation bonds, the proposed blight bonds, and those modeled for the future bonds for capital improvement projects.

Debt service schedules on each of the City's outstanding UTGO bonds are provided in the OCFO's Quarterly Financial Reports in the appendix entitled "Debt Details." A UTGO Debt Service Requirements Summary is also provided in this appendix. The attached document entitled "Agg DS for 75% scenario" shows debt service by fiscal year for the existing UTGO debt as well as the proposed borrowings - including the proposed future capital borrowings over the next ten years that have not yet been approved by Council nor the voters.

e. The last sentence has the phrase "in not more" twice in the ballot language and one should be taken out.

Acknowledged. This correction will be made.

f. LPD understands the blight bond ballot question is proposed to be on the March 2020 presidential primary ballot. Traditionally, there is a low turnout during the March presidential primary elections. Shouldn't the blight bond ballot question be placed on the November 2020 general presidential election where the turnout will likely be much greater? LPD feels this November 2020 general presidential election would reflect more the will of the citizens of Detroit than the potentially small number of people who vote in the March election.

Waiting for the November election would unnecessarily delay demolitions. With a March election and acceleration of the FY21 blight appropriation, the City will be able to continue demolitions at the same pace without a slow down.

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

g. The City's FY 2020-2023 four year financial plan shows on B71-8 a $3.45 M budget for Primary Election and General Election in FY 2021. Would this budget accommodate any increased cost from putting the blight bond ballot language on the ballot, especially if put on the March 2020 presidential primary ballot? Does the State of Michigan contribute resources to the City for the March 2020 presidential primary election? - Steve/Tanya

The adopted four-year financial plan includes funding (in the appropriation you referenced) to conduct two elections per year. For FY 2020, this includes the March 2020 Presidential Primary.

Per Section 624g of Public Act 116 of 1954 (the "Michigan Election Law"), the State is required to reimburse the City for the cost of conducting the presidential primary election, subject to a verified account of actual costs. Reimbursable costs exclude any additional costs attributable to local special elections held in conjunction with the presidential primary. Documenting such excluded costs will be subject to the review completed by the Department of Elections but would be limited to items like third ballots for the local proposal. We do believe the additional costs will be negligible.

28. LPD appreciates the OCFO's willingness to take out any language from the bond resolution that gives the City the ability to sell the blight bonds with variable interest rates. We understand the CFO is adamant to issue the blight bonds with just fixed rates, if approved by City Council/voters.

The resolution will be resubmitted without the variable interest rate as we discussed.

Additional questions from the Road to 2025 Eliminating Residential Blight in Detroit presentation

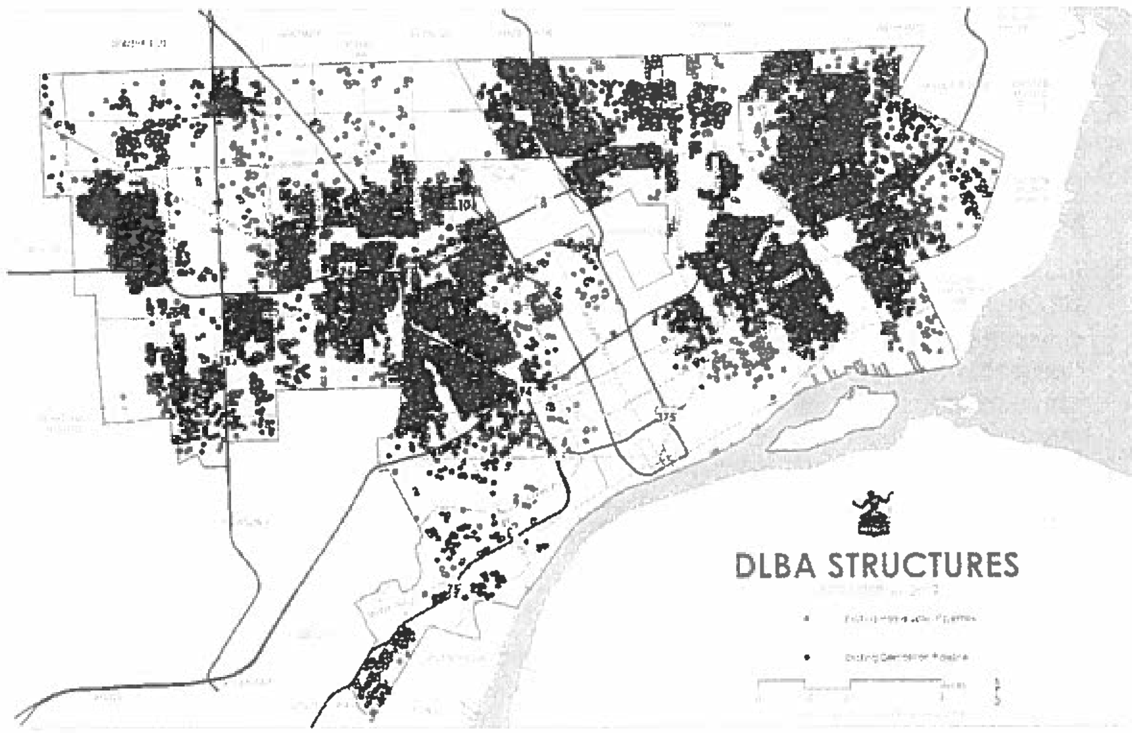
29. The OCFO indicated 23,000 houses remaining on July 1, 2020: 16,000 houses to be demolished and 7,000 houses to be sold/rehabbed. If available, please provide a map showing where these properties are located throughout the City of Detroit.

The figures reported in the presentation are estimates. As such, the City and DLBA do not have an address-level list of every property slated to be demolished or sold during this period, since the estimates account for changes in the market and in the condition of individual properties. The map below depicts how inspections and staff analysis have reviewed each vacant home in the land bank's inventory to date, though staff anticipate many sales candidates shifting to demolition or demolition candidates shifting to sale over time, however.

CITY OF DETROIT
Office of the Chief Financial Officer

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov



30. Would all the proceeds from the property sales under the demolition initiative go to the City's general fund?

No, with limited exceptions, the proceeds from sales of Detroit Land Bank Authority (DLBA) owned property are retained by the DLBA to support its ongoing activities. Sale of commercial property owned by the City would go to the General Fund.

31. The FY 2020 budget contains $77.6 M for blight remediation ($73 M is from general fund surplus dollars): $13 M for land bank operations (Non-Dept'l); $10 M for blight reinvestment (Non-Dept'l); $30 M for HRD residential demolition (HRD); $10.7 M for HRD commercial demolition (HRD); $10 M for HRD emergency demolition (HRD); and $3.9 M for blight remediation-board up program (GSD). The Administration anticipates spending all of these dollars on demolition under these various categories? Could some of these dollars be used to eliminate or reduce the need to advance FY 2021 residential blight appropriation of $30 M to FY 2020?

Current projections show all existing appropriations being contracted for this fiscal year, and thus, they will be unavailable for this winter's procurement.

CITY OF DETROIT
Office of the Chief Financial Officer

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

32. How would moving from packages of ~26 structures to ~90 structures help Detroit Based Businesses(DBBs)/smaller DBBs receive more demolition work?

Larger demolition packages and longer timelines allow smaller contractors to secure enough work to keep qualified personnel on staff through an entire construction season. The larger packages provide a more stable base of business upon which smaller contractors can grow.

33. How will moving demolition time table from 120 days to 270 days help the demolition process? Who monitor this to ensure the longer timeframe is working?
Larger demolition packages and longer timelines allow contractors to spread work over an entire construction season. Smaller packages which are released at regular intervals on shorter production timelines only increase the administrative workload for City staff and fails to consider the seasonal nature of the industry. The new timelines give the contractors the best flexibility to schedule work as efficiently as possible over the course of an entire construction season. The DBA and BSEED will continue to monitor the demolition contractors in the field.

34. Does the Administration have any evidence that fewer releases (disrupting regular releases of demolition packages in exchange for a large release) will incentivize lower pricing?

This procurement method should maximize competition among all of the pre-qualified demolition contractors. Furthermore, the restrictions associated with federal funds limited which properties could be bundled together (i.e. DLBA-owned vs. privately-owned). With the program shifting to City funds, the program can target all of the eligible properties on the same block regardless of ownership or other restrictions. So, the structures are clustered closely together to the greatest extent possible which should also incentivise lower pricing.

<u>Other general additional questions</u>

35. What is the Administration's plan to grow the City of Detroit after the 27,200 properties are demolished or rehabbed, if City Council/voters approve the blight bonds? What is the Administration's holistic plan to redevelop neighborhoods after the residential/commercial/industrial properties are demolished by FY 2025?

The City grows when we deliver better opportunities (residential, small business, industrial): current Detroiters stay and new Detroiters join them.

The City will be continuing its use of the neighborhood planning process to drive positive change in neighborhoods. In primarily residential areas we will use neighborhood plans. We

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

will use framework plans for areas of more mixed commercial industrial. Our current neighborhood planning process is how we attracted resources for SNF.

We plan to use the same formula in the neighborhoods that are affected by demolition. With the Russell Woods and the new Gratiot 7 Mile plans, the City is expanding the planning areas to include areas that will be affected by the removal of vacant and abandoned houses. This way the neighbors will be able to identify interim and long-term plans for land in their neighborhood.

36. Please briefly describe the planning process that would accompany the growth/redevelopment strategies that would coincide with the demolition initiatives.

Please note the answer to item 35 which outlines our approach. More specifically in the areas most affected by demolition of vacant and abandoned structures, the City will be investigating four primary areas:

1/ history of the neighborhood;

2/ tactical historic preservation opportunities:

3/ housing rehabilitation opportunities for vacant properties;

4/ interim and medium-term open space strategies.

These pillars will help the city and neighbors plan for redevelopment while also creating amenities, fighting illegal dumping and making the neighborhood more attractive.

37. Does the Administration look to implement City growth/redevelopment strategies simultaneously with demolition or as soon as possible after demolition?

The demolition process offers the city the opportunity to begin planning now for the positive impacts of demolition on affected neighborhoods. We would envision continuing our planning process but expanding planning area boundaries to include areas where demolition will have the most impact. The Gratiot 7 mile plan is an example: not only does it include SNF neighborhoods Regent Park and Mohican- Regent, it has been expanded to includes Mapleridge, where many demolitions will take place.

38. What has the City learned from the redevelopment of the 10 strategic neighborhoods throughout the City of Detroit that could duplicated in residential

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

neighborhoods that will have more contiguous vacant land available from the result of the demolition initiative?

We have learned that demolition must proceed the ability of a neighborhood to fully benefit from the impact of the five pillars of SNF: 1/ neighborhood planning.2/ commercial Corridor investment; 3/catalytic Park development;4/ streetscape improvement; and 5/single-family stabilization. Each of the 10 neighborhoods were near the center of each HHF target area which is why they are poised for investment today.

39. With the creation of more contiguous vacant land as a result of the demolition initiative, does the Administration envision the creation of more industrial parks throughout the City?

The creation of more contiguous vacant land in residential neighborhoods does not necessarily make it more feasible for industrial development. Our planning work will start with and be focused on neighbors. While there may be some additional land used for industrial allowed by these plans, it will emerge from the same process our current neighborhood plans use. This process includes four large public community meetings and a range of smaller ones leading up to a final report prepared by the City and national experts based on community input.

40. What buffers are in place (Master Plan, zoning, City Council, City Planning Commission, etc.) to prevent the over saturation of commercial and industrial economic development occurring in the City as a result of the creation of more contiguous vacant land from the demolition initiative?

In each of our neighborhood plans, the city is working with LPD and CPC to, where applicable, update zoning to encourage the outcomes of the plans, such as "mixed tape" zoning which encourages the kind of streetscapes and small business development we have been seeking on commercial corridors. In neighborhoods where there is a lot of demolition, and which are also close to industrial areas, the City will make sure the recommendations of the neighborhood plan will include zoning put in place to carry out the plan.

41. What is the Administration's plan to incentivize residents to purchase the rehabbed homes?

The DLBA currently has incentives specifically for different groups of people such as teachers in Detroit public schools. The cost associated with rehabilitating vacant houses requires that the city have access to a full market of buyers for those properties. That being said, as planning process goes forward and the City and DLBA work to perfect its rehabilitation programs like Rehabbed & Ready and Bridging Neighborhoods; further incentives will be evaluated.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

42. How will the budget handle the maintenance of the increased level of vacant land created by the demolition initiative?

We anticipate there will be some increased costs (such as mowing) and some reduced costs (reduction in fire load, reduction in costs of cleaning out DLBA back yards, reduction in crime). We will work with City Council to prioritize these costs and identify any savings through the annual budget process.

43. According to the Administration, the average cost of demolition for a residential property is $22,000. Is there a way to reduce this average cost?

Larger packages, longer timelines, clustered properties, and increased competition from new vendors should incentivize lower costs. Furthermore, the City is investigating other avenues to reduce costs in the program, and we hope to introduce some new cost control measures in the coming months.

44. What has been the average cost of residential property demolition in the HHF areas?

As of 9/27/19, the average cost of a residential demolition contract has been $20,547.78 over the past 12 months.

45. Is it possible to revisit using the Pulte Blight Authority to do demolition for the City of Detroit under the demolition initiative since it appears the Pulte Blight Authority has demolished houses at an average rate of $12,000 per house in Pontiac, Michigan, according to a November 2, 2018 CRAIN's article entitled "Remaining blighted homes in Pontiac expected to be razed by December 2019".

They, like all bidders, are welcome to bid.

46. During his March FY 2020 budget presentation to Council, Mayor Duggan indicated the City in FY 2019 is transitioning from a demolition effort controlled by the Detroit Land Bank Authority to a city-administered program. For the demolition initiative that would be supported by the blight bonds, if approved by City Council/voters:

Office of the Chief Financial Officer
City of DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

a. What system of controls, public policy changes, etc. have been or will be put in place to prevent programmatic problems associated with the demolition program as reported in the past?

- Demo checklists completed by Field Liaisons
- Abatement reporting and monitoring
- Biweekly meetings with DEQ and representatives from the state
- Open hole and Final Grade checklists completed by BSEED
- BSEED monitoring backfill activities
- Improved tracking of backfill materials through the soil platform
- Increased transparency through the use of Salesforce and Open Data
- Improved OCP procedures
- Milestone reporting on progress

b. Who would be in charge as the overseer of the demolition initiative?

Bethany Melitz, Chief Administrative Officer

c. Which City departments would be involved to implement the demolition initiative?

OCP, BSEED, HRD, ODFS, OCFO

d. How many City FTEs would be needed to implement the demolition initiative?

Thirteen (13) City FTEs will work directly on the demolition initiative.

e. Would just City workers implement the demolition initiative, or would outside contractors be also used to implement the demolition initiative?

Outside vendors are used for the demolition, abatement, environmental testing, surveys and soil management. Oversight of the program is provided by DBA and City personnel.

f. Would the DBA (Detroit Building Authority) still be involved in the demolition?
Yes.

44. Over the last 3 years, what's been the level of foreclosed homes that have been added to the inventory of houses needing demolition? Is this number coming down? Is it unrealistic to assume this number to go to zero by FY 2025?

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

Of the vacant homes transferred to the Detroit Land Bank Authority following the 2016, 2017, and 2018 tax foreclosure auctions, 55% of properties have been demolished or are currently slated for demolition. While this ratio has been relatively consistent over this period, the overall number of homes transferred has decreased precipitously, from more than 8,000 to less than 1,000 during this period. Through expanded foreclosure prevention efforts and improvements in the local economy, staff anticipate this number to continue to decrease over time, but do not anticipate this figure to hit 0 during this period.

45. When does the Administration anticipate when the Detroit Land Bank Authority will fully pay back the City any advance money under the $20 M demolition revolving advance loan between the City and the DLBA? How much does the DLBA currently owe the City under the revolving loan program?

The DLBA will repay the outstanding balance due on the demolition revolving advance loan within 45 days of the last reimbursement payment from MSHDA. The current outstanding balance is $10M.

46. Please provide a response to the concerns raised by Detroit Free Press editorial "Mayor Duggan, your $250M plan to end blight isn't going to work", authored by Nancy Kaffer.

First, it is important to recognize that Nancy Kaffer's column agrees with the value of blight elimination to reduce crime and fires. The Mayor has proposed eliminating blighted vacant homes, which we believe is possible through the bond issue and a proactive sales and rehab strategy. The column points out that the City will likely still have blighted residential structures that people live in. We don't disagree with this point. The City will still need to continue with programs like the rental ordinance (which holds landlords accountable to their renters), 0% loans and grants for home repair to help people keep up their homes, and blight tickets.

We agree that the City's investment in foreclosure prevention is critical to our future, and we need to continue to push out the City's programs aimed to help residents stay in their homes. Since 2015, occupied foreclosures have decreased by 94% in part due to the work of the City and philanthropies have done to help people stay in their homes. Under the Mayor's leadership, the City ended the Emergency Manager's practice of placing water bills in the property tax foreclosure system. In partnership with UCHC, we organized volunteers from neighborhoods to knock on doors to offer help to those facing foreclosure. And we led the effort to pass House Bill 5882 that allowed delinquent taxpayers to enter into payment plans to avoid foreclosures; 15,000 signed up first year alone.

In addition to knocking on doors and pushing for legislation to help homeowners, the City has made significant investments in helping people stay in their homes. Today, we are investing $1.8 million a year in providing homeowners who qualify a 100% property tax exemption, 50% exemption and the disabled veteran exemption; if we can continue signing up all homeowners we believe qualify, the City could invest almost $12 million a year in this program. Since Fiscal Year 2014-2015, City programs have invested over $38 million in single family home repair through General Fund, federal lead home repair and CDBG funds,

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

and private philanthropic and loan contributions. This funding supports the Senior Emergency Home Repair, Lead Hazard Reduction, and 0% Interest Home Repair Loan programs managed by the Housing and Revitalization Department. Last year, the City and philanthropies allocated $2.3 million to Make it Home, an initiative started in 2017 that helps occupants stay in their tax-foreclosed homes. Our work is not necessarily in the lack of funding (for example, the HPTAP is not limited by appropriation), but to continue outreach to homeowners to help them take advantage of the poverty tax exemption and Make it Home. An investment in foreclosure prevention does not have to be at the expense of leaving our neighborhoods with blighted houses. Finally, there will be more announcements on foreclosure assistance as we move through the year.

47. Currently, in the City's demolition program, what are both the average and median price for demolition? In the responses LPD's initial questions, it is laid out that $150 M in GF surplus can demolish 6200 residences, or 24,200 per residence; 9200 can be demolished with $195M from bond sale which is 21,200 per residence.

To date, the average cost of a residential demolition contract is $17,172.00, and the median cost is $14,700.00. I believe you are referring to an early draft response; for the purpose of budgeting for this bond issue, we are using an average of $20,000 for each demolition and rehab with a contingency to address houses that are more expensive to demolish.

48. In 2000, Philadelphia began a $300 M bond sale Neighborhood Transformation Initiative (NTI). Nearly half of NTI's budget was spent on demolitions, though the city only tore down half of the 14,000 buildings it planned to remove. The rest went to housing and neighborhood preservation as well as gathering small lots into large parcels attractive to developers. Are there lessons that have come out of Philadelphia's project for us to learn from? Here's a link to an article on the Philadelphia demo plan: https://whyy.org/articles/15-years-later-appraising-300-million-effort-to-transform-philly-neighborhoods/

The city is familiar with the story of Philadelphia and has observed it closely. The primary takeaway is to make sure that there are proper expectations established. Detroit's plan is focused on repeating the things that were successful over the past five years, while creating an opportunity to expand successful rehabilitation programs. The proposals in our plans are for the most part a continuation with better business practices of what has been successful in demolition over the last six years. Where flexibility is built-in for enhanced rehabilitation programs, it is based on past experience of those programs. One difference between our efforts is our focus on planning in neighborhoods to drive the reuse which was not observably a priority in the Philadelphia blight plan.

49. Baltimore is 3 years into a state endorsed program $94 M/4,000 property demolition program (Project C.O.R.E), which was/is combined with $600 M in state subsidies to promote redevelopment. Have either of the Philadelphia and Baltimore projects' outcomes been examined or deemed useful as models for Detroit?

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

We expect our plan to leverage significant market, other public and philanthropic dollars. We have shown the capacity to do this at a large scale through the Strategic Neighborhood Fund program. But the items that are purchased with the leveraged dollars need to be identified through planning processes with neighborhoods; and in mixed-use areas with developers, neighbors and other land users.

50. In the Detroit proposal, with $30 M of the bond funds proposed for the subsidized rehab of up to 2,000 homes, that is only $15,000 for a previously vacant house – doesn't that seem insufficient compared with the number of houses in the bank that are severely marginalized, thereby making it difficult for a prospective owner to get financing for the rehab?

Although this is meant to be an average, if we use a model similar to DLBA's rehabbed and ready program, $15-$20,000 should be adequate. To a great degree, this has do with the strength of the residential neighborhoods where the rehabilitations are undertaken. For example in a neighborhood where you can sell a house for $100,000 but we have cost $120,000 this model would work. That is the basic model of rehabbed and ready that has been implemented in Bagley and is now at work in neighborhoods like the Villages and Livernois-McNichols among others. We anticipate there will be opportunities to deploy this model effectively in neighborhoods where demolition has taken place, in the city blocks between SNF neighborhoods and areas of concentrated demolition,

51. Has anyone done an analysis of the existing housing stock to ascertain how much of it is not solid, but hovering on the brink of either becoming a vacant unusable property or how many are on the final chance for a payment plan and are probably going to go into foreclosure.

First, the Land Bank has done such an analysis as part of preparing property for its auction pipeline and its own it now program. After acquiring a property, the land bank completes a thorough interior and exterior inspection to determine the physical condition of the home and the likelihood of rehabilitation. The land bank also orders re-inspections on a periodic basis in response to resident inquiries or fires. Separately OCFO, HRD, DoN and the County have been working closely to understand tax delinquency that exist and understand the risk posed by these delinquencies. Based on this work, we will have more policy announcements related to foreclosure assistance as we move through the year.

52. Just because a vacant house is boarded up in accordance with the current rules and ordinance, does not mean that it isn't a blight on the neighborhood that it is in and a detriment to the remaining houses value. What steps are being made or have been made to shorten the time that a house remains in that awful but allowable condition?

Demolition and the resulting changes in the marketplace are the fastest way for us to get those properties into private hands. We have seen a dramatic increase in value in areas where demolition have taken place. Those kind of value changes can positively impact the uptake and improvement of those vacant boarded properties.

Additionally, the more comprehensive approach contemplated in this proposal calls for the expansion of tools that can more quickly return properties to productive reuse, such as the

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

Land Bank's nuisance abatement program, coordinated code enforcement, and the city's accelerated forfeiture partnership with the County Treasurer's office.

53. Please provide projections as how over the next five years the general fund grass cutting will grow as a result of the demolition initiative? What is the current number of lots that are being cut? And the price? How many lots from these demos are you forecasting will come on the cutting schedule each season?

We anticipate there will be some increased costs (such as mowing) and some reduced costs (reduction in fire load, reduction in costs of cleaning out DLBA back yards and board ups, reduction in crime). We will work with City Council to prioritize these costs and identify any savings through the annual budget process.

A hedge against this increase in grass cutting is a landscape strategy in neighborhood plans. For example, boulders or trees or other strategies to decrease grass cutting costs. It is one of the reasons that the landscape strategy element of the expanded neighborhood plans will be important not only as a beautification effort but also as a cost-saving measure.

The implementation of these landscape decisions will affect the five year plan for grass cutting. For your background, the City currently cuts 132,176 lots totaling approximately 422,963,200 square feet. The average lot size is 3,200 square feet. The average price to cut is $0.004 per square foot, which equals $12.64 per lot.

54. What other expenses will be added to the general fund in maintaining after the demo work is complete that we should be preparing for in the forecasts?

Same answer as 42. We anticipate there will be some increased costs (such as mowing) and some reduced costs (reduction in fire load, reduction in costs of cleaning out DLBA back yards, reduction in crime). We will work with City Council to prioritize these costs and identify any savings through the annual budget process.

55. In the last 5 years, how many houses are coming into the land bank annually and how many are sold each year?

Since the beginning of 2014, the land bank has taken ownership of 47,714 residential structures. To date, the land bank has also sold and closed on 7,585 homes. This period has also seen dramatic shifts in the rates of these transactions, however. Since 2014, the acquisition rate has decreased more than 95%, from 20,639 in 2014 to 247 so far this year. At the same time, the organization has increased home average home sale volume more than tenfold, from five each week in 2014 to more than 50 in 2019.

56. The Administration has forecasted that the number of properties needed to be demolished will be in the range of 100-200 per year after the demolition initiative ends after FY 2025 based on other major cities. Using $22,000 as the average demolition cost for a residential property, the City's budget would still have to include an allocation of $2.2 M to $4.4 M to accommodate the demolition of the 100-200 properties. Please provide the cities where the 100-200 properties per year become vacant and subject to demolition come from. Unfortunately, doesn't this seems a bit

Office of the
Chief Financial Officer
CITY OF
DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

optimistic for the City of Detroit given its high level of poverty and many of the housing stock being nearly 100 years old and have not been properly maintained? Isn't it a challenge to enforce housing codes to prevent blight? Isn't the number of owner occupied tax-delinquent homes in the City of Detroit a challenge? Is this number coming down?

While the resolution before City Council is a bond issue to demolish and rehab blighted structures, the City continues to engage in a more comprehensive approach to address blight. This includes a number of tools to help Detroiters stay in their homes and holding land-owners responsible to keeping up their properties. Through data and feedback from our community, the City will continue to improve programs such as the Land Bank's nuisance abatement program, coordinated code enforcement, implementation of the rental ordinance, and foreclosure assistance as we move through the year.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone. 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

MEMORANDUM

TO: Irvin Corley, Jr., Executive Policy Manager, Detroit City Council Legislative Policy Division

FROM: David Massaron, Chief Financial Officer, City of Detroit
Arthur Jemison, Group Executive for Planning, Housing and Development

DATE: October 7, 2019

RE: Responses Additional Questions on Blight Removal Bond

1. **Per Miller Canfield's tax-exemption overview memo, please calculate 5% of the present value of the debt service on the blight bonds to show what this threshold means dollar wise that will be included in LPD's report on the blight bonds for Council's edification. Please provide the assumptions you're using for this calculation.**

   Five percent of the present value of the debt service on the blight bonds is computed at the time the bonds are sold and the debt service is known. At this point, we are still over five months out from voter authorization, and presumably six months or more from sale of the bonds. Market conditions that will exist when the bonds are sold are entirely unknown as of today, and therefore no current calculation of projected debt service (for the purpose of determining the 5% threshold or any other purpose) would guide any analysis. That said, to provide an order of magnitude, the 5% threshold will likely be below $10 million.

2. **As an example, LPD would to see which website the Debt Management Branch uses to report on the disclosure requirements on the 2018 tax exempt g.o. bonds that would be used for the blight bonds, if passed. Is this the place where any material event #6 "adverse tax opinions or events affecting the tax-exempt status of the bonds" would be reported, if necessary?**

   As required by SEC Rule 15c2-12, when the City issues municipal securities, we enter into continuing disclosure agreements with the dealer (underwriter) to provide certain information to the Municipal Securities Rulemaking Board (MSRB) about the securities on an ongoing basis. These disclosures are made available to investors and the public on the MSRB's Electronic Municipal Market Access (EMMA®) website. This website is available at https://emma.msrb.org/. Annual financial disclosures, audited financial statements, and material event disclosures of the City are all filed on this website.

3. **Is the OCFO benchmarking the debt metrics with other similarly sized municipalities? Unfortunately, as of June 30, 2020, net direct debt is 155% of general fund revenues, which appears to be troubling.**

   To address this question, we considered how the rating agencies score several factors pertaining to debt and how the issuance of the proposed bonds would impact these

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

scores. We looked at our debt ratios as of 6-30-19 and compared them to a projection for 6-30-20. The 6-30-20 projection is based on Scenario 1 (Base Case Scenario).

We presented the following information (below) at the October 2, 2019, Budget, Finance and Audit committee. As you can see, a ratio of debt as a percent of general fund revenues of 185% (or 1.85X) received a scorecard sub-factor of A. This was a helpful way for us to determine that 1.85X is a reasonable ratio.

As background, these statistics were calculated according to the Moody's methodology which includes PLA, MTF and HUD debt in the calculation; the original methodology used for the OCFO debt statistics only included debt for which there is General Fund and debt millage pledge.

	As of June 30, 2019	As of June 30, 2020* (Post UTGO Issuance)	Impact of Proposed $227 Million Borrowing
Debt as % of General Fund Revenues	171% (1.7X)	185% (1.85X)	
Moody's scorecard for this sub-factor	A	A	No impact
Debt as % of Full Value	12.74%	10.55%	
Moody's scorecard for this sub-factor	Ba	Ba	No Impact

4. **For the bond resolution, please provide in the first whereas indicating that "it has been determined that the Michigan Housing Law, Act 167 of 1917, authorizes the City of Detroit to use unlimited tax general obligation bond proceeds for the purpose of paying the cost of the "Project"."**

   We don't believe this is necessary.

5. **It would be so super to send the word version of all responses to LPD (including OCFO's initial responses to LPD), President Jones and President Pro Tem Sheffield to make it easier to cut and paste applicable responses in LPD's report.**

   Done.

6. **Do you think it would be confusing to the voters to if you amended the ballot language to say "...to remain at or below the debt millage of 9 mills levied by the City in 2019"?**

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone. 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

State law sets forth requirements of a ballot question. The proposed questions was drafted to meet those requirements.

7. **If you agree with all the suggested changes to the bond reso and ballot language, please submit a revised bond reso asap.**

   We plan to do so this week.

8. **It's indicated that proceeds from sales of DLBA owned property are retained by the DLBA to support its ongoing activities. 7,000 sales over 5 years at $1000 per sale is $7 M. Rather than allowing the DLBA to potentially build a large fund balance, shouldn't the City of Detroit/DLBA agreement include a provision that after DLBA's fund balance reaches a certain threshold, like at a million dollars, any amount above that threshold would be remitted to the City's general fund?**

   The OCFO takes the DLBA revenue and fund balance into account when proposing the DLBA's annual appropriation.

Attachment II

Council President Brenda Jones`s Questions Regarding the Proposed Blight Elimination/Demolition Program, including the up to $250 Million in UTGO Blight Bonds

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

MEMORANDUM

TO: City Council President Brenda Jones

FROM: David Massaron, Chief Financial Officer, City of Detroit
Arthur Jemison, Group Executive for Planning, Housing and Development

DATE: September 27, 2019

RE: Responses to September 17 Memos on Blight Removal Bond

Please find this memo in response to your September 17 Amended Demolition Bond Terms Memo and your September 17 Additional Questions Memo. I believe we agree in principle with the spirit of many of the terms you have laid out in your Amended Demolition Bond Terms and Agreements.

While I agree that City Council should have the ability to review the program as spending decisions are made, I believe the contract process is the best way to provide City Council with that oversight. With the pilot procurement method we are planning for the winter, Council will see 2,000 or more demolitions at one time twice a year. This should provide Council with the opportunity to review the program every six months and approve the contracts as competitively procured. To comply with federal spend down requirements for tax exempt bonds, an escrow account would not work for bond funds.[1]

We agree that the City's investment in foreclosure prevention is critical to our future, and we need to continue to push out the City's programs aimed to help residents stay in their homes. Since 2015, occupied foreclosures have decreased by 94% in part due to the work of the City and philanthropies have done to help people stay in their homes. Under the Mayor's leadership, the City ended the Emergency Manager's practice of placing water bills in the property tax foreclosure system. In partnership with UCHC, we organized volunteers from neighborhoods to knock on doors to offer help to those facing foreclosure. And we led the effort to pass House Bill 5882 that allowed delinquent taxpayers to enter into payment plans to avoid foreclosures; 15,000 signed up first year alone.

In addition to knocking on doors and pushing for legislation to help homeowners, the City has made significant investments in helping people stay in their homes. Today, we are investing $1.8 million a year in providing homeowners who qualify a 100% property tax exemption, 50% exemption and the disabled vet exemption; if we can continue signing up all homeowners we

---

[1] In order to issue tax-exempt bonds, a governmental entity must reasonably expect to spend 85% of the bond proceeds within 3 years of the issue date of the bonds. See Internal Revenue Code Section 149(d). In addition to this requirement, the federal tax rules related to yield restriction and temporary periods for tax-exempt bond proceeds require that a governmental entity enter into a binding agreement with a third party to spend at least 5% of the bond proceeds within 6 months of the issue date. See Treas. Reg. Section 1.148-2(e). Moreover, a governmental unit must perform rebate computations every 5 years, unless the bond proceeds are spent within 6 months (or 18 months in certain circumstances). See Treas. Reg. Section 1.148-7. If the bond proceeds are held in escrow until Council approval, there is not sufficient evidence that these spend down requirements will be met, as of the issue date of the bonds.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

believe qualify, the City could invest almost $12 million a year in this program. Since Fiscal Year 2014-2015, City programs have invested over $38 million in single family home repair through General Fund, federal lead home repair and CDBG funds, and private philanthropic and loan contributions. This funding supports the Senior Emergency Home Repair, Lead Hazard Reduction, and 0% Interest Home Repair Loan programs managed by the Housing and Revitalization Department. Last year, the City and philanthropies allocated $2.3 million to Make it Home, an initiative started in 2017 that helps occupants stay in their tax-foreclosed homes. Our work is not necessarily in the lack of funding (for example, the HPTAP is not limited by appropriation), but to continue outreach to homeowners to help them take advantage of the poverty tax exemption and Make it Home. I think we can agree that an investment in foreclosure prevention does not have to be at the expense of leaving our neighborhoods blighted and our neighbors worried about fires or crime from vacant houses next door.

We agree that Detroiters and Detroit-Based Businesses should participate heavily in this program, and our workers should benefit from the City's investment. Through the use of the City's equalization ordinance, the City's contracting process has been much more successful in providing opportunities for Detroit Based Businesses and Minority-Owned Business Enterprises than the federal rules allowed under HHF. Detroit Based Businesses have completed 54% of the demos since January 2018, and Minority-Owned Business Enterprises (MBEs) have completed 50%. Our procurement team and demo team will work this year to explore better use the joint venture and mentoring components of the ordinance. We believe that there are improvements that can be made to our procurement ordinance to ensure that Detroiters are benefiting from these equalization credits, and I pledge to work with Committee Chair Ayers and her committee on proposed improvements over the next nine months. These changes should be made through the procurement ordinance rather than through a bond authorization.

We agree that the City Council should have visibility into the ongoing blight removal program. The City Council and the public currently have access to real-time data about all demolitions, planned, contracted, and completed; included in this data, is the contractor, amount paid to contractor, and planned and actual demolition date. In addition, when OCP submits demo procurements, it will include the certifications that each awardee has obtained, including the Detroit Resident Business certification for businesses with at least 51% of their employees are Detroit residents. The protocols for ensuring efficient environmental mitigation for each demolition is on the detroitmi.gov/demolition website.

Finally, we agree that affordable housing is extremely important in Detroit, and the Administration is fundraising for the Affordable Housing Leverage Fund (AHLF). AHLF is expected to deploy $250 million into the preservation of 10,000 units of existing affordable housing and the development of 2,000 units of new affordable housing. That said, we also believe that each community should have a say in the future use of public property in their neighborhood. Rather than dictating the use of future public land, the City will engage in neighborhood planning to understand the short-term, mid-term and long-term goals of each community, and what land uses will best lead to those goals.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

1. **Please provide a detailed report on how the administration plans to ensure that there are no additional taxes assessed to the residents of the City of Detroit. Please include in the report "all" possible scenarios in which the taxpayers could be assessed or taxed at any time as a result of the bond.**

To ensure no increases in the debt millage levy will be needed, we first considered a baseline scenario that included the following assumptions:

- $225 million in Blight Bonds (75% tax-exempt/25% taxable) are issued in two tranches over a period of three years; and
- Approximately $444 million in Capital Bonds (100% tax-exempt) are issued in five tranches over a period of ten years

Under this scenario, projected annual debt millage tax revenues – at the current rate of 9 mills – are sufficient to pay the estimated annual debt service for the life of the bonds. This scenario, which we consider most likely in terms of size, timing, and tax status, is demonstrated in "Scenario 1 (BASE CASE)" of the attached document.

We knew it was important to "stress test" this baseline scenario to ensure further that no increase in debt mills will be needed. Therefore we considered two additional "stress test" scenarios: (1) one in which all of the blight bonds are taxable (which would mean higher interest costs to the city) and (2) one in which the city's property tax base experiences a 25 percent decrease in state equalized values.

<u>Scenario to Consider Impact of 100 Percent of Blight Bonds being Taxable</u>

If a municipal bond is tax-exempt, then the interest paid on the bond is exempt from federal income tax. This results in lower interest costs for the municipal government that issued the bonds. Whether a bond is tax-exempt or taxable depends on whether the issuer meets a number of requirements in the federal income tax code and regulations. As we continue to work with bond counsel to determine what portion of the Blight Bonds are tax-exempt, we thought an important stress test was to see the impact of a determination that 100 percent of the Blight Bonds are taxable.

Under this scenario, which is demonstrated in "Scenario 3 (to consider impact of all taxable Blight Bonds)" in the attached document, the debt millage levy needed to pay annual debt service for the life of the bonds would NOT increase. The primary impact would be that the amount of Capital Bonds issued over the ten-year period would need to decrease from approximately $444 million to approximately $409 million.

<u>Scenario to Consider Impact of Recession</u>

Another important stress test that we performed was to consider the impact of a recession. Under this scenario, we considered the impact of a 25 percent decrease of state equalized values, beginning in tax year 2020, over a three-year period (i.e., a decrease in taxable value of over $465 million). The primary impact under this scenario would be that the amount of Capital Bonds issued over the ten-year period would need to decrease from approximately $444 million to approximately $385 million. The debt millage levy needed to

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

pay annual debt service for the life of the bonds would NOT increase. See "Scenario 4 (to consider impact of recession)" in the attached document.

a. **Will there be any increases to the cost of services, licenses or any other departmental operations that impact City of Detroit revenues?**

The UTGO bonds would be paid from debt millage revenues dedicated to pay principal and interest on UTGO bonds of the City. There are no planned increases to the cost of licenses associated with this proposal. The proposed project (demolitions and renovations) may have an impact on the cost of services provided by the City that are associated with operations and maintenance once the projects are complete. The impact could be both increases in costs (e.g., the costs for cutting grass may increase due to an increase in properties needing grass cutting) and decreases in costs (associated with a reduction in crime and fires).

2. **Please provide a report on how the City of Detroit plans to accommodate the additional debt obligations as a result of the bond issue with the upcoming pension obligation payments.**

UTGO bonds are paid from the City's debt millage, not from the General Fund. The debt millage can solely be used to repay UTGO bonds, and so there is no relationship between this borrowing and paying for the City's pension obligations.

a. **What revenues will be utilized to make bond payment obligations?**
UTGO bonds are repaid solely from the debt millage and does not use any general funds.

b. **How much of existing tax revenue is budgeted for debt retirement?**
All of the funds raised from the debt millage (9 mils currently) is required by law to be used for debt service on the City's UTGO debt previously authorized by the voters. In FY2020, $64.5 million is budgeted for UTGO debt service.

3. **Why has the administration elected to move forward with the bond issue prior to the expenditure of the $150M committed out of the city's bankruptcy Plan of Adjustment?**

The Plan of Adjustment assumed that the City would use $50 million a year from prior year budget surplus to support blight removal. Of this, $30 M would be for residential demolition, $10 M for commercial demolition and $10 M for other blight removal activities. These dollars are only available if the City runs a budget surplus, and if City Council includes this funding to support blight removal each year in the budget process, consistent with prior years. If we rely solely on budget surplus, at this pace, it would take the City 13 years to address all residential blight.

4. **Please provide details on what budget the Office of the Chief Financial Officer plans to locate the additional $30M in a one-time allotment toward demolition.**

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

a. What will be the impact on the department's budget?

We believe this question is referring to the one-time $50 M acceleration of demolition funding recommended for this winter. At this point, all HHF funding and City FY2020 Residential Blight Funds have been committed and will be completed this fiscal year. To continue demolitions in April-June 2020 and to start abatement for demolitions to be done July-September, 2020, the City needs $50 million in additional appropriation this winter. When the FY2019 CAFR is complete, we will propose a $50 million amendment to the FY2020 Budget funded from unassigned fund balance.

$20 million from one-time, non-recurring FY2019 income tax revenue	$20 million
Advance FY2021 residential blight appropriation to FY2020	$30 million
Total one-time FY2020 residential blight appropriation	$50 million

5. What is the total cost per home that the administration plans to spend on demolition?

The budget includes an average of $20,000 for 17,000 demolitions/renovation incentives, as well as a 10% contingency. The contingency will provide for demolitions that may cost more than $20,000 due to more complicated asbestos removal, etc. or additional demolitions/rehabs.

6. What is the administration's plan for departmental oversight over demolition contractors to ensure that adequate environmental mitigation is taken to protect the health and safety of the City of Detroit resident?

The Detroit Building Authority (DBA) and Buildings Safety Environmental Engineering Department (BSEED) are the two city entities providing oversight of demolition contractors. BSEED is responsible for ordinance enforcement, wrecking board (vetting new contractors), issuing permits and conducting inspections like open hole and final grade inspections. The DBA is charged with enforcing the scope of work, including the provisions protecting public health and safety. Currently about 95% of all demolitions have a DBA Field Liaison on site during the demolition process to ensure the proper 'triple wet' method is applied to the structure, meaning water is directed to holes in the roof for 5 minutes (start and end time is recorded) prior to knock, then water must be used during the demolition and loadout. This is done to mitigate fugitive dust. The DBA also manages the pre-demolition process of surveying the property for hazardous materials, like asbestos, then ensuring the asbestos has been properly removed prior to demolition.

7. Please provide the Office of Contracting and Procurement's criteria for the demolition contracts related to the Demolition Initiative.

a. What measures are in place to ensure that the distribution of contract dollars are evenly awarded to qualified bidders to ensure that the same contractors are not awarded the majority of the demolition contracts,

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

specifically non-DetroitBased/Headquartered businesses and contractors with low Detroit resident employment ratios?

OCP will continue to competitively bid all demolition contracts. The Detroit Business Certifications will be used in equalization, providing Detroit contractors and contractors with a majority of Detroit employees a competitive edge in the procurements.

All companies will have to be Prequalified for adequate wrecking licenses, tax clearances, etc.

During the bid process, all companies will submit the number of crews (capacity) to be considered. The max number of crews for any one company will be 6. This will prohibit the larger companies receiving most of the awards. Work will also be set aside for small companies.

OCP will monitor performance on compliance as will the Demolition Team.

8. **Please provide a report including, but not limited to, the following:**
   a. **The Detroit Land Bank Authority's current rate of sale.**

So far this year, the Land Bank's sales have averaged more than 200 homes and 300 side lots each month.

b. **Barriers and obstacles related to the Detroit Land Bank Authority's ability to currently increase property sales.**

The Detroit Land Bank Authority has built an intricate infrastructure to smoothly and efficiently see property from acquisition through to re-occupancy. Over the past five years, the organization has built an experienced team with a diverse, supportive network of property preservation vendors, title companies, and renovation contractors; and land bank leadership is confident that this infrastructure can meet the sales targets outlined in the proposal. The DLBA expects to meet the sales target within five years by maintaining its current monthly sales rate.

i. **How the Detroit Land Bank Authority plans to alleviate those barriers to ensure renovation of 8,000 homes following the bond issue.**

Land Bank staff does not anticipate facing insurmountable organizational barriers to meeting the sales targets outlined in the proposal, and so if resident demand meets expectations and the organization's budgetary needs are met, the land bank can meet the identified sales targets. The DLBA's Compliance program will help ensure all homes sold by the land bank are renovated and reoccupied.

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

c. How the Detroit Land Bank Authority plans to strategically leverage property sales and legal action to ensure the renovation of 8,000 homes throughout the City of Detroit.

Land Bank staff will work closely with City counterparts to formulate and employ a holistic, layered approach to property sales and nuisance abatement action. The DLBA believes this bond proposal represents a considerable investment in the city's neighborhoods and is likely to have a strong, positive impact on property values. These changes, coupled with an effort to coordinate the efforts of nuisance abatement action, demolition, renovations, strategic amenity investments, and sales within a neighborhood, will increase resident interest in Land Bank-owned homes. (Saskia)

d. How the Detroit Land Bank Authority strategically plans to increase property sales from the current rate of sales to ensure that revenue is collected to support the renovation of the 8,000 homes.

The sales strategy underlying the bond proposal relies on land bank purchasers and existing property owners to undertake most of the proposed renovations. As such, staff do not believe these renovations will be dependent on an increase in land bank property sales or DLBA revenue. The Land Bank and City would undertake a comparatively small number of targeted renovations, but staff anticipates bond proceeds covering the financing gap for those projects. The Land Bank does not need to increase monthly sales in order to meet the sales goals underlying the proposal.

e. How will the 8,000 homes be selected?

Currently, the Detroit Land Bank Authority uses a combination of on-the-ground home inspections, neighborhood-level data, and resident feedback to decide which properties in DLBA inventory will be salvaged and sold. Through the property-by-property review and selection process, staff emphasizes responding to resident inquiries and prioritizing properties with the greatest likelihood of successful reuse. The DLBA foresees using a similar approach for targeting privately-owned homes with nuisance claims in the future.

f. How will the Detroit Land Bank Authority ensure that renovations will be spread evenly through the City of Detroit?

Most of the renovations of houses will operate on a "subsidized sale" model such as the one used by Rehabbed & Ready program. In that model, the house may be renovated for $120,000 but sold for $100,000 in the interest of increasing comparable sales which positively impacts appraised values.

This program has been an operations for three years with great success. Selling over 60 houses with an average subsidy amount of approximately $20,000. The program will be widened and staffed up further to achieve a larger number of rehabs.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

So far it has only been able to operate in the strongest areas of the city because those areas had the benefit of prior demolitions. After the demolition is executed we expect that all neighborhoods should be able to receive rehabs on that basis.

g. Will the Detroit Land Bank activities require an increase in funding from the general fund?

The four year budget does not include a budget increase for the Land Bank from the General Fund. In fact, it projects a decrease in future years. Any change from that would require City Council approval in the budget process.

9. How can the bond proceeds be used to make improvements to properties owned by individual residents?

Our bond lawyer has advised that the use of bond proceeds to make improvements to properties on individual residents homes would be prohibited under the Michigan Constitution.

a. List, specifically, all renovation incentives as a result of the bond initiative for the 1,000 homes that would otherwise be demolished.

The full range of incentives will be finalized based on market response; however it will likely include activities ranging from:

- Simple enhancements to the property to prepare it for sale such as water line improvements, minor roof repair, removal of trash from houses, quieting of title, etc.
- Expansion of programs such as rehabbed & ready, which would for example rehabilitate a house for $115,000; and then sell that house for $100,000 as a way to improve appraised values
- New "house swap" programs modeled on Bridging Neighborhoods where requested by communities , which would allow exchange of houses in different parts of the city.

The use of the incentives programs will originate from the neighborhood planning process such as the upcoming Gratiot & 7 mile plan or the East Warren Cadiex Plan.

10. Please provide a copy of the Wayne State, Harvard and University of Michigan study demonstrating a reduction of crime based on demolitions in the areas.

Attached.

11. With the influx of new skilled trades jobs that will be created as a result of the Mayor's Blight Elimination Strategy and the massive database of ready to work Detroiters created as a result of the FCA employment initiative, what is the

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

administration's plan to ensure that Detroiters are trained, prepared, qualified and hired by demolition contractors?

Detroit at Work is increasingly being recognized as Detroit's staffing agency. A key component of recruiting new employer partners is to connect directly with them on their talent requirements, hiring practices, staffing timeline, and any federal, state, city, or philanthropic funding that might be available to support the initiative.

Detroit at Work has a talent database of 39,000+ Detroiters who expressed an interest in FCA jobs. More than 12,000 have completed a formal work-readiness event. We maintain regular contact with all of our job-seeker customers, and have already referred several to non-FCA opportunities that match their interests.

Detroit at Work proposes that, in the early stages of the Demolition project, our staffing team would provide an overview of our employer services to all Demo contractors at a Detroit at Work kickoff meeting. We would then meet with contractor companies individually to understand their staffing needs and timeline, and would construct individual or shared recruitment (as appropriate), training and placement strategies to meet the needs of the Demo provider community.

Detroit at Work has historically funded and led several programs that have produced job-ready talent for construction and construction-related fields. Demo and blight removal are just two of the programs that have already produced Detroit talent that could fill the needs of Demolition contractors.

SCENARIO 1 (BASE CASE):
$225 million in Blight Bonds (75% tax exempt/25% taxable)

Fiscal Year $'s in thousands	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total (20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	111,500	-	93,250	-	93,250	-	93,250	443,495
Total	$227,245	$-	$50,000	$111,500	$-	$93,250	$-	$93,250	$-	$93,250	$668,495
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		15,325	19,015	20,743	17,551	13,848	13,558	13,560	13,235	12,051	138,886
Future Capital UTGO DS		2,288	2,288	2,288	8,123	17,972	23,398	24,177	25,900	32,985	139,420
Aggregate Debt Service	$64,466	$80,270	$69,120	$67,022	$64,923	$62,747	$62,636	$63,413	$64,805	$65,085	$664,486
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$55,877	$57,127	$58,349	$59,602	$60,885	$566,454
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,803	6,851	4,875	2,848	782	(148)	(180)	360	(252)	35,219
Total Sources	$64,466	$80,270	$69,120	$67,022	$64,923	$62,747	$62,636	$63,413	$64,805	$65,085	$664,486

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 1
Capacity for $225 million in Blight Bonds
Capacity for $443.5 million in future Capital Bonds
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.683%
Average Annual Debt Service: $12.4 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first 4 years (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.313%
Average Annual Debt Service: $21.9 million
Term: 30 years
Debt Service: Level

SCENARIO 2 (to consider impact of improvement in taxable values): $250 million in Blight Bonds

Fiscal Year $'s in thousands	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total (20-29)[1]
Blight UTGO Bonds	$175,000	$-	$75,000	$-	$-	$-	$-	$-	$-	$-	$250,000
Future Capital UTGO Bonds	52,245	-	-	111,500	-	93,250	-	93,250	-	93,250	443,495
Total	$227,245	$-	$75,000	$111,500	$-	$93,250	$-	$93,250	$-	$93,250	$693,495
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		15,325	19,015	20,733	17,551	15,532	15,537	15,538	15,214	14,033	148,476
Future Capital UTGO DS		2,288	2,288	2,288	8,123	17,972	23,398	24,177	25,900	32,985	139,420
Aggregate Debt Service	$64,466	$80,270	$69,120	$67,012	$64,922	$64,430	$64,615	$65,391	$66,784	$67,067	$674,075
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$57,698	$58,992	$60,257	$61,554	$62,881	$575,996
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,803	6,851	4,865	2,847	645	(34)	(110)	388	(266)	35,267
Total Sources	$64,466	$80,270	$69,120	$67,012	$64,922	$64,430	$64,615	$65,391	$66,784	$67,067	$674,075

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 2
Assumes compound annual growth rate of 2.20% in taxable values over five years (i.e., from $5.95 billion in 2019 to $6.64 billion in 2024)
Capacity for Blight Bonds increases to $250 million
Capacity for future Capital Bonds remains at $443.5 million
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.781%
Average Annual Debt Service: $14.1 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first 4 years (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.313%
Average Annual Debt Service: $21.9 million
Term: 30 years
Debt Service: Level

SCENARIO 3 (to consider impact of all taxable Blight Bonds): $225 million in Blight Bonds (100% taxable)

Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
$'s in thousands											(20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	107,500	-	83,000	-	83,000	-	83,000	408,745
Total	$227,245	$-	$50,000	$107,500	$-	$83,000	$-	$83,000	$-	$83,000	$633,745
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		14,360	18,206	19,710	16,692	16,689	16,688	16,692	16,691	16,694	152,421
Future Capital UTGO DS		3,158	3,159	3,163	9,157	15,153	20,137	21,034	22,520	28,420	125,901
Aggregate Debt Service	$64,466	$80,175	$69,181	$66,864	$65,097	$62,768	$62,505	$63,402	$64,881	$65,163	$664,502
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$55,877	$57,127	$58,349	$59,602	$60,885	$566,454
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,708	6,912	4,717	3,022	804	(279)	(190)	436	(174)	35,235
Total Sources	$64,466	$80,175	$69,181	$66,864	$65,097	$62,768	$62,505	$63,402	$64,881	$65,163	$664,502

[1]Total represents amount through ten year planning horizon

Highlights of Scenario 3
Assumes 100% of Blight Bonds are taxable (and therefore higher cost of funds
Capacity for $225 million in Blight Bonds
Capacity for future Capital Bonds decreases to $408.8 millior
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 100% taxable
Estimated TIC: 6.621%
Average Annual Debt Service: $16.0 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first three year:

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.318%
Average Annual Debt Service: $20.5 million
Term: 30 years
Debt Service: Level

SCENARIO 4 (to consider impact of recession):
$225 million in Blight Bonds (75% tax-exempt/25% taxable)

Fiscal Year $'s in thousands	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total (20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	107,500	-	75,000	-	75,000	-	75,000	384,745
Total	$227,245	$-	$50,000	$107,500	$-	$75,000	$-	$75,000	$-	$75,000	$609,745
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		14,398	16,668	16,621	14,412	14,409	14,408	14,410	14,414	13,577	133,318
Future Capital UTGO DS		2,294	2,294	2,294	7,815	12,435	18,250	18,841	20,170	26,809	111,203
Aggregate Debt Service	$64,466	$79,350	$66,779	$62,906	$61,475	$57,771	$58,338	$58,926	$60,254	$60,435	$630,701
Actual and Projected Property Tax Collections	$54,325	$54,010	$52,357	$51,012	$51,370	$51,638	$52,786	$53,908	$55,059	$56,237	$532,701
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,720	6,920	4,885	3,566	46	(104)	(225)	352	(254)	35,187
Total Sources	$64,466	$79,350	$66,779	$62,906	$61,475	$57,771	$58,338	$58,926	$60,254	$60,435	$630,701

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 4
Assumes 25% decrease in state equalized values, beginning in tax year 2020, spread over three years before recovering (i.e., decrease in taxable value of over $465 million)
Capacity for $225 million in Blight Bonds
Capacity for future Capital Bonds decreases to $384.7 million
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.744%
Average Annual Debt Service: $12.7 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in years 2 and 3 (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.296%
Average Annual Debt Service: $19.5 million
Term: 30 years
Debt Service: Level

Journal of Criminal Justice 60 (2019) 57–63

Contents lists available at ScienceDirect

Journal of Criminal Justice

journal homepage: www.elsevier.com/locate/jcrimjus

Exploring the impact of 9398 demolitions on neighborhood-level crime in Detroit, Michigan

Matthew Larson[a,*], Yanqing Xu[b], Leah Ouellet[c], Charles F. Klahm IV[d]

[a] Wayne State University, Department of Criminal Justice, 3249 Faculty/Administration Building, 656 W. Kirby Street, Detroit, MI 48202, United States
[b] University of Toledo, Department of Geography and Planning, United States
[c] State Appellate Defender Office, United States
[d] Wayne State University, Department of Criminal Justice, United States

ARTICLE INFO

Keywords:
Demolitions
Neighborhood Crime
Crime Policy

ABSTRACT

The intersection of neighborhood-level processes and crime has received a wealth of attention in the criminological literature over the last century. In line with this tradition, the current study focuses its attention to one of the more recent, and woefully under-explored, policy phenomena embraced by a growing number of cities throughout the United States: demolitions. From 2010 to 2014, the city of Detroit successfully completed a total of 9398 demolitions, making it the nation's leader in the demolitions experiment. Focusing specifically on crime at the block-group level, we examine the association between demolitions and changes in four crime types (i.e. total crime, violent crime, drug crime, and property crime) by calling upon a set of publicly available geo-spatial crime and demolition data. We find that demolitions have a statistically and substantively meaningful negative relationship with total crime, violent crime, and property crime in 2014, net of controls for prior crime and structural covariates. Supplemental analyses also indicate that reductions in crime from 2009 to 2014 were greatest among block-groups that experienced the greatest number of demolitions. We conclude with a discussion of the theoretical and policy implications of demolitions as a potentially valuable crime reduction strategy.

1. Introduction

A sizable criminological corpus, dating back to the early 1900s, charges that neighborhood stability influences criminal opportunities (Shaw & McKay, 1942). Indeed, seminal works in criminology and criminal justice highlight the importance of neighborhoods' social and physical environments' roles in explaining crime and criminality (Cohen & Felson, 1979; Jeffery, 1977; Newman, 1972; Shaw & McKay, 1942; Skogan, 1990; Wilson & Kelling, 1982). Even theories that have a geographical orientation, such as social disorganization, primarily focus on the social ecology of criminogenic areas. Thus, while Shaw and McKay (1942) paid limited consideration to neighborhoods' physical features through their descriptive characterizations of the five zones, they ultimately studied the social environments, not physical environments (Jeffery, 1977). The most recent housing crisis in the United States has led to a relatively new line of research exploring whether home foreclosures and vacancies affect neighborhood-level crime.

Despite advances in our understanding of the effects of distressed-properties on community-level crime, one related area remains underdeveloped (see Whitaker, 2011). Specifically, there is a significant gap in knowledge as it relates to a byproduct of foreclosure and vacancy: property demolition. Although municipalities rely on many innovative solutions to deal with distressed properties (Accordino & Johnson, 2000), several cities, such as, Baltimore, Cleveland, and Chicago have implemented aggressive demolition programs to remove vacant and blighted structures. Surprisingly, few empirical studies have explored if these campaigns have had any appreciable impact on crime. The current study explores the impact of a citywide mass demolition program on neighborhood-level crime in Detroit, Michigan. Drawing upon demolition and crime data collected and maintained by the City of Detroit, we assess 1) whether demolitions are associated with crime in Detroit at the block-group level and 2) whether change in crime from 2009 to 2014 varies by magnitude of demolition exposure. Our results suggest that, net of relevant controls of prior crime and structural characteristics, demolitions are, on average, associated with lower total crime, violent crime, and property crime, but not drug crime. Further, supplemental analyses show that reductions in crime from 2009 to 2014 are greatest among block-groups that experienced the most

* Corresponding author.
E-mail address: mattjlarson@wayne.edu (M. Larson).

https://doi.org/10.1016/j.jcrimjus.2018.11.002
Received 6 September 2018; Received in revised form 11 November 2018; Accepted 12 November 2018
Available online 29 November 2018
0047-2352/

demolitions. In the end, our findings contribute to the nascent literature on the effects of demolitions on crime by highlighting the impact of *concentrated* demolitions within neighborhood block groups.

2. Literature review

Understanding how the social and physical environments of neighborhoods influence crime and criminality has been the focus of much criminological research. Attention to foreclosure processes emerged in the late 2000s, as the United States faced a housing crisis of epic proportion (Crump et al., 2008), and for good reason: many homes that enter the foreclosure process become vacant for some period of time (Whitaker, 2011). For this reason, we view the foreclosure process and subsequent vacancies as antecedents to demolitions, and maintain that each phase of this process has serious implications for neighborhood well-being.

Research has implicated real estate foreclosures as meaningfully contributing to neighborhood-level crime and disorder. Specifically, Teasdale, Clark, and Hinkle (2012) reported subprime lending foreclosures were associated with significant increases in five types of crime/disorder in Akron, Ohio. Similarly, Stuckey, Ottensmann, and Payton (2012) found that foreclosures in Indianapolis, Indiana contributed to an escalation in crime between 2003 and 2008. Interestingly, research using a longitudinal analysis focused on Glendale, Arizona concluded that the effect of foreclosures on crime, while significant, is temporary. Specifically, the authors reported that increased foreclosures were associated with significant increases in crime, but crime rates typically regressed to their normal level within three to four months depending on crime type (Katz, Wallace, & Hedberg, 2013). Others have suggested the foreclosure process does not, in and of itself, lead to crime. Rather, upticks in crime follow periods of vacancy (Cui & Walsh, 2015), or as Immergluck and Smith (2006, p. 854) more pointedly lamented, "... it is through longer-term vacancy and abandonment that foreclosures affect neighborhood crime."

Indeed, there is ample research suggesting abandoned properties are hazardous to community-wellbeing. These properties are characterized as "crime attractors" (Brantingham & Brantingham, 1995; Shane, 2012) because they serve as "criminal hangouts" (Boessen & Hipp, 2015; Sherman, 1993), and invite certain types of crime (e.g., metal scraping, house stripping, urban mining, illegal dumping, squatting, trespassing, vandalism; Shane, 2012). In layperson's terms, Holmberg (1998, D1) wrote that, "crooks, killers and losers tend to infest areas with dead buildings, like maggots on a carcass." Empirically speaking, vacant houses have been found to significantly influence burglary, drug crimes, larceny, vehicle theft, as well as aggravated assaults, robberies, and homicides (Boessen & Hipp, 2015; Jones & Pridemore, 2016; Raleigh & Galster, 2015). Vacant dwellings not only lead to increased crime, they also affect property values, as well as municipalities' budgets and tax revenue (Joint Center for Housing Studies, 2013). As such, many cities that have experienced a disproportionate number of vacancies have implemented demolition plans to address the problem, often times with aide from the federal government (Hackworth, 2016).

In comparison to the foreclosure and vacant properties literature, the demolition literature is underdeveloped. This is largely a product of the recency of cities' demolition programs. The nascent literate suggests demolishing blighted structures produces a crime reduction benefit, although findings vary based on city and unit of analysis. For example, Wheeler, Kim, and Phillips (2018) reported that when measured from the microplace (i.e., the demolished structure) demolitions in Buffalo, New York produced a significant reduction in part 1 violent and non-violent crimes, and the impact was diffused up to 1000 ft from the demolition site. However, when they aggregated demolitions to the census tract level, demolitions did not significantly impact crime. Conversely, in Saginaw, Michigan a block group level analysis suggested demolitions were responsible for a significant reduction in violent and property crime (Stacy, 2018). Moreover, in their assessment of the federal Neighborhood Stabilization Program, Spader, Schuetz, and Cortes (2016) found that demolitions reduced theft and burglary in Cleveland, OH (within 250 ft of the demolition), but produced no such effect in Chicago, Illinois. While these early studies report mostly positive findings, it is difficult to know the true impact of demolitions on crime because there are too few studies available to judge with any degree of certainty.

2.1. *The case of Detroit*

Detroit's landscape has been shaped by waves of abandonment that began in the 1950s, and the consequences of decades' long outward migration reached a critical point in 2010. By this time, 22% (79000) of Detroit's structures were abandoned (Mallach, 2012), and the number steadily increased in the aftermath of the nation's foreclosure crisis. By the time Detroit filed for bankruptcy in 2013, there were 85,000 abandoned structures (Farley, 2015). The city has long been attempting to cope with this abandonment, implementing foreclosure reform (in 1999), launching vacant property auctions and, more recently, adopting a controversial land bank program,[1] but it has not staved off the blight characterizing many city blocks.

While other rust-belt "legacy" cities have experienced similar patterns of population flight, and felt the pronounced effects of the mortgage crisis on home values, none were faced with a vacancy crisis of Detroit's scale. As a result, Detroit has become leader in removing vacant structures quickly and efficiently. In order to achieve a meaningful pace of demolition, Detroit reformed its demolition guidelines, streamlining the process and reducing the amount "red-tape" authorities had to navigate (Mallach, 2012). At the start of the program, the bulk of the abandoned structures were already foreclosed upon and thus under the ownership of either the county or the Detroit Land Bank Authority, enabling the city to accelerate its demolition process. In 2014 alone, the first year of Mayor Mike Duggan's, the city demolished 3739 structures—239 more than Buffalo, New York's blight removal program demolished in its five-year program (Dynamo Metrics, 2015; Yin & Silverman, 2015). Buffalo's demolition process, however, is lengthier and requires more resources. Buffalo's demolitions are among the most expensive in the country, costing the program an average of $19,000 per structure (Mallach, 2012). In comparison, Detroit's demolition process costs an average of $12,616 (Kurth, 2017).

Many cities, like Detroit, have launched blight removal programs. For example, St. Louis, Missouri launched a $13.5 million demolition program in 2017, aiming to demolish 1000 structures within its first year. Similarly, in 2016 Baltimore, Maryland launched Project C.O.R.E. to demolish "as many city blocks of blight as possible," using $93.5 million local and state funds. Buffalo, New York's "5-in-5" program (aiming to demolish 5000 structures in 5 years) from 2007 to 2012 was budgeted for $100 million, $15 million of which were Hardest Hit Fund dollars. By comparison, Detroit's program has been awarded $258 million from the Hardest Hit Fund to date (Thibodeau, 2016), making it the largest and most impactful program in the country with over 16,500 structures demolished since 2010. This assessment of Detroit's demolition program will be the most comprehensive study to date.

3. Data & methods

This study relies on crime, demolitions, and neighborhood characteristics data from Detroit, Michigan to examine the impact of the nation's largest demolitions program on crime at the block-group level. In general, it aims to assess whether the over 9000 demolitions completed from 2010 to 2014 were associated with discernible reductions

[1] The Detroit Land Bank Authority is a tax-payer funded office that has been under investigation by various levels of government for "fraud, bid-rigging, environmental violations, and mismanagement" (Neavling, 2017).

in neighborhood crime. More specifically, it focuses on whether demolitions were related with changes in total crime, violent crime, drug crime, and property-based crime in Detroit across that span. The following section offers detailed descriptions of the data used to execute the current study and the measures that were derived from them. These data form four specific categories: address-level crime data, address-level demolition data, and block-group structural characteristics.

3.1. Address-level crime data

The city of Detroit, like many other urban cities throughout the U.S., has increasingly prioritized data transparency in recent years, successfully launching its Open Data Portal in 2015. One body of data included in those efforts is crime data from the Detroit Police Department, which includes all reported crime events dating back to January 1st of 2009. The crime data made available through the portal exist for each reported incident and offer a wide-array of information, including, but not limited to, slight offset geographic coordinates (i.e. the address field is anonymized by replacing the last two digits of an address with "00") that allow for reported crime incidents to be matched with "place" up to the block-group level. Given the current study's focus on whether, and to what extent, demolitions are associated with crime in 2014, net of controls for crime in 2009 and structural factors, ArcGIS 10.6 was used to match singular crime events to Detroit's 879 block-groups to create annual crime counts across four categories of crime.

Following our main models, which examine the influence of total number of demolitions on four crime types in 2014, we perform supplemental analyses to assess *change in crime* (i.e. 2009 crime counts – 2014 crime counts) across block-groups using a categorical variable that captures magnitude of demolition exposure. The supplemental analyses serve as sensitivity analyses and allow us to contextualize whether there is a dose-response relationship between demolitions and crime. Importantly, change in crime from 2009 to 2014 was selected for our supplemental analyses because 2009 represents the most proximate year-period in which demolitions were not happening with any meaningful regularity. We believe the multi-model approach allows for the most rigorous assessment of the demolitions-crime relationship.

3.2. Address-level demolition data

The Detroit Open Data Portal has also prioritized up-to-date detailed information on successfully completed demolitions throughout the city. It was preceded in those efforts by Data Driven Detroit, which collected demolitions data from 2010 to 2013. Using data from these two sources, the current study focuses specifically on demolitions happening from 2010 to 2014, the first five years of the city's ramped up efforts to seriously address the blight affecting roughly 80,000 structures. Notably, the city was not earnestly addressing blight issues via demolition before 2010. In fact, only 217 demolitions were successfully completed in 2009, which falls in stark contrast to the nearly 1300 demolitions that completed in 2010 — which, as Fig. 1 highlights, is an annual figure that has only continued to increase.

Similar to this study's dependent variables, ArcGIS 10.6 was employed to match demolitions to the block-groups in which they were completed. Similar to recent work by Wheeler et al. (2018), we constructed a count of demolitions for all block-groups, which ranged from a low of 0 to a high of 160. For descriptive and supplemental analyses, we developed a five-group categorical variable that includes the following demolitions classifications: no demolitions, low demolitions (n = 1–5), moderate demolitions (n = 6–10), high demolitions (n = 11–20), and very high demolitions (n = 21–160) (Fig. 2).

3.3. Block-group structural characteristics

Given the current study's focus on changes in neighborhood-level crime, it is necessary to include measures of relevant socio-demographic and socio-economic factors that are established predictors of crime. As such, 2010 Census estimates of the following characteristics of each block-group are included in this study: population density (i.e., population/square-mile), median age, percent of households living in poverty, percent female-headed households with children younger than 18 years, number of housing units, and number of vacant units.

4. Results

4.1. Descriptive statistics

Table 1 reports descriptive statistics for four outcome variables, a set of three unique demolition variables that capture both the presence and magnitude of demolitions, and a series of six Census variables that effectively measure the structural characteristics of block-groups. In 2014, Detroit's block-groups experienced an average of 153.74 (SD = 99.77) total crimes, 36.49 (SD = 36.49) violent crimes, 3.68 (SD = 4.08) drug crimes, and 60.98 (SD = 46.69) property crimes. Table 1 also shows averages for those four crimes in 2009, which were all greater in 2009 than they were in 2014.

Also shown in Table 1, the vast majority of Detroit's block-groups experienced at least one demolition from 2010 to 2014, with the average number of demolitions resting at 10.69 (SD = 14.78). The experience of demolition, even at this particularly small unit of analysis, was much closer to the rule than the exception for neighborhoods throughout the city. Interestingly, in one of the few studies on this subject, Wheeler et al. (2018) modeled the impact of 2035 demolitions on crime in Buffalo, New York from January 2010 to October 2015. Buffalo's exposure to demolitions, while notable for most other cities in the U.S., pales in comparison to the over 9000 demolitions that were completed in Detroit during a similar, though even shorter, period of time.[2] Our five-category variable capturing the magnitude of demolition exposure shows that while only 16% of Detroit's block-groups experienced no demolitions from 2010 to 2014, 34% experienced one to five demolitions, 15% experienced six to 10 demolitions, 18% experienced 11 to 20 demolitions, and 17% experienced at least 21 demolitions.

Given the linear nature of the four dependent variables and measures of block-group structural characteristics, a series of t-tests were performed to test for differences across block-groups based on demolition exposure. These tests revealed both statistically and substantively meaningful differences across two of four crime types in 2014, three of four crime types in 2009, and five of six block-group structural characteristics (see Table 2). Interestingly, while count of total crime in 2009 was statistically greater ($p < .05$, t-value = −2.45) among block-groups that experienced demolition from 2010 to 2014 (mean = 209.92, SD = 150.31) than those that did not (mean = 176.97, SD = 105.23), such differences were no longer seen in 2014 counts of all crime. The same pattern existed for count of violent crimes by demolition exposure in 2009, when statistical differences existed, and 2014, when no differences were evident. Lastly, while there was no difference in count of property crime in 2009 based on demolition exposure, statistical differences emerged in 2014 ($p < .05$, t-value = 2.16) where counts of property crime became lower among block-groups that experienced demolition (mean = 59.47, SD = 48.85) than block-groups that did not (mean = 68.83, SD = 31.58).

Similar to crime, t-tests also revealed sizable differences across structural characteristics based on demolition exposure. For the 137 block-groups that did not experience a single demolition from 2010 to 2014, their average population/square-mile, median age, and number of housing units were significantly higher than the 742 block-groups

[2] Importantly, because there are differences in the populations of Buffalo and Detroit, these differences exist on a per capita basis as well.

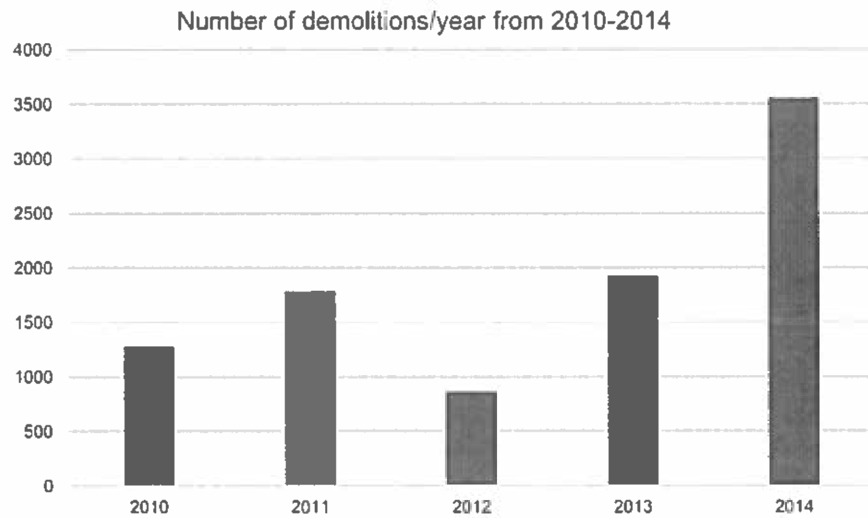


Fig. 1. Total number of demolitions in Detroit per year from 2010 to 2014.

that did experience demolition. On the contrary, block-groups that experienced at least one demolition had a larger share of households living below the poverty line and a greater number of vacant housing units than block-groups that had no demolitions. There were no differences in the percentage of female-headed households with children under the age of 18 based on demolition exposure.

4.2. Multivariate analyses

A set of four negative binomial models were performed to examine the relationship between the number of demolitions that occurred from 2010 to 2014 and crime in 2014 at the block-group level, net of controls for crime in 2009 (the year preceding Detroit's demolition efforts) and potential structural influences. Negative binomial models were the selected analytic technique because of the over-dispersed nature of our outcome variables. Because negative binomial models in Stata do not allow for post-estimation assessment of multicollinearity, we ran an ordinary least squares model after each of our four models to effectively examine VIF scores. All VIF scores were under 3 and thus well within a healthy range.

Model 1 in Table 3 specifically describes the relationship between the number of demolitions between 2010 and 2014 and total crime in 2014. Net of controls, this model demonstrates that there is a robust relationship between demolitions completed during that span and levels of crime across block-groups. Specifically, the Incidence Rate Ratio for count of demolitions in the total crime model is 0.997 ($p < .001$, SE = 0.001), meaning that for every demolition, there was a consequent 0.3% reduction in crime. In other words, for roughly every three demolitions completed from 2010 to 2014, block-groups experienced an average reduction in crime of almost 1%. Considering that the average block-group in this study experienced about 10.7 demolitions during that span, the average reduction in count of all crimes attributable to demolitions was approximately 3%. Over 35% of block-groups experienced more than 10 demolitions, which indicates that those

Fig. 2. Block group classifications based on frequency of demolitions.

Table 1
Descriptive statistics across block-groups (N = 879).

	Mean	SD
Crime		
Count of all crime (2014)	153.74	99.77
Count of violent crime (2014)	36.49	19.44
Count of drug crime (2014)	3.68	4.08
Count of property crime (2014)	60.93	46.69
Count of all crime (2009)	204.79	144.66
Count of violent crime (2009)	44.16	23.96
Count of drug crime (2009)	5.75	5.93
Count of property crime (2009)	86.58	63.79
Demolitions		
Experienced at least 1 demolition	0.84	–
Number of demolitions	10.69	14.78
Demolitions-No demolitions (ref)	0.16	–
Demolitions-Low (1–5)	0.34	–
Demolitions-Moderate (6–10)	0.15	–
Demolitions-High (11 – 20)	0.18	–
Demolitions-Very high (21 +)	0.17	–
Structural characteristics		
Population/square-mile in 2010	6542.33	2973.55
Median Age	35.28	6.51
Percent below poverty-line	0.41	0.18
Percent female-headed households	0.60	0.33
Number of housing units	397.24	190.66
Number of vacant units	90.70	60.71

block-groups were likely to have an average reduction in total crime counts that was even greater.

Similar to the total crime model, demolitions were associated with reductions in counts of both violent crime and property crime at the block-group level in 2014. In both cases, the Incident Rate Ratio was again 0.997, which equates to a one-third of a percent reduction in violent crime ($p < .05$, SE 0.001) and property crime ($p < .05$, SE = 0.001) for every demolition. While the Incident Rate Ratio of demolitions is consistent across these two crime types, considering the 2014 counts of violent crime (mean = 36.49) and property crime (mean = 60.93) demonstrates that demolitions from 2010 to 2014 contributed to a larger reduction in number of property crimes than violent crimes. Finally, contrary to 2014 counts of all crime, violent crime, and property crime, demolitions appear to have no statistically discernable relationship with counts of drug crimes in 2014, although the measure was approaching significance in the model (Table 4).

4.3. Supplemental analyses

A supplementary set of four OLS models were estimated to further specify the relationship between demolitions and crime in Detroit. Specifically, the supplementary models examine a secondary outcome, *change in crime* from 2009 to 2014, using a categorical measure of demolition exposure ranging from 1 (None) to 5 (Very high). Employing an alternative analytic technique and measure of demolitions helps

Table 2
Between-group differences across block-groups by demolition exposure.

Crime	No demolitions (n = 137)			t-value	Demolitions (n = 742)	
	Mean	Std. Dev			Mean	Std. Dev
Count of all crime (2014)	158.06	78.45		0.55	152.94	103.25
Count of violent crime (2014)	34.34	16.69		−1.41	36.89	19.89
Count of drug crime (2014)	2.42	3.57	**	−3.98	3.92	4.13
Count of property crime (2014)	68.83	31.58	*	2.16	59.47	48.85
Count of all crime (2009)	176.97	105.23	*	−2.45	209.92	150.31
Count of violent crime (2009)	35.56	20.36	**	−4.62	45.75	24.24
Count of drug crime (2009)	3.19	5.51	**	−5.57	6.22	5.88
Count of property crime (2009)	83.02	43.94		−0.71	87.23	66.81
Structural characteristics						
Population/square-mile in 2010	7289.71	2956.78	**	3.21	6404.34	2960.03
Median age	38.85	7.42	**	7.17	34.62	6.11
Percent below poverty-line	0.34	0.19	**	−4.97	0.42	0.17
Percent female-headed households	0.60	0.32		0.24	0.60	0.33
Number of housing units	444.07	297.16	**	3.14	388.59	162.43
Number of vacant units	69.83	73.18	**	−4.42	94.55	57.34

Between group differences assessed using t-tests.
** $p < .01$.
* $p < .05$.

Table 3
Negative binomial models assessing the influence of demolitions on 2014 crime counts.

	Total crime (n = 879)				Violent crime (n = 879)				Drug crime (n = 879)				Property crime (n = 879)			
	Coef	IRR	SE		Coef	IRR	SE		Coef	IRR	SE		Coef	IRR	SE	
Count of demolitions	0.002	0.997	0.001	*	−0.002	0.997	0.001	*	0.001	1.000	0.002		−0.003	0.997	0.001	*
Count of 2009 crime (by crime type)	0.002	1.002	0.000	***	0.011	1.011	0.000	***	0.057	1.058	0.006	***	0.005	1.005	0.000	***
Population/square-mile in 2010	0.001	0.999	0.000	*	0.000	1.000	0.000		0.000	0.999	0.000	**	0.000	0.999	0.000	
Median Age	0.006	0.993	0.002	*	−0.009	0.990	0.002	***	−0.029	0.971	0.001	***	−0.002	0.998	0.002	
Percent below poverty-line	0.009	1.009	0.072		0.142	1.152	0.080		−0.006	0.993	0.206		−0.166	0.846	0.076	*
Percent female-headed households	0.087	1.091	0.033	***	0.138	1.148	0.037	***	0.138	1.148	0.104		0.088	1.092	0.037	*
Number of housing units	0.001	1.001	0.000	***	0.001	1.001	0.000	***	0.000	1.001	0.000	**	0.001	1.001	0.000	***
Number of vacant units	0.001	0.998	0.000	***	−0.001	0.998	0.000	***	0.000	1.000	0.000		−0.001	0.998	0.000	***

* $p < .05$
** $p < .01$
*** $p < .001$

confirm the stability of the results generated by our main models. Moreover, they allow us to develop a more specific understand of how the effect of demolitions on crime may vary across the magnitude of demolitions that a block-group experienced from 2010 to 2014. Importantly, OLS is employed for the change in crime models because the outcome variables are normally distributed, which negative binomial models, used for our main models, are not suited for.

A few patterns emerge in the results of the OLS models. First, for models predicting change in counts of total crime and property crime from 2009 to 2014, all four categories of demolitions were associated with a larger reduction than block-groups that did not experience any demolitions. Specifically, in the total crime model, block-groups that experienced low, moderate, high, and very high level of demolitions experienced 30.547 ($p < .001$, SE = 9.123), 27.844 ($p < .01$, SE = 9.075), 23.810 ($p < .01$, SE = 9.078), and 34.393 ($p < .001$, SE = 9.963) fewer total crimes in 2014, respectively, relative to block-groups with no demolitions. Further, in the property crime model, block-groups that experienced a low, moderate, high, and very high levels of demolitions demonstrated 12.367 ($p < .001$, SE = 3.689), 13.982 ($p < .001$, SE = 3.508), 11.685 ($p < .001$, SE = 3.480), and 14.717 ($p < .001$, SE = 3.850) fewer property crimes in 2014, respectively, relative to block-groups where no demolitions occurred. In sum, for both types of crime, demolition exposure, regardless of whether that exposure was low or high, contributed to a reduction in crime from 2009 to 2014. Importantly, the significance of these categories lends support to the findings demonstrated in our main models.

Second, a similar pattern of crime reduction benefits was demonstrated in the violent crime model, where three of the four demolitions magnitude estimates were significant. While the model showed that a low level of demolitions from 2010 to 2014 was not related to a reduction in crime from 2009 to 2014, moderate, high, and very high demolitions were associated with reductions of 4.852 ($p < .05$, SE = 2.220), 6.148 ($p < .01$, SE = 2.126), and 6.627 ($p < .01$, SE = 2.325) violent crimes, respectively. Again, these findings support the results of the negative binomial model in our main analyses that shows an association between demolitions and violent crime in 2014. Finally, only one of the four demolitions magnitude categories were statistically significant in the drug crime model. Specifically, only block-groups that experienced a very high number (i.e. at least 21) of demolitions saw a reduction in drug crime (b = −1.968, $p < .001$, SE = 0.621). Again, this finding supports the results of our main models that showed no statistically discernible relationship between demolitions and drug crime in 2014.

5. Discussion

The current study explored the impact of the nation's most aggressive demolition program on neighborhood crime in Detroit, Michigan, adding to the nascent literature on the effects of blight removal policies on neighborhood-level outcomes. Although not without limitations (discussed below), our main analyses demonstrate that demolitions from 2010 to 2014 were associated with total crime, violent crime, and property crime in 2014, net of controls for crime and structural factors. Our supplemental analyses provide further support for those findings, and also show that block-groups that experienced the greatest number of demolitions from 2010 to 2014 also witnessed the greatest reductions in crime across all four crime types. Concerns over the criminogenic effect of vacant properties have been expressed by scholars for decades, and our study provides additional preliminary empirical evidence that removing vacant properties should potentially be considered as a crime reduction strategy.

It is important to reiterate that the study location for this project is unlike any other in the United States in terms of its vacant housing problem and the size and scale of its demolition program. Thus, the results reported here might not be generalizable to other locales. Although this is a legitimate concern, we maintain the findings are substantively meaningful and contribute to the growing literature in this area. Again, our main models show that demolitions are associated with less total crime, violent crime, and property crime, but not drug crime. Supplemental provide further support for the relevance of demolitions for neighborhood crime, and also show that block-groups that experienced the greatest number of demolitions were likely to experience the greatest reductions in crime, relative to block-groups with no demolitions, from 2009 to 2014.

From a policy perspective, the results suggest that demolition programs might be a valid approach for cities facing concentrated vacancy issues. In the case of Detroit, its large-scale program has not only reduced the number of vacant properties across the city, it has also led to greater reductions in crime in areas where more demolitions have occurred. This suggests, as others have found, that removing distressed structures does have an appreciable impact on crime patterns (Stacy, 2018). Additionally, our results align with literature that implicates abandoned properties as "crime attractors" (Brantingham & Brantingham, 1995; Shane, 2012) and "criminal hangouts" (Boessen & Hipp, 2015; Sherman, 1993). That is, it makes sense that removing places from neighborhoods that generate criminogenic opportunities results in less criminal activity in those areas. Although our results lend to promising conclusions, there are still many unanswered questions regarding the impact of demolitions on crime patterns and the overall wellbeing of neighborhoods. Some of these are a result of limitations

Table 4
OLS models assessing the influence of demolitions on changes in crime counts from 2009 to 2014.

	Total crime (n = 879)			Violent crime (n = 879)			Drug crime (n = 879)			Property crime (n = 879)		
	B	SE		B	SE		B	SE		B	SE	
Demolitions-No demolitions (ref)	–	–	–	–	–	–	–	–	–	–	–	–
Demolitions-Low (1–5)	−30.547	9.123	***	−3.085	1.804		−0.467	0.500		−12.367	3.689	***
Demolitions-Moderate (6–10)	−27.844	9.075	**	−4.852	2.220	*	−0.719	0.657		−13.982	3.508	***
Demolitions-High (11–20)	−23.819	9.078	**	−6.148	2.126	**	−1.092	0.608		−11.685	3.480	***
Demolitions-Very high (21 +)	−34.393	9.963	***	−6.627	2.325	**	−1.968	0.621	***	−14.717	3.850	***
Population/square-mile in 2010	0.005	0.001	***	0.001	0.000	***	0.000	0.000		0.001	0.000	**
Median Age	1.577	0.573	**	0.079	0.096		−0.138	0.042	***	0.875	0.273	***
Percent below poverty-line	14.526	13.968		2.927	3.284		−0.324	1.313	*	1.355	6.299	
Percent female-headed households	18.846	8.780	*	2.856	1.570		0.352	0.607		9.514	3.452	**
Number of housing units	−0.053	0.034		0.007	0.005		0.004	0.002	*	−0.058	0.020	**
Number of vacant units	−0.064	0.089		−0.065	0.018	***	−0.022	0.006	***	0.056	0.046	

* $p < .05$.
** $p < .01$.
*** $p < .001$.

associated with the present study, while others are a product of a lack of information about demolition processes, more generally.

With regard to the latter, no studies have explored whether there is a threshold effect in which demolitions beyond a certain point result in diminishing returns. Relatedly, there is only one study, to our knowledge, that specifies the temporality of the effects of demolitions on crime (see Spader et al., 2016). These are very important details to consider for policymakers contemplating demolition programs and expecting quick or effective results. It is unlikely that a single demolition of a distressed property within a block group results in meaningful reductions in crime, but it could be that reductions are visible after three demolitions, for example. Similarly, there might be an interactive effect between concentration of demolitions and time so that reductions in crime are evident only after a certain level of concentration *and* enough time has passed for the neighborhood-level processes to be affected. Other questions remain about whether the effects are sustained over time. It is possible that crime reductions are noticeable shortly after completed demolitions but regress to normal levels after a certain amount of time.

Importantly, there are various methodological limitations that the current study is constrained by. Perhaps most notably, our analyses are cross sectional in nature and cannot bear out any causal effects. While this is a serious and legitimate limitation, we view our analyses as exploratory and representing the first step toward understanding how large-scale demolition programs *might* affect crime. Also, some might be concerned that we treat demolitions as an isolated process, even though there are undoubtedly potentially relevant events that follow the demolition of a home that might be tied to changes in neighborhood-level crime, as well as the tax and mortgage foreclosure processes preceding home demolition that also affect crime (Immergluck & Smith, 2006; Lacoe & Ellen, 2015). For instance, a small but growing body of recent experimental work suggests that remediation of vacant properties has real implications for crime happening in and around those properties, and they determine these effects even extend to violent crime specifically (Branas et al., 2016; Kondo, Keene, Hohl, MacDonald, & Branas, 2015). We acknowledge post demolition efforts likely influence collective efficacy, social networking, and opportunities for crime, and that aggressive demolition programs in general may potentially have other, deleterious impacts on communities. For example, in Detroit communities have raised concerns over physical health implications centered on lead and asbestos exposure (Dixon, 2017; MacDonald, 2015). However, trying to account for these efforts in Detroit would be a monumental task. Lastly, although beyond the scope of this paper, we did not address the possibility of crime displacement, which other studies have found (Frazier et al., 2013).

Undoubtedly, researchers will continue to study the effects of demolitions on neighborhood-level crime, disorder, and other social processes, especially in light of their continued growth throughout the country. Future research should attempt to address the aforementioned limitations. Additionally, scholars should focus efforts on understanding the impact of demolitions on residents' mental and physical health, exercise patterns, and overall quality of life. While we have provided preliminary evidence that concentrated demolitions are associated with significant reductions in crime, we still need to answer whether razing Detroit is actually raising Detroit.

References

Accordino, J., & Johnson, G. T. (2000). Addressing the vacant and abandoned property problem. *Journal of Urban Affairs, 22*(3), 301–315.

Boessen, A., & Hipp, J. R. (2015). Close-ups and the scale of ecology: Land uses and the geography of social context and crime. *Criminology, 53*(3), 399–426.

Branas, C. C., Kondo, M. C., Murphy, S. M., South, E. C., Polsky, D., & MacDonald, J. M. (2016). Urban blight remediation as a cost-beneficial solution to firearm violence. *American Journal of Public Health, 106*(12), 2158–2164.

Brantingham, P., & Brantingham, P. (1995). Criminality of place. *European Journal on Criminal Policy and Research, 3*(3), 5–26.

Cohen, L. E., & Felson, M. (1979). On estimating the social costs of national economic policy: A critical examination of the Brenner study. *Social Indicators Research, 6*(2), 251–259.

Crump, J., Newman, K., Belsky, E., Ashton, P., Kaplan, D., Hammel, D., & Wyly, E. (2008). Cities destroyed (again) for cash: Forum on the U.S. foreclosure crisis. *Urban Geography, 29*(8), 745–784.

Cui, L., & Walsh, R. (2015). Foreclosure, vacancy and crime. *Journal of Urban Economics, 87*, 72–84.

Dixon, J. (2017). After asbestos frustrations, a crackdown on Detroit demolitions. *Detroit Free Press*. Available https://www.freep.com/story/news/local/michigan/detroit/2017/05/20/detroit-demolitions-blight-asbestos/101520078/.

Farley, R. (2015). The bankruptcy of Detroit: What role did race play? *City and Community, 14*(2), 118–137.

Frazier, A. E., Bagchi-Sen, S., & Knight, J. (2013). The spatio-temporal impacts of demolition land use policy and crime in a shrinking city. *Applied Geography, 41*, 55–64.

Hackworth, J. (2016). Demolition as urban policy in the American Rust Belt. *Environment and Planning A: Economy and Space, 48*(11), 2201–2222.

Immergluck, D., & Smith, G. (2006). The impact of single-family mortgage foreclosures on neighborhood crime. *Housing Studies, 21*(6), 851–866.

Jeffery, R. (1977). *Crime prevention through environmental design.* Beverly Hills, CA: SAGE.

Joint Center for Housing Studies of Harvard University (JCHS) (2013). *America's Rental Housing: Evolving Markets and Needs.* MA: JCHS: Harvard.

Jones, R. W., & Pridemore, W. A. (2016). A longitudinal study of the impact of home vacancy on robbery and burglary rates during the US housing crisis, 2005-2009. *Crime and Delinquency, 62*(9), 1159–1179.

Katz, C. M., Wallace, D., & Hedberg, E. C. (2013). A longitudinal assessment of the impact of foreclosure on neighborhood crime. *Journal of Research in Crime and Delinquency, 50*(3), 359–389.

Kondo, M. C., Keene, D., Hohl, B. C., MacDonald, J. M., & Branas, C. C. (2015). A difference-in-differences study of the effects of a new abandoned building remediation strategy on safety. *PLoS One, 10*(7), e0129582.

Kurth, J. (July 6th, 2017). Can Detroit find salvation through demolition? Bridge Magazine. https://www.crainsdetroit.com/article/20170706/news/633246/can-detroit-find-salvation-through-demolition.

Lacoe, J., & Ellen, I. G. (2015). Mortgage foreclosures and the changing mix of crime in micro-neighborhoods. *Journal of Research in Crime and Delinquency, 52*(5), 717–746.

MacDonald, J. (2015). Community design and crime: the impact of housing and the built environment. *Crime and justice, 44*(1), 333–383.

Mallach, A. (2012). Laying the groundwork for change: Demolition, urban strategy, and policy reform. *Brookings Metropolitan Policy Program*, 1–47.

Metrics, D. (2015). *Estimated Home Equity Impacts from Rapid, Targeted Residential Demolition in Detroit. MI: Application of a Spatially Dynamic Data System for Decisions Support.* Detroit, MI: Dynamo Metrics, LLC.

Neavling, S. (2017). Detroit Land Bank payroll nearly doubles despite slowdown in demolitions. *Detroit Metro Times. Available.* https://www.metrotimes.com/detroit/detroit-land- bank-payroll-nearly-doubles-despite-slowdown-in-demolitions/Content?oid=4063848.

Newman, O. (1972). *Defensible space.* New York, NY: MacMillan.

Raleigh, E., & Galster, G. (2015). Neighborhood disinvestment, abandonment, and crime dynamics. *Journal of Urban Affairs, 37*(4), 367–396.

Shane, J. M. (2012). *Abandoned buildings and lots. United States Department of Justice,* Office of Community Oriented Policing Services.

Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas.* Chicago, IL: University of Chicago Press.

Sherman, L. W. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of Research in Crime and Delinquency, 30*(4), 445–473.

Skogan, W. G. (1990). *Disorder and Decline: Crime and the Spiral of Decay in American Cities.* New York, NY: The Free Press.

Spader, J., Schuetz, J., & Cortes, A. (2016). Fewer vacants, fewer crimes? Impacts of neighborhood revitalization policies on crime. *Regional Science and Urban Economics, 60*, 73–84.

Stacy, C. P. (2018). The effect of vacant building demolitions on crime under depopulation. *Journal of Regional Science, 58*(1), 100–115.

Teasdale, B., Clark, L. M., & Hinkle, J. C. (2012). Subprime lending foreclosures, crime, and neighborhood disorganization: Beyond internal dynamics. *American Journal of Criminal Justice, 37*(2), 163–178.

Thibodeau, I. (2016). Detroit razes 10,000th house through demo program. *The Detroit News*. https://www.detroitnews.com/story/news/local/detroit-city/2016/07/19/detroit-razes-milestone-house/87286076/.

Wheeler, A. P., Kim, D. Y., & Phillips, S. W. (2018). The effect of housing demolitions on crime in Buffalo, New York. *Journal of Research in Crime and Delinquency, 55*(3), 390–424.

Whitaker, S. (2011). Foreclosure-related vacancy rates. *Economic Commentary* (July).

Wilson, J. Q., & Kelling, G. L. (1982). Broken windows. *Atlantic Monthly, 249*(3), 29–38.

Yin, L., & Silverman, R. M. (2015). Housing abandonment and demolition: Exploring the use of micro-level and multi-year models. *ISPRS International Journal of Geo-Information, 4*(3), 1184–1200.

J Behav Med (2019) 42:626–634
https://doi.org/10.1007/s10865-019-00031-6

Urban building demolitions, firearm violence and drug crime

Jonathan Jay[1,2] · Luke W. Miratrix[3] · Charles C. Branas[1,4] · Marc A. Zimmerman[1,5] · David Hemenway[1,2]

Received: December 3, 2018 / Accepted: March 19, 2019 / Published online: August 1, 2019

Abstract Although multiple interventions to remediate physical blight have been found to reduce urban firearm violence, there is limited evidence for demolishing vacant buildings as a violence reduction strategy. Starting in 2014, Detroit, MI launched a large-scale program that demolished over 10,000 buildings in its first 3 years. We analyzed the pre-post effects of this program on fatal and nonfatal firearm assaults and illegal drug violations at the U.S. Census block group level, using propensity score matching and negative binomial regression. Receiving over 5 demolitions was associated with a 11% reduction in firearm assaults, relative to comparable control locations, 95% CI [7%, 15%], $p = 0.01$. The program was associated with larger reductions in firearm assaults for the locations receiving moderate numbers of demolitions (between 6 and 12) than for locations receiving high numbers of demolitions (13 and over). No effects were observed for illegal drug violations and no evidence of spatial crime displacement was detected. These findings suggest that vacant building demolitions may affect gun violence.

Keywords Firearm · Violence · Drugs · Demolitions · Blight remediation

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s10865-019-00031-6) contains supplementary material, which is available to authorized users.

✉ Jonathan Jay
jonjay@mail.harvard.edu

Luke W. Miratrix
luke_miratrix@gse.harvard.edu

Charles C. Branas
c.branas@columbia.edu

Marc A. Zimmerman
marcz@umich.edu

David Hemenway
hemenway@hsph.harvard.edu

1 Firearm-Safety Among Children and Teens Consortium, University of Michigan School of Medicine, 1500 East Medical Center Drive, Ann Arbor, MI 48109, USA

2 Department of Health Policy and Management, Harvard T. H. Chan School of Public Health, 677 Huntington Avenue, Boston, MA 02115, USA

3 Harvard Graduate School of Education, 13 Appian Way, Cambridge, MA 02138, USA

4 Department of Epidemiology, Columbia Mailman School of Public Health, 722 West 168th Street, New York, NY 10032, USA

5 Department of Health Behavior and Health Education, University of Michigan School of Public Health, 1415 Washington Heights, Ann Arbor, MI 48109, USA

Introduction

Urban firearm violence is a major public health concern and the single largest driver of firearm-related injury among young people. Among 15–19 year olds, the hospitalization rate from firearm assaults is 7.8 times higher in urban areas than rural areas and more than twice the rates of hospitalization from unintentional and self-inflicted firearm injuries combined (Herrin et al., 2018). Firearm violence disproportionately burdens African American children, who are 10 times more likely than White children to die by firearm assault (Fowler et al., 2017).

Addressing physically blighted spaces has gained attention as a strategy to reduce urban firearm violence. Several recent studies have found safety benefits associated with securing abandoned houses (Kondo et al., 2015, 2018) and improving the condition of vacant lots and the introduction of green spaces (Branas et al., 2018; Heinze et al., 2018; Kondo et al., 2016; Kuo, 2001). Deteriorated spaces are not only typical of the de-industrialized, disinvested, and underserved neighborhoods where interpersonal firearm violence is most endemic, but may play a causal role in the commission of violence. The physical disorder observed at these sites signals a lack of social control, potentially encouraging violence perpetration, according to *broken windows theory* (Kelling & Wilson, 1982). Vacant houses and overgrown lots can also provide *situational opportunities* for activities associated with firearm violence, such as those involving illegal guns and drugs (Spelman, 1993; Garvin et al., 2013), by hiding these activities from view.

By contrast, interventions that improve physical condition may foster *busy streets* where positive social processes emerge (Heinze et al., 2018). These environment-focused interventions are not intended to supplant long-term institutionalized efforts to respond to violence in disadvantaged and marginalized communities; however, addressing violence through environmental modification may offer benefits over resource-intensive alternatives with potentially short-lived effects, such as police patrols (Draca, Machin, & Witt, 2011).

A little-understood, but widely implemented strategy for addressing physical blight is simply to demolish buildings that are vacant and/or hazardous. Such buildings are particularly widespread in Northern U.S. industrial manufacturing cities that experienced substantial population loss in the second half of the 20th century. Although crime prevention is often cited as a rationale for demolitions programs, researchers have found limited evidence that demolishing vacant houses reduces violence (Spader, Schuetz, & Cortes, 2016; Stacy, 2018; Wheeler, Kim, & Phillips, 2018).

In Cleveland and Chicago, Spader et al. (2016) found no difference in violence in the areas immediately surrounding demolitions, compared to areas slightly farther away. In Buffalo, Wheeler et al. (2018) found significant violence reductions in the areas immediately surrounding demolitions, compared to locations with similar previous crime levels and no demolition, but these effects were not significant in a neighborhood-level analysis. In Saginaw, MI, Stacy (2018) found significant neighborhood-level violence reduction, but only from demolitions conducted in the previous month, and demolitions were associated with *increased* violence at a 4-month lag. None of these studies considered firearm-specific violence as an outcome. It remains uncertain, therefore, whether demolitions generate lasting reductions in neighborhood-level violence, and their effects on firearm violence are unknown.

We study Detroit, MI, which has demolished an unprecedented number of vacant buildings since 2014 (*The Economist*, 2017). The scale of Detroit's demolitions program provides an unusual opportunity to test the neighborhood effects of different levels of demolitions activity. In the present study, we use a quasi-experimental design to assess the effects of those demolitions on fatal and nonfatal firearm assaults and drug-related crimes during a 14-month follow-up period. We build on existing research by examining firearm-specific outcomes and by analyzing treatment effects at differing dosage levels, using treatment and control neighborhoods that are matched on social, demographic and physical characteristics. Our design goes further than previous studies to (a) consider how the quantity of demolitions affects neighborhood-level crime, including firearm violence, and (b) identify and control for systematic differences in the places that receive more versus fewer demolitions.

Methods

Vacant buildings and demolition in Detroit

Detroit represents an extreme example of economic decline associated with deindustrialization. From 1950 to 2016, the city's population dropped from 1.8 million to under 700,000. In 2014, it was estimated that at least 43,000 residential buildings were vacant and that approximately 78,000 buildings met the city's criteria for blight (Detroit Blight Task Force, 2014). This estimate was derived, in part, from a 2013-14 citywide survey in which volunteers catalogued the physical condition and apparent occupancy status of every property (Data Driven Detroit, 2014). A similar survey, conducted in 2009, had identified over 30,000 residential properties that appeared to be vacant (Data Driven Detroit, 2010).

Given this excessive volume of blighted structures, Detroit's large-scale demolitions program began in 2014, drawing information from the prior property surveys. By the end of 2016, the period we study here, the city had demolished over 10,000 buildings. The program cost approximately $130 million during this timeframe, mostly from federal economic recovery funds (Cwiek, 2016).

Researchers have previously called Detroit's demolitions program "targeted and rapid" (Dynamo Metrics, 2015, p. 6). Initially, the program was targeted toward six neighborhoods. According to a city report, these neighborhoods were among "the strongest areas with marketability for redevelopment investments" (Detroit Land Bank Authority, 2013, p. 2). As implemented, however, the program was not limited to these areas. While the strategy for allocating demolitions has not been clearly documented, it has been reported that officials first prioritized neighborhoods with higher residential occupancy, in order to stabilize home values in those places, and then proceeded to higher-vacancy neighborhoods (*The Economist*, 2017). This approach is consistent with *right-sizing* strategies, which encourage higher population density in a smaller number of places. Some Detroiters, however, have viewed the city's economic recovery strategies through a racial lens, contending that recent investments have disproportionately benefited the city's White minority (Bach, 2017).

Data and analysis

Our unit of analysis was U.S. Census block groups in Detroit (n = 879). While researchers have previously estimated effects of blight remediation on crime at the level of individual properties, we studied remediation at the block group level because we did not expect that demolishing a single building would necessarily influence crime outcomes in a city with 78,000 blighted structures. Rather, we hypothesized that remediation would begin to affect violence when residents observed transformation at a slightly larger ecological level. Thus, we examined causal effects at the micro-neighborhood level represented by block groups. Analyzing Detroit block groups yielded a dataset with more than 10 times as many spatial units as previous neighborhood-level analyses of crime and demolitions (Wheeler et al., 2018; Stacy, 2018).

Outcome variables were obtained from Detroit Police Department (DPD) crime incident data from January 2009 through November 2016 (DPD, 2018), for a total of 31 complete yearly quarters and one incomplete yearly quarter. These variables were firearm assaults and illegal drug violations. The firearm assaults variable combined firearm homicides (i.e. fatal shootings) and aggravated assaults (i.e. assaults involving serious injury) in which firearms were the weapons used. Firearm involvement was a classification DPD applied retrospectively based on a review of incident records, prior to release of the incident data. Even though firearm violence was the main outcome of interest, we analyzed drug violations because reducing illegal drug-related activity was considered a possible mechanism by which demolitions could reduce firearm violence. We aggregated crime records geographically by block group and temporally by quarter-years.

Block groups were considered treated (i.e. as having received the demolitions intervention) once they had received more than 5 cumulative demolitions by the end of the previous quarter. To allow a sufficient post-treatment observation period, only block groups reaching the threshold by the end of Q3 2015 (n = 343) were considered treated. The 5-demolition threshold in the main analysis was chosen based on an exploratory review of the distribution of demolitions in each block group. Because the typical Detroit block group contained 15 occupied census blocks, locations reaching the threshold had approximately one demolition on every third block. The effect of differing dosages was tested in a secondary analysis.

Since only 19% of block groups received zero demolitions and these untreated units were generally the least similar to higher-demolition units, we did not restrict the control group to locations with zero demolitions. Instead, any prospective control unit was eligible for inclusion so long as its demolitions count did not exceed the relevant threshold. In other words, our analysis compared treated units to similar units that received *less treatment*, not necessarily *no treatment*.

We matched the sample 1:1 based on a linear propensity score and optimal matching (Rosenbaum, 2002). In particular, for each unit meeting the demolitions threshold before the Q3 2015 cutoff, we identified a similar control unit, to implement a *treatment on the treated* analysis. Matching retained the block groups most similar to the treated blocks groups on eight potential confounders at the outset of the demolitions program. Using matching as a pre-processing step reduces model dependence in observational studies (Ho et al., 2007). One concern was that treatment assignment might have been associated with unequal patterns of social and economic change that occurred during the pre-treatment period. Matching on variables that predicted treatment assignment, therefore, strengthened the assumption that *common trends* would hold between treated and control units throughout the study period (Wing, Simon, & Bello-Gomez, 2018).

Matching variables were derived from the property surveys discussed above and obtained from the five-year U.S. Census American Community Survey ending in 2014. These variables included physical conditions (the number of buildings in early 2014, the proportion of residential structures that were unoccupied in early 2014 and the proportion of residences that went vacant between 2009 and 2014) and social and demographic variables (total population, log-normalized median household income, male population aged 15–34, share of residents who are non-Hispanic Whites, and a composite variable for concentrated disadvantage). These variables were selected based on their expected association with receipt of treatment and/or their potential to bias estimated treatment effects. We performed multiple logistic regression on the full sample to produce the propensity score matches and also to analyze the factors influencing receipt of treatment.

We identified the period from the start of large-scale demolitions (Q2 2014) through the quarter when all treated units had reached treatment status (Q3 2015) as the treatment period. We omitted observations during this period from our regression model, allowing us to compare pre-treatment and post-treatment outcomes using a standard difference-in-difference framework. We explored differences in treatment effects within the treatment group in a secondary analysis that stratified observations based on the number of demolitions received.

We used negative binomial regression on the matched data to estimate post-treatment effects on the crime outcomes, both of which were counts. Our model included two-way fixed effects, i.e. separate fixed effects for each block group and for each time period. The treatment indicator was set to 1 for treated units during the post-treatment period, and was otherwise set to 0.[1] This difference-in-difference approach represents a standard framework for estimating average between-group effects in longitudinal quasi-experimental studies (Wing et al., 2018). Unit fixed effects controlled for any time-invariant attributes of the block groups, while time period fixed effects controlled for seasonality and any other group-invariant time trends.

We accounted for intraclass correlation by clustering standard errors by block group. More specifically, since typical cluster-robust standard errors do not reliably prevent Type I error when the number of clusters is small, we applied small-sample t test corrections proposed by Bell and McCaffrey (2002), as operationalized by Pustejovsky and Tipton (2018). To determine whether un-modeled spatial dependencies in the data had affected our estimates, we applied Moran's I test to the model's deviance residuals at each time point, with neighbors determined by queen's contiguity of the block group polygons.

To assess whether treatment effects depended on the number of properties demolished, we stratified the treatment group into lower- and higher-demolitions halves based on the number of demolitions conducted by the end of the treatment period. We analyzed each stratum using the same two-way fixed effects regression model as in the main analysis, comparing the treated units in each stratum with their corresponding matched controls from the previous step.

A major concern for blight remediation programs is that crime might simply relocate from remediated areas to non-remediated areas. Like the majority of studies examining crime displacement (and its inverse, the diffusion of benefits) we examined the immediate spatial effects, specifically whether treatment was associated with crime increases in nearby untreated areas (Johnson, Guerette, & Bowers, 2014). Using our modeling framework from the previous steps, we assessed for spatial displacement by examining whether treatment changed the association in crime outcomes between neighboring block groups. In particular, for each of our crime models, we added a spatial lag term (the average of neighboring units' outcomes at a given time period) as a fixed effect, as well as its interaction with the treatment term. The interaction term would detect spatial spillover specifically associated with treatment. This approach is conceptually similar to previous studies' use of untreated buffer areas as controls (Johnson et al., 2014) except that spillover between adjacent treated units could also be detected.

Analysis was conducted in R software. Institutional review board review was waived because the study involved no human subjects.

Results

The matching process reduced treatment–control group imbalance on the matching variables in the main analysis (Table 1). Treatment units received substantially more demolitions by the end of the treatment period ($M = 16.6$) than control units did ($M = 2.4$). Of the 343 matched pairs, only 2 were geographical neighbors.

In the propensity score regression (see Supplemental Table 1), receipt of treatment was positively associated with the proportion of non-Hispanic White residents, concentrated disadvantage, the number of buildings in the block group, and the residential vacancy percentage, and was negatively associated with the proportion of residential properties that went vacant from 2009 to 2014.

The matched groups showed similar trends for each crime outcome prior to treatment and the overall trend in both groups was downward for each outcome (Fig. 1). In the pre-treatment period, the treatment group experienced more firearm assaults ($M = 1.16$) and drug violations ($M = 1.29$) per block group-quarter than the control group (firearm assaults, $M = 1.07$; drug violations, $M = 1.18$). In the post-treatment period, the treatment group had fewer firearm assaults ($M = 0.93$) than the control group ($M = 0.96$) but more drug violations (treatment group, $M = 0.94$; control group, $M = 0.89$).

Our regression model estimates (Table 2) indicated that treatment was associated with an 11% reduction in firearm assaults, compared with control units, 95% CI [7%, 15%], $p = 0.01$. We found no association with illegal drug violations. In the stratified analysis (Table 3), treatment was associated with a 14% reduction in firearm assaults in the

[1] We used a negative binomial model to model outcome Y_{it}, the number of crimes at unit i at time t, as a function of the unit fixed effect a_i, the time fixed effect b_t, and a constant treatment effect δ. Letting D_{it} refer to i's treatment status at time t we have (including the log link for the negative binomial):

$$\log E[Y_{it}] = a_i + b_t + \delta D_{it} + \varepsilon_{it}$$

We used a negative binomial model to allow for overdispersion of the Y due to unobserved heterogeneity. The δ term is the average effect of treatment on the treated.

Table 1 Mean values of study variables, before and after statistical matching procedure, by group

Variable	Treated (n = 343)	Pre-match Untreated (n = 536)	Post-match Control (n = 343)
Matching variables			
Residential vacancy (%)	24	15	21
Became vacant since 2009 (%)	13	8	11
Parcels with structures (n)	321	286	313
Block population (n)	764	818	778
White, non-Hispanic population (%)	8	8	8
Males ages 15–34 (n)	110	113	109
Median income (USD)	22,572	26,790	24,341
Concentrated disadvantage[a]	0.24	− 0.15	0.09
Treatment variable[b]			
Demolitions received, Q2 2014–Q3 2015	16.6	1.8	2.4
Outcome variables[b]			
Firearm assaults/qtr, pre-treatment	1.16	0.95	1.07
Firearm assaults/qtr, post-treatment	0.93	0.85	0.96
Illegal drug violations/qtr, pre-treatment	1.29	0.99	1.18
Illegal drug violations/qtr, post-treatment	0.94	0.76	0.92

Treated status based on a threshold of > 5 total demolitions from Q2 2014–Q3 2015. Vacancy and parcel data were obtained or derived from 2009 and 2014 residential parcel surveys (Data Driven Detroit, 2010; Data Driven Detroit, 2014). All other matching variables were obtained or derived from 2014 5-year American Community Survey

[a]Composite factor of population below federal poverty line, population with high school education, single mother-headed households, and unemployment rate

[b]All treatment and outcome variables are reported as counts

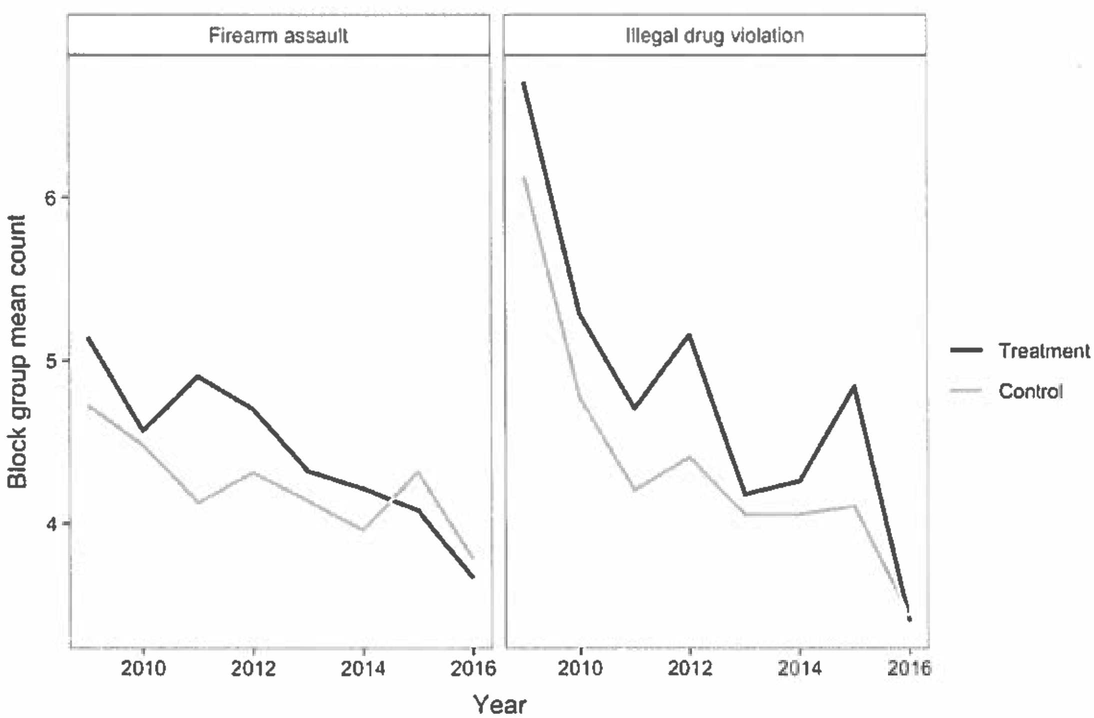


Fig. 1 Annual mean crime outcomes for treatment and control groups

Table 2 Estimated treatment effects from demolitions program

Outcome	Estimated treatment effect	
	IRR[a] (95% CI)	*p*
Firearm assaults	0.89 (0.85, 0.93)	0.01
Illegal drug violations	0.95 (0.89, 1.01)	0.98

[a]Incident rate ratio (IRR) using negative binomial regression with two-way fixed effects and matched sample. For model specifications, see "Methods"

lower-demolitions stratum, 95% CI [9%, 18%], $p = 0.01$, and with a similar-magnitude, but non-significant, estimated reduction in illegal drug violations for the same group. No treatment effects were observed in the higher-demolitions group.

Moran's I tests did not find spatial autocorrelation in the deviance residuals for the firearms model at any time period. In the drug violations model, 3 out of 26 time periods showed residual spatial autocorrelation at $p < 0.05$, but none was during the post-treatment period.

Our spatial lag regressions, used to test for spatial displacement of crime, found no significant associations with the spatial lag terms or their interactions with the treatment indicator (Supplemental Table 2). Adding the spatial lag terms did not substantially alter the main effects estimates.

Discussion

Our results support the proposition that removing abandoned buildings from a neighborhood can reduce firearm violence. In Detroit, we found that the neighborhoods that received a modest number of demolitions early in Detroit's large-scale demolitions program experienced significantly fewer firearm assaults in the 14-month period following these demolitions, relative to comparable neighborhoods that received fewer demolitions. The reduction in firearm violence was more evident in the subgroup of neighborhoods that received a moderate number of demolitions (6–12) rather than a large number (13 or more). This finding indicates that for reducing firearm violence, a moderate number of demolitions may suffice.

The finding also may suggest that high numbers of demolitions may overwhelm municipal capacity to follow up on the full inventory of newly cleared properties, leaving a certain number of newly demolished properties with a similar level of disorder as the original abandoned structures. This incomplete planning in terms of what to do *after* a structure has been demolished has occurred in other cities and may have stymied the impact of Detroit's demolitions (Branas et al., 2011; Garvin et al., 2013; Clark, 2016). More complete follow-up and planning after demolitions could range from policies to quickly remove construction and demolition debris to policies for community reuse of the newly cleared space, such as rapid greening of newly created vacant lots or the construction of affordable housing.

Importantly, we also did not find evidence that assaults were simply displaced to adjacent neighborhoods. This finding is consistent with prior research, particularly on large-scale crime prevention activities, which typically have found no displacement (Telep et al., 2014). Despite the balance of evidence, however, the possibility of crime displacement is often cited as a reason not to pursue crime prevention projects (Johnson et al., 2014). Such an a priori concern might seem particularly salient for demolitions in a context such as Detroit, where the large number of vacant and abandoned properties would allow crime simply to "move" from demolished properties to the remaining abandoned properties, negating the intervention's benefits at the population level. It appears that this phenomenon did not occur.

Our results indicate, additionally, that demolitions do not necessarily reduce firearm violence by reducing illegal drug-related activity. Since vacant houses can be used to process, store, sell and/or consume drugs (Spelman, 1993; Garvin et al., 2013), eliminating these physical spaces through demolitions might be expected to reduce illegal drug activity in a given neighborhood through *opportunity reduction* (Spelman, 1993). Nearby firearm assaults might be expected to decline in turn, since drug selling and

Table 3 Estimated treatment effects by dosage level

Outcome	Dosage level			
	Lower (6–12 demolitions, $n = 177$)		Higher (13–90 demolitions, $n = 166$)	
	IRR[a] (95% CI)	*p*	IRR (95% CI)	*p*
Firearm assaults	0.86 (0.82, 0.91)	0.01	0.93 (0.87, 0.99)	0.24
Illegal drug violations	0.87 (0.79, 0.95)	0.35	1.03 (0.94, 1.13)	0.72

Block groups in each dosage stratum were compared 1:1 with matched controls and analyzed independently

[a]Incident rate ratio (IRR) using two-way fixed effects with matched sample. For model specifications, see "Methods"

consumption are associated with violence (Hohl et al., 2017). However, we did not observe clear evidence of this phenomenon, either at the main treatment threshold or in the dose–response analyses.

It appears more likely, therefore, that demolitions reduced firearm violence through other mechanisms, such as by changing perceptions of safety and guardianship. A moderate number of demolitions might be perceived as improving neighborhood conditions and larger numbers of demolitions did not enhance this perception. This explanation is consistent with theories such as *broken windows theory* (Kelling & Wilson, 1982) and *busy streets theory* (Heinze et al., 2018), which emphasize how physical condition can influence crime by signaling whether a location is safe and well cared-for. If demolitions reduce crime through this mechanism, it is possible that the first dozen demolitions are more symbolically valuable than subsequent demolitions. On this account, locations would receive similar benefits whether they received many demolitions or only a few, and thus our model could show non-significant effects at higher dosages, as we observed here.

In addition to the effects of demolitions on crime, our findings provide new information about how Detroit's demolitions were allocated. As expected, neighborhoods with more total buildings and more vacant residences received more demolitions, according to our propensity score regressions. Controlling for the other covariates, neighborhoods experiencing greater ongoing population loss and abandonment, as measured by residential vacancy change since 2009, received *fewer* demolitions. This finding is consistent with the program's stated goal to bolster neighborhoods already considered desirable. We also found, however, that neighborhoods with a larger proportion of non-Hispanic White residents received more demolitions, even after controlling for the other covariates. Such an association was not one of the program's stated goals and has not been noted in news accounts such as *The Economist* (2017). This problematic finding could be interpreted in terms of racial biases influencing which neighborhoods are considered desirable (Krysan et al., 2009) or large-scale housing discrimination that Detroit's Black residents have experienced from Great Migration-era "redlining" through the present (Smith, Lafond, & Moehlman, 2018).

Limitations

While we took steps to minimize confounding, unobserved, time-varying factors could have influenced the outcomes we observed. Police response times, for example, are reported to have declined substantially since 2014 (Wilkinson, 2017) and some vacant houses have been boarded for security (Stafford, 2017). The same neighborhoods chosen to receive more demolitions might have also been chosen to receive these other services, which could be partly responsible for the observed reductions. Moreover, the comparison of lower- and higher-dosage treatment effects could be suspect if treatment assignment was dynamic, i.e. if larger numbers of demolitions were assigned to locations based on whether neighborhood conditions appeared to be improving during the treatment period.

Police department crime data are an imperfect measure of the outcomes we studied here. These data can reflect differential reporting rates by neighborhood or patterns in police enforcement. For example, if police focused their enforcement efforts in the same areas receiving demolitions and paid less attention to the control locations, our approach could fail to detect true declines in illegal drug activity. Further research would be necessary to reject the possibility that demolitions influence either resident reporting or police behaviors, independent of true incidence. Moreover, there has been controversy over the accuracy of Detroit's crime data in past decades (Ashenfelter, 2001).

We did not conduct direct observation of the demolition program or collect data from residents related to neighborhood physical and social changes. These intermediate observations could help validate and explain the phenomena we observed in our models. Moreover, we only assessed the effects of treatment during the post-treatment period. It is possible that treatment also had effects during the 15-month treatment period, perhaps related to the demolitions activity itself rather than the post-demolition physical landscape. Future research could examine these effects.

Finally, our displacement analyses only tested for spatial displacement of each outcome among adjacent units. Therefore, we cannot conclude that no displacement occurred. Other forms of displacement could include more distal spatial effects (e.g., spillover into suburbs) or displacement of crime types, such as a transition from firearm assaults to non-firearm assaults. However, we employed the most commonly used approach to testing for crime displacement, whereas many prior studies of crime prevention have not analyzed displacement at all (Johnson et al., 2014).

Conclusions

Understanding how demolitions affect crime could influence how cities respond to physically blighted buildings. We found that Detroit's demolitions program may have reduced subsequent violence in the neighborhoods that received more than 5 demolitions during the first 15 months of the demolitions program. Receiving substantially more demolitions did not appear to improve outcomes. Non-Hispanic White residents may have benefited disproportionately from this program. In light of racial disparities in exposure to firearm violence, our findings would support racial equity as an explicit consideration when cities allocate blight remediation resources.

Acknowledgements The authors thank Erica Raleigh (Data Driven Detroit) and Diana Flora (Detroit Police Department) for helpful consultations regarding the property survey and police department datasets used in this analysis.

Author contributions JJ conceived the project, conducted the analyses and drafted the manuscript. JJ and LM designed the model. CB, MZ and DH contributed to the interpretation of the results. All authors provided critical feedback and helped shape the research, analysis and manuscript.

Funding This work has been supported by the Firearm-safety Among Children and Teens (FACTS) Consortium (NICHD 1R24HD087149-01A1). The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the funding agency. No honoraria, grants or other form of payment were received for producing this manuscript.

Compliance with ethical standards

Conflict of interest Jonathan Jay, Luke W. Miratrix, Charles C. Branas, Marc A. Zimmerman, David Hemenway declare that they have no conflict of interest.

Human and animal rights and Informed Consent This article does not contain any studies with human participants or animals performed by any of the authors. The Harvard T.H. Chan School of Public Health institutional review board waived review of this study as non-human subjects research.

References

Ashenfelter, D. (2001). *Detroit's crime totals still a mystery* (p. A1). Detroit: Detroit Free Press.

Bach, T. (2017). *The people left behind by Detroit's 'comeback'*. Vice. Retrieved from https://www.vice.com/en_us/article/3kaxd5/the-people-left-behind-by-detroits-comeback

Bell, R. M., & McCaffrey, D. F. (2002). Bias reduction in standard errors for linear regression with multi-stage samples. *Survey Methodology, 28*, 169–181.

Branas, C. C., Cheney, R. A., MacDonald, J. M., Tam, V. W., Jackson, T. D., & Ten Havey, T. R. (2011). A difference-in-differences analysis of health, safety, and greening vacant urban space. *American Journal of Epidemiology, 174*, 1296–1306.

Branas, C. C., South, E., Kondo, M. C., et al. (2018). Citywide cluster randomized trial to restore blighted vacant land and its effects on violence, crime, and fear. *Proceedings of the National Academy of Sciences, 115*, 2946–2951.

Clark, P. (2016). *Can we fix American cities by tearing them down?* Bloomberg Business. Retrieved February 24, 2019 from https://www.bloomberg.com/news/articles/2016-01-13/can-we-fix-american-cities-by-tearing-them-down

Cwiek, S. (2016). *Judge orders subpoena in Detroit demolition investigation unsealed*. Michigan Public Radio. Retrieved from http://www.michiganradio.org/post/judge-orders-subpoena-detroit-demolition-investigation-unsealed

Data Driven Detroit. (2010). Detroit residential parcel survey. Retrieved from https://datadrivendetroit.org/files/DRPS/Detroit%20Residential%20Parcel%20Survey%20OVERVIEW.pdf

Data Driven Detroit. (2014). *Motor city mapping survey*. Retrieved from http://d3-d3.opendata.arcgis.com/datasets/7cfed5afb7654e2495cf4c1ead320aa5_0

Detroit Blight Removal Task Force. (2014). *Detroit blight removal task force plan*. Retrieved from http://www.timetoendblight.com/

Detroit Land Bank Authority. (2013). *Detroit hardest hit fund strategic plan*. Retrieved from https://detroitmi.gov/Portals/0/docs/EM/Reports/Hardest%20Hit%20Funds%20Strategic%20Plan.pdf

Detroit Police Department. (2018). *DPD: All crime incidents, January 1, 2009–December 6, 2016*. Retrieved from https://data.detroitmi.gov/Public-Safety/DPD-All-Crime-Incidents-January-1-2009-December-6-/invm-th67

Draca, M., Machin, S., & Witt, R. (2011). Panic on the streets of London: Police, crime, and the July 2005 terror attacks. *American Economic Review, 101*, 2157–2181.

Dynamo Metrics LLC. (2015). Estimating home equity impacts from rapid, targeted residential demolition in Detroit, MI: Application of a spatially-dynamic data system for decision support. Retrieved from http://www.demolitionimpact.org/download/

Fowler, K. A., Dahlberg, L. L., Haileyesus, T., Gutierrez, C., & Bacon, S. (2017). Childhood firearm injuries in the United States. *Pediatrics, 140*, e20163486.

Garvin, E., Branas, C., Keddem, S., Sellman, J., & Cannuscio, C. (2013). More than just an eyesore: Local insights and solutions on vacant land and urban health. *Journal of Urban Health, 90*, 412–426.

Heinze, J. E., Krusky-Morey, A., Vagi, K. J., Reischl, T. M., Franzen, S., Pruett, N. K., et al. (2018). Busy streets theory: The effects of community-engaged greening on violence. *American Journal of Community Psychology, 62*, 101–109.

Herrin, B. R., Gaither, J. R., Leventhal, J. M., & Dodington, J. (2018). Rural versus urban hospitalizations for firearm injuries in children and adolescents. *Pediatrics, 142*, e20173318.

Ho, D. E., Imai, K., King, G., & Stuart, E. A. (2007). Matching as nonparametric preprocessing for reducing model dependence in parametric causal inference. *Political Analysis, 15*, 199–236.

Hohl, B. C., Wiley, S., Wiebe, D. J., Culyba, A. J., Drake, R., & Branas, C. C. (2017). Association of drug and alcohol use with adolescent firearm homicide at individual, family, and neighborhood levels. *JAMA Internal Medicine, 177*, 317–324.

Johnson, S. D., Guerette, R. T., & Bowers, K. (2014). Crime displacement: What we know, what we don't know, and what it means for crime reduction. *Journal of Experimental Criminology, 10*, 549–571.

Kelling, G. L., & Wilson, J. Q. (1982). Broken windows: The police and neighborhood safety. *Atlantic Monthly, 249*, 29–38.

Kondo, M., Hohl, B., Han, S., & Branas, C. (2016). Effects of greening and community reuse of vacant lots on crime. *Urban Studies, 53*, 3279–3295.

Kondo, M. C., Keene, D., Hohl, B. C., MacDonald, J. M., & Branas, C. C. (2015). A difference-in-differences study of the effects of a new abandoned building remediation strategy on safety. *PLoS ONE, 10*, e0129582.

Kondo, M. C., Morrison, C., Jacoby, S. F., Elliot, L., Poche, A., Theall, K. P., et al. (2018). Blight abatement of vacant land and crime in New Orleans. *Public Health Reports, 133*, 650–657.

Krysan, M., Couper, M. P., Farley, R., & Forman, T. A. (2009). Does race matter in neighborhood preferences? Results from a video experiment. *American Journal of Sociology, 115*, 527–559.

Kuo, F. E. (2001). Coping with poverty: Impacts of environment and attention in the inner city. *Environmental Behavior, 33*, 5–34.

Pustejovsky, J. E., & Tipton, E. (2018). Small-sample methods for cluster-robust variance estimation and hypothesis testing in fixed effects models. *Journal of Business and Economic Statistics, 36*, 672–683.

Rosenbaum, P. R. (2002). *Observational studies*. New York, NY: Springer.

Smith, L., Lafond, K., & Moehlman, L. (2018). *Data analysis: 'Modern-day redlining' happening in Detroit and Lansing*. Michigan Public Radio. Retrieved from http://www.michiganradio.org/post/data-analysis-modern-day-redlining-happening-detroit-and-lansing

Spader, J., Schuetz, J., & Cortes, A. (2016). Fewer vacants, fewer crimes? Impacts of neighborhood revitalization policies on crime. *Regional Science and Urban Economics, 60*, 73–84.

Spelman, W. (1993). Abandoned buildings: Magnets for crime? *Journal of Criminal Justice, 2*, 481–495.

Stacy, C. P. (2018). The effect of vacant building demolitions on crime under depopulation. *Journal of Regional Science, 58*, 100–115.

Stafford, K. (2017). *Detroit reveals plan to board up 11,000 vacant homes in two years*. Detroit Free Press. Retrieved from https://www.freep.com/story/news/local/michigan/detroit/2017/08/10/detroit-vacant-home-blight/556322001/

Telep, C. W., Weisburd, D., Gill, C. E., Vitter, Z., & Teichman, D. (2014). Displacement of crime and diffusion of crime control benefits in large-scale geographic areas: A systematic review. *J Exp Criminol, 10*, 515–548.

The Economist. (2017). *The end of blight is in sight* (*424*(9058), p. 21). *The Economist*.

Wheeler, A. P., Kim, D.-Y., & Phillips, S. W. (2018). The effect of housing demolitions on crime in Buffalo, New York. *Journal of Research in Crime and Delinquency, 55*, 390–424.

Wilkinson, M. (2017). *Detroit police improve response times. But not all neighborhoods are equal. Detroit Journalism Cooperative*. Retrieved from October 3, 2017, from https://www.bridgemi.com/detroit-journalism-cooperative/detroit-police-improve-response-times-not-all-neighborhoods-are-equal

Wing, C., Simon, K., & Bello-Gomez, R. A. (2018). Designing difference in difference studies: Best practices for public health policy research keywords. *Annual Review of Public Health, 39*, 453–469.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

MEMORANDUM

TO: City Council President Brenda Jones

FROM: David Massaron, Chief Financial Officer, City of Detroit
Arthur Jemison, Group Executive for Planning, Housing and Development

DATE: October 1, 2019

RE: Responses to Additional Questions and Concerns on Blight Removal Bond

Please see responses to your additional questions and concerns about the Blight Removal Bond proposal.

1. When does the administration plan to meet individually with contractor companies individually to understand their staffing needs and timelines, and construct individual or shared recruitment (as appropriate), training and placement strategies to meet the needs of the Demo provider community?

This month, the Detroit at Work team is ready to meet with all existing demolition contractors that have been prequalified. These meetings will be used to inform our training and recruitment strategies and to determine what shared hiring strategies can be effectively deployed.

2. With the investment in blight, what is the DESC's plan for marketing and outreach of contract opportunities to Detroiters?
a. Please provide timelines.

For marketing, we will model our efforts similar to the Detroit at Work/FCA Outreach marketing plan where we saw tremendous engagement from Detroiters for interest in Job Readiness programs and Job Opportunities. We will focus on a multi-media campaign that will include:

- Outdoor signage across the city in major traffic and neighborhood communities.
- Digital and Social media outreach across Detroit at Work and all city channels.
- Outreach to our community partners including City Council, Faith-based, community partners, Department of Neighborhoods.
- Detroit at Work website banners and landing page highlighting details and how to sign up and find our more information (detroitatwork.com averages 50,000 visits a month)
- Detroit at Work newsletter with over 120,000 Detroiters subscribing.
- Press Conference to announce efforts and garner media partners stories.

The marketing plan can begin in October.

3. How many jobs are expected to be created annually as a result of the blight elimination strategy?

It is important to remember that we anticipate the bond will allow us to continue demolishing houses at the same rate that we have over the last 5 years, so there will not be a dramatic increase in new jobs. That said, there is decent turnover in demo contractors, and we are

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

bringing in new contractors; with the proactive approach proposed by DESC, we believe we can work to backfill these positions with qualified Detroiters.

4. How many Detroiters today are currently trained and prepared to be hired by demolition contractors?
Since 2017, Detroit at Work/DESC and its contracted training providers have helped 644 Detroiters successfully complete training and earn credentials that would qualify them to be employed by demolition contractors. These programs covered skills such as heavy equipment operation, lead removal, asbestos abatement, blight removal, carpentry, general construction knowledge and/or workplace safety skills. Over 70% of these individuals obtained training-related employment after completing their program but may be interested in other or additional employment opportunities. When we have more information on the talent needs of demolition contractors for this project, we will be better able to project how many Detroiters in our current talent pipeline could be a good fit.

5. With the influx of new skilled trades jobs that will be created as a result of the blight elimination strategy and the massive database of ready to work Detroiters created as a result of the FCA employment initiative, what is the administration's plan to ensure that mass database of ready to work Detroiters are trained, prepared, qualified and hired by demolition contractors?

The jobseeker database started through our work with FCA can be immediately leveraged to connect Detroit residents to employment opportunities with demolition contractors. Beyond the FCA applicants, there are more than 20,000 Detroiters who are in our database because they sought services (unrelated to FCA) at a Career Center within the past several years. This means that there are more than 60,000 Detroiters who have registered with Detroit at Work and shared key information on industry interest and skills. DESC will use this database to conduct direct outreach to Detroiters interested in construction as we market both training and employment opportunities on behalf of Demolition contractors.

Please provide additional details on the pilot procurement program for demolition including, but not limited to, the following:

1. Projected number of demolition contracts per each two (2) year demolition submission cycle.
Twice a year, OCP is planning to release bids for 27 packages of ~90 properties each. Contractors can win between 1- 6 packages per company (90-540 properties). One contract per company will be issued. In addition to the two large releases, there will be smaller packages of emergency and smaller packages.

2. Projected number of properties included in each contract.
The number of properties will range from approximately 90 to 540.

3. Length of time for each contractor to complete the demolition of their assigned package of properties.
Contractors will have approximately 270 calendar days to complete the demolition (including abatement, knock-down, and final grade) of their assigned properties for next year.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

4. Goals and metrics used to measure the success of demolition contractors.
Contractors will be expected to meet 25%, 50%, 75%, and 100% benchmarks (of assigned properties) through the entire term of performance. These benchmarks will focus on various stages of the demolition process (i.e. abatement, knock-down, final grade) to ensure that contractors are pushing all properties to completion.

5. Contractor reporting requirements to the Office of Contracting and Procurement.
Contractors are responsible for a number of metrics from the field, including but not limited to, planned knock down date, actual knock down date (verified by a DBA field liaison), open hole requested date, and final grade requested date.

6. Interdepartmental collaboration strategy between the Detroit Building Authority and the Office of Contracting and Procurement for the demolition of properties annually.
The DBA, HRD, and OCP work closely together on all aspects of the demolition program. While DBA, HRD, and OCP have a standing bi-weekly meetings to discuss various aspects of the program, the teams are now co-located at the Public Safety HQ which allows for consistent interaction and collaboration.

7. The number of demolition field liaisons employed by the Detroit Building Authority.
The DBA currently has 8 members of the field team: 6 field liaisons, 1 field superintendent, and 1 field operations manager. All members of the field team observe demolitions in addition to other assigned duties.

8. The number of properties assigned to each demolition field liaison weekly.
The number of properties assigned to each member of the field team will vary from week to week depending upon the number of scheduled demolitions. While the field team is generally assigned to specific contractors, the leadership of the team makes every effort to ensure that each member of the team is assigned an equitable number of sites so that no one member is over-burdened.

9. The length of time spent at each demolition site by each demolition field liaison.
The field team spends approximately 45 minutes on average per residential site during the course of the knock-down.

10. Proof of the demolition field liaisons' ability to efficiently monitor each of their assigned properties.
Over the past sixteen months, the field team has observed 5,126 of 5,445 (94%) demolitions in the field, completing a checklist at each observed knock-down.

11. How many contractors have received equalization credits that have resulted in successfully winning demolition contract bids?
In FY 2019, 10 contractors received equalization credits which resulted in a total of $42,735,661.42 in awards.

12. What is the total dollar amount of those contracts?
In FY 2019, 10 contractors received equalization credits which resulted in a total of $42,735,661.42 in awards.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

The following is in response to the other concerns from your September 28 memo.

The attached memo from Bond Counsel provides analysis for the prohibition against using bond proceeds for foreclosure prevention activities. Although we cannot use bond proceeds to prevent foreclosure for those in poverty, we have been exploring other tools we can use and will have more policy announcements related to foreclosure assistance as we move through the year.

As stated in our last memo, we agree that the City's investment in foreclosure prevention is critical to our future, and we need to continue to push out the City's programs aimed to help residents stay in their homes. Since 2015, occupied foreclosures have decreased by 94% in part due to the work of the City and philanthropies have done to help people stay in their homes. Under the Mayor's leadership, the City ended the Emergency Manager's practice of placing water bills in the property tax foreclosure system. In partnership with UCHC, we organized volunteers from neighborhoods to knock on doors to offer help to those facing foreclosure. And we led the effort to pass House Bill 5882 that allowed delinquent taxpayers to enter into payment plans to avoid foreclosures; 15,000 signed up first year alone.

In addition to knocking on doors and pushing for legislation to help homeowners, the City has made significant investments in helping people stay in their homes. You have asked for a five year spending plan to reduce foreclosures, but I suggest that is not the best way to think about our work. We need to get qualified homeowners in poverty enrolled in the property tax exemption, which is not an expenditure but tax relief. Today, we are investing $1.8 million a year in providing homeowners who qualify a 100% property tax exemption, 50% exemption and the disabled vet exemption; if we can continue signing up all homeowners we believe qualify, the City could provide almost $12 million a year in tax relief. We will continue to work with City Council through the yearly budget process to support single family home repair programs through General Fund, federal lead home repair and CDBG funds, and private philanthropic and loan contributions. We will also work with philanthropies, City Council, and other stakeholders on the Make it Home program and other opportunities to offer foreclosure assistance in the future.

As part of our ongoing effort to run the nation's largest and safest demolition program, the City of Detroit has several ways to communicate with neighbors about demolitions in their area. First, the contractors install three signs at the target property: one posted on the house two weeks prior to the demolition, and two lawn signs on either side of the front yard. In addition, the contractor places door hangers with public health and safety information about an upcoming demolition on all houses within 400 feet of the targeted house. Finally, the City of Detroit launched a text-based program to let residents know when a building near them is going to be demolished. By texting an address they care about to 313-254-DEMO (3366), residents will receive a text message listing the addresses of structures within 500 feet that are scheduled for demolition and the approximate date of demolition. The text also includes health tips reminding them to keep windows and doors closed during active demolition and to keep children and pets inside.

The City will be continuing its use of the neighborhood planning process to drive positive change in neighborhoods. In primarily residential areas, we will use neighborhood plans. We will use framework plans for areas of more mixed commercial industrial. Our current neighborhood planning process is how we attracted resources for SNF. We plan to use the same formula in

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

the neighborhoods that are affected by demolition. With the Russell Woods and the new Gratiot 7 Mile plans, the City is expanding the planning areas to include areas that will be affected by the removal of vacant and abandoned houses. This way the neighbors will be able to identify interim and long-term plans for land in their neighborhood.

Thank you for your advocacy on proactive workforce development, and we believe DESC's proposal to actively work with demolition employers to match them with interested, qualified Detroiters fits this goal. Through the DESC's experience on the FCA hiring, they are building out their new position as an employment agency that works with employers to understand their needs and uses their newly built vast database to identify possible employees. DESC will also work with the demo team, OCP, and CRIO on employment fairs, as you proposed in your memo. As contractors are linked with job candidates through DESC, we hope that more will be eligible for the Detroit Resident Business Certification, an equalization credit that will benefit them in the procurement process. Through the semiannual procurements, OCP will report to City Council on the contractors that have received the 51% Detroit employee certification. We believe this proactive approach will be the best tactic for getting Detroiters into these jobs without raising the cost of demolition with new requirements.

As stated in the last memo, through the use of the City's equalization ordinance, the City's contracting process has been much more successful in providing opportunities for Detroit Based Businesses and Minority-Owned Business Enterprises than the federal rules allowed under HHF. Detroit Based Businesses have completed 54% of the demos since January 2018, and Minority-Owned Business Enterprises (MBEs) have completed 50%. Our procurement team and demo team will work this year to explore better use the joint venture and mentoring components of the ordinance. We believe that there are improvements that can be made to our procurement ordinance to ensure that Detroiters are benefiting from these equalization credits, and I pledge to work with Committee Chair Ayers and her committee on proposed improvements over the next nine months. These changes should be made through the procurement ordinance rather than through a bond authorization.

As we stated in our last memo, we agree that the City Council should have visibility into the ongoing blight removal program. The City Council and the public currently have access to real-time data about all demolitions, planned, contracted, and completed; included in this data, is the contractor, amount paid to contractor, and planned and actual demolition date. In addition, when OCP submits demo procurements, it will include the certifications that each awardee has obtained, including the Detroit Resident Business certification for businesses with at least 51% of their employees are Detroit residents. The protocols for ensuring efficient environmental mitigation for each demolition is on the detroitmi.gov/demolition website. Finally, to meet your request, the DBA will provide a quarterly report of the number of houses demolished and the percent of those demolitions that had site visits by field liaisons.

MILLER
CANFIELD

MEMORANDUM

TO:	City of Detroit
FROM:	Miller, Canfield, Paddock and Stone, P.L.C.
RE:	Prohibition Against Using Bond Proceeds for Foreclosure Prevention Activities
DATE:	September 27, 2019

You have asked whether the City of Detroit (the "City") may use bond proceeds for foreclosure prevention—specifically, using such proceeds to assist residents in paying their property tax bills or otherwise relieving their property tax liabilities.

The answer is that the Michigan Constitution likely prohibits such expenditures. The Michigan Constitution provides: "Except as otherwise provided in this constitution, no city or village shall have the power to loan its credit for any private purpose or, except as provided by law, for any public purpose." MICH. CONST. 1963, Art 7, Sec. 26. This provision bars the lending of the public credit by cities and village for any private purpose and allows the lending of the public credit by cities and villages for any public purpose only when provided by law.

A gift or donation of money or property by a public body constitutes an unconstitutional lending of credit, as does the guarantee or relief of the debt of another party. The Michigan Supreme Court has found that the transfer of public funds to a private party—including a transfer for the purpose of relieving the private party of a cost or burden—is unlawful. *See, e.g.*, *Skutt v. City of Grand Rapids*, 275 Mich. 258 (1936); *McManus v. City of Petoskey*, 164 Mich. 390 (1911). The majority of case law on this topic relates to proposed loans or gifts to commercial enterprises, as opposed to individual residents. A Michigan Attorney General Opinion, however, addressed a proposal similar to the one at issue, in which the City of Pontiac proposed a long-term deferment or credit against property taxes owed by residents unable to pay. The Attorney General determined that an "attempt[] to extend credit for taxes, no matter how secured, would be in violation" of the constitutional lending of credit prohibition. Mich. Op. Atty. Gen 1928-30, p. 286. Under this standard, an outright loan or gift to be applied to a recipient's property tax liability would constitute an impermissible lending of credit. Notably, the Attorney General distinguished this impermissible use of city credit for individual property tax liability relief from permissible, statutorily authorized property tax exemptions due to hardship. *See id.*

Finally, Michigan courts have historically followed Dillon's Rule, named for John Dillon, a nineteenth-century Iowa Supreme Court justice and author of one of the early leading treatises on municipal law. Dillon's Rule provides that power resides with the state, and that a local government, as a political subdivision of the state, has only those powers that are expressly provided, those powers that are necessarily or fairly implied in or incident to the powers that are expressly granted and those powers that are essential to the accomplishment of a public corporation's purpose. *See* J. Dillon, MUNICIPAL CORPORATIONS §237 (5th ed. 1911). Dillon's Rule remains operative in Michigan; *see City of Taylor v. The Detroit Edison Company*, 475 Mich. 109, 112 (2006). We are unaware of any constitutional or statutory authorization for a city to use bond proceeds to provide funds to individuals to assist with satisfying property tax liability in an effort to prevent foreclosure.

Thus, based on the foregoing, using bond proceeds to fund the proposed foreclosure prevention activities lacks statutory authorization and would constitute a prohibited lending of credit.

34519646.1\022765-00234

Attachment III

Council President Pro Tempore Mary Sheffield's Questions Regarding the Proposed Blight Elimination/Demolition Program, including the up to $250 Million in UTGO Blight Bonds

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

MEMORANDUM

TO: City Council President Pro Tem Mary Sheffield

FROM: David Massaron, Chief Financial Officer, City of Detroit
Arthur Jemison, Group Executive for Planning, Housing and Development

DATE: September 27, 2019

RE: Responses Question on Blight Removal Bond

1) Why does the Administration want to avoid the petition process for the $250 million bond proposal ballot initiative and instead ask Council to place it on the ballot?
Corporation Counsel has shared an opinion with the BF&A Committee and the Administration that there is no legal authority for a petition initiated UTGO bond proposal.

2) Under the current demolition program how many homes will be demolished in the current fiscal year and at what cost?
We anticipate there will be 3,578 demolitions with an average cost of $19,825.

3) Given the current the landscape of contractors engaged in the Demolition program, what is the annual capacity to demolish residential structures and what is the City's capacity as it relates to ensuring compliance and safety protocols are followed?
To meet the goal of demolishing all remaining houses by the end of 2025, the City needs to demolish an average of 3,200 houses a year. Since 2014-2018, 3,305 houses were demolished, so this will not require an increase in capacity to complete.

4) Does the ambitious goal of demolishing over 4,000 – 5,000 homes per year have the potential of increasing the cost for demolition and dirt as well as having a negative impact on air quality and the environment?
As shown in question 3, this plan calls for roughly the same amount of annual demolitions over the next 5 years as the program has done during since 2014. The Detroit program will continue to focus on air quality and the environment, but it is worth noting that the Detroit program was recently mentioned as one of the national leaders in safe demolition practices:

"...The group researched the most successful practices in other cities, focusing on demolition requirements in East Baltimore, Md., Portland, Ore., and Detroit. Protective measures have been found to reduce the amount of lead dust spread from demolitions..."
https://www.post-gazette.com/news/health/2019/09/19/Pilot-demolition-projects-measure-lead-soil-CCI-Allegheny-Conservation-District/stories/201909160164

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

5) Is the City adequately prepared to deal with the sidewalk, curb and street repairs needed after demolition of so many homes in a short period of time?
As shown in question 3, this does not require an increase in capacity to meet our goals. We are holding contractors responsible for excessive damage to sidewalks, and we are working with DPW and DWSD to coordinate underground work and prioritize repairs.

6) If approved, will all demolition expenditures come before Council, including the $30 million slated for the rehabilitation program? How will demolition contracts be bundled? -
The current practice of City Council approval for demolition contracts is not expected to change. Properties will be bundled in larger packages, with longer timelines in an effort to increase stability and production for smaller contractors. The City is piloting a procurement process this year based on feedback from contractors. This new process includes larger packages and more time to complete--providing stability for the contractors. It also includes capping contractors based on the number of crews--a metric we believe will better reflect actual capacity. We expect that rehab contracts will come to City Council as well.

7) How will the administration ensure inclusion and equity as it relates to Detroit Headquartered, Detroit Based, and Detroit Resident Based contractors for demolition contracts?
The City has a procurement ordinance that allows us to provide certifications and equalization credits for Detroit Resident Business, Detroit Based, Detroit Headquartered Businesses, and Joint Ventures. Through our existing ordinance, we have had over 50% of the demolitions completed with City funds done by Detroit Based Businesses due to the equalization credits provided through that ordinance. I mentioned in the BF&A Hearing that the Administration is interested in working with Council Members to review and update this ordinance so it can be more effective.

8) To date, how many residential blighted structures still need to be demolished? Also, does the expected need take into account properties added to the number every year?
Staff estimated that the City needs to complete 19,000 demolitions. Staff did contemplate the need to address properties that may become blighted in the future, but did not make an enumerated projection of these properties. Rather, staff relied on an assumption that aggregate trends would continue in a linear fashion. These trends are accounted for in the overall estimate.

9) What criteria is used to determine whether or not a residential blighted structure is eligible for demolition and how is the final determination made?
For Land Bank-owned parcels, all homes are reviewed in-person, on-site by a field inspector shortly after acquisition. Staff then review relevant neighborhood data - including previous sales attempt history, market strength, alignment with city initiatives, etc. - the detailed interior and exterior inspection results, and importantly, resident feedback. After reviewing these three sets of data - condition, neighborhood, and public input - staff assign each property to the appropriate pipeline, and prioritize where possible.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

10) How much money is the City currently investing in preventive measures for blight remediation and how will these proceeds be used along those lines? Would the Administration support using a portion of the funds for initiatives such as: Right to Counsel, home repair grants and assisting individuals who have been unconstitutionally foreclosed upon with purchasing a home?

We agree that the City's investment in foreclosure prevention is critical to our future, and we need to continue to push out the City's programs aimed to help residents stay in their homes. Since 2015, occupied foreclosures have decreased by 94% in part due to the work of the City and philanthropies have done to help people stay in their homes. Under the Mayor's leadership, the City ended the Emergency Manager's practice of placing water bills in the property tax foreclosure system. In partnership with UCHC, we organized volunteers from neighborhoods to knock on doors to offer help to those facing foreclosure. And we led the effort to pass House Bill 5882 that allowed delinquent taxpayers to enter into payment plans to avoid foreclosures; 15,000 signed up first year alone.

In addition to knocking on doors and pushing for legislation to help homeowners, the City has made significant investments in helping people stay in their homes. Today, we are investing $1.8 million a year in providing homeowners who qualify a 100% property tax exemption, 50% exemption and the disabled vet exemption; if we can continue signing up all homeowners we believe qualify, the City could invest almost $12 million a year in this program. Since Fiscal Year 2014-2015, City programs have invested over $38 million in single family home repair through General Fund, federal lead home repair and CDBG funds, and private philanthropic and loan contributions. This funding supports the Senior Emergency Home Repair, Lead Hazard Reduction, and 0% Interest Home Repair Loan programs managed by the Housing and Revitalization Department. Last year, the City and philanthropies allocated $2.3 million to Make it Home, an initiative started in 2017 that helps occupants stay in their tax-foreclosed homes. Our work is not necessarily in the lack of funding (for example, the HPTAP is not limited by appropriation), but to continue outreach to homeowners to help them take advantage of the poverty tax exemption and Make it Home. I think we can agree that an investment in foreclosure prevention does not have to be at the expense of leaving our neighborhoods blighted and our neighbors worried about fires or crime from vacant houses next door.

11) $70 million was appropriated in FY19-20 for blight remediation, how will this money be proposed to be allocated for FY20-21 and future years?

The Plan of Adjustment recommended that $50 million be allocated from surplus to support blight removal. This allocation comes from prior year budget surplus, so it is not built in to the General Fund operating budget and can only be afforded if there is a surplus the previous year.

In order to prevent a slowdown in the demo pipeline, we will propose to accelerate $50 million in blight funding this winter that otherwise would have been appropriated in the FY20-21 budget. Following completion of the CAFR, this will be made possible by a one-time large tax payment in FY19 and acceleration of $30 million of the FY2021 blight appropriation.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

12) The administration has stated that approval of the bonds will allow the City to reduce the timeline of removing residential blight from 13 to 5 years. Given the issues that resulted regarding controls, oversight, and environmental protections at the Land Bank when the pace increased, what's the Administration's plan to avoid similar pitfalls?

As shown in question 3, this does not require an increase in pace to meet our goals. The question of pace and public safety is closely aligned, in fact there is growing academic research that demolitions reduce certain types of violent crimes. It is also clear, that the number of fires have decreased by over 40% since the start of this demolition program, knowing this and the fact that blight creates more blight, moving as quickly and safely as possible is essential.

The Detroit Building Authority (DBA) and Buildings Safety Environmental Engineering Department (BSEED) are the two city entities providing oversight of demolition contractors. BSEED is responsible for ordinance enforcement, wrecking board (vetting new contractors), issuing permits and conducting inspections like open hole and final grade inspections. The DBA is charged with enforcing the scope of work, including the provisions protecting public health and safety. Currently about 95% of all demolitions have a DBA Field Liaison on site during the demolition process to ensure the proper 'triple wet' method is applied to the structure, meaning water is directed to holes in the roof for 5 minutes (start and end time is recorded) prior to knock, then water must be used during the demolition and loadout. This is done to mitigate fugitive dust. The DBA also manages the pre-demolition process of surveying the property for hazardous materials, like asbestos, then ensuring the asbestos has been properly removed prior to demolition.

13) What is the average cost of demolition in other cities? How will the Administration ensure that the City is not being over-charged and that it receives a fair rate when it comes to cost per structure, given such an aggressive plan?

The City's procurement team and CRIO department are actively working to bring in more contractors to participate in the program. Using a competitive bid strategy and thoughtfully packaging demolitions together should keep costs fair and reasonable.

Pittsburgh:
An audit of the city's Department of Permits, Licenses and Inspections released Thursday by Controller Michael Lamb showed costs increased from an average of $9,123 per building in 2015 to $60,000 in 2017, but they are down this year to an average of $30,000 per building.[1]

E. Baltimore
The cost of tearing down a Baltimore rowhouse can be as much as $30,000. [2]

14) Once all of the blighted residential structures are demolished, how will the city ensure that Detroit residents have access to adjacent land? Would the administration be willing to give residents a right of first refusal and allow the community to have an opportunity to purchase land before developers?

---

[1] https://archive.triblive.com/local/allegheny/13452040-74/audit-addresses-pittsburghs-soaring-demolition-costs

[2] https://www.governing.com/topics/urban/gov-baltimore-blight-vacants-to-value.html

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226
Phone: 313 -628-2535
Fax: 313 -224-2135
www.detroitmi.gov

Each community should have a say in the future use of public property in their neighborhood. Rather than dictating the use of future public land, the City will engage in neighborhood planning to understand the short-term, mid-term and long-term goals of each community, and what land uses will best lead to those goals.

15) What are the specific plans for the $30 million proposed for home rehabilitation? What areas are being considered for home rehabilitation? Can a map be provided?
The full range of incentives will be finalized based on market response; however it will likely include activities ranging from:

- Simple enhancements to the property to prepare it for sale such as water line improvements, minor roof repair, removal of trash from houses, quieting of title, etc.
- Expansion of programs such as rehabbed & ready, which would for example rehabilitate a house for $115,000; and then sell that house for $100,000 as a way to improve appraised values
- New "house swap" programs modeled on Bridging Neighborhoods where requested by communities , which would allow exchange of houses in different parts of the city.

The use of the incentives programs will originate from the neighborhood planning process such as the upcoming Gratiot & 7 mile plan or the East Warren Cadiex Plan.

16) What is the expected annual debt service associated with this $250 million UTGO bond request? Given the predictions of an impending recession and market correction, is this optimal time to go to market with the bond offering?
The average annual debt service is $12.4 million. The Administration has modeled different scenarios, including the possibility of a recession and has shown that the City can afford its borrowing plan without raising taxes. Also, it is important to remember that interest rates are low now, which will benefit the City's interest rates.

17) How would this offering affect the City's credit and bond rating? Would this offering put us at greater risk of having the Financial Review Commission return to direct oversight?
This offering is not expected to affect the City's credit and bond rating. The City currently has a Moody's rating of Ba3 and an S&P rating of BB-, which are equivalent ratings. We have communicated the proposed bond and ballot authorizing resolutions to both agencies, who appreciated the analytical and nuanced approach that the City is taking to remove blighted properties either through renovation/resale or demolition. Issuing these bonds on the City's own credit would be a positive development as it relates to the Financial Review Commission (FRC). One of the conditions of the FRC waiver is that the City is able to access the capital (bond) market. While we have previously satisfied this requirement, ongoing demonstration of this ability supports self determination of the finances of the City.

18) Is there a plan to address illegal dumping with this bond proposal?
The Mayor and the Chief of Police have launched an initiative to reduce illegal dumping. Since the launch of the program, the City has reduced illegal dumping tonnage by 37%. DPD plans to continue investing in this program, given the positive results.

Office of the Chief Financial Officer
CITY OF DETROIT

Coleman A. Young Municipal Center
2 Woodward Avenue, suite 1100
Detroit, Michigan 48226

Phone: 313-628-2535
Fax: 313-224-2135
www.detroitmi.gov

19) Why was the initial proposal discussed with City Council increased from $200 million to $250 million? Why is it being reported that the spending on demolition during this period could be up to $420 million total?

We began discussing the proposal for a $200+ million bond with City Council early in the conceptual development. As we worked with our financial advisor and better scrubbed the sources and uses, we developed a proposal to sell $225 million in bonds for this program. We have reviewed multiple scenarios with our financial advisors, and see an opportunity to borrow $250 million without raising taxes and maintaining capacity for future capital. Given the possibility of that scenario and the need for contingency, we have requested authorization for $250 million.

Attachment IV

Mayor Duggan's "Pay as You Stay" to Help Prevent Foreclosures in the City of Detroit

CITY OF DETROIT

Where am I: Home › News
› Proposed "Pay as You Stay" program would wipe out all penalties, interest and fees on back property taxes

PROPOSED "PAY AS YOU STAY" PROGRAM WOULD WIPE OUT ALL PENALTIES, INTEREST AND FEES ON BACK PROPERTY TAXES

MAYOR'S OFFICE

OCT
09

- **Forthcoming state legislation from Rep. Byrd (D-Detroit) would help up to 31,000 eligible Detroiters avoid foreclosure, stay in their homes**
- **Builds on City and County's work to reduce occupied home foreclosures 94% since 2015**
- **Sample homeowner with $11,000 tax debt could become current in 3 years at less than $30 per month**

DETROIT – Today, Wayne County Executive Warren C. Evans, Mayor Mike Duggan and Wayne County Treasurer Eric Sabree called on the state legislature to implement a sweeping new approach to assist tens of thousands of Detroiters and Wayne County residents who owe back property taxes avoid foreclosure. The plan builds on steps the City and County have already taken to reduce occupied home foreclosures by 94 percent since 2015.

Draft legislation for the "Pay as You Stay" (PAYS) plan, expected to be introduced this week by Rep. Wendell Byrd (D-Detroit), would help approximately 31,000 Detroit homeowners stay in their homes by dramatically reducing the amount they owe on their back taxes and lowering their monthly payments.

How "Pay as You Stay" works

"Pay as You Stay" is a simple, three-part plan:

1. Once you enroll, all interest, penalties and fees would be eliminated.
2. To reduce an undue burden on homeowners, the balance due would be limited to back taxes only or 10% of a home's taxable value – whichever is less.
3. The remaining balance would be paid back over three years at zero percent interest.

Homeowners who qualify for a full or partial Property Tax Exemption and enroll in future years would be eligible for the program. To be PTE-eligible, a household with 1 person could not make more than $19,303 per year; a household with 4 people could not make more than $28,671.

"Since 2015, we've been able to reduce the number of occupied foreclosures by 94 percent, but far too many Detroiters still are at risk of foreclosure," said Mayor Mike Duggan. "Pay as You Stay" would help more than 31,000 Detroit homeowners stay in their homes by eliminating interest, penalties and fees and making payment plans affordable for those who need them."

"Pay as You Stay" is intended to address the remaining Detroit homeowners at risk of foreclosure by reducing the undue burden many residents face.

"As we look to continue Wayne County's rebuild we need to take more steps to address foreclosures and help residents break the cycle of poverty," said Executive Evans. "Over the long term, we are much better off with people in their homes. This legislation reduces the burden on residents in payment plans and better positions them to avoid foreclosure while providing a more achievable path to home ownership."

Today, homeowners are able to qualify for the Interest Reduction Stipulated Payment Agreement (IRSPA) payment plan. Created and then extended by the Michigan Legislature after lobbying by Mayor Duggan and Treasurer Sabree and his predecessor, the program offers a 5-year term and reduces the interest rate from 18 percent to 6 percent.

However, officials recognize that this payment plan, while far better than previous, still results in monthly payments that can be unaffordable for many Detroit residents. To address this, the PAYS plan would restructure the debt, drop the interest rate to zero percent, greatly reducing the monthly cost and the time it takes to become current from five years to three:

Example #1

Resident Income: $814/month

Current Taxable Value: $10,400

Current Tax Debt: $11,700

Current IRSPA: $192/month for 5 years

PAYS Plan: $29/month for three years

Example #2

Resident Income: Poverty Tax Exemption Qualified

Current Taxable Value: $4,971

Current Tax Debt: $990

Current IRSPA: $50/month for 5 years

PAYS Plan: $10/month for three years

The "Pay as You Stay" plan would be administered by the Wayne County Treasurer's Office, and open for enrollment for three years after the program launches.

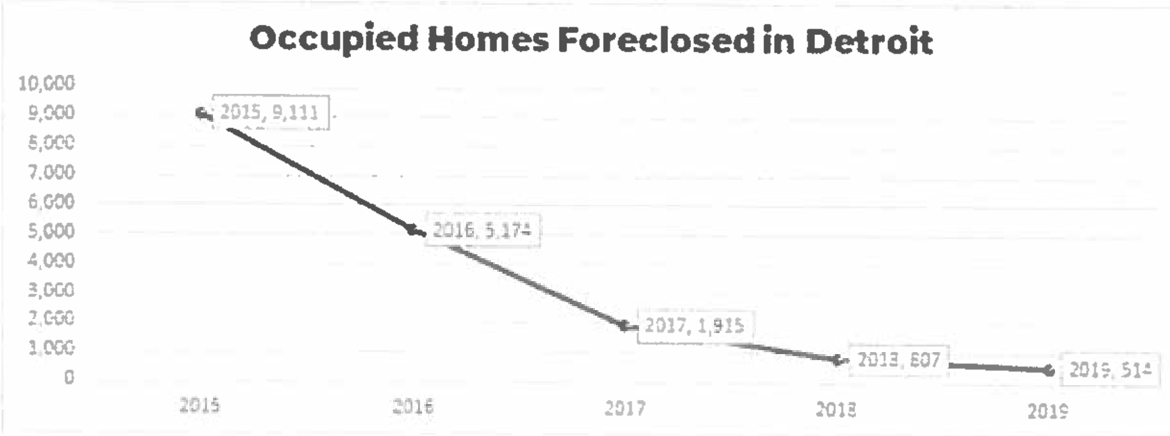
Approval from Lansing needed to implement plan

The State Legislature will need to act to approve the "Pay as You Stay" plan.

"This proposal is one of many steps being taken in the right direction to help residents be able to afford to stay in their homes," said Rep. Byrd. "It's important that we can retain every resident so we can strengthen our neighborhoods and rebuild our city's population."

Occupied home foreclosures down 94% since 2015; plan will help address remaining homeowners at risk

Since 2015, the number of occupied foreclosures in Detroit has dropped by 94 percent, going from 9,111 occupied home foreclosures in 2015 to 514 this year.



The drop is a result of intentional efforts by the City, County and community organizations to keep homeowners in their homes:

- Payment plans: Led the effort in 2014 to pass HB 4882 to allow delinquent taxpayers to enter into payment plans and avoid foreclosure. 15,000 homeowners signed up in the first year alone.
- Citywide residential property reassessment: Completed the first citywide residential property reassessment since the 1950s to ensure home assessments are fair and reflect market values. The vast majority of Detroit homeowners saw their property assessments - and property tax bills - drop as a result. Assessments are now based on actual market activity and updated imagery.
- Make It Home/Right of Refusal: Launched the Make It Home/Right Of Refusal program with the United Community Housing Coalition and Quicken Loans, which allows tenants in non-owner occupied properties to buy back homes at risk of foreclosure for $1,000. Since 2017, 1,142 properties have been removed from the foreclosure auction through this program.
- Going door-to-door citywide: Supported Neighbor to Neighbor door-to-door canvassing to every household in Detroit at risk of foreclosure, with the city's Department of Neighborhoods and AmeriCorps VISTA teams recruiting volunteers, knocking on doors and calling residents. 61,029 homes at risk of tax foreclosure were canvassed through this effort

Attachment V

OCFO's "The Road to 2025: Eliminating Residential Blight in Detroit" Presentation

The Road to 2025:

Eliminating Residential Blight in Detroit

CITY OF DETROIT

For decades, Detroit has struggled with the spread of blight Jerry Cavanagh started to fight blight on July 1, 1965

Free Press Telephones
Sports (after 2 p.m.)
To Place Want Ads
For Home Delivery
City News Desk
All Other Calls
Insurance Dept.

Detroit Free Press

Thursday, July 1, 1965 — THE SECOND FRONT PAGE — Page 3, Section A

Today's Chuckle
Children should be careful what they say. Parents are always repeating what they hear.

Doorways to disaster beckon . . .


. . . in vacant houses like this one at Dubois and Congress.


Pretty patterns can mask . . .


. . . the risks young explorers face.

City Fights Vacant House Menace

Death Still Lurks In Empty Houses

BY JOHN MUELLER

There are 2,101 abandoned buildings and houses in Detroit and all are potential death traps.

Asks U.S. Funds, To Add Patrols

BY HARRY GOLDEN JR. AND HAL COHEN

Mayor Cavanagh and the Common Council moved Wednesday on several new fronts against the menace of dilapidated vacant houses in Detroit.

Mayor Gribbs continued that push with another announcement in 1973

PROPERTY OWNERS MAY BE BILLED

City to Raze Abandoned Buildings

NEW POLICIES, MORE MONEY

City Speeds Up Building Demolition

BY JIM NEUBACHER
Free Press Staff Writer

New city policies plus an injection of revenue sharing money have allowed Detroit building officials to dramatically speed up the condemnation and demolition of decaying, dangerous buildings in the city.

Raymond Goddard, chief building inspector, said the Common Council has ordered 749 structures demolished during the first half of 1973 — compared to 737 ordered torn down all of 1972.

New procedures to cut red tape have reduced delays, building officials add, so that buildings ordered down are demolished in 60 to 90 days.

As recently as a year ago, the backlog on demolition often meant that a dangerous building would stand for six to eight months after being condemned by the council.

IN ADDITION, the city is beginning to see the first results of a commitment last January by the council to remove dangerous buildings which were previously ignored because they were located in designated urban renewal areas.

"We really put a lot more men on it and work late it," said Goddard, explaining the increase in abandoned buildings surveyed by his department and presented to the council for condemnation.

City officials estimate there are 1,500 open, abandoned buildings . . . in need of being processed for demolition.

Other building officials point to several key factors as contributing to increased demolition:

- More communication and co-operation with utility companies, which must remove and disconnect power and fuel and telephone lines before a home can be razed.
- A tougher mood on the Common Council, leading to more demolition orders and

Please turn to Page 4A, Col. 1

Move Means Loss Of Federal Cash

BY JIM NEUBACHER
Free Press Staff Writer

Detroit's Common Council and city development officials agreed Wednesday to end the policy which has allowed hundreds of abandoned, decaying buildings in urban renewal areas to remain standing for years.

Instead the officials decided to knock the buildings down under the city's dangerous buildings ordinances, just as they do abandoned or vacant homes in other parts of Detroit.

The process will takes several months. However, officials said it will represent a major improvement.

UNDER THE OLD policy, many of the empty houses in the urban renewal areas had been immune from the city ordinances which require dangerous buildings to be identified and demolished.

The vacant homes in urban renewal areas were demolished eventually but only after the city had acquired every parcel of land in the renewal area, a lengthy legal process which at times has taken many years.

The old policy had been established to save the city money.

The federal government would pay up to two-thirds of the cost of demolition if a house were removed as part of the urban renewal program.

But if the city stepped in before acquisition to demolish the building, the city was forced to bear the entire cost, or levy it as a tax on the typically poor or elderly property

$150,000 in Rare Coins, Bills Stolen from Home in Berkley

BY DAVE ANDERSON
Free Press Staff Writer

A $150,000 coin and banknote collection was stolen from the ... that makes them so valuable — their rarity — will make them difficult for the thieves to sell, Pheatt believes.

Pheatt and his wife were out to dinner at the time.

Berkley police detective Sgt. Lee Williams theorized that

8 Hospitals Curb Visits Due to Flu

Eight Detroit and outstate hospitals have restricted visitors to lessen the chances of

Mayor Young fought blight for 20 years

Kicked off initiative in 1976

Detroit And HUD Agree on Razing

BY DAVE ANDERSON
Free Press Staff Writer

The federal government and the City of Detroit have agreed on procedures to speed demolition of the hundreds of abandoned and severely vandalized buildings.

The agreement reached last week calls for the Department of Housing and Urban Development (HUD) to demolish "hazardous" buildings in 45 days and "dangerous" buildings within seven days. Under the old agreement HUD had promised to raze such structures within about 90 days.

BUT CITY Council President Carl Levin, while praising HUD for making an improved effort to tear down abandoned buildings in recent months, said he fears the new agreement, like previous ones, is defective.

Levin says it does not ad-

By 1989, Detroit had 15,000 abandoned buildings

■ Location: 2900 block of West Boston Boulevard
■ Status: City records indicate complaint filed in Aug. 15, 1984. Building was found open and dangerous but was barricaded same day. Second complaint was filed on Jan. 21, 1988. City Council ordered demolition on Sept. 8, 1988. City records indicate demolition order has been expedited.

RECKLESS ABANDONMENT

15,215 empty buildings — and countless victims

■ Location: [illegible] block of [illegible] Avenue
■ Status: Complaint filed for the former Pierce elementary school on May 16, when inspection found the building open and dangerous. Greg Pulaski[illegible] once attended the school and was on the safety patrol.

Every administration has tried to deal with blight

Detroit to receive demolition loan

$60 million to help rid city of abandoned homes

A fix-it plan for Detroit

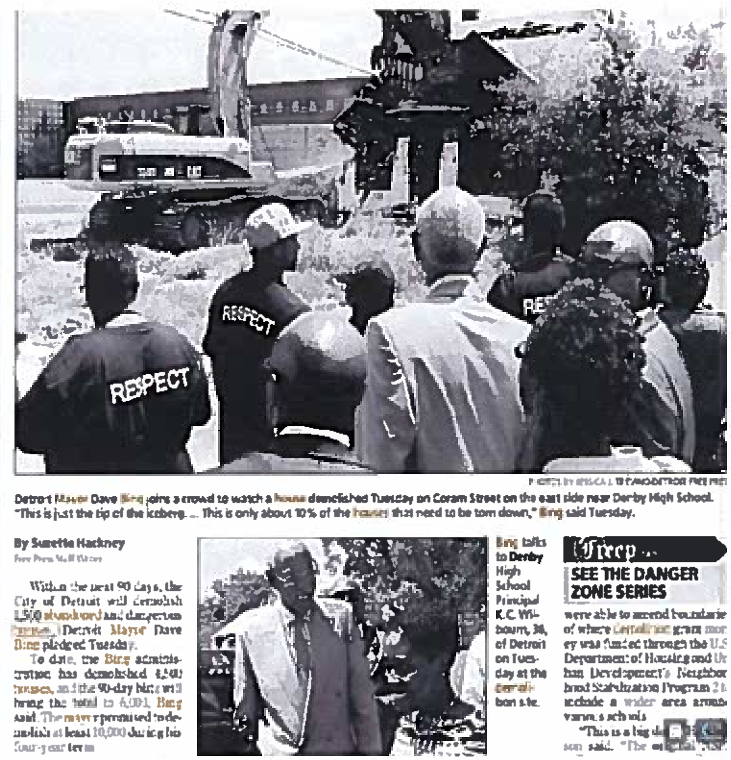
$125 MILLION: Money is committed to 6 neighborhoods

REBUILDING: Improvements to include patrols, parks

WHO WILL PAY? Grants, bonds sought for project

Who's footing the bill?

The target neighborhoods



Detroit Mayor Dave Bing joins a crowd to watch a house demolished Tuesday on Coram Street on the east side near Denby High School. "This is just the tip of the iceberg.... This is only about 10% of the houses that need to be torn down," Bing said Tuesday.

By Suzette Hackney

Within the next 90 days, the City of Detroit will demolish 1,500 abandoned and dangerous homes, Detroit Mayor Dave Bing pledged Tuesday.

To date, the Bing administration has demolished 4,500 houses, and the 90-day blitz will bring the total to 6,001, Bing said. The mayor promised to demolish at least 10,000 during his four-year term.

Bing talks to Denby High School Principal K.C. Wilbourn, 36, of Detroit on Tuesday at the demolition site.

SEE THE DANGER ZONE SERIES

For nearly 50 years, Detroit's elected officials have not been able to deliver a blight-free city to our residents

CITY OF DETROIT

DETROIT'S DEMOLITION DILEMMA

▸ ABANDONED BUILDINGS TORN DOWN: 5,000 sinc

▸ STILL STANDING: At least 6,000

▸ ON BACKLOG AWAITING DEMOLITION:

Vacant buildi
survive prom

12A www.freep.com SUNDAY, APRIL 15, 2012

COVER STORY DANGER ZONE

Too much blight, not enough cash

City needs millions to raze dangerous places near schools

By Chastity Pratt Dawsey and Kristi Tanner

ONE THREAT OF MANY: Students walking to Cody High have to pass this building. It is among hundreds of such structures near the school.

DEMOLITION SLOWDOWN

Dilapidated buildings standing tall in Detroit

yor's goal net; cash is withheld

Money restrictions blamed for city being slow to erase blight

TO HIT THE MAYOR'S GOAL, THE CITY MUST RAZE 300 BUILDINGS A MONTH.

GRANT: Detroit, other cities have trouble spending $224M in aid

FROM PAGE 1A

funding has overwhelmed the capacity of recipients to overcome bureaucratic and legal hurdles, and likened it to "trying to drink out of a fire hose."

Nowhere is the problem more acute than in Detroit, which as of

asked HUD for permission to move more of the money — $10 million — into demolition across greater swaths of the city as part of its plans to tear down 10,000 structures by the end of next year. It has done about 4,400 to date.

By increasing its demolition

ANDRE J. JACKSON/DETROIT FREE PRESS

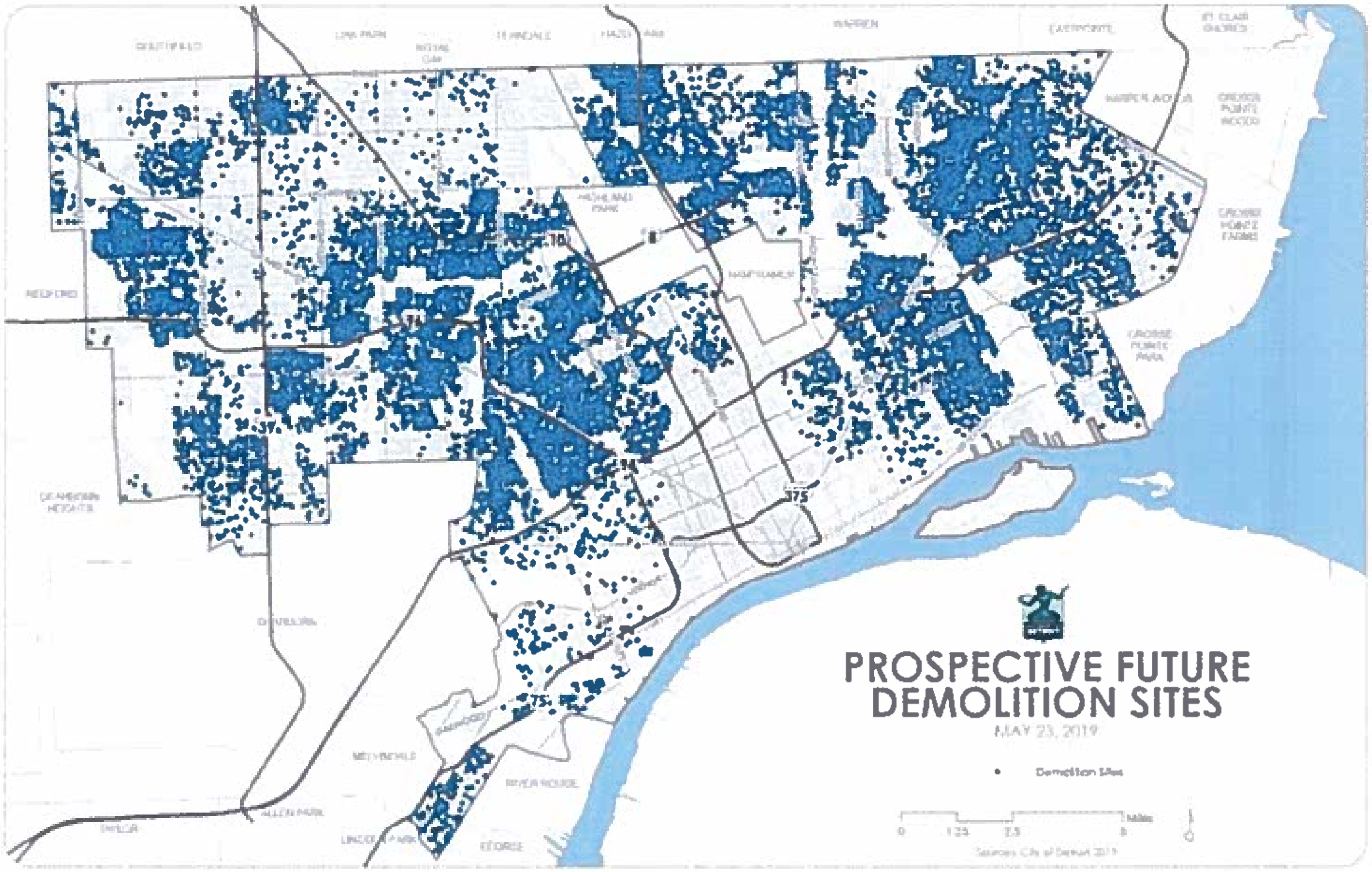
REGINA H. BOONE/DETROIT FREE PRESS

ANDRE J. JACKSON/DETROIT

Detroit plans to tear down 10,000 structures by the end of 2013. Scores of blocks on the east side

19,000 buildings demolished since 2014 in the most aggressive demolition effort in national history

Today, we have 19,000 house demolitions to go



The bankruptcy plan of adjustment envisioned the city spending $30 million per year for residential demolition

CITY OF DETROIT

If we don't raise additional funds beyond the Plan of Adjustment:

Funding would allow demolition of approximately 1,500 houses a year – the standard pace of demolition in Detroit prior to 2014.

At that rate, the current 19,000 abandoned houses would be demolished in 13 years.

What about saving homes through renovation?
Detroit has had success in sales since 2014 and can do much more.

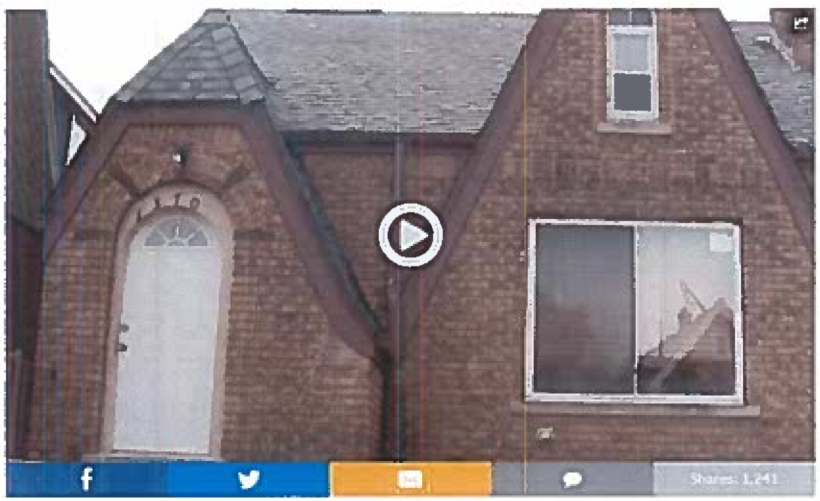
CLICK ON DETROIT | NEWS | CONTACT US | NEWSLETTERS | FIND IT HERE | PROMOTED | SEEN ON 4

Land Bank homes hit market in Detroit's Osborn neighborhood

26 houses starting at $1,000

By Jason Colthorp - Anchor/Reporter, Derick Hutchinson

Posted: 6:42 PM, May 10, 2019
Updated: 6:42 PM, May 10, 2019



DETROIT LAND BANK | AUCTIONS

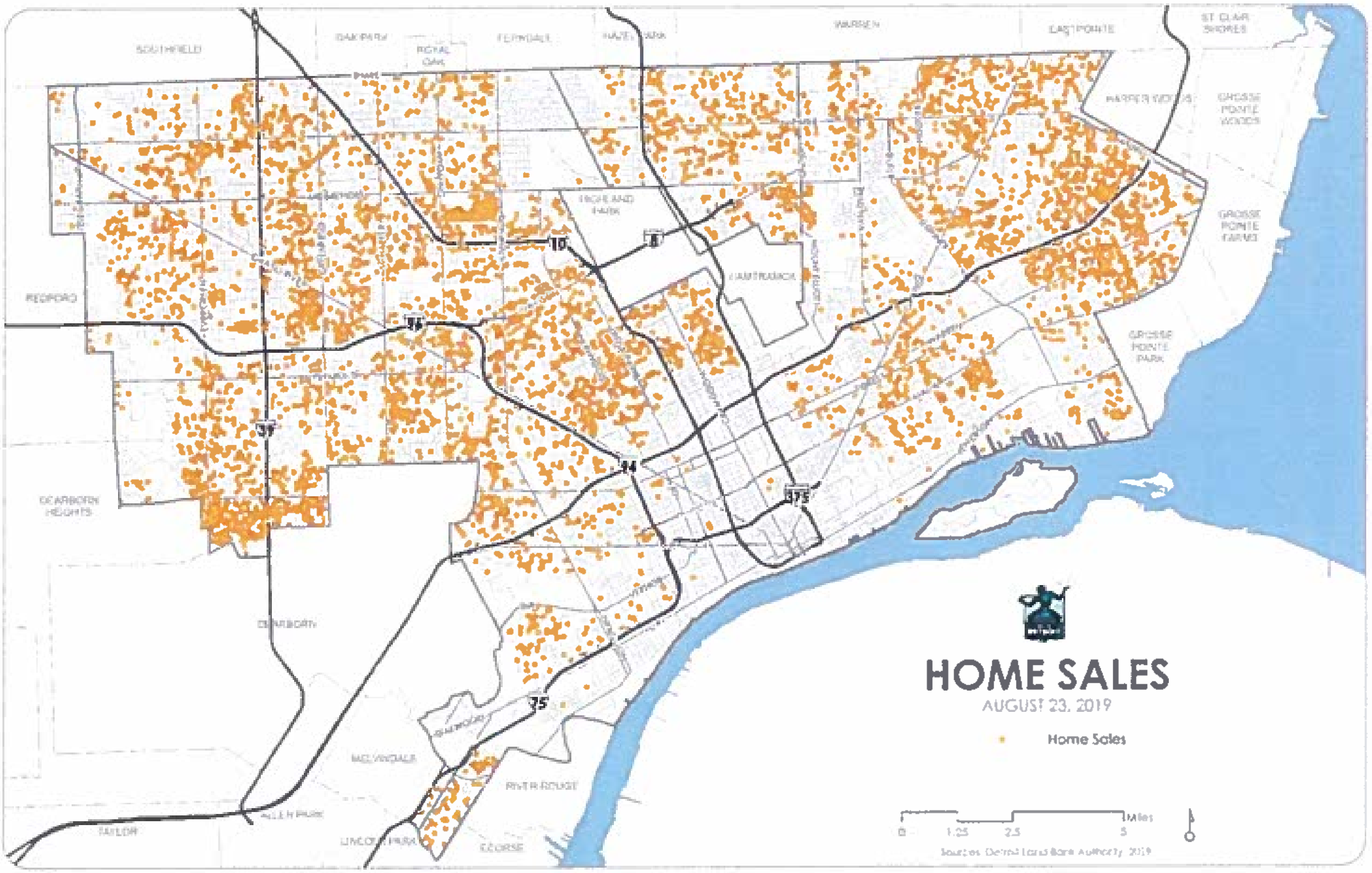
Detroit Land Bank debuts new website

By Robin Runyan | Jan 9, 2018, 12:01pm EST

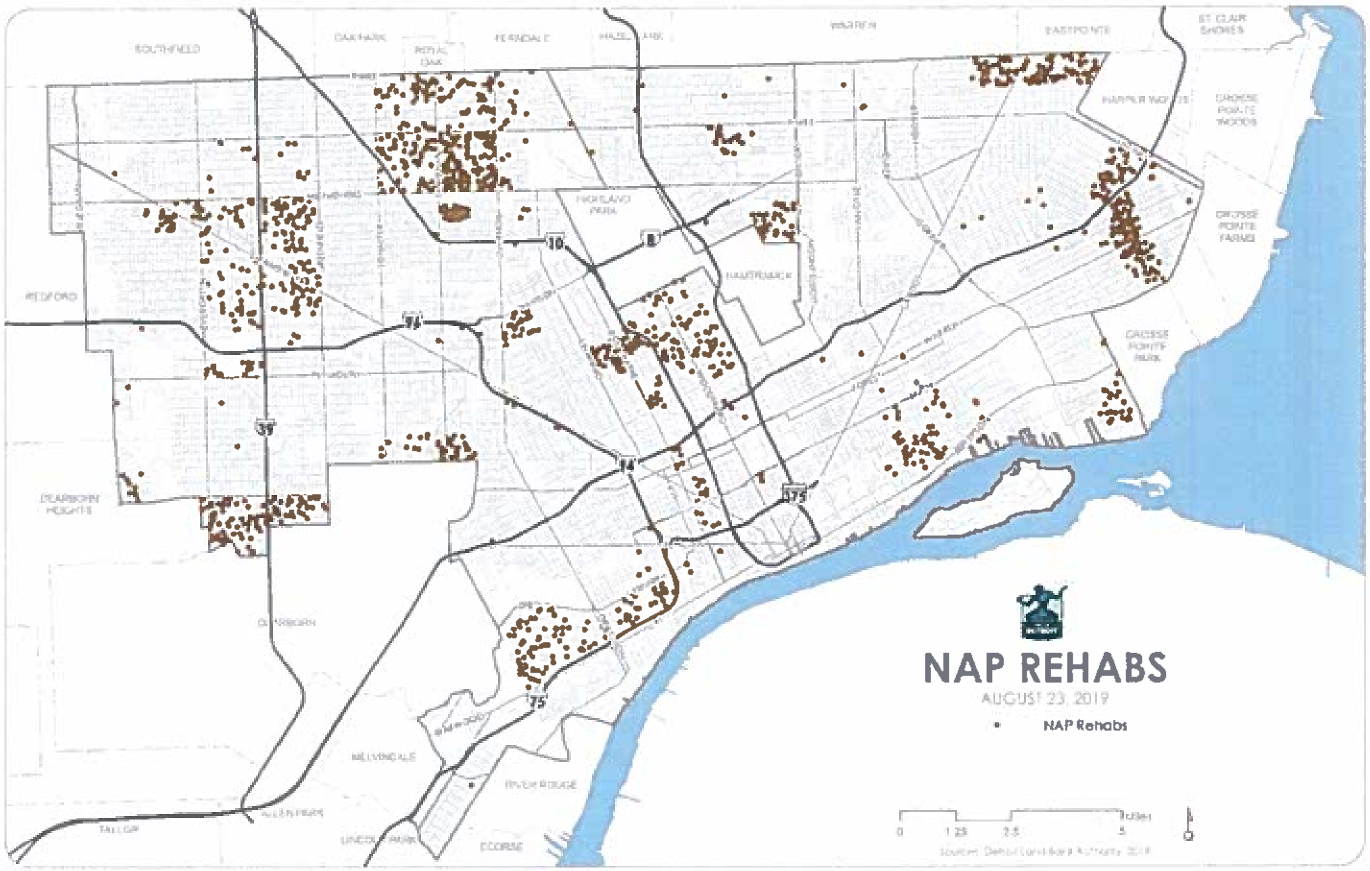
SHARE

A current property up for auction | BuildingDetroit.org

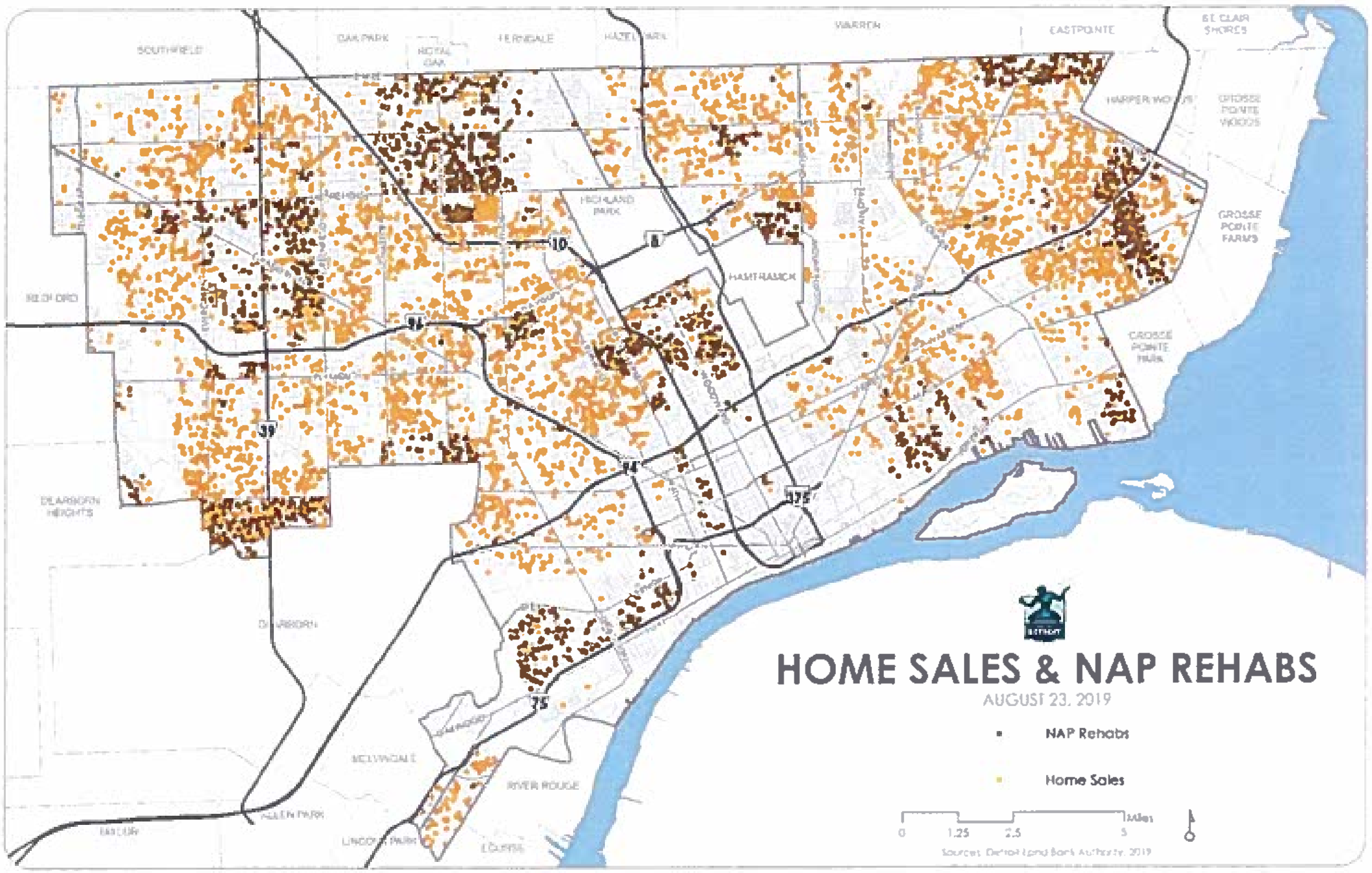
Land Bank Has Sold 7,400 Vacant Houses for Rehab since 2014



And taken legal action toward 1,600 rehabs through the Land Bank's Nuisance Abatement Legal Action Team



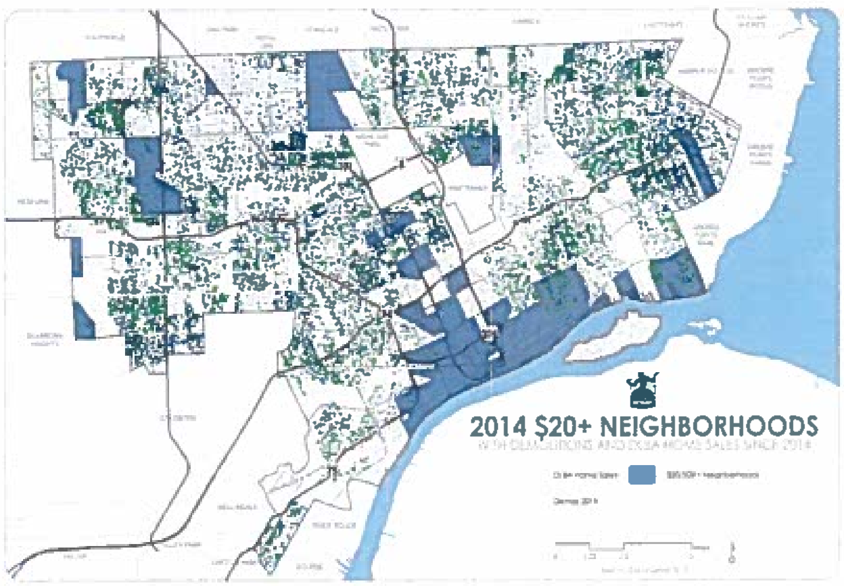
Nearly 9,000 vacant houses have been rehabbed or are currently being rehabbed – Today, we have 8,000 to go

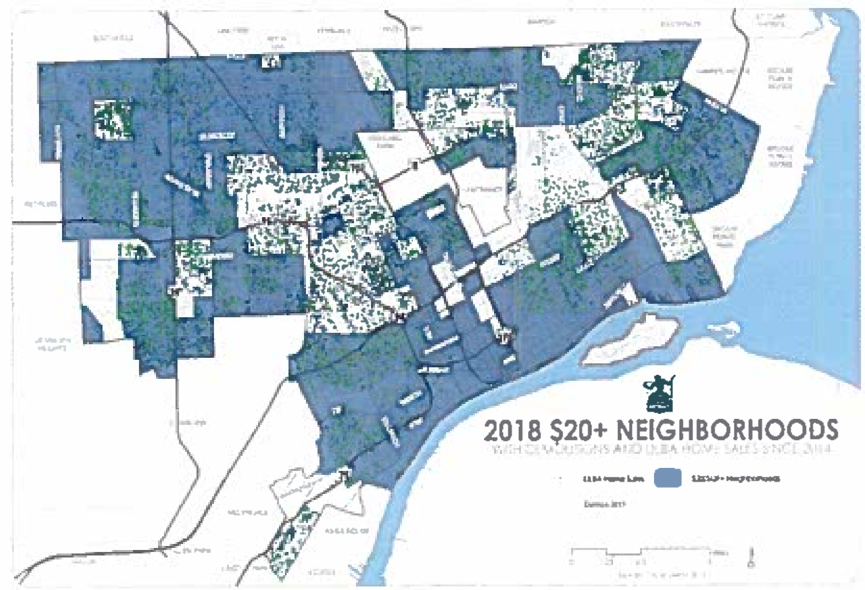


The demo and rehab programs have had huge impact on Detroit

90% average increase in Detroit property values

Source: Zillow 2013-2018





The areas of the city that now have an MLS average over $20 s/f has increased significantly since 2014. As property values in neighborhoods increase beyond $20 per square foot, it becomes more economically viable to renovate houses in the private market.

The demo and rehab programs have had huge impact on Detroit

46% reduction in building fires citywide since 2014

Source: DFD

The demo and rehab programs have had huge impact on Detroit

3% drop in violent crime and property crime for every 10 demolitions in a block group

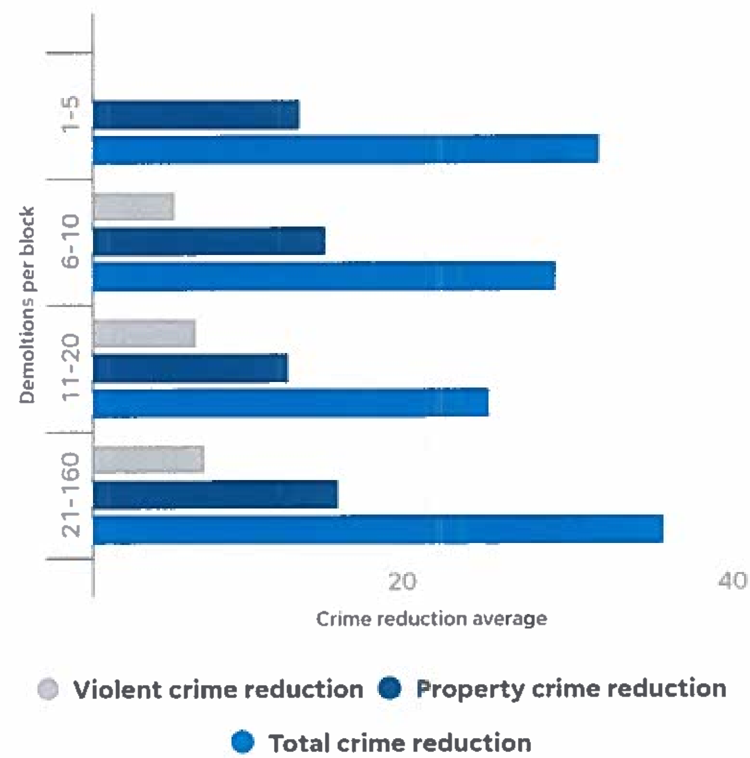
Source: Wayne State University

11% drop in homicides and nonfatal shootings in areas of concentrated demolition

Source: Harvard University and University of Michigan

Detroit Free Press

Home demolitions and crime reduction



We expect the 27,000 blighted and abandoned residential houses to break down as follows:

Demolitions	
Land Bank houses to be demolished	13,300
Private houses to be demolished	5,700
Total demolitions to be completed	**19,000**
Renovations	
Land Bank houses to be sold/renovated	6,300
Private houses to be renovated per NAP lawsuit	1,900
Total houses to be renovated	**8,200**

27,200

Option for demolition/renovation for some vacant houses

CITY OF DETROIT

The proposal assumes we can provide an average of $15,000-20,000 per house for 1,000+ renovations, allowing those houses to be saved rather than demolished.

Recommendation with rehab incentive:

19,000 houses to be demolished

8,000 houses to be sold/rehabbed

Alternative without rehab incentive:

20,000 houses to be demolished

7,000 houses to be sold/rehabbed

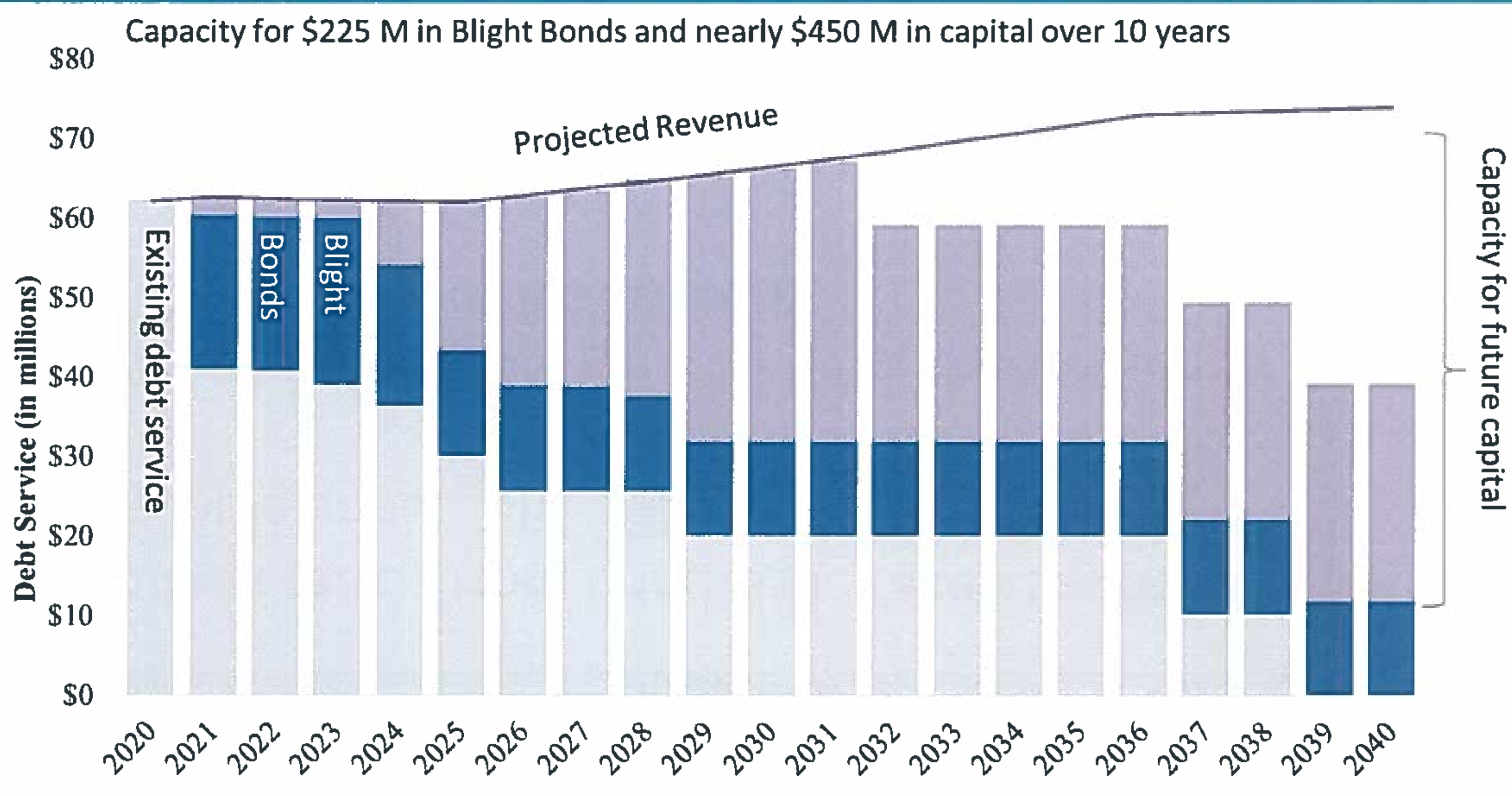
Proposal to rid Detroit of all residential blight by end of 2025 requires 3 steps:

1) $225 million raised from bond issue taken to voters in March, 2020 and available about July, 2020

2) $150 million in available general fund appropriations over 5 years (FY 21-25) per Plan of Adjustment

3) $50 million appropriation this winter for FY2020 to keep demolition program going through next year

Blight removal bond issue of $225 million can be accomplished with no tax increase still allow capacity for future capital projects



*Graph excludes debt service paid from trustee account.

POA provides for $50 million per year for blight elimination

With available surplus, blight budget FY 2021-2025 projected to be allocated as follows:

Residential Demolition	$30 million
Commercial Demolition	$10 million
Other Blight Removal	$10 million
Total	$50 million

Tree removal,
commercial corridor
clean up,
lot improvement

$50 million residential blight appropriation needed to continue demolition program past March, 2020

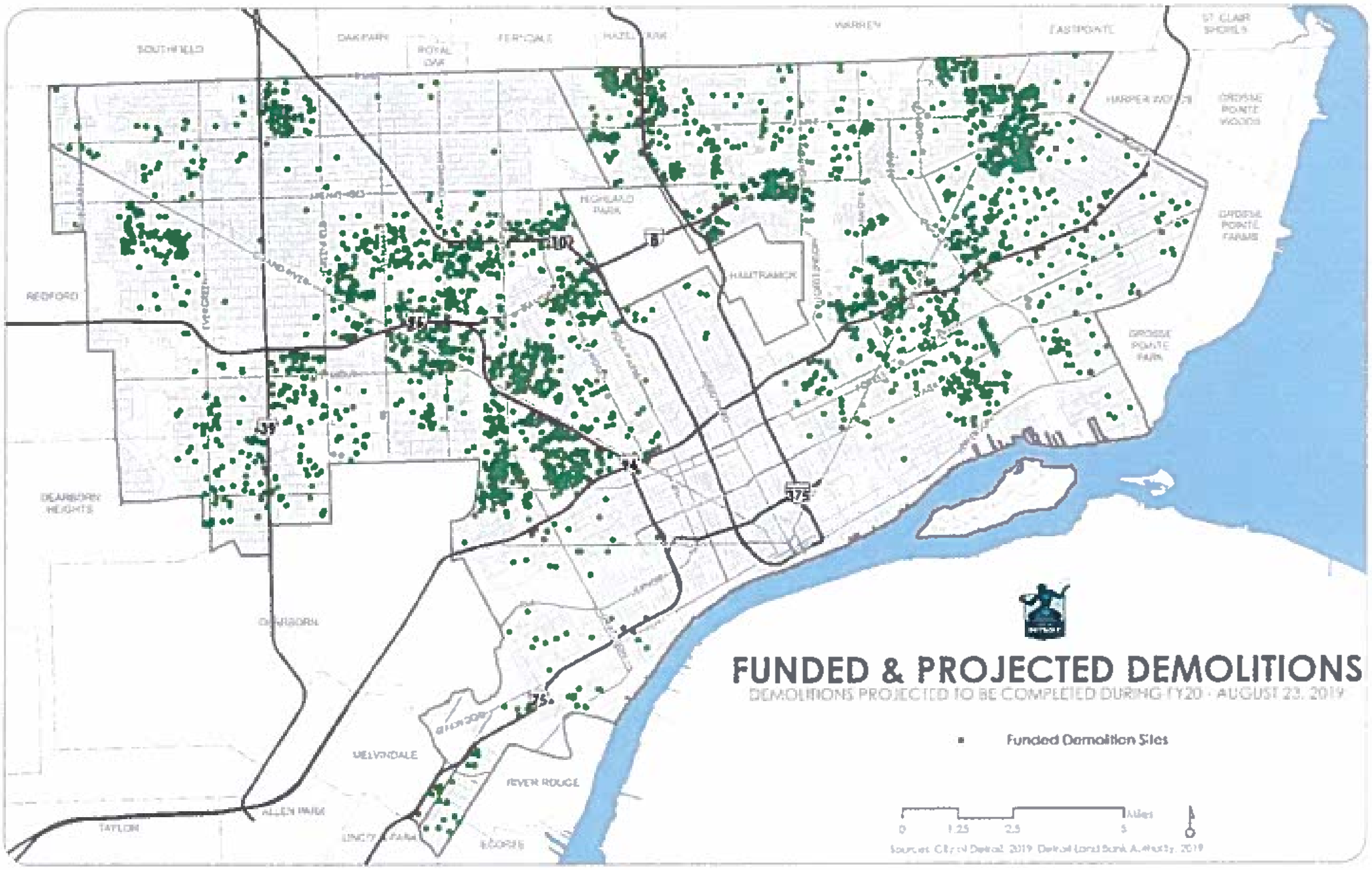
CITY OF DETROIT

- $265 million HHF funding has been fully contracted – last 1,000 HHF demolitions occurring now.
- City FY2020 Residential Blight Funds have been committed, with 1,000 more demolitions scheduled through March.
- To continue demolitions April-June 2020 and to start abatement for demolitions to be done July-September, 2020, need $50 million in additional appropriation this winter.

Proposed sources:

$20 million from one-time, non-recurring FY2019 income tax revenue	$20 million
Advance FY2021 residential blight appropriation to FY2020	$30 million
Total one-time FY2020 residential blight appropriation	**$50 million**

By June 30, 2020, we project 3,000 more houses will be demolished and 1,000 more houses will be sold to be rehabbed



23,000 houses remaining on July 1, 2020

16,000 houses to be demolished

7,000 houses to be sold/rehabbed

How we will fund Residential Blight Elimination FY 2021-25?

Sources	
Bond Funds	225,000,000
$30 Million General Fund Surplus FY 2021 -2025 (POA)	150,000,000
	375,000,000
Uses	
17,000 Demolitions/Rehabs at $20,000 each	340,000,000
10% Contingency for additional costs or demos	35,000,000
	375,000,000

*While the Bond Issue would authorize $250 million, the OCFO has budgeted to borrow $225 million based on a conservative revenue assumption.

Eliminating residential blight through the removal of 23,000 abandoned houses in 5 years is achievable based on current performance

CITY OF DETROIT

Demolitions

Will allow funding for 16,000 demolitions over 5 years 2021-2025:	3,200/year average
Land Bank historical record 2014-2018:	3,305/year average

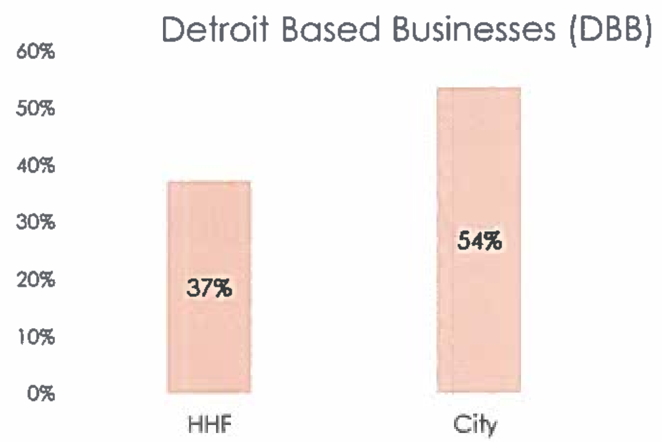
Rehabs

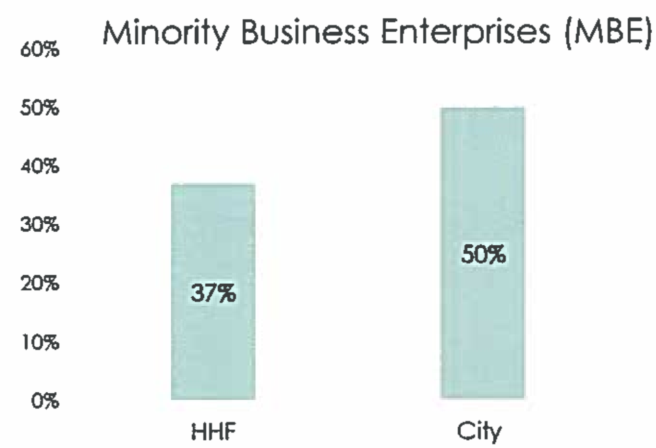
7,000 Rehabs 2021-2025	1400/year average
Land Bank historical record 2015-2018:	1500/year average

By applying lessons learned from Land Bank demolition, City can readily accomplish the remaining demolitions and rehabs in 5 years to eliminate all 23,000 remaining abandoned houses.

Moving demolition contracting from Land Bank to City procurement will increase opportunities for Detroit and minority companies

- Federal rules prohibited the Land Bank from using local preferences in contracting and have excluded qualified new companies from participating.
- The City of Detroit contracting process, with City Council approval, has been much more successful in providing opportunities for Detroit and minority companies.
- DBBs and MBEs completed 50%+ of City demos since January 2018.





- This proposal would award $375 million in new contracts under this process over the next five years.

Source: City of Detroit Open Data and Land Bank, Jan. 1, 2018 - Sept. 3, 2019

We are piloting how we bid demolition work

CITY OF DETROIT

The City is piloting a procurement process this year based on feedback we heard from our contractors.

Larger Packages
- Move from packages of ~26 structures to ~90 structures

Capacity determined by # of committed crews to Detroit
- 1 package per crew: Contractors submit names of crew leaders and qualifications at time of bidding

Longer time table
- Move from 120 days to 270 days (Feb 2020 - Nov. 2020)
- Based on contractor feedback

Large procurement timed to maximize production
- 2,400 in bid in the Fall of 2019 for demolition in the Spring/Summer of 2020

Fewer Releases
- Disrupt regular releases in exchange for a large release which should incentivize lower pricing.

Negotiate or remove packages with average price over threshold

Work will be done by Detroit demolition businesses, small and large

Inclusion Strategies

- Set maximum of 6 crews for large companies
- Push to prequalify all prospective companies this summer
- Provide site visits to new companies
- Pilot special package set asides for small companies
- Reduce bonding requirements to 25% and solely require E-Bonds
- Explore joint ventures/mentoring

City of Detroit Reaches Out to Residential Contractors

by Laura Herberg | March 5, 2018

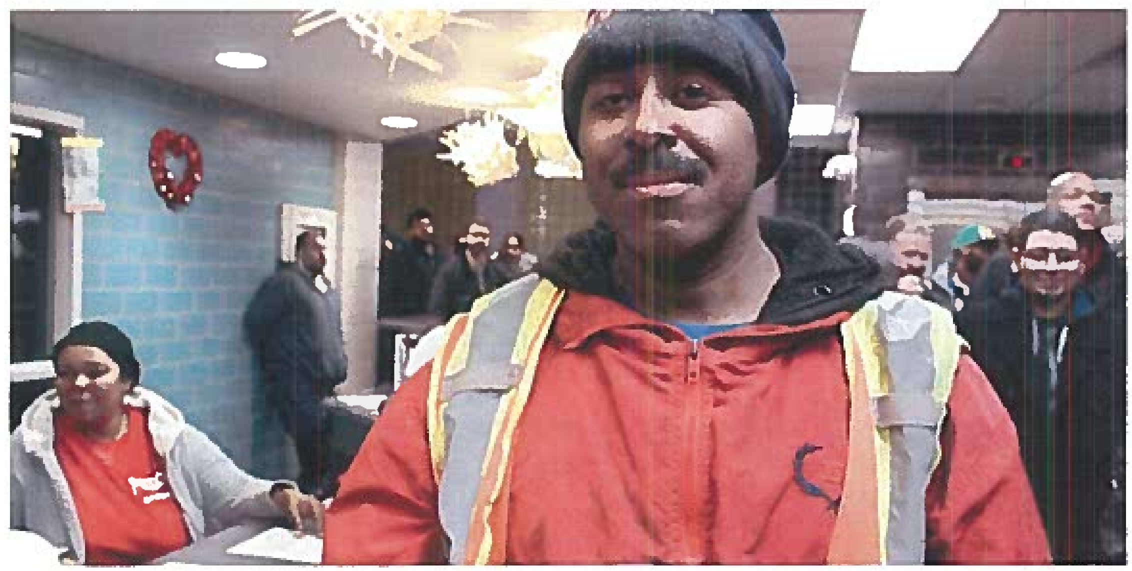


Image credit: WDET Laura Herberg

Attachment VI

OCFO's "City Council Blight Removal Bond Concerns Addressed" Presentation

City Council Blight Removal Bond Concerns Addressed

October 2, 2019

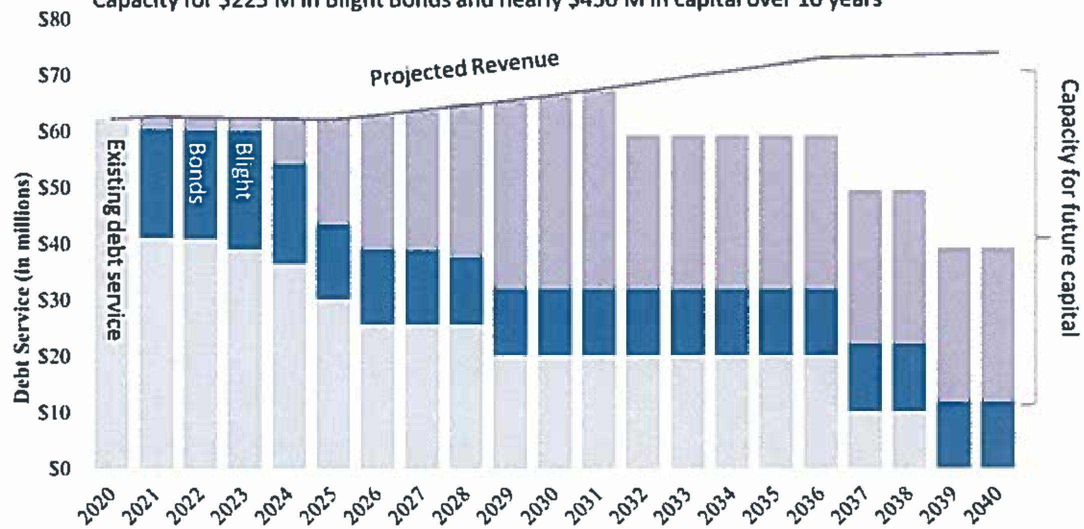
CITY OF
DETROIT

The Blight Removal Bonds will be paid from the Debt Service Millage, <u>not from the General Fund</u>

- As old capital bonds are paid off, there is capacity to borrow for blight removal and future capital projects without raising taxes.

- Borrowing UTGO debt has <u>no negative impact on the General Fund</u>, and in fact relieves the General Fund of the need to fund this level of blight removal in five years.

Capacity for $225 M in Blight Bonds and nearly $450 M in capital over 10 years



Detroit's debt affordability metrics are benchmarked above Detroit's current credit rating

	As of June 30, 2019	As of June 30, 2020* (Post UTGO Issuance)	Impact of Proposed June Borrowing
Debt as % of General Fund Revenues	171% (1.7X)	185% (1.85X)	No Impact
Moody's scorecard for this sub-factor	A	A	
Debt as % of Full Value	12.74%	10.55%	No Impact
Moody's scorecard for this sub-factor	Ba	Ba	

Detroit took decisive steps to address occupied foreclosures

1. Ended the Emergency Manager's practice of placing water bills in property tax foreclosure system.

2. In collaboration with stakeholders, organized volunteers from neighborhoods to knock doors to offer to help for those facing foreclosure.

3. Led effort to pass House Bill 5882 that allowed delinquent taxpayers to enter into payment plans to avoid foreclosures. 15,000 signed up first year alone.

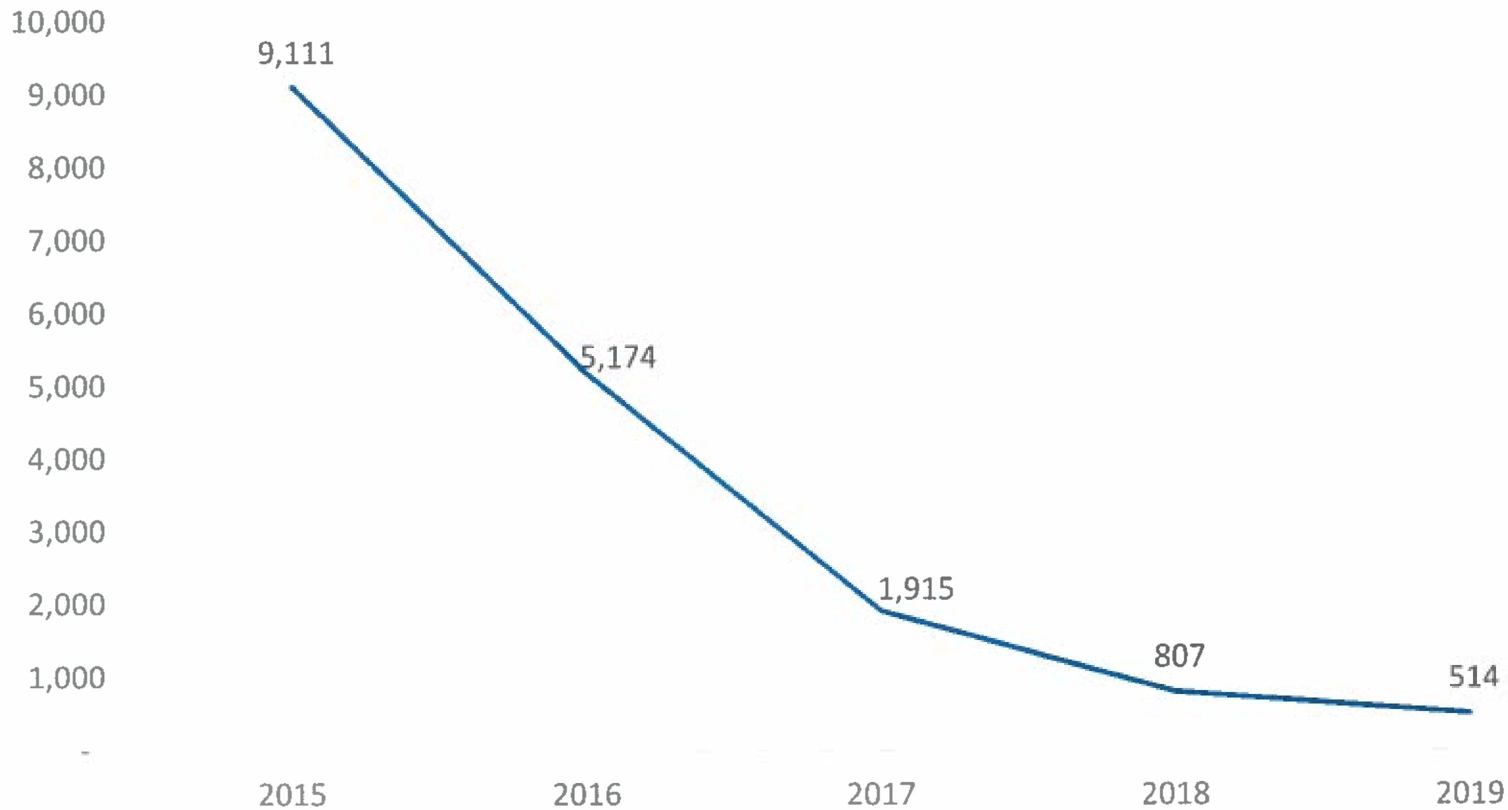
With the help of UCHC, Bedrock, and Land Bank, new programs avoided foreclosures and kept people in their homes

Detroiters getting deeds to homes they thought they lost to tax foreclosure

Allie Gross, Detroit Free Press Published 6:00 a.m. ET March 16, 2019 | Updated 7:17 a.m. ET March 16, 2019

Shalandra Jones-Scott address the room at a United Community Housing Coalition contract meeting on Oct 11 2018. Allie Gross, DFP

Total occupied foreclosures are down 94%



Detroit has made significant investments in helping people stay in their homes

1. Today, we are investing $1.8 million a year in providing homeowners who qualify a 100% property tax exemption, 50% exemption and the disabled vet exemption; if we can continue signing up all homeowners we believe qualify, the City could invest almost $12 million a year in this program.

2. Since FY2015, City programs have invested over $38 million in single family home repair programs through General Fund, federal lead home repair and CDBG funds, and private philanthropic and loan contributions.

3. Last year, the City and philanthropies allocated $2.3 million to Make it Home, an initiative started in 2017 that helps occupants stay in their tax-foreclosed homes.

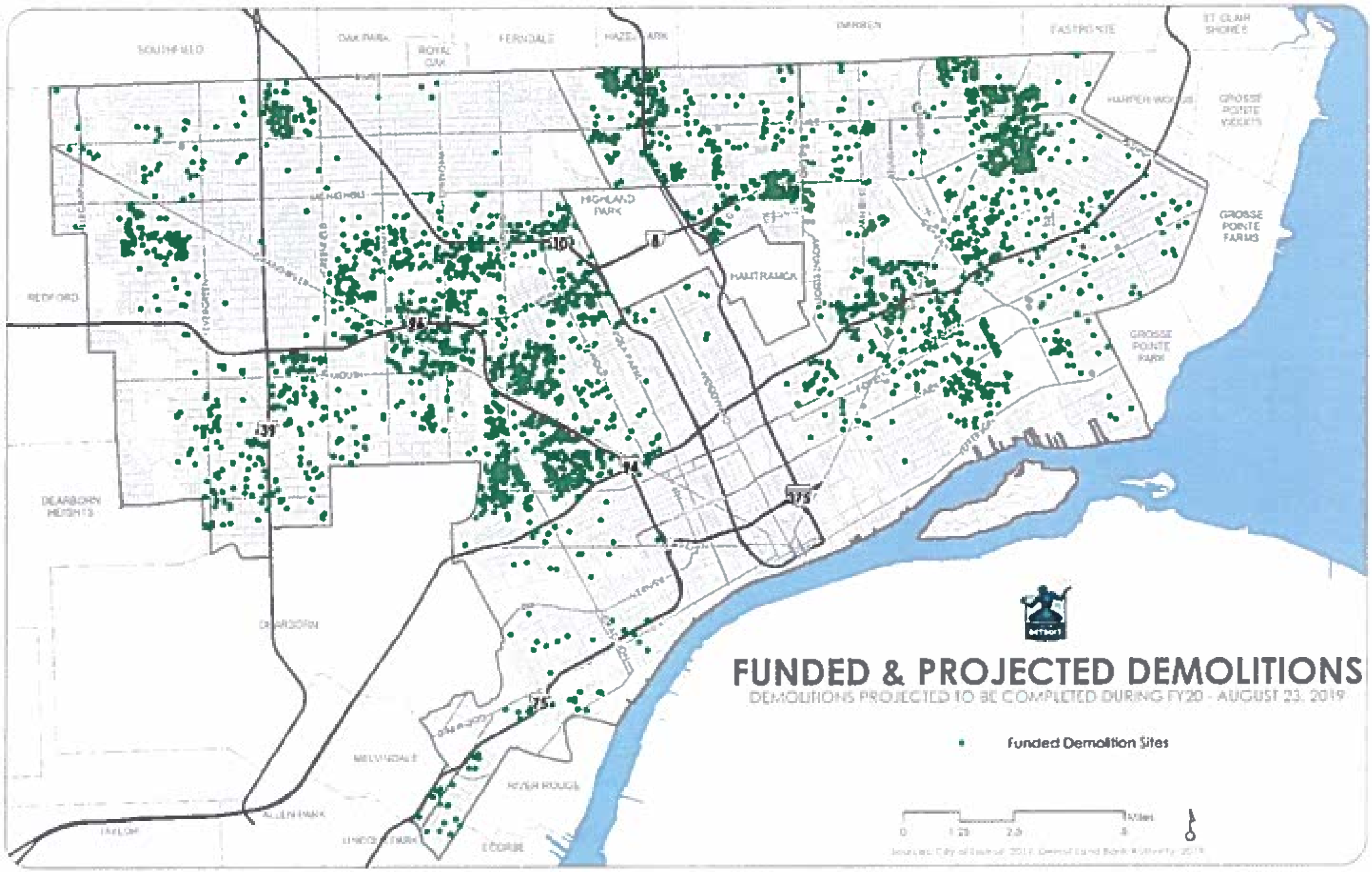
4. Detroit has launched the new Rental Ordinance to hold landlords accountable to their renters.

DESC will deploy Detroit at Work to match demo contractors with qualified Detroit employees

- DESC will create training and recruitment strategies based on the needs of demo contractors.
- Through their jobseeker database, DESC will connect Detroit residents to employment opportunities with demolition contractors and subcontractors.
- Contractors with Detroit residents comprising more than 51% of their employees are eligible for the Detroit Resident Business Certification.

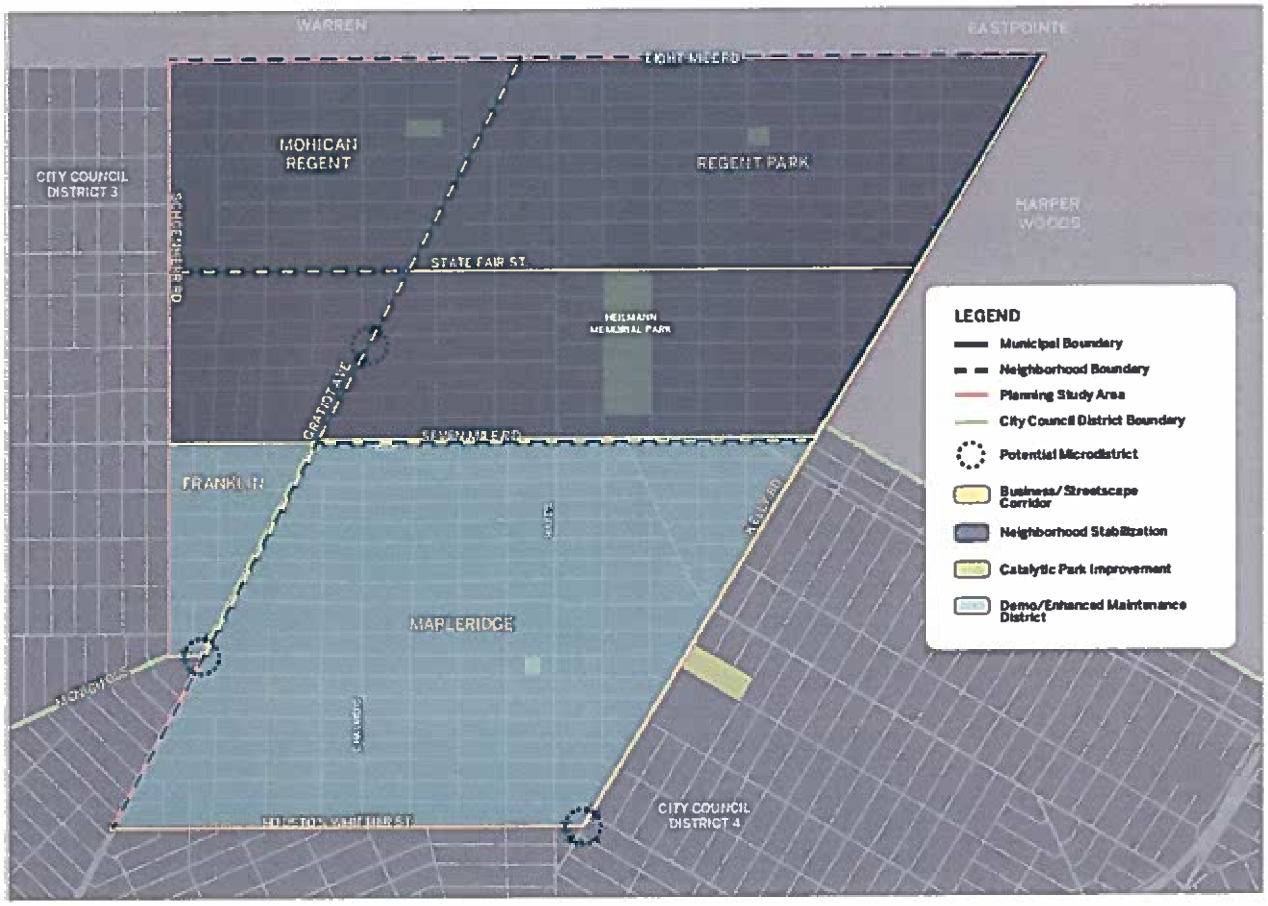
DETROIT AT WORK
YOUR JOB SEARCH STARTS HERE

Funded & Projected Demolitions



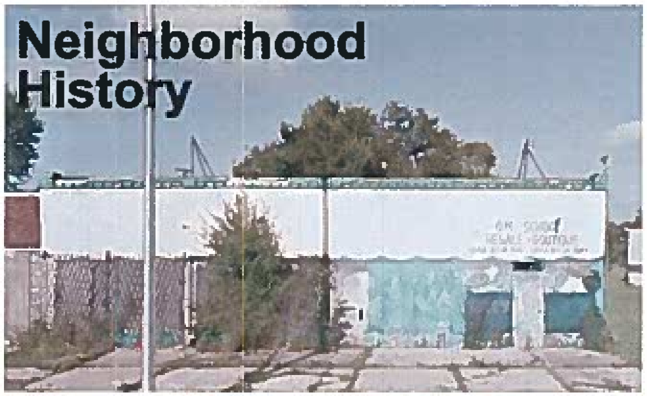
Expand Neighborhood Planning

Gratiot/7 Mile Neighborhood Planning Area



Recent Completed Neighborhood Plans have piloted new components

Neighborhood History



Housing Rehabs

Side Lots

Vacant Land

Strategy 1: Preserve Neighborhood History

Former Vaughn's Civil Rights Bookstore **12129 Dexter Ave**

Strategy 1: Preserve Neighborhood History

Strategy 2: Housing Rehabs

Strategy 2: Housing Rehabs

Strategy 3: Side Lots

CITY OF DETROIT

Strategy 4: Vacant Land

Current

Strategy 4: Vacant Land

with structures to be removed

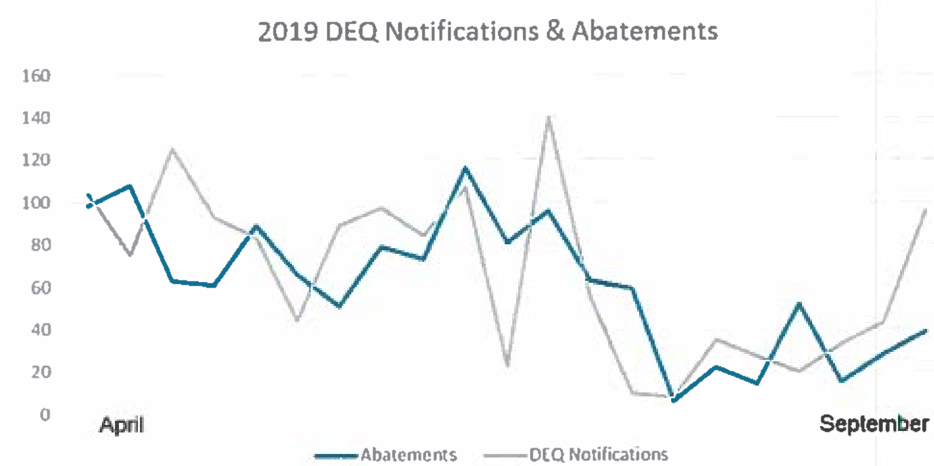
Strategy 4: Vacant Land

with modest landscape improvements

Appendix

Demo Team is working with contractors to address abatement pipeline issues

- 2019 average number of abatements was 315 per month
- Top abatement company (85%) was suspended pending OIG investigation in August
- August & September only averaged 107 per month
- Worked with OCP to connect new abatement contractors with demo contractors (13 to date)
- On 9/25 demo contractors have confirmed that they have contracts and progress with alternate abatement contractors
- We see abatement DEQ notifications rising to 109 last week



Attachment VII

Revised Bond Resolution for the UTGO Blight Bonds and Ballot Language

RESOLUTION SUBMITTING BOND PROPOSAL
AND
AUTHORIZING UNLIMITED TAX GENERAL OBLIGATION BONDS

CITY OF DETROIT
COUNTY OF WAYNE, STATE OF MICHIGAN

WHEREAS, the City Council (the "City Council") of the City of Detroit (the "City") has determined that it is necessary to secure additional resources to continue to pay the cost of eliminating blight in the City through demolition and other blight remediation activities (the "Project"); and

WHEREAS, pursuant to the Housing Law of Michigan, Act 167, Public Acts of Michigan, 1917, as amended, and the City's police powers, the City has the authority to conduct all of the activities that comprise the Project, and pursuant to the Home Rule City Act, Act 279, Public Acts of Michigan, 1909, as amended ("Act 279"), the City has the authority to issue bonds for any purpose within the scope of its powers; and

WHEREAS, the City Council has determined that the City should borrow money in an amount not to exceed Two Hundred Fifty Million Dollars ($250,000,000), and issue general obligation unlimited tax bonds of the City, in such amount for the purpose of paying all or part of the cost of the Project; and

WHEREAS, the City Council has determined that a proposal to issue bonds for the Project (the "Bond Proposal") shall be submitted to the qualified electors of the City at the primary election to be held in the City on Tuesday, March 10, 2020 (the "Election Date"); and

WHEREAS, it is the determination of the City Council that, in the event a majority of the qualified electors of the City voting approve the Bond Proposal, unlimited tax general obligation bonds in the principal amount of not to exceed Two Hundred Fifty Million Dollars ($250,000,000) shall be issued pursuant to the City Charter, Act 279, and Act 34, Public Acts of Michigan, 2001, as amended ("Act 34"), and pursuant to this Resolution for the purpose of paying all or part of the costs of the Project; and

WHEREAS, the City desires to negotiate the sale of the Bonds to one or more underwriters or purchasers within the parameters established by this Resolution.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. Approval of Bond Proposal. The Bond Proposal attached hereto as Exhibit A is hereby approved and shall be submitted to a vote of the qualified electors of the City on the Election Date.

2. Certification of Bond Proposal; Submission to County Clerk. The ballot wording of the Bond Proposal is hereby certified to the City Clerk and the County Clerk of the Charter

County of Wayne (the "County Clerk") for submission to the City's electors on the Election Date. The City Clerk is hereby authorized and directed to file this Resolution and/or complete any such forms, certificates or documents as may be required by the County Clerk to evidence the foregoing certification and/or submission by no later than 4:00 p.m. on Tuesday, December 17, 2019.

3. Publication of Notice; Preparation of Ballots. The City Clerk and the County Clerk are hereby directed to (a) post and publish notice of last day of registration and notice of election as required by the Michigan Election Law; and (b) have prepared and printed, as provided by the Michigan Election Law, ballots for submitting the Bond Proposal at the election, which ballots shall contain the Bond Proposal, or the proposition shall be stated as a proposal on the voting machines, which ballots may include other matters presented to the electorate on the same date.

4. Estimated Millage. The estimated millage rate in the first year and simple average annual millage rate set forth in the Bond Proposal, which have been prepared for the City by Public Resources Advisory Group, Inc., municipal financial advisors to the City, are reasonable estimates of such millage rates based on current assumptions.

5. Reimbursement Declarations. The City makes the following declarations for the purpose of complying with the reimbursement rules of Treas. Reg. § 1.150-2 pursuant to the Internal Revenue Code of 1986, as amended (the "Code"):

(a) If the Bond Proposal is approved by the electors, the City reasonably expects to reimburse itself with proceeds of the Bonds for certain costs of the Project which were paid or will be paid from the general funds of the City subsequent to sixty (60) days prior to today.

(b) The maximum principal amount of debt expected to be issued for the Project, including issuance costs, is $250,000,000.

(c) A reimbursement allocation of the capital expenditures described above with the proceeds of the Bonds will occur not later than 18 months after the later of (i) the date on which the expenditure is paid, or (ii) the date the Project is placed in service or abandoned, but in no event more than three (3) years after the original expenditure is paid. A reimbursement allocation is an allocation in writing that evidences the City's use of the proceeds of the Bonds to reimburse the City for a capital expenditure made pursuant to this resolution.

6. Authorization of Bonds; Bond Terms. Pending the approval of the Bond Proposal by more than the required majority of qualified electors of the City voting thereon, bonds of the City designated **Unlimited Tax General Obligation Bonds** (the "Bonds") are authorized to be issued, in one or more series, in the aggregate principal sum of not to exceed Two Hundred Fifty Million Dollars ($250,000,000), for the purpose of paying part of the cost of the Project, including the costs incidental to the issuance, sale and delivery of the Bonds. For each series of the Bonds, the above designation will be modified to indicate the year of issuance of such series and such additional information as may be necessary to designate multiple series or sub-series

within a single year, and in the case of delivery of any series of the Bonds delivered pursuant to a HUD Program (as defined herein). such designation may be modified to conform to HUD Program requirements (including but not limited to a designation of such series of Bonds as "notes"). Each issue shall consist of bonds in fully-registered form of the denomination of $5,000, or multiples thereof not exceeding for each maturity the maximum principal amount of that maturity, numbered consecutively in order of registration, dated as of the date of delivery.

The Bonds will mature on the dates in the years and amounts determined by the Chief Financial Officer or the Chief Financial Officer's designee (the "Authorized Officer") at the time of sale, and be subject to redemption prior to maturity in the manner and at the times and prices as determined by the Authorized Officer at the time of sale.

The Bonds shall bear interest at a rate or rates on a fixed and tax-exempt or taxable basis to be determined upon negotiated sale thereof. Interest on the Bonds shall be payable on the dates and in the years as determined by the Authorized Officer at the time of sale. The record date of determination of registered owner for purposes of payment of interest as provided in this paragraph may be changed by the City to conform to market practice in the future. Interest shall be payable to the registered owner of record as of the 15th day of the month preceding the payment date for each interest payment. The principal of the Bonds shall be payable at the corporate trust office of such bank or trust company as may be selected by the Authorized Officer at the time of sale of the Bonds to serve as transfer agent therefor (the "Transfer Agent"); provided, that in connection with Bonds delivered pursuant to a HUD Program, the Transfer Agent may be an entity designated as fiscal agent, trustee or the equivalent under the applicable HUD Program, subject to the laws of the State of Michigan (the "State").

The Bonds may be issued in book-entry only form through The Depository Trust Company in New York, New York ("DTC") and the Authorized Officer is authorized to execute such custodial or other agreement with DTC as may be necessary to accomplish the issuance of the Bonds in book-entry only form and to make such changes in the Bond form within the parameters of this resolution as may be required to accomplish the foregoing.

7. Tax Exempt Bonds; Taxable Bonds. The Authorized Officer is hereby authorized and directed to determine whether all or any portion of the Bonds shall be sold as: (i) bonds the interest on which is excluded from gross income for federal income tax purposes ("Tax-Exempt Bonds"), or (ii) bonds the interest on which is included in gross income for federal income tax purposes under the Code, or any combination thereof.

8. Execution of Bonds. The Bonds of this issue shall be executed in the name of the City with the manual or facsimile signatures of the Mayor and Finance Director and shall have the seal of the City, or a facsimile thereof, printed or impressed on the Bonds. No Bond shall be valid until authenticated by an authorized officer or representative of the Transfer Agent. The Bonds shall be delivered to the Transfer Agent for authentication and be delivered by the Transfer Agent to the purchaser or other person in accordance with instructions from the Finance Director upon payment of the purchase price for the Bonds in accordance with the bid therefor when accepted.

9. Transfer of Bonds. The Transfer Agent shall keep the books of registration for

this issue on behalf of the City. Any Bond may be transferred upon such registration books by the registered owner of record, in person or by the registered owner's duly authorized attorney, upon surrender of the Bond for cancellation, accompanied by delivery of a duly executed written instrument of transfer in a form approved by the Transfer Agent. Whenever any Bond or Bonds shall be surrendered for transfer, the City shall execute and the Transfer Agent shall authenticate and deliver a new Bond or Bonds for like aggregate principal amount. The Transfer Agent shall require the payment by the bondholder requesting the transfer of any tax or other governmental charge required to be paid with respect to the transfer. For any series of Bonds issued pursuant to a HUD Program, transfer of such Bonds shall be made in accordance with HUD Program requirements, subject to the laws of the State.

10. Debt Retirement Fund; Unlimited Tax Pledge; Defeasance of Bonds; Early Optional Redemption. For each series of Bonds, the City Treasurer is authorized and directed to open a depositary account with a bank or trust company designated by the Authorized Officer, to be designated [YEAR OF ISSUE] UNLIMITED TAX GENERAL OBLIGATION BONDS DEBT RETIREMENT FUND (the "Debt Retirement Fund"), the moneys to be deposited into the Debt Retirement Fund to be specifically earmarked and used solely for the purpose of paying principal of and interest on the Bonds as they mature. The City hereby pledges its unlimited tax full faith and credit for the prompt payment of the Bonds. All proceeds from taxes levied for deposit into the Debt Retirement Fund shall be deposited as collected. Commencing with the year 2020 (or such other year as shall be necessary to first levy taxes to pay debt service on the Bonds), there shall be levied upon the tax rolls of the City for the purpose of the Debt Retirement Fund each year, in the manner required by the provisions of Act 34, an amount sufficient so that the estimated collection therefrom will be sufficient to promptly pay, when due, the principal of and interest on the Bonds becoming due prior to the next annual tax levy; provided, however, that if at the time of making any such annual tax levy there shall be other funds available or surplus moneys on hand in the Debt Retirement Fund for the payment of principal of and interest on the Bonds, then credit therefor may be taken against such annual levy for the Debt Retirement Fund.

In the event cash or direct obligations of the United States or obligations the principal of and interest on which are guaranteed by the United States, or a combination thereof, the principal of and interest on which, without reinvestment, come due at times and in amounts sufficient to pay at maturity or irrevocable call for earlier optional redemption, the principal of, premium, if any, and interest on the Bonds, shall be deposited in trust, this resolution shall be defeased and the owners of the Bonds shall have no further rights under this resolution except to receive payment of the principal of, premium, if any, and interest on the Bonds from the cash or securities deposited in trust and the interest and gains thereon and to transfer and exchange Bonds as provided herein.

Unless waived by any registered owner of Bonds to be redeemed, official notice of redemption shall be given by the Transfer Agent on behalf of the City. Such notice shall be dated and shall contain at a minimum the following information: original issue date; maturity dates; interest rates; CUSIP numbers, if any; the place where the Bonds called for redemption are to be surrendered for payment; and that interest on the Bonds or portions thereof called for redemption shall cease to accrue from and after the redemption date. Any notice of optional redemption may provide that such redemption is conditioned upon the occurrence of any event specified in the notice of redemption. If such conditional notice of redemption has been given, and on the scheduled redemption date the event specified in the notice of redemption as a condition to the redemption has not occurred, then Bonds for which conditional notice of redemption was given shall not be redeemed on the scheduled redemption date and shall remain outstanding for all purposes of this resolution.

In addition, further notice shall be given by the Transfer Agent in such manner as may be required or suggested by regulations or market practice at the applicable time, but no defect in such further notice nor any failure to give all or any portion of such further notice shall in any manner defeat the effectiveness of a call for redemption if notice thereof is given as prescribed herein.

11. Project Fund; Proceeds of Bond Sale; Appropriation. The City Treasurer is authorized and directed to open a separate depositary account with a bank or trust company designated by the City Council, to be designated UNLIMITED TAX GENERAL OBLIGATION BONDS PROJECT FUND (the "Project Fund") and deposit into said Project Fund the proceeds of the Bonds less accrued interest, if any, which shall be deposited into the Debt Retirement Fund. The moneys in the Project Fund shall be used solely to pay the costs of the Project, capitalized interest, if any, and the costs of issuance of the Bonds.

The proceeds of the Bonds are hereby appropriated, upon receipt, to appropriation 21003 UTGO Blight Bonds for the purpose of paying all or part of the cost of the Project, capitalized interest, if any, and the costs of issuance of the Bonds.

The City Treasurer is further authorized to open such account or accounts as may be required for the deposit or transfer of proceeds in connection with the issuance of any Series of Bonds issued pursuant to a HUD Program, provided such accounts and any deposits made therein are consistent with the laws of the State and this resolution.

12. Bond Form. Any Bonds not delivered pursuant to a HUD Program shall be in substantially the following form. Any series of Bonds delivered pursuant to a HUD Program shall be in such form as shall be necessary to conform to HUD Program requirements, subject to the laws of the State.

UNITED STATES OF AMERICA
STATE OF MICHIGAN
COUNTY OF WAYNE

CITY OF DETROIT

UNLIMITED TAX GENERAL OBLIGATION BOND, SERIES 20__

Interest Rate	Maturity Date	Date of Original Issue	CUSIP
	[____] 1, ____	________, 20__	

Registered Owner:

Principal Amount: Dollars

The CITY OF DETROIT, County of Wayne, State of Michigan (the "City"), acknowledges itself to owe and for value received hereby promises to pay to the Registered Owner specified above, or registered assigns, the Principal Amount specified above, in lawful money of the United States of America, on the Maturity Date specified above, unless prepaid prior thereto as hereinafter provided, with interest thereon (computed on the basis of a 360-day year consisting of twelve 30-day months) from the Date of Original Issue specified above or such later date to which interest has been paid, until paid, at the Interest Rate per annum specified above, first payable on _________ 1, 20__ and semiannually thereafter. Principal of this bond is payable at the corporate trust office of ____________________, ___________, ______________, or such other transfer agent as the City may hereafter designate by notice mailed to the registered owner not less than sixty (60) days prior to any interest payment date (the "Transfer Agent"). Interest on this bond is payable to the registered owner of record as of the fifteenth (15th) day of the month preceding the interest payment date as shown on the registration books of the City kept by the Transfer Agent by check or draft mailed to the registered owner of record at the registered address. For prompt payment of this bond, both principal and interest, the full faith, credit and resources of the City are hereby irrevocably pledged.

This bond is one of a series of bonds aggregating the principal sum of $_____________, constituting the ___ series of bonds of a total authorization of $___________ issued for the purpose of paying the cost of eliminating blight in the City through demolition and other blight remediation activities[, paying capitalized interest] and paying costs incidental to the issuance of the bonds in pursuance of a vote of the qualified electors of the City voting thereon at a certain election duly held on March 10, 2020.

Bonds of this issue maturing in the years 20__ to 20__, inclusive, shall not be subject to redemption prior to maturity. Bonds or portions of bonds of this issue in multiples of $5,000 maturing in the year ______ and thereafter shall be subject to redemption prior to maturity, at the option of the City, in any order of maturity and by lot within any maturity, on any date on or after ________ 1, _______, at par and accrued interest to the date fixed for redemption.

[Insert any mandatory sinking fund redemption/term bond provisions, if applicable]

In case less than the full amount of an outstanding bond is called for redemption, the Transfer Agent, upon presentation of the bond called in part for redemption, shall register, authenticate and deliver to the registered owner of record a new bond in the principal amount of the portion of the original bond not called for redemption.

Notice of redemption shall be given to the registered owner of any bond or portion thereof called for redemption by mailing of such notice not less than thirty (30) days prior to the date fixed for redemption to the registered address of the registered owner of record. A bond or portion thereof so called for redemption shall not bear interest after the date fixed for redemption provided funds are on hand with the Transfer Agent to redeem said bond or portion thereof.

This bond is transferable only upon the registration books of the City kept by the Transfer Agent by the registered owner of record in person, or by the registered owner's attorney duly authorized in writing, upon the surrender of this bond together with a written instrument of transfer satisfactory to the Transfer Agent duly executed by the registered owner or the registered owner's attorney duly authorized in writing, and thereupon a new registered bond or bonds in the same aggregate principal amount and of the same maturity shall be issued to the transferee in exchange therefor as provided in the resolution authorizing this bond and upon the payment of the charges, if any, therein prescribed. Neither the City nor the Transfer Agent shall be required to transfer or exchange this bond during the period fifteen (15) days immediately preceding the date of mailing any notice of redemption or (except as to the unredeemed portion, if any, of this bond) after this bond or any portion of this bond has been selected for redemption.

This bond, including the interest thereon, is payable out of the City's Debt Retirement Fund for this issue and the City is required to levy ad valorem taxes on all taxable property in the City for the payment thereof, without limitation as to rate or amount.

It is hereby certified and recited that all acts, conditions and things required by law to be done, precedent to and in the issuance of this bond and the series of bonds of which this is one, exist and have been done and performed in regular and due form and time as required by law, and that the total indebtedness of the City, including this bond, does not exceed any constitutional, statutory or charter debt limitation.

This bond is not valid or obligatory for any purpose until the Transfer Agent's Certificate of Authentication on this bond has been executed by the Transfer Agent.

IN WITNESS WHEREOF, the City of Detroit by authority of its City Council, has caused this bond to be signed for and on its behalf and in its name by the manual or facsimile signature of the Mayor of the City and the manual or facsimile signature of its Finance Director and the official seal of the City to be impressed hereon, all as of the Date of Original Issue.

CITY OF DETROIT

County of Wayne

State of Michigan

By______________________________

Its Mayor

(SEAL)

By______________________________

Its Finance Director

Certificate of Authentication

This bond is one of the bonds described in the within-mentioned resolution.

____
______________, Michigan
Transfer Agent

By______________________________________
Its: Authorized Signature

Date of Authentication: ______________, 20__

13. Useful Life of Project. The estimated period of usefulness of the Project is hereby declared to be not less than thirty (30) years.

14. Negotiated Sale. The City Council has considered the option of selling the Bonds through a competitive sale and a negotiated sale and, pursuant to the requirements of Act 34, based on the advice it its financial advisor, determines that a negotiated sale of the Bonds will result in the most efficient and expeditious means of selling the Bonds to best achieve the most advantageous interest rates and costs to the City and will provide the City with greater flexibility in structuring bond maturities and adjusting terms for the Bonds.

15. Tax Covenant. The City shall, to the extent permitted by law, take all actions within its control necessary to maintain the exclusion of the interest on the Bonds issued as Tax-Exempt Bonds from gross income for federal income tax purposes under the Code, including, but not limited to, actions relating to any required rebate of arbitrage earnings and the expenditures and investment of Bond proceeds and moneys deemed to be Bond proceeds.

16. Sale of Bonds; Bond Purchase Agreement; Sale Order; Adjustment of Bond Details. The Authorized Officer is hereby authorized to (a) select one or more financial institutions to (*i*) serve as underwriter or underwriters for any series of Bonds or (*ii*) purchase any series of Bonds directly or (b) take all actions necessary to participate in a financing program under the authority of the United States Department of Housing and Urban Development ("HUD"; such program being a "HUD Program"), in connection with which one or more series of Bonds may be delivered. The Authorized Officer is, subject to the parameters set forth in this Resolution, further authorized to approve the sale of any series of the Bonds to (a) an underwriter pursuant to a bond purchase agreement, (b) a direct purchaser pursuant to a direct purchase agreement or the equivalent thereof or (c) HUD or a registered holder, agent or trustee designated to purchase or take delivery of Bonds delivered in connection with a HUD Program.

The Authorized Officer is authorized to execute a sale order approving the final terms of each series of the Bonds (the "Sale Order"), adjust the final bond details set forth herein to the extent necessary or convenient to complete the transactions authorized herein, and in pursuance of the foregoing is authorized to exercise the authority and make the determinations authorized pursuant to Section 315(1)(d) of Act 34, including but not limited to determinations regarding interest rates, prices, discounts, maturities, principal amounts, denominations, dates of issuance, interest payment dates, redemption rights, the place of delivery and payment, designation of series and other matters; *provided*, that the interest rate on each series of the Bonds shall not exceed the maximum rate of interest permitted by law; the final maturity of each series of Bonds shall be not later than thirty (30) years from the date of delivery thereof; each series of the Bonds shall be sold at a price not less than 100% of the par amount thereof; and the underwriter's discount on the Bonds shall not exceed 0.75% of the principal amount of that series of the Bonds.

17. Official Statement; Qualification for Insurance; Ratings. The Authorized Officer is hereby authorized and directed to (a) if and as applicable to a series of the Bonds, approve the circulation of a preliminary official statement describing that series of the Bonds and to deem the preliminary official statement "final" for purposes of Rule 15c2-12 of the SEC (the "Rule"); (b) solicit bids for and approve the purchase of a municipal bond insurance policy for any series of

the Bonds, if deemed economically advantageous to the City; (c) apply for ratings on any series of the Bonds: and, (d) do all other acts and take all other necessary procedures required to effectuate the sale, issuance and delivery of each series of the Bonds.

18. Approval of Other Documents and Actions; Treasury Approval. The Authorized Officer and any other officers, agents or employees of the City are hereby authorized and directed on behalf of the City to take any and all other actions, perform any and all acts and execute any and all documents that shall be required, necessary or desirable to implement this Resolution.

The Authorized Officer is hereby authorized to file applications with and to pay the related fees, if any, to the Michigan Department of Treasury under Act 34 for an order or orders of approval, or qualifying statements necessary to issue all or a portion of the Bonds, to enter into any supplement to or amendment of that certain Debt Millage Deposit Escrow Agreement between itself and U.S. Bank National Association, as escrow trustee, dated August 11, 2016, as amended, and to enter into one or more remarketing agreements, indentures, letters of credit and reimbursement agreements, and such waivers, including, specifically an application to waive the investment grade rating requirement, or other Treasury approvals as necessary to implement the sale, delivery and security for the Bonds, and as required by the Michigan Department of Treasury and Act 34. The Authorized Officer is hereby authorized and directed to pay any post closing filing fees required by Act 34 to the Michigan Department of Treasury or other specified agency, as a cost of issuance or from other legally available funds.

19. Continuing Disclosure. The City shall enter into a continuing disclosure undertaking pursuant to the Rule for the benefit of the holders and beneficial owners of any series Bonds as to which the Rule is applicable, as more specifically set forth in Exhibit B hereto (the "Undertaking"); provided, however, that the terms of the Undertaking are subject to completion and modification prior to delivery of the Bonds to such extent as the Authorized Officer shall deem necessary to comply with law or market requirements of an underwriter of the Bonds. The Authorized Officer is hereby authorized to execute and deliver the Undertaking after completion and modification as provided in this Resolution and the Sale Order.

20. Appointment of Bond Counsel; Engagement of Other Parties. The appointment of the law firm of Miller, Canfield, Paddock and Stone, P.L.C. of Detroit, Michigan, as initial Bond Counsel for the Bonds is hereby ratified and confirmed, notwithstanding the periodic representation by Miller, Canfield, Paddock and Stone, P.L.C., in unrelated matters of other parties and potential parties to the issuance of the Bonds. The fees and expenses of Miller, Canfield, Paddock and Stone, P.L.C. as Bond Counsel and other accumulated bond related fees and expenses shall be payable as a cost of issuance from proceeds of the Bonds or other available funds in accordance with the letter of such firm on file with the City.

The Authorized Officer is hereby authorized to engage other consultants, financial advisors, or other parties as he or she deems necessary and appropriate in connection with the sale, issuance and delivery of the Bonds and to pay the fees and expenses thereof from the proceeds of the Bonds or other available funds.

21. Financial Advisor. The City hereby appoints Public Resources Advisory

Group, Inc. as initial financial adviser with respect to the Bonds.

22. No Recourse Under Resolution. All covenants, agreements and obligations of the City contained in this Resolution shall be deemed to be the covenants, agreements and obligations of the City and not of any councilperson, member, officer or employee of the City in his or her individual capacity, and no recourse shall be had for the payment of the principal of or interest on the Bonds or for any claim based thereon or on this Resolution against any councilperson, member, officer or employee of the City or any person executing the Bonds in his or her official individual capacity.

23. Effective Date. This Resolution shall take effect immediately upon its adoption by the Council.

24. Rescission. All resolutions and parts of resolutions insofar as they conflict with the provisions of this resolution be and the same hereby are rescinded.

Exhibit A

BOND PROPOSAL

Shall the City of Detroit issue bonds in an amount of not more than $250,000,000 for the purpose of paying the cost of eliminating blight in the City through demolition and other blight remediation activities? The bonds will be payable from taxes the City is allowed to levy in addition to state statutory and City Charter limits.

Yes ☐

No ☐

The total debt millage required to retire this proposed bond issue and all voted bonds of the City is estimated to remain at or below the debt millage levied by the City in 2019. If approved, the estimated millage to be levied in 2020 for the proposed bonds is 2.986 mills ($2.986 per $1,000 of taxable value) and the estimated simple average annual millage rate required to retire the proposed bonds is 2.553 mills ($2.553 per $1,000 of taxable value). Each series of the bonds shall be payable in not more than 30 years from its date of issuance.

Exhibit B

FORM OF CONTINUING DISCLOSURE UNDERTAKING

This Continuing Disclosure Undertaking (the "Undertaking") is executed and delivered by the City of Detroit, County of Wayne, State of Michigan (the "City") in connection with the issuance of its Unlimited Tax General Obligation Bonds, Series 20__ (the "Bonds"). The City covenants and agrees for the benefit of the Bondholders, as hereinafter defined, as follows:

(a) *Definitions*. The following terms used herein shall have the following meanings:

"Audited Financial Statements" means the City's audited financial statements prepared by an individual or firm of independent certified public accountants as required by Act 2, Public Acts of Michigan, 1968, as amended, which presently requires preparation in accordance with generally accepted accounting principles.

"Bondholders" shall mean the registered owner of any Bond or any person (a) with the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bond (including any person holding a Bond through a nominee, depository or other intermediary) or (b) treated as the owner of any Bond for federal income tax purposes.

"City" means the City of Detroit, County of Wayne, State of Michigan.

"Disclosure Representative" means the CFO of the City or his designee, or such other officer, employee, or agent as the City shall designate from time to time in writing.

"EMMA" shall mean the MSRB's Electronic Municipal Market Access System.

"Financial Obligation" means "financial obligation" as such term is defined in the Rule. "MSRB" means the Municipal Securities Rulemaking Board.

"Rule" means Rule 15c2-12 promulgated by the SEC pursuant to the Securities Exchange Act of 1934, as amended, as in effect on the date of this undertaking, including any officiation interpretations thereof issued either before or after the date of this undertaking which are applicable to this undertaking.

"SEC" means the United States Securities and Exchange Commission.

"Unaudited Financial Statements" means the same as Audited Financial Statements, except that they shall not have been audited by an individual or firm of independent certified public accountants.

(b) *Continuing Disclosure*. The City hereby agrees, in accordance with the provisions of the Rule, to provide or cause to be provided to the MSRB through EMMA, on or before the last day of the ninth (9th) month following the end of the fiscal year of the City, commencing with the fiscal year ended June 30, 2020, in an electronic format as prescribed by the MSRB:

(1) Certain annual financial information and operating data reasonably available to the City in form and substance similar to the information appearing in the sections or tables in Appendix A of the Official Statement relating to the Bonds as described below:

a. Revenues and Expenditures of the General Fund;
b. Municipal Income Tax Revenues;
c. Property Tax Revenues;
d. Distributable State Aid (State Revenue Sharing);
e. Annual City Contributions to the Retirement Systems;
f. City of Detroit State Equalized Valuations and Taxable Valuations;
g. Tax Rates;
h. Tax Levies and Collections;
i. Ten Largest Property Taxpayers;
j. Legal Debt Margins Subject to State Limitations;
k. Statement of Direct Tax-Supported and Revenue Indebtedness; and
l. Direct and Overlapping Debt.

(2) The Audited Financial Statements. Provided, however, that if the Audited Financial Statements are not available by the date specified above, they shall be provided when available and unaudited financial statements will be filed by such date and the Audited Financial Statements will be filed as soon as available.

(3) Such additional financial information or operating data as may be determined by the City and its advisors as desirable or necessary to comply with the Rule.

Such annual financial information and operating data described above are expected to be provided directly by the City or by specific reference to other documents available to the public through EMMA or filed with the SEC, including official statements of debt issues of the City or related public entities.

If the fiscal year of the City is changed, the City shall send notice of such change to the MSRB through EMMA prior to the earlier of the ending date of the fiscal year prior to such change or the ending date of the fiscal year as changed.

(c) *Notice of Failure to Disclose.* The City agrees to provide or cause to be provided, in a timely manner, to the MSRB through EMMA, notice of a failure by the City to provide the Annual Financial Information with respect to the City described in subsection (b) above on or prior to the dates set forth in subsection (b) above.

(d) *Occurrence of Events.* The City agrees to provide or cause to be provided to the MSRB through EMMA, in an electronic format as prescribed by the MSRB, in a timely manner not in excess of ten business days after the occurrence of the event, notice of the occurrence of any of the following events listed in paragraph (b)(5)(i)(C) of the Rule with respect to the Bonds (each a "Material Event"):

(1) principal and interest payment delinquencies;

(2) non-payment related defaults;
(3) unscheduled draws on debt service reserves reflecting financial difficulties;
(4) unscheduled draws on credit enhancements reflecting financial difficulties;
(5) substitution of credit or liquidity providers, or their failure to perform;
(6) adverse tax opinions or events affecting the tax-exempt status of the Bonds;
(7) modifications to rights of holders of the Bonds;
(8) Bond calls;
(9) defeasances;
(10) release, substitution, or sale of property securing repayment of the Bonds;
(11) rating changes;
(12) bankruptcy, insolvency, receivership or similar event of the Issuer, which is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the Issuer in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Issuer, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Issuer;
(13) the consummation of a merger, consolidation, or acquisition involving the Issuer or the sale of all or substantially all of the assets of the Issuer, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
(14) appointment of a successor or additional trustee or the change of name of a trustee, if material;
(15) incurrence of a Financial Obligation of the Issuer, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Issuer, any of which affect security holders, if material; or
(16) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Issuer, any of which reflect financial difficulties.

(e) Materiality Determined Under Federal Securities Laws. The City agrees that its determination of whether any event listed in subsection (d) is material shall be made in accordance with federal securities laws.

(f) Termination of Reporting Obligation. The obligation of the City to provide Annual Financial Information and notices of Material Events, as set forth above, shall be terminated if and when the City no longer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, including upon legal defeasance of all Bonds.

(g) Identifying Information. All documents provided to the MSRB through EMMA shall be accompanied by the identifying information prescribed by the MSRB.

(h) Benefit of Bondholders. The City agrees that its undertaking pursuant to the Rule set forth in this Section is intended to be for the benefit of the Bondholders and shall be enforceable by any Bondholder; provided that, the right to enforce the provisions of this Undertaking shall be limited to a right to obtain specific enforcement of the City's obligations hereunder and any failure by the City to comply with the provisions of this Undertaking shall not constitute a default or an event of default with respect to the Bonds or under the Resolution.

(i) Amendments to the Undertaking. Amendments may be made in the specific types of information provided or the format of the presentation of such information to the extent deemed necessary or appropriate in the judgment of the Disclosure Representative on behalf of the City, provided that the City agrees that any such amendment will be adopted procedurally and substantively in a manner consistent with the Rule, including, any interpretations thereof by the SEC, which, to the extent applicable, are incorporated herein by reference. Such interpretations currently include the requirements that (a) the amendment may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature, or status of the City or the type of activities conducted thereby, (b) the undertaking, as amended, would have complied with the requirements of the Rule at the time of the primary offering of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances, and (c) the amendment does not materially impair the interests of Bondholders, as determined by parties unaffiliated with the City (such as independent legal counsel), but such interpretations may be changed in the future. If the accounting principles to be followed by the City in preparing the Audited Financial Statements are modified, the Annual Financial Information for the year in which the change is made shall present a comparison between the financial statements as prepared on the prior basis and the statements as prepared on the new basis, and otherwise shall comply with the requirements of the Rule, in order to provide information to investors to enable them to evaluate the ability of the City to meet its obligations. A notice of the change in accounting principles shall be sent to the MSRB through EMMA.

(j) Additional Information. Nothing in this Undertaking shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Undertaking or any other means of communication, or including any other information in any Annual Financial Information or notice of occurrence of a Material Event, in addition to that which is required by this Undertaking.

(k) Governing Law. This Undertaking shall be construed and interpreted in accordance with the laws of the State of Michigan (the "State"), and any suits and actions arising out of this Undertaking shall be instituted in a court of competent jurisdiction in the State; *provided*, that to the extent this Undertaking addresses matters of federal securities laws, including the Rule, this Undertaking shall be construed in accordance with such federal securities laws and official interpretations thereof.

IN WITNESS WHEREOF, the City has caused this Undertaking to be executed by its authorized officer.

CITY OF DETROIT
County of Wayne
State of Michigan

By________________________________

____

Its ___________________________

Dated: ___________, 20__

34048327.11\022765-00234

Attachment VIII

UTGO Bond Sizing Scenarios 1-4

SCENARIO 1 (BASE CASE):
$225 million in Blight Bonds (75% tax exempt/25% taxable)

Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
$'s in thousands											(20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	111,500	-	93,250	-	93,250	-	93,250	443,495
Total	$227,245	$-	$50,000	$111,500	$-	$93,250	$-	$93,250	$-	$93,250	$668,495
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		15,325	19,015	20,743	17,551	13,848	13,558	13,560	13,235	12,051	138,886
Future Capital UTGO DS		2,288	2,288	2,288	8,123	17,972	23,398	24,177	25,900	32,985	139,420
Aggregate Debt Service	$64,466	$80,270	$69,120	$67,022	$64,923	$62,747	$62,636	$63,413	$64,805	$65,085	$664,486
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$55,877	$57,127	$58,349	$59,602	$60,885	$566,454
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,803	6,851	4,875	2,848	782	(148)	(180)	360	(252)	35,219
Total Sources	$64,466	$80,270	$69,120	$67,022	$64,923	$62,747	$62,636	$63,413	$64,805	$65,085	$664,486

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 1
Capacity for $225 million in Blight Bonds
Capacity for $443.5 million in future Capital Bonds
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.683%
Average Annual Debt Service: $12.4 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first 4 years (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.313%
Average Annual Debt Service: $21.9 million
Term: 30 years
Debt Service: Level

SCENARIO 2 (to consider impact of improvement in taxable values):
$250 million in Blight Bonds

Fiscal Year $'s in thousands	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total (20-29)[1]
Blight UTGO Bonds	$175,000	$-	$75,000	$-	$-	$-	$-	$-	$-	$-	$250,000
Future Capital UTGO Bonds	52,245	-	-	111,500	-	93,250	-	93,250	-	93,250	443,495
Total	$227,245	$-	$75,000	$111,500	$-	$93,250	$-	$93,250	$-	$93,250	$693,495
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		15,325	19,015	20,733	17,551	15,532	15,537	15,538	15,214	14,033	148,476
Future Capital UTGO DS		2,288	2,288	2,288	8,123	17,972	23,398	24,177	25,900	32,985	139,420
Aggregate Debt Service	$64,466	$80,270	$69,120	$67,012	$64,922	$64,430	$64,615	$65,391	$66,784	$67,067	$674,075
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$57,698	$58,992	$60,257	$61,554	$62,881	$575,996
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,803	6,851	4,865	2,847	645	(34)	(110)	388	(266)	35,267
Total Sources	$64,466	$80,270	$69,120	$67,012	$64,922	$64,430	$64,615	$65,391	$66,784	$67,067	$674,075

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 2
Assumes compound annual growth rate of 2.20% in taxable values over five years (i.e., from $5.95 billion in 2019 to $6.64 billion in 2024)
Capacity for Blight Bonds increases to $250 million
Capacity for future Capital Bonds remains at $443.5 million
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.781%
Average Annual Debt Service: $14.1 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first 4 years (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.313%
Average Annual Debt Service: $21.9 million
Term: 30 years
Debt Service: Level

SCENARIO 3 (to consider impact of all taxable Blight Bonds): $225 million in Blight Bonds (100% taxable)

Fiscal Year $'s in thousands	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total (20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	107,500	-	83,000	-	83,000	-	83,000	408,745
Total	$227,245	$-	$50,000	$107,500	$-	$83,000	$-	$83,000	$-	$83,000	$633,745
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		14,360	18,206	19,710	16,692	16,689	16,688	16,692	16,691	16,694	152,421
Future Capital UTGO DS		3,158	3,159	3,163	9,157	15,153	20,137	21,034	22,520	28,420	125,901
Aggregate Debt Service	$64,466	$80,175	$69,181	$66,864	$65,097	$62,768	$62,505	$63,402	$64,881	$65,163	$664,502
Actual and Projected Property Tax Collections	$54,325	$54,848	$54,766	$55,138	$55,536	$55,877	$57,127	$58,349	$59,602	$60,885	$566,454
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,708	6,912	4,717	3,022	804	(279)	(190)	436	(174)	35,235
Total Sources	$64,466	$80,175	$69,181	$66,864	$65,097	$62,768	$62,505	$63,402	$64,881	$65,163	$664,502

[1]Total represents amount through ten year planning horizon

Highlights of Scenario 3
Assumes 100% of Blight Bonds are taxable (and therefore higher cost of funds
Capacity for $225 million in Blight Bonds
Capacity for future Capital Bonds decreases to $408.8 millior
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 100% taxable
Estimated TIC: 6.621%
Average Annual Debt Service: $16.0 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in first three year:

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.318%
Average Annual Debt Service: $20.5 million
Term: 30 years
Debt Service: Level

SCENARIO 4 (to consider impact of recession):
$225 million in Blight Bonds (75% tax-exempt/25% taxable)

Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
$'s in thousands											(20-29)[1]
Blight UTGO Bonds	$175,000	$-	$50,000	$-	$-	$-	$-	$-	$-	$-	$225,000
Future Capital UTGO Bonds	52,245	-	-	107,500	-	75,000	-	75,000	-	75,000	384,745
Total	$227,245	$-	$50,000	$107,500	$-	$75,000	$-	$75,000	$-	$75,000	$609,745
Existing UTGO Debt Service	$64,466	$62,657	$47,816	$43,991	$39,248	$30,927	$25,680	$25,676	$25,670	$20,049	$386,180
Blight UTGO DS		14,398	16,668	16,621	14,412	14,409	14,408	14,410	14,414	13,577	133,318
Future Capital UTGO DS		2,294	2,294	2,294	7,815	12,435	18,250	18,841	20,170	26,809	111,203
Aggregate Debt Service	$64,466	$79,350	$66,779	$62,906	$61,475	$57,771	$58,338	$58,926	$60,254	$60,435	$630,701
Actual and Projected Property Tax Collections	$54,325	$54,010	$52,357	$51,012	$51,370	$51,638	$52,786	$53,908	$55,059	$56,237	$532,701
Federal Rebates (BABS)	3,071	2,990	2,903	2,809	2,699	2,571	2,432	2,281	2,117	1,938	25,811
PPT Reimbursement	4,000	4,000	4,000	3,600	3,240	2,916	2,624	2,362	2,126	1,913	30,781
Interest earnings	790	630	600	600	600	600	600	600	600	600	6,220
Projected Draw from Trustee Account	2,280	17,720	6,920	4,885	3,566	46	(104)	(225)	352	(254)	35,187
Total Sources	$64,466	$79,350	$66,779	$62,906	$61,475	$57,771	$58,338	$58,926	$60,254	$60,435	$630,701

[1]Total represents amount through ten year planning horizon.

Highlights of Scenario 4
Assumes 25% decrease in state equalized values, beginning in tax year 2020, spread over three years before recovering (i.e., decrease in taxable value of over $465 million)
Capacity for $225 million in Blight Bonds
Capacity for future Capital Bonds decreases to $384.7 million
Millage Rate remains at 9 mills

Assumptions for Blight UTGO Bonds
Tax-Status of Blight UTGO Bonds: 75% tax-exempt; 25% taxable
Estimated TIC: 4.744%
Average Annual Debt Service: $12.7 million
Term: 30 years
Debt Service: Level with accelerating principal amortization in years 2 and 3 (with taxable bonds front loaded and TE bonds wrapped around)

Assumptions for Future Capital UTGO Bonds
Tax-Status of Capital UTGO Bonds: 100% tax-exempt
Estimated TIC: 5.296%
Average Annual Debt Service: $19.5 million
Term: 30 years
Debt Service: Level

Attachment IX

Miller Canfield's (City of Detroit's Bond Counsel) Memorandum on Tax-exemption Overview

MILLER
CANFIELD

MEMORANDUM

TO: City of Detroit
Detroit Land Bank Authority

FROM: Jeffrey S. Aronoff
Katrina P. Desmond
Jeffrey M. McHugh

RE: Tax-Exemption Overview

DATE: September 30, 2019

This memorandum provides a brief summary of the federal tax laws which would apply to the use of the proceeds of the City of Detroit's anticipated Unlimited Tax General Obligation Bonds (the "Bonds") (the first series of which is expected to be issued in 2020), in the event all or a portion of the Bonds are issued on a tax-exempt basis.

The City is proposing to issue a portion of the Bonds on a tax-exempt basis, which is expected to lower the interest costs with respect to the financing. In order to successfully sell tax-exempt Bonds to the market, the City must covenant with the bondholders that the interest on the Bonds is not and will not become subject to federal income taxation.[1] If Bonds are classified as "private activity bonds" (as of the issue date or any time during which the bonds are outstanding), as the term is defined in Section 141 of the Internal Revenue Code of 1986, as amended (the "Code"), the interest on the Bonds will become includible in the federal taxable income of the holders thereof, retroactive to the date of issue.

The determination of whether the Bonds are private activity bonds depends upon two tests – (1) the private business test, and (2) the private loan financing test. The private business test in turn requires that two separate tests be met: (1) the private business use test, and (2) the private security or payment test. These tests are designed to determine whether some arrangement in effect confers upon a nongovernmental party the benefit and burdens of the tax-exempt bond-financed property.

Code §141 provides that the private security or payment test will be met where more than 5% of the present value of the debt service on the Bonds is secured by privately used property or private payments (the "private security or payment" test). Payments taken into account as private payments (as well as private security) are aggregated for purposes of determining whether the 5%

---

[1] For purposes of the federal tax analysis, the City and the Authority will be treated as a single entity, and the tax rules will apply to both entities.

(*de minimis*) threshold is exceeded. Private payments include direct or indirect payments with respect to Bond-financed property (even if not pay to the issuer). Private payments do not necessarily need to be paid by the private user itself (i.e. in this case, the purchaser of the Bond-improved property).

Proceeds from the sale of properties improved with Bond proceeds, or revenues generated from the lease of properties improved with Bond proceeds, will be treated as private payments. However, if the properties improved with Bond proceeds were granted to non-governmental entities, without receiving any monetary benefits in return, those grants should not generate payments to be counted for the private payment test.

Importantly, payments counted toward the private payment test include payments made pursuant to an "underlying arrangement," such that it may be inferred that the payments, even though not pledged or otherwise expected to be used to pay debt service on the Bonds, nonetheless would be available to the issuer to pay debt service or otherwise offset amounts expected to be used to pay debt service

Payments with respect to any properties improved must be aggregated and compared to the present value of debt service over the entire term of the Bonds to ensure the *de minimis* limitation is not exceeded.

In order to market or place the Bonds on a tax-exempt basis, the City must receive an unqualified opinion of Bond Counsel with respect to the tax-exemption. Both the City and the Authority must deliver Tax Certificates at closing detailing their reasonable expectations with respect to the use of proceeds of the Bonds and the private payment test. Specifically, the Tax Certificates will include the following:

- A statement of the intended uses of Bond proceeds. This will include a representation that, although sales of the improved properties are not restricted, sale of the properties is not the expected use of most properties during the term of the Bond issue;

- A representation that the total amount of private payments to be received over the term of the Bond issue is not expected to exceed the 5% *de minimis* limitation;

- A covenant to implement a tracking system which includes all Bond-financed properties, which would allow the City to measure whether a sale or disposition of Bond-financed property exceeds the 5% de minimis limitation; and

- A covenant to take certain remedial actions in the event the private activity tests are met at any time throughout the life of the Bonds.

As Bond Counsel, we will rely on the above representations in order to deliver a tax-exempt opinion with respect to the Bonds at closing.

As with any other of the City's tax-exempt bond issues, the City (and the Authority) must comply with the federal tax rules throughout the entire life of the Bond issue. If the private activity tests are met at any time during the term of the Bond issue (or the term of a tax-exempt bond issue which refunds the Bonds), then the City and the Authority must take a remedial action. This would be the case if the sale or other disposition of properties improved with Bond proceeds exceeds the 5% *de minimis* limitation, as described above. In order to ensure the sale or disposition of certain Bond-financed properties does not cause the private payment test to be met, the City and the Authority must implement a tracking system and update it throughout the life of the Bonds.

34254654.3\022765-00234

Attachment X

City of Detroit's Debt Policy

CITY OF DETROIT
OFFICE OF THE CHIEF FINANCIAL OFFICER

COLEMAN A. YOUNG MUNICIPAL CENTER
2 WOODWARD AVE., SUITE 1100
DETROIT, MICHIGAN 48226
PHONE: 313-628-2535
FAX: 313-224-2135
WWW.DETROITMI.GOV

CFO DIRECTIVE
No. 2018-101-007

SUBJECT: Debt Issuance and Management
ISSUANCE DATE: May 1, 2018
EFFECTIVE DATE: May 1, 2018

---

1. AUTHORITY

   1.1. State of Michigan Public Act 279 of 1909, Section 117.4s (2), as amended by Public Act 182 of 2014, states the chief financial officer shall supervise all financial and budget activities of the city and coordinate the city's activities relating to budgets, financial plans, financial management, financial reporting, financial analysis, and compliance with the budget and financial plan of the city.

   1.2. State of Michigan Public Act 34 of 2001 states various requirements relative to the borrowing of money and the issuance of certain debt and securities, as well as other various requirements.

   1.3. State of Michigan Public Act 227 of 1985 states authorities granted to local units of government regarding the issuance of debt, as well as other various requirements.

   1.4. State of Michigan Public Act 436 of 2012 allows local units of government to issue financial recovery bonds in amounts greater than limitations established by City Charter or Public Act 436 of 2012.

   1.5. The 2012 Charter of the City of Detroit, Article 8, Chapter 5, provides various types of, and requirements for, borrowing, as well as other various requirements.

   1.6. The 1984 Detroit City Code, Chapter 18, Article II, Section 18-2-24 requires the City to issue a tax statement and a bond statement to represent amounts required to be raised to support the adopted budget.

   1.7. The 1984 Detroit City Code, Chapter 18, Article VII, provides various requirements for registered city bonds.

2. OBJECTIVES

   2.1. To establish the conditions for the issuance and management of debt.

   2.2. To create policies that minimize the City's debt service and costs, while maintaining and preserving access to the capital markets in a cost-effective manner.

   2.3. To provide guidelines for the City to manage its debt program in accordance with its financial resources in order to retain the highest possible credit ratings.

   2.4. To help improve the quality of decision-making, provide justification for the debt structure, identify policy goals, and demonstrate a commitment to long-term financial planning, including a multi-year capital plan.

   2.5. To outline the legal, credit and policy frameworks under which the City issues its debt obligations and to document pre- and post- issuance objectives.

3. PURPOSE

   3.1. To establish the City's debt issuance and management policy.

4. RESPONSIBILITIES

   4.1. As delegated by the Chief Financial Officer (CFO), the Deputy CFO- Treasurer (Treasurer), in coordination with the Chief Deputy CFO / Finance Director, shall be responsible for the administration and oversight of this Directive and shall ensure coordination of activities with the CFO's Office and the Office of Budget.

   4.2. The Deputy CFO- Budget Director (Budget Director) shall be responsible for certain activities as stated in this Directive.

   4.3. The CFO's Office, with assistance from other City departments and agencies as necessary, shall be responsible for certain analyses and communications with credit rating agencies as stated in this Directive.

5. POLICY

   5.1. Definition of Debt

      5.1.1. This Directive covers all obligations of the City to repay, with or without interest, in installments and / or at a later date, some amount of money utilized for the purchase, construction, or operation of City resources. This includes, but is not limited to, notes, bond issues, capital leases, and loans of any type (whether from an outside source such as a bank or from another internal fund).

      5.1.2. This Directive does not cover other obligations such as contracts payable, loans payable (for example U.S. Department of Housing and Development Section 108 loans), and net pension liability obligation (NPO) and / or pension Unfunded Actuarial Liability (UAL) and Other Post-Employment Benefits (OPEB) UAL.

   5.2. General Guidelines

      5.2.1. Debt shall only be incurred for those purposes provided by City Charter and State law, including Public Act 34 of 2001, Public Act 279 of 1909, and other applicable laws.

      5.2.2. Debt shall only be issued in conformance with all applicable state and federal laws, City Charter and ordinances, and as well as this Directive.

      5.2.3. Should the City issue a municipal security that contains the limited tax full faith and credit pledge of the City, it shall issue a notice consistent Public Act 34 of 2001.

      5.2.4. The City shall pay all debt and interest on debt in a timely manner consistent with requirements of the borrowings and shall ensure that all outstanding debt are budgeted.

      5.2.5. Long-term debt shall not be used to finance current operations. Long-term debt shall only be used for capital purchases or construction identified through the City's capital improvement / budget processes.

      5.2.6. Short-term debt may be used for certain projects and equipment financings as well as, in rare cases, for operational borrowing; however, the City will minimize the use of short-term cash flow borrowings by maintaining adequate working capital and detailed budget management.

5.2.7. Use of non-debt revenues to fund some capital projects is desirable as it constitutes "pay-as-you-go" financing and, when applied to debt eligible projects, reduces the debt burden of the City. Decisions to use current non-debt revenue funding within the Capital Agenda / Plan of the City will have an immediate impact on resources available to annual operating budgets, and requires the recognition that certain costs of public facilities and other capital projects should be supported on a current basis rather than paid for over time. As such, current non-debt revenues should be used for any projects in the Capital Agenda / Plan not eligible for debt financing by virtue of limited useful life.

5.2.8. In accordance with Generally Accepted Accounting Principles used by state and local governments and Federal / State law, the maturity of the underlying debt may not be more than the useful life of the assets purchased or financed with the debt, not to exceed 30 years; however, an exception may be made with respect to Federally-sponsored loans, provided such an exception is consistent with law and accepted leading practices and industry standards. In addition, debt incurred for operating expenses must be repaid within the same fiscal year of issuance or incurrence.

5.2.9. The City shall seek to structure debt with level or declining debt service payments over the life of each individual bond issue or loan. The City will not backload, use wrap-around techniques, balloon payments or other exotic formats to pursue the financing of projects. When refunding opportunities, natural disasters, other non-general fund revenues, or external factors occur, the City may utilize non-level debt methods. However, the use of such methods should be clearly delineated in the CFO's recommendation to the City Council.

5.2.10. The City chooses not to use derivatives or other exotic financial structures in the management of its debt portfolio. Prior to utilizing such structures, the CFO must submit a written management report to the Mayor and the City Council outlining the potential benefits and consequences of doing so.

5.2.11. The City shall not pledge any City revenues to its conduit bond financings and has no moral obligation to repay bondholders of conduit financing issued under its authority.

5.2.12. The City shall select a method of sale that maximizes the financial benefit to the City. All methods of sale shall be approved by the CFO.

5.2.13. All financial reports, bond prospectus and Annual Information Statements shall represent a full, complete and accurate disclosure of financial conditions and operating results. All reports and disclosures shall conform to guidelines established by the Securities Exchange Commission (SEC), the Internal Revenue Service (IRS), this Directive and other requirements determined by the CFO.

5.2.14. The City recognizes the value of variable rate debt obligations and that cities have greatly benefited from the use of variable rate debt in the financing of needed infrastructure and capital improvements. However, the City also recognizes there are inherent risks associated with the use of variable rate debt and will implement steps to mitigate these risks, including market fluctuations and interest rate assumptions, bond insurance and liquidity, letters of credit, and arbitrage rules.

5.2.15. All costs associated with the initial issuance or incurrence of debt, management and repayments of debt (including interest, principal and fees and / or on-going charges) shall be fully disclosed prior to any action by the City Council.

5.2.16. The City will refund debt when it is in the best financial interest of the City to do so. The CFO's Office and the Office of the Treasury shall have the responsibility to analyze outstanding bond issues for refunding opportunities. The decision to refinance must be approved by the City Council, and all plans for current or advance refunding of debt must be in compliance with State laws and regulations.

5.2.17. The City shall require any and all professionals engaged in the process of issuing debt to clearly disclose all compensation and consideration received related to the services provided in the debt issuance process by both the City and the lender or conduit issuer, if any. This requirement includes any "soft" costs or compensation in lieu of direct payments.

5.2.18. In an effort to maintain and improve its credit ratings, the CFO's Office, with the assistance of other City departments and agencies as necessary, shall keep an open line of communication with the nationally recognized credit rating agencies and shall inform them of major financial events and other applicable City matters in a timely and transparent manner.

5.3. Types of Debt and Purpose / Need for Financing

5.3.1. There are four primary purposes, in no particular priority order, for which the City may issue debt. The CFO shall review and approve all borrowings prior to submission to the City Council.

5.3.1.1. Long-Term General Obligation (GO) Debt for Capital Improvements. All proposed financings for long-term capital improvements shall be identified in the City's Capital Agenda / Plan, as well as the annual adopted budget and Four-Year Financial Plan. Bonds are normally issued with a final maturity of not less than twenty (20) and no more than thirty (30) years, having a level-debt amortization.

5.3.1.2. Short-term GO Debt (such as Bond Anticipation Note). This may only be issued with a short-term maturity for the following instances:

- To provide interim financing to take advantage of a favorable interest rates within the rules established by the IRS which shall eventually be refunded with the proceeds of long-term obligations, or;
- For the application of short-term financing that is not for interim financing, so long as the CFO approves a plan for amortizing the principal amount of the short-term financing in a manner reasonably similar to the City's treatment of fixed-rate bonds.

5.3.1.3. Essential Vehicle and Equipment Needs. The City finances certain essential equipment and vehicles. The underlying assets must have a minimum useful life of three (3) years. Short-term financings, including loans and capital lease purchase agreements, are executed to meet such needs.

5.3.1.4. Refinancing / Refunding of Existing Debt. The CFO's Office and the Office of the Treasury shall periodically evaluate the City's existing debt portfolio and execute refinancings / refundings when economically beneficial. As a guideline, aggregate new present value savings, expressed as a % of the par amounts of the refunded bonds, should achieve a level of 3% and above for a current refunding and 3% and above for an advance refunding. The CFO will consider a refunding only when one or more of the following considerations are met:

- Lower interest rates resulting in debt service cost savings;
- Eliminate restrictive or burdensome bond covenants; or
- When there is a financial benefit to the City as determined by the CFO.

5.3.2. The City may issue Revenue Bonds which are secured by the pledge of a particular stream of revenue for their repayment in contrast to GO debt, which pledges general tax revenues. The revenues pledged may also be those of a special revenue fund or revenue received from or in connection with a project. Revenue supported debt should be limited to ensure that debt service coverage ratios are sufficient and at least equal to or higher than the ratings on the City's outstanding parity debt. Such coverage ratios shall be maintained during the life of any bonds secured by that particular revenue stream.

5.3.3. The City may issue various forms of appropriation-backed debt to fund capital improvements, facilities, and equipment issued directly by the City or another entity as a conduit issuer. Under such arrangement, the City enters into a long-term lease with the conduit issuer and the City's lease payments fund the debt service on the bonds. Appropriation-backed debt is useful in situations where a separate revenue stream is available to partially offset the lease payments, thereby differentiating the project from those funds with GO debt. Because these long-term leases constitute an obligation of the City similar to GO debt, the value of the lease should be included in the City's debt capacity calculations.

5.3.4. The issuance of taxable debt may be useful in situations where private activity or other considerations make tax-exempt debt disadvantageous or ineligible per federal tax code requirements. The City recognizes that taxable debt will generally be at a higher cost because investors are not able to deduct interest earnings from their taxable income, and as such should be cautious of its use. However, taxable debt may be issued in instances where the additional costs, including marketing, legal and other upfront costs over the life of the bond, are outweighed by the advantages of the financing to be achieved.

5.4. Debt Affordability

5.4.1. Notwithstanding any City Charter provision to the contrary, the City's new indebtedness incurred for all public purposes, as well as the maximum interest rate, shall be consistent Public Act 34 of 2001, Public Act 279 of 1909, and other applicable laws.

5.4.2. Debt levels and their related annual costs are important long-term obligations that must be managed within available resources. As part of the City's budget process, the City shall consider trends in revenues and expenditures to its governmental funds and trends in assessed valuation as it considers the portion of its Capital Agenda / Plan to be funded with debt.

5.4.3. Paying principal and interest on general obligation debt is the first claim on City revenues. As such, in order to achieve and / or maintain the highest possible credit rating, the City should adhere to several ratios and guidelines in deciding how much additional GO debt may be issued. Ultimately, the decision as to whether or not to assume new debt shall be based on the City's ability to afford new debt and service it, as determined by an objective and analytical approach considering, among other conditions, the below factors / ratios. These factors / ratios and other metrics generated by the Office of the Treasury (based on leading government practices of other highly rated municipalities and / or other local government credits, as appropriate) shall be calculated and reported, at a minimum, annually in conjunction with the capital budget processes, the annual financial audit, and as needed for fiscal analysis and reported to the CFO, Mayor and the City Council.

- Overall Debt as a % of Assessed Valuation. This ratio measures debt levels against the property tax base, which generates the tax revenues that are the main source of debt repayment. Total debt, both existing and proposed, should be kept at about 1.5% of full market value (substantially the same assessed value) of taxable real property in the City.

should be 15% per OCFO

- Debt Service as a % of the General Fund. This ratio reflects the City's budgetary flexibility to adapt spending levels and respond to changes in economic conditions. Required annual debt service expenditures should be kept at about 10-15% of the City's General Fund. The General Funds excludes other special revenue tax supported funds.
- Overall Debt per Capita. This ratio measures the burden of debt placed on the population supporting the debt and is widely used as a measure of an issuer's ability to repay debt. Total debt outstanding and annual amounts issued, when adjusted for inflation, should not cause real debt per capita (i.e., after elimination the effects of inflation) to rise significantly.
- Ten-year Payout Ratio. This ratio reflects the amortization of the City's outstanding debt. A faster payout is considered a positive credit attribute. The rate of repayment of bond principal should be kept at highest affordable level possible given other budget priorities.
- Per Capita Debt to Per Capita Income. This ratio reflects a community's economic strength as an indicator to income levels relative to debt. Total debt outstanding and annual amounts proposed should not cause the ratio of per capita to per capita income to rise significantly above approximately 5%.

5.5. Debt Issuance and Structuring

5.5.1. The ability to borrow cost-effectively depends in large measure upon the City's credit ratings as assessed by the three nationally recognized credit rating services. The CFO's Office shall be responsible for maintaining relationships with the credit rating services that currently assign ratings to the City's various debt obligations. The CFO's Office shall be responsible for determining whether or not a rating shall be requested on a particular financing, and which of the rating agencies shall be asked to provide such rating. Debt structuring practices shall take into account, in no priority order, the following:

- Size - based on capital project needs;

- Term - the City maintains a preference for the shortest possible average maturity considering the project type and availability of annual payment resources;
- Amortization of Bonds - the City generally prefers level principal for general obligation bonds unless a specific revenue has been identified for general obligation bonds or other bonds. However, the City may consider other amortization structures as appropriate and legally permitted by law;
- Interest Rate - to enhance the effectiveness of annual capital budgeting, fixed interest rate structures are the City's preference for long useful life, infrastructure and buildings; and
- Call Provisions - the Financing Team will recommend to the CFO the use of a call option on a case-by-case basis. The City's preference is for optional call provisions when appropriate.

5.6. Issuance and Method of Sale

5.6.1. The City shall issue its debt obligations through a competitive sale unless the CFO determines that such a sale method will not produce the best results for the City. Generally, a negotiated sale process may be used when the City is attempting to market more complex bond transactions such as a new credit structure, or at times when a competitive sale does not produce bids or produces bids that are unsatisfactory to the City. In determining whether to use a competitive or negotiated method of sale, the City shall utilize a sale method expecting to achieve the lowest overall cost of capital depending on the size and characteristics of the proposed issue and the applicable market conditions at the time of sale. The conditions, which indicate the appropriate method for selling a particular bond issue, are generally described below:

5.6.2. Competitive Sale Criteria

5.6.2.1. Bond prices are stable and / or demand is strong;

5.6.2.2. Debt issuance markets are stable;

5.6.2.3. The credit rating is well established and stable;

5.6.2.4. There are no complex explanations required during marketing regarding a specific project, media coverage, political structure, political support, tax status, funding, or credit quality;

5.6.2.5. The bond type and structural features are conventional; and

5.6.2.6. The transaction size is manageable.

5.6.3. Negotiated Sale Criteria

5.6.3.1. Bond prices are volatile and / or demand is weak and / or the supply of competing bonds is high;

5.6.3.2. Debt issuance markets are less stable and market timing is important for circumstances such as refinancing transactions that are interest rate sensitive;

5.6.3.3. Coordination of multiple components of the financing is required;

5.6.3.4. The credit rating is not well established and stable;

5.6.3.5. Sale and marketing of the bonds will require complex explanations about the City's projects, media coverage, political structure, political support, tax status, funding, or credit quality;

5.6.3.6. The bond type and / or structural features are non-standard;

5.6.3.7. Early structuring and market participation by underwriters is desired;

5.6.3.8. Large transaction size; and

5.6.3.9. Strong retail participation is desired and expected to enhance pricing efforts.

5.6.4. Direct Bank Loans or Limited Public Offering. The City may sell debt obligations through a direct bank loan or limited public offering when appropriate.

5.6.5. Credit Enhancement. The City may use credit enhancements to improve marketability of City obligations. Types of credit enhancement include letters of credit, bond insurance, cash or bond funded reserves, or other public or private credit enhancements. The rationale for credit enhancements shall be documented.

5.6.6. Offering Documentation. Offering documentation shall be used for all types of debt issued of the City and purchased by public or private third parties.

5.7. Composition of Service Providers / Financing Team

5.7.1. Members of the Financing Team may be selected by the City at the direction and approval of the CFO and, when applicable, the Law Department and City Council through the following methods: (1) Request for Qualifications (RFQ), (2) Request for Proposals (RFP), or (3) other processes as determined by the CFO in accordance with laws and regulations.

5.7.2. The City's Financial Advisor may be requested by the City to assist the City in the selection of other service providers, including but not limited to underwriter, trustee, escrow agents, verification agents, and printers. Selection of other service providers will reflect economic inclusion and diversity goals established by the City.

5.7.3. Services Providers / Financing Team. The CFO is responsible for establishing a competitive solicitation and selection process for securing professional services that are required to develop and implement the City's debt program. Goals of the solicitation and selection process shall include, but is not limited to, the following: encouraging participation from qualified service provides, both national and local, and securing services at competitive prices. Service Providers / Financing Team entities may include, but is not limited to, the following:

5.7.3.1. Bond Counsel. Bond Counsel shall be selected for any and all debt issuances. The Corporation Counsel, pursuant to City Charter Section 7.5-201, and in consultation with the CFO, shall select Bond Counsel in accordance with the City's procurement policies and procedures. Bond Counsel will be responsible for preparing the necessary ordinances, legal agreements and other documents necessary to execute a financing. All debt issued by the City will include an approving legal opinion of a nationally recognized bond counsel.

5.7.3.2. Disclosure Counsel. The City may retain Disclosure Counsel for all public issuances. Disclosure Counsel may be required to deliver a customary

10(b)-5 opinion on City offering documents and work with City staff to develop and draft all disclosure documents for a bond financing.

5.7.3.3. Financial Advisor. The City shall use the services of an Independent Registered Municipal Financial Advisor (IRMA) as its advisor. The Financial Advisor shall advise and assist the City in structuring the transaction and timing, in addition to other general financial planning / analyses as requested by the City. If there are any potential conflicts of interest, they should be waived by the CFO prior to appointment or restrictions on conflicting relationships must be disclosed prior to the appointment. Financial Advisors must meet all standards related to avoidance of conflict of interest as set forth in SEC and Municipal Securities Rulemaking Board (MSRB) rules and regulations.

5.7.3.4. Underwriter. Underwriters must meet all standards related to avoidance of conflict of interest as set forth in SEC and MSRB rules and regulations. For a competitive or negotiated sale, the criteria used to select an underwriter shall be the bid providing the lowest true interest cost to the City and other factors determined by the CFO. The City will maintain a list of Underwriters to use for debt issuance pursuant to a RFQ process and as approved by the CFO. Firms eligible to submit a response to the RFQ must be listed in the most recent edition of the Bond Buyer Red Book or a similar publication if the Bond Buyer Red Book is no longer published. Firms that merge or leave the industry are dropped from the eligibility list and may be replaced with another qualified firm as determined by the CFO. The CFO shall select an Underwriter for each debt issuance. Underwriters will be required to demonstrate sufficient capitalization and experience related to the debt issuance being proposed. The CFO will consider the following additional criteria, in no priority order, when selecting an Underwriter and / or members of an underwriting syndicate:

- Overall experience;
- Experience with the particular size and type of financing;
- Familiarity with City issues;
- Experience of the public finance team assigned to the financing;
- Previous experience as managing or co-managing underwriter;
- Type of firm (i.e. national, regional, local, MBE, etc.);
- Location of firm and presence in the City and the State;
- Demonstrated commitment to the City;
- Financial market knowledge;
- Investor and distribution capability;
- Financial strength, as evidenced by the firm's current financial statements;
- Resources to complete the financing;
- Compensation; and

- Other items as determined by the CFO.

Underwriters must present all Municipal Advisor Rule documentation prior to any communications with representatives of the City in relation to a contemplated financing. All transaction fees will be evaluated by the CFO or their designee and, if requested by the City, the City's Financial Advisor. All transactions fees shall be approved by the CFO or their designee using a methodology determined by the CFO or their designee prior to the distribution of any offering documentation.

5.7.3.5. Trustee / Paying Fiscal Agent. A Trustee / Paying Agent is the institution, usually a commercial bank or trust company, appointed in the indenture or bond resolution to act as the agent of the issuer to pay principal and interest from monies provided by or on behalf of the issuer. Paying Agent duties are typically limited to receiving money from the issuer and paying principal and interest to bondholders on behalf of the issuer. A Trustee, in addition to performing the duties of a Paying Agent, is responsible for establishing and holding the funds and accounts relating to the bond issue, including accounts for bond proceeds and pledged revenues, determining that the conditions for disbursement of proceeds and revenues have been met, and, in some cases, collecting revenues and executing investments. The Trustee / Paying Agent solicitation and selection is typically coordinated by the Financial Advisor in consultation with the City for a new bond issuance. The City will monitor the ongoing performance of a Trustee / Paying Agent.

5.7.3.6. Other Service Providers. Other professionals may be selected by CFO or their designee on an as needed basis subject to the processes and approvals described in this Directive, as well as applicable law and other regulations. These include, but are not be limited to, the services of escrow agents, bond insurance providers, credit and liquidity banks, verification agents, title insurance companies and services related to printing.

5.8. Post-Issuance Management and Compliance. The Office of the Treasury shall be responsible for verifying compliance with all undertakings, covenants, and agreements for each bond issuance on an ongoing annual basis, in addition to various debt certifications that may be required by the CFO and, if applicable, State law.

5.9. Investment of Bond Proceeds. The Treasurer shall direct the Trustee to invest the proceeds of a bond sale until those proceeds are used for the intended purpose. The investments shall be made to minimize negative arbitrage to the greatest extent possible and to ensure the highest level of security.

5.10. Transparency, Reporting, and Disclosure

5.10.1. The City shall provide full and complete financial disclosure to credit rating agencies, Electronic Municipal Market Access (EMMA), other levels of government, and the public in order to share clear, comprehensible, and accurate financial information.

5.10.2. The CFO's Office shall ensure relevant information is posted to the City's public website and the City's investors relations public website. The CFO's Office shall review the information on these websites no less than quarterly to ensure the most recent information is available. The CFO's Office shall continuously review new methods and tools to improve and enhance transparency.

5.10.3. The Office of the Treasury shall monitor key credit / debt indicators and shall report those indicators to the CFO's Office, at a minimum, on an annual basis. The indicators, adjusted to take into account a planned debt issuance, shall also be reported to the CFO as part of the CFO's review of a proposed debt issuance. These indicators include, but are not limited to, the following:

- Full Value Per Capita
- Fund Balance as a % of revenues
- Net Direct Debt/Operating Revenues
- Net Direct Debt/Full Value

The CFO's Office may periodically request additional key credit / debt indicators from the Office of the Treasury. As such, the Treasurer shall ensure leading practice / industry standard credit / debt indicators are maintained and updated, at a minimum, annually.

5.10.4. Arbitrage Rebate Reporting. The Office of the Treasury shall maintain a system of record keeping and reporting to meet the arbitrage rebate compliance requirements as required by the federal tax code. This shall include tracking investment earnings on bond proceeds, calculating rebate-able earnings, and remitting any rebate payments to the federal government. No less than every five (5) years, the Treasurer may lead a process to select a qualified third party (such third party may include Bond Counsel) to assist the City in fulfilling its obligations with regard to arbitrage compliance.

5.10.5. Ongoing Disclosure. The City shall meet continuing disclosure requirements in a timely and comprehensive manner, as stipulated by the SEC Rule 15(c)2-12 and other applicable laws, rules and regulations, as well as set forth in the continuing disclosure agreements implemented with each financing. The Office of the Treasury shall be responsible for providing ongoing disclosure information to the Municipal Securities Rulemaking Board's MSRB Electronic Municipal Market Access (EMMA) system, the central repository designated by the SEC for ongoing disclosures by municipal issuers. Annually, the Office of the Treasury shall conduct an audit of EMMA filings of outstanding continuing disclosure obligations to determine compliance with provisions of existing continuing disclosure agreements. The Treasurer may lead a process to select a qualified third party (such third party may include Bond Counsel or Disclosure Counsel) to assist the City in the maintenance of its continuing disclosure undertakings.

APPROVED

John. W. Hill
Chief Financial Officer, City of Detroit

Attachment XI

City of Detroit's Debt Metrics (Version 1: as of July 31, 2019 and Version 2: as of June 30, 2020)

City of Detroit - Debt Metrics as of 7/31/19
Reported pursuant to *CFO Directive No. 2018-101-007 Debt Issuance and Management*

MEASURES OF KEY CREDIT/DEBT INDICATORS (Section 5.10.3)		As of 7/31/2019 (Unaudited)
FULL VALUE PER CAPITA		
City of Detroit 2019 Assessed Value[1] X 2	$	9,714,275,689
Full Market Value	$	19,428,551,378
City of Detroit Population - 2018 Estimate[2]		672,662
Assessed Value Per Capita	$	**14,442**
FUND BALANCE AS PERCENT OF REVENUES		
General Fund Balance - Estimate[3]	$	373,824,954
General Fund Revenues - Estimate[3]	$	1,086,200,000
General Fund Balance as Percent of Revenues		**34%**
NET DIRECT DEBT/OPERATING REVENUES		
Principal Outstanding	$	1,696,162,789
Less MTF Bonds and HUD 108 Loans Outstanding at 7-31-19		(129,506,000)
	$	1,566,656,789
General Fund Revenues - Estimate[3]		1,086,200,000
Net Direct Debt as Percent of General Fund Revenues		**144%**
NET DIRECT DEBT/FULL VALUE		
Net Direct Tax-Supported Debt	$	1,566,656,789
City of Detroit 2019 Assessed Value	$	9,714,275,689
Net Direct Debt as a percent of Full Value		**16.13%**

MEASURES OF DEBT AFFORDABILITY (Section 5.4.3)		As of 7/31/19 (Unaudited)
OVERALL DEBT AS PERCENT OF ASSESSED VALUE		
Net Direct Tax-Supported Debt	$	1,566,656,789
City of Detroit 2019 Full Market Value[1]	$	19,428,551,378
Net Direct Tax-Supported Debt as Percent of Assessed Value		**8.06%**
CFO Directive: *"Total debt should be kept at about 15% of full market value"*		
DEBT SERVICE AS PERCENT OF GENERAL FUND		
Debt Service for Net Direct Debt Paid During Fiscal Year	$	147,512,319
General Fund Revenues - Estimate[3]	$	1,086,200,000
Net Direct Tax-Supported Debt Service as Percent of General Fund Revenues		**13.58%**
CFO Directive: *"Required annual debt service expenditures should be kept at about 10-15% of the City's General Fund"*		
OVERALL DEBT PER CAPITA		
Net Direct Tax-Supported Debt	$	1,566,656,789
City of Detroit Population - 2018 Estimate[2]		672,662
Net Direct Tax-Supported Debt/Capita	$	**2,329**
CFO Directive: *"Total debt outstanding and annual amounts issued should not cause real debt per capita to rise significantly"*		
TEN YEAR PAYOUT RATIO		
Percent of Principal (Net Direct Debt) Paid over Next Ten Fiscal Years (FY20 - FY29)		**42.45%**
CFO Directive: *"The rate of repayment of bond principal should be kept at highest affordable level possible given other budget priorities"*		
PER CAPITA DEBT TO PER CAPITA INCOME		
Net Direct Tax-Supported Debt/Capita	$	2,329
Income Per Capita Estimate[4]	$	42,505
Per Capita Debt to Per Capita Income		**5.48%**
CFO Directive: *"Total debt outstanding and annual amounts proposed should not cause the ratio of per capita debt to per capita income to rise significantly above 5%"*		

[1]Source: 2019 Equalization Report of Certified Assessed Values, Equalized Values, and Taxable Values for all Local Units of Government in the Charter County of Wayne, Michigan

[2]Source: US Census 2018 Population Estimate

[3]Source: FY 2020 Financial Report for the 1 Month ended July 31, 2019. GF Revenue estimate is $1,086.2M. Estimated GF Balance is $373,824,954 [$399,124,954 (FY18 assigned +unassigned) - $100,000,000 (use of FB cap, blight, other) - $49,100,000 9use of FB carryforward) + $123,800,000 (FY19 surplus)]

[4]Applying forecasted annual growth to per Capita Personal Income for Wayne County, 2017. Source: US BEA, Local Area Personal Income

City of Detroit - Debt Metrics as of 6/30/20

Reported pursuant to *CFO Directive No. 2018-101-007 Debt Issuance and Management* - With Estimated Impact of Proposed June 2020 Bond Issues

MEASURES OF KEY CREDIT/DEBT INDICATORS (Section 5.10.3)		Projected as of 6/30/20 (Unaudited)
FULL VALUE PER CAPITA		
City of Detroit 2019 Assessed Value[1]	$	9,714,275,689
Full Market Value	$	19,428,551,378
City of Detroit Population - 2018 Estimate[2]		672,662
Assessed Value Per Capita	$	**14,442**
FUND BALANCE AS PERCENT OF REVENUES		
General Fund Balance - Estimate[3]	$	373,824,954
General Fund Revenues - Estimate[3]	$	1,110,200,000
General Fund Balance as Percent of Revenues		**34%**
NET DIRECT DEBT/OPERATING REVENUES		
Principal Outstanding (including $227.245M in new debt)	$	1,884,362,789
Less MTF Bonds and HUD 108 Loans Outstanding		(168,006,000)
	$	1,716,356,789
General Fund Revenues - Estimate[3]		1,110,200,000
Net Direct Debt as Percent of General Fund Revenues		**155%**
NET DIRECT DEBT/FULL VALUE		
Net Direct Tax-Supported Debt	$	1,716,356,789
Full Market Value	$	19,428,551,378
Net Direct Debt as a percent of Full Value		**8.83%**

MEASURES OF DEBT AFFORDABILITY (Section 5.4.3)		Projected as of 6/30/20 (Unaudited)
OVERALL DEBT AS PERCENT OF ASSESSED VALUE		
Net Direct Tax-Supported Debt	$	1,716,356,789
City of Detroit 2019 Full Market Value	$	19,428,551,378
Net Direct Tax-Supported Debt as Percent of Full Value		**8.83%**
CFO Directive: *"Total debt should be kept at about 15% of full market value"*		
DEBT SERVICE AS PERCENT OF GENERAL FUND		
Debt Service for Net Direct Debt Paid During Fiscal Year	$	147,512,319
General Fund Revenues - Estimate[3]	$	1,110,200,000
Net Direct Tax-Supported Debt Service as Percent of General Fund Revenues		**13.29%**
CFO Directive: *"Required annual debt service expenditures should be kept at about 10-15% of the City's General Fund"*		
OVERALL DEBT PER CAPITA		
Net Direct Tax-Supported Debt	$	1,716,356,789
City of Detroit Population - 2018 Estimate[2]		672,662
Net Direct Tax-Supported Debt/Capita	$	**2,552**
CFO Directive: *"Total debt outstanding and annual amounts issued should not cause real debt per capita to rise significantly"*		
TEN YEAR PAYOUT RATIO		
Percent of Principal (Net Direct Debt) Paid over Next Ten Fiscal Years (FY21 - FY30)		**40.94%**
CFO Directive: *"The rate of repayment of bond principal should be kept at highest affordable level possible given other budget priorities"*		
PER CAPITA DEBT TO PER CAPITA INCOME		
Net Direct Tax-Supported Debt/Capita	$	2,552
Income Per Capita Estimate[4]	$	43,219
Per Capita Debt to Per Capita Income		**5.90%**
CFO Directive: *"Total debt outstanding and annual amounts proposed should not cause the ratio of per capita debt to per capita income to rise significantly above 5%"*		

[1]Source: 2019 Equalization Report of Certified Assessed Values, Equalized Values, and Taxable Values for all Local Units of Government in the Charter County of Wayne, Michigan

[2]Source: US Census 2018 Population Estimate

[3]GF Revenue estimate is $1,110.2M per September 2019 Revenue Consensus estimate. Estimated GF Balance remains at $373,824,954 (i.e., assumes no increase - which is conservative given FY 2020 Financial Report for the 1 Month ended July 31, 2019, estimates a general fund revenue to expenditure variance of $48.6 million).

[4]Applying forecasted annual growth to per Capita Personal Income for Wayne County, 2017. Source: US BEA, Local Area Personal Income

[5]Assumes the following bonds are issued in June 2020:

$175M in Blight UTGO Bonds. Tax Status: 75% tax-exempt/25% taxable. Estimated TIC: 4.55%. Term is 30 years. Average annual debt service is $10.25M. Maximum annual debt service is in FY22 at $19.01M.

$52.245M in Capital UTGO Bonds. Tax Status: 100% tax-exempt. Estimated TIC: 4.46%. Term is 30 years. Average annual debt service is $3.38M.