2019 SEP 26 PM 4:50

OFFICE OF THE SECRETARY

MURIEL BOWSER
MAYOR

SEP 26 2019

The Honorable Phil Mendelson, Chairman
Council of the District of Columbia
1350 Pennsylvania Avenue, N.W., Suite 504
Washington, DC 20004

Dear Chairman Mendelson:

The Deputy Mayor for Planning and Economic Development is pleased to submit the attached report ("Report") prepared by the Office-to-Affordable Housing Task Force (the "Task Force") pursuant to the Office to Affordable Housing Task Force Establishment Act of 2018 (D.C. Law 22-103; D.C. Official Code §42-2161.01 et seq.) This Report examines the potential for converting vacant office space to affordable housing in the District of Columbia.

The members of the Office-to-Affordable Housing Task Force met monthly from October 2018 through January 2019 and continued to work through the spring and summer of 2019 to prepare the report and produce recommendations. The Report addresses whether transitioning vacant commercial office space to affordable housing units would help address the District's affordable housing challenge; recommends possible legislative regulatory, zoning, or policy changes to promote the transition of vacant commercial office buildings to affordable housing units; and notes potential costs to the District and property owners associated with recommended changes.

I am happy to answer any questions you or your fellow Councilmembers may have.

Sincerely,

Muriel Bowser

Enclosures

District of Columbia Office of Planning

Office of the Director

August 15, 2019

The Honorable Phil Mendelson
Chairman
Council of the District of Columbia
1350 Pennsylvania Avenue, N.W., Suite 504
Washington, DC 20004

Dear Chairman Mendelson:

Attached please find a report prepared by the Office-to-Affordable Housing Task Force (the "Task Force") that examines the potential for converting vacant office space to affordable housing in the District of Columbia, pursuant to the Office to Affordable Housing Task Force Establishment Act of 2018, D.C. Act 22-0304, effective June 5, 2018 (the "Report). The members of the Task Force met monthly from October 2018 through January 2019 to determine the Report content and recommendations and continued to assist with drafting through the spring and summer.

The Report addresses whether transitioning vacant commercial office space to affordable housing units would help address the District's affordable housing challenge; recommend any legislative regulatory, zoning, or policy changes to promote the transition of vacant commercial office buildings to affordable housing units; and note any costs to the District and property owners associated with recommended changes.

The Task Force found that there are numerous barriers to office-to-residential conversions, which has limited the number of conversions in the District. These include the higher profitability of office space compared to residential use and the spread of office vacancies across buildings resulting in very few completely or nearly-completely vacant office buildings. The Task Force found that in most circumstances, office-to-residential conversions are not the most effective method of addressing the District's most pressing housing needs. However, lower-grade and Class C office buildings along or near commercial corridors outside of the central employment area may provide for feasible opportunities for conversion to affordable housing. Such conversions could also support the District's fair housing goals by increasing affordable housing supply in higher opportunity areas. The Task Force found that one of the most impactful policy changes would be to adjust zoning to provide additional density and mixed-use zones in these areas.

In light of Mayor Bowser's goal of producing 36,000 housing units by 2025, 12,000 of which will need to be affordable, we must make sure we add tools to the District's toolkit for increasing the supply of affordable housing. The Task Force's findings show that office-to-affordable

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housing conversions should be supported in targeted circumstances where such conversions are financially responsible, most likely to be Class C and lower-grade office buildings located outside the central employment area of the District.

I am happy to answer any questions you or your fellow Councilmembers may have.

Sincerely,

Andrew Trueblood
Chair, Office-to-Affordable Housing Task Force

Office-to-Affordable Housing Task Force Report

August, 2019

Office-to-Affordable Housing Task Force

Established by D.C. Law 22-103, 2018

PREPARED BY:

Coalition for Nonprofit Housing & Economic Development

CNHED

WE ARE WASHINGTON DC

GOVERNMENT OF THE DISTRICT OF COLUMBIA

MURIEL BOWSER, MAYOR

Executive Summary

This report examines the potential for converting vacant office space to affordable housing to address the pressing housing shortage in the District of Columbia. In response to reports drawing attention to the large amount of vacant office space in the region and the District, the Council of the District of Columbia passed the Office to Affordable Housing Task Force Establishment Act of 2017, which commissioned a Task Force to answer three questions around feasibility, policy, and regulatory considerations, as well as the cost of office-to-residential conversions. Below we summarize our findings in response to each question.

1. **Would transitioning vacant commercial office space to affordable housing units, including units with multiple bedrooms, help address the District's housing challenge?**

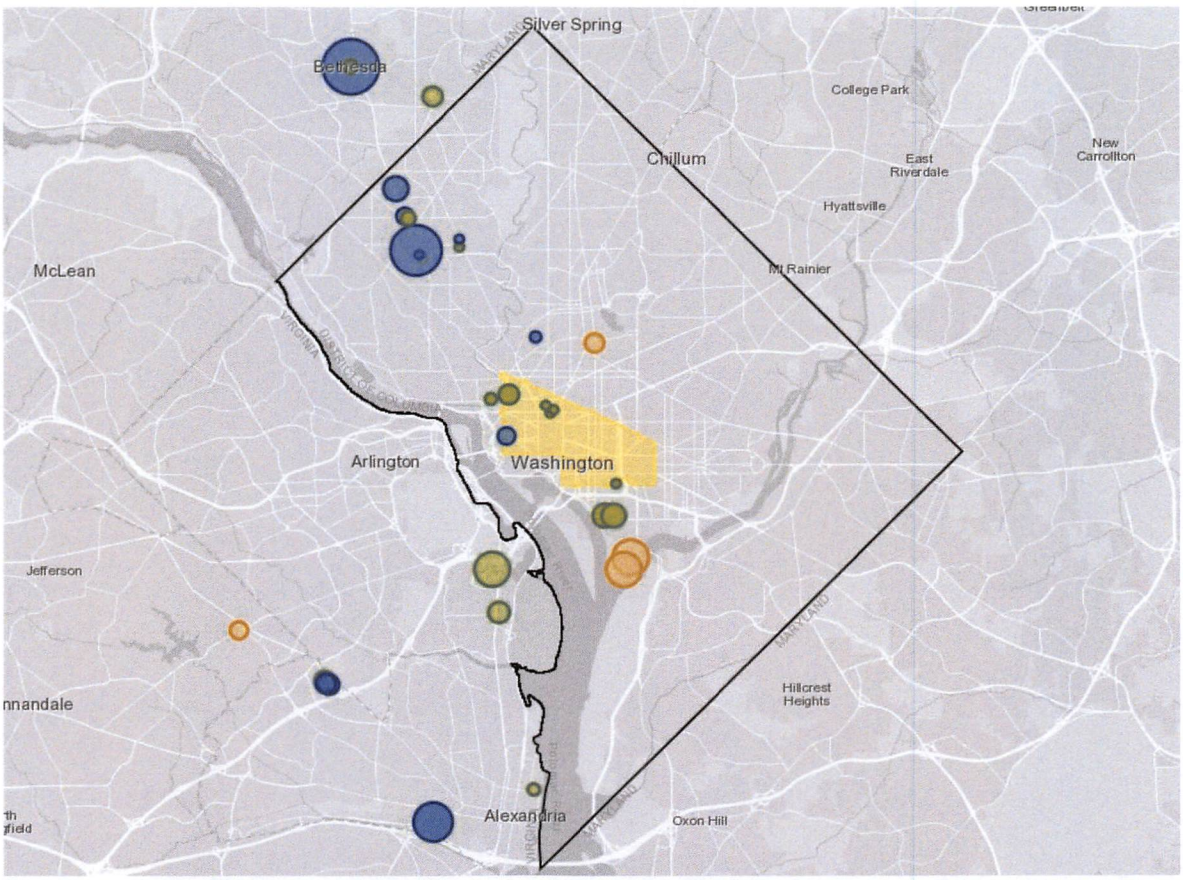
   - **Office Vacancy in the Region and District.** At the end of 2018, two data sources (JLL Research and CoStar) show that the District has an 11 percent vacancy rate for privately-owned office space, amounting to between 13.4 to 16.9 million square feet (sf) of vacant office space. This compares to a vacancy rate of 15.4 percent for the region (the District and surrounding neighborhoods in Virginia and Maryland). Two-thirds of vacant office space in the District is located within the downtown core (i.e., East-End and central business district submarkets).

   - **Office-to-Residential Conversions.** Despite high rates of vacancy, office-to-residential conversion in the District remain uncommon, particularly in the downtown core. According to research done by the Downtown BID, of the 1,371 new residential units completed in the District's conversions from 2002-2018, only 23 units (or 2 percent) are affordable. Taking into account conversions that are completed, under construction and planned since 2002, the District will have only created 393 affordable housing units through office-to-residential conversions out of over 3,800 total housing units, or 10% -- primarily through Inclusionary Zoning.

   - **Barriers to office-to-residential conversions.** Barriers to market-driven office-to-residential conversions include: the higher profitability of office space compared to multifamily residential conversion; the spread of office vacancies across several buildings so that there are very few completely vacant office buildings; incompatible residential housing regulations and building codes; and lack of conversion construction experience, including uncertainty over the costs and logistics of conversion.

- **Location of Potential Conversions.** Office-to-residential conversions are more likely to occur outside of central employment areas, in areas like Upper Northwest, Southwest, and West End, rather than in the central business district or the East End (i.e. the downtown core). This is because the net operating income (NOI) per square foot for class A and Trophy office use in the central employment area is higher than residential NOI. Further, the downtown core area has higher acquisition costs and a higher density of jobs. Vacant buildings located near or in primarily residential neighborhoods are more likely to be converted to residential because in these areas, the current residential NOI is more frequently approximate to or greater than an office NOI.

Office-to-Residential Conversions in the Washington, DC Metropolitan Area, 2010-2018



Source: DowntownDC BID

Completed Project
Under Construction Project
Planned Project

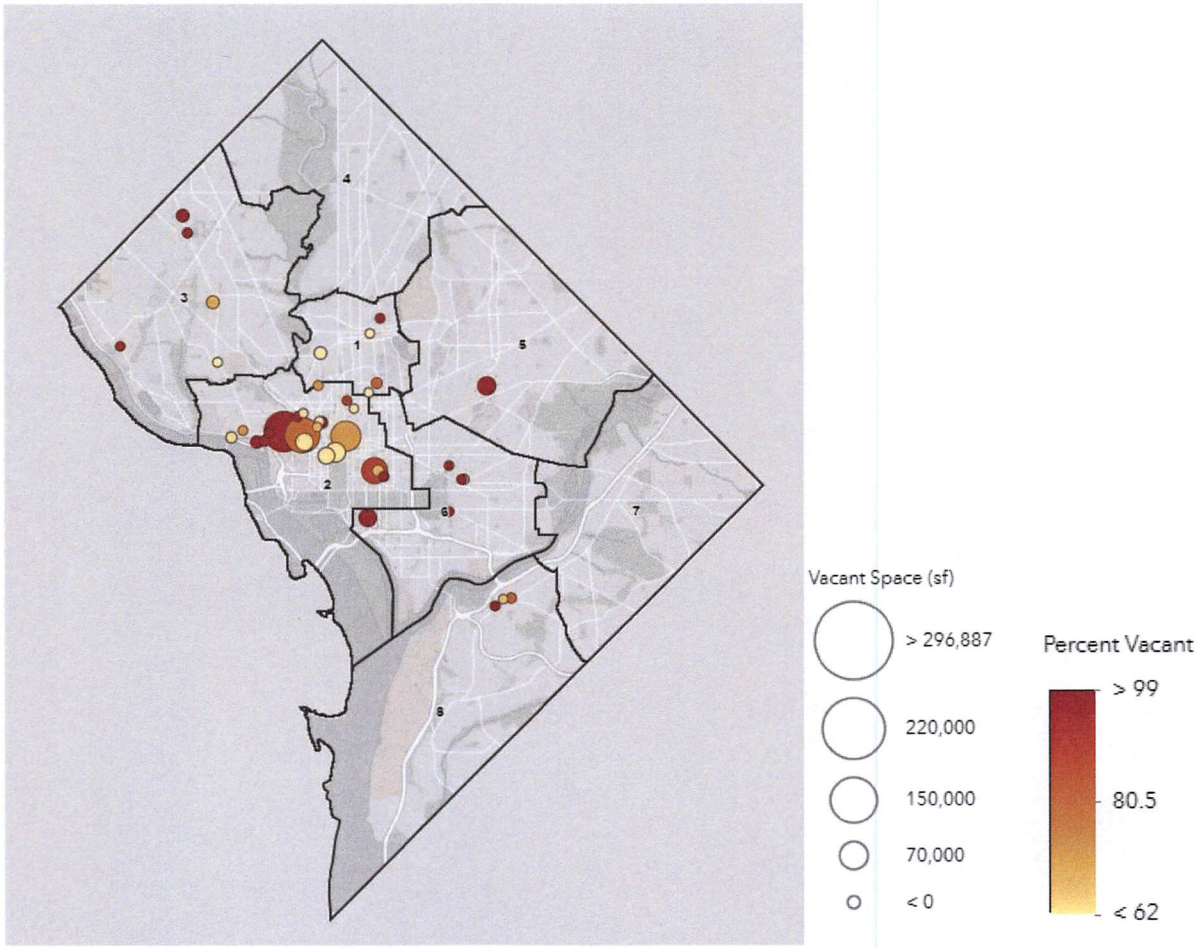
Central Business District

Number of Housing Units
> 800
600
400
200
< 13

- **Building Class of Potential Conversions.** The most likely candidates for office-to-residential conversions are vacant class B, C, and F office buildings, with class C buildings being the most viable. As of December 2018, the Task Force found that there were 45 class B, C, and F buildings that were 50 to 100 percent vacant, totaling just over 1 million sf cumulatively. Regardless of their potential, the lower expected NOIs from residential buildings and the current office market trends predict that most of these vacant office buildings are likely to remain offices.

- **Impact on affordable housing stock and distribution.** Each year, there may be a few office buildings that have the right combination of financial and structural circumstances to make conversion to housing feasible, including affordable units. Such conversions would grow the affordable housing stock marginally. Developers looking to include affordable housing in conversions would benefit from existing federal incentives, notably a boost in the Low Income Housing Tax Credits (LIHTC) for projects located in Difficult to Develop Areas or Qualified Census Tracts. However, such conversions would provide a small, unpredictable contribution to alleviating the affordable housing challenge in the District. There is potential for office-to-affordable housing conversions to contribute to the District's fair housing goals and more equitable distribution of affordable housing, since many of the locations of offices that could be converted exist in areas with fewer affordable housing opportunities.

Map of Class B and C Office Buildings with 50 to 100% Vacancy Rates as of July 2019



2. **Would any legislative, regulatory, zoning, or policy changes promote the transition of vacant commercial office buildings to affordable housing units, including units with multiple bedrooms?**

   - **Structural Complications and Opportunities for Office-to-Residential Conversions.** Common considerations to a change in occupancy type include construction classification type issues; the coordination of units and systems around the structural floor assembly; vertical transportation issues; the need to introduce light wells; zoning code restrictions; stormwater and green area implications for roof structures; façade redesigns; HVAC loads on the roof; and revised/upgraded utilities from the street. However, conversions can take advantage of existing structural systems, including sufficient fire ratings, surplus parking, partial conversions, and a greater floor area ratio (FAR) and density.

   - **Policy and Regulatory Challenges.** In many areas with capacity for growth, zoning permits 50 to 100 percent more floor area ratio for housing than non-residential uses. This enables not only the conversion of the existing office to residential use, but also additional new housing. Most of the District's mixed-use zoning permits more residential development than commercial development. In some cases, the regulations from non-commercial use (e.g., 100 percent of lot occupancy), can complicate conversions (e.g., when floor plates need to be reduced to permit light and air for windows). Still, there are many mixed-use corridors where the existing zoning and allowable heights and densities are not sufficient to encourage the redevelopment of existing office to housing, when those existing uses have relatively strong value.

3. **Would there be any costs to the District and property owners associated with the recommended changes?**

   - **Construction Costs for Affordable Housing.** There are acquisition and construction costs associated with the production of affordable housing, and this would remain true for the conversion of office buildings into affordable housing. The Task Force compared the estimated costs of converting office into affordable housing with the Department of Housing and Community Development's (DHCD) estimated costs of producing affordable housing through existing programs. DHCD's average acquisition cost at application for projects with existing buildings was $94 per sf, and for projects without existing buildings the average acquisition cost was $118 per sf. Office-to-affordable-housing conversions may be more comparable to projects with existing buildings; though, other factors such as location, building material, and building quality may impact acquisition costs.

   - **Costs of Conversion vs. Full Gut Renovations.** To assess the costs of office-to-apartment conversions versus apartment full gut renovations, the Task Force compared each to the cost of new construction. Office to apartment conversions typically save 5 to 10 percent versus the cost of new construction; however, apartment full gut renovations typically save 20 to 40 percent versus the cost of new construction.

Recommendations

While there are some opportunities to convert vacant office space to affordable housing in the District, the initial findings of the Task Force reveal that office-to-residential conversions are not the most efficient way to address the city's pressing housing needs. If the District would like to pursue office-to-residential conversions for those most feasible for conversion—class C office buildings along or near commercial corridors—the District should take the next steps as part of the strategy to address the affordable housing crisis:

- **Directly subsidize conversions.** While a limited number of office-to-residential conversions may continue to occur in the market, if the District decides to pursue office-to-residential conversions, many of the projects would require subsidies. Subsidies for conversion to affordable housing would need to be greater than subsidies for conversion to market-rate units. The District should consider the unique advantages that some office buildings may offer that mitigate the increased subsidy costs to produce affordable housing. These subsidies could come through a variety of sources, including the Housing Production Trust Fund, Local Rent Supplement Program (LRSP) project-based housing subsidies, property tax abatements, or grants. Furthermore, many of the office buildings that could be converted exist in areas with fewer affordable housing opportunities. Office-to-affordable housing conversion subsidies in these locations could help support fair housing goals and a more equitable distribution of affordable housing.

- **Provide zoning incentives.** The District could explore opportunities to increase allowable densities under zoning regulations, especially along and near commercial corridors, or offer property owners matter-of-right increases in density and height in exchange for producing office-to-residential conversions that provide a minimum threshold of affordable housing units. These incentives could provide preference or additional incentives for family-sized units as well. The District also could investigate mixed-use zone amendments to increase capacity along key corridors outside the central business district, where class C office space can be converted to residential use.

- **Fund feasibility studies.** If the District would like to further explore the potential of office-to-residential conversions for class C buildings near or around commercial corridors, it should fund feasibility studies for particularly viable projects. Developers would need feasibility studies to determine the costs of potential office-to-residential conversions. The District could provide a special pool of matching predevelopment funding to which developers could apply to fund feasibility studies for the conversion of non-residential buildings to affordable housing.

While the District does host millions of square feet of vacant office space, not all of it is a strong candidate for conversion to housing, let alone affordable housing. The Task Force found that there are numerous challenges and costs involved with the conversion from office-to-residential. Given these realities, private owners might find it more profitable to let their office space remain vacant rather than undergo a conversion, even in a hot residential market like the District currently is experiencing.

However, with zoning changes, increased density incentives, funding from the Housing Production Trust Fund, LRSP funding, tax abatements, or grants, there are opportunities to increase the District's number of affordable housing units through conversions of class C office buildings, particularly along or near commercial corridors outside the central business district. This report highlights the opportunity costs of spending limited resources on conversions as opposed to the District's other affordable housing production and preservation programs. The Task Force believes that the District's affordable housing resources would generally be better spent on other affordable housing production and preservation programs, but there are particular circumstances in which office-to-affordable housing conversions may be a viable way to marginally increase the affordable housing supply, including in high-opportunity neighborhoods.

Additional work that would extend this effort includes the development of detailed case studies of office conversions completed in DC to date, as well as a deeper analysis of existing office buildings to determine profiles for likely conversion candidates.

Introduction

In her second inaugural address in January 2019, Mayor Muriel Bowser called on the region to produce 240,000 additional units of housing by 2025, and for the District to produce 36,000 units—12,000 of them affordable. While the District needs housing for residents across the income spectrum, low-income residents are increasingly at risk, living in a city with high and rising housing costs. With an eye toward increasing the supply of affordable housing, Mayor Bowser has charged the District with evaluating its zoning and land use policies, including height and density restrictions. Recognizing that all District residents share a common future, the Mayor called on all communities to determine how to accommodate needed housing.

Task Force Legislation

Prior to the Mayor's address, the District of Columbia Council passed the Office to Affordable Housing Task Force Establishment Act of 2017.[1] The formation of the Task Force was inspired in part by reporting on the large amount of vacant office space in the District, and office-to-residential conversions occurring in the region. The Task Force was charged with submitting a report to the Mayor and the Council that addresses the following three questions:

1. Would transitioning vacant commercial office space to affordable housing units, including units with multiple bedrooms, help address the District's housing challenge?
2. Would any legislative, regulatory, zoning, or policy changes promote the transition of vacant commercial office buildings to affordable housing units, including units with multiple bedrooms?
3. Would there be any costs to the District and property owners associated with the recommended changes? If so, provide recommendations on how to fund such costs.

The Task Force

[1] D.C. Act 22-0304, April 4, 2018, http://lims.dccouncil.us/Download/38126/B22-0289-SignedAct.pdf.

A twelve-member Task Force convened to investigate office-to-residential conversions. Members included Sarah Bardin (Office of Zoning [OZ]), Dwayne Bradford, Sheldon Clark, Leila Finucane, Stephen Glaude, Aubrey Grant, Allison Ladd (DHCD), Kirk Mettam, Aakash Thakkar, Andrew Trueblood (Office of the Deputy Mayor for Planning and Economic Development [DMPED], now Office of Planning [OP]), Keyda Walker, and David Whitehead. Regular participants in Task Force meetings included Scott Bruton, Yari Greaney (DMPED), Joseph Knackstedt (DHCD), Art Rodgers (OP), David Suls (Golden Triangle BID), Christopher Ahn, and Gerry Widdicombe (DowntownDC BID).

Director of Office of Planning Andrew Trueblood chaired the Task Force. The Task Force set up two committees to focus on aspects of its research mandate—the Finance Committee and the Practical Challenges and Solutions Committee. The Finance Committee, chaired by Allison Ladd, gathered data on the costs involved in converting an office building to affordable housing. The Practical Challenges and Solutions Committee, chaired by Sarah Bardin, investigated the structural changes needed to convert office buildings to multifamily housing and the regulatory restrictions that shape the parameters of those changes.

The Task Force met four times: October 12, November 15, and December 12, 2018, and January 17, 2019. The two committees held conference calls in between regular Task Force meetings as needed to discuss progress. Subgroups within each committee were responsible for addressing particular research questions and submitting draft sections of the final Task Force report.

Goals and Organization of the Report

The goal of this report is to explore the potential of office-to-residential conversions to increase the number of affordable housing units within the District. This report examines the level of vacancy within the District's office market and identifies where the highest concentrations of vacancies are clustered. Once identified, the report explores what kind of office vacancies are the most suited for conversion and discusses trends and dynamics in the office market that shape property owners' decisions. The report also discusses the legislative, regulatory, zoning, and policy changes that would facilitate or hinder potential conversions. The report concludes with a discussion of costs and recommendations. Ultimately, this report aims to provide policy makers with a framework for understanding the opportunities and challenges of office-to-residential conversions relative to other strategies to increase the supply of affordable housing in the District.

Office-to-Residential Conversion Potential in the District

This section addresses the first question posed to the Task Force: "would transitioning vacant commercial office space to affordable housing units, including units with multiple bedrooms, help address the District's housing challenge?" The Task Force first sought to understand the extent of office space vacancies within the District, and then sought to identify where the highest concentrations of vacancies are clustered. In 2017, when the Task Force was first conceived, reporting indicated that there was over 14 million sf of vacant office space in the District—the equivalent of over two empty Pentagon buildings.[2] While the District does host millions of square feet of vacant office space, not all the buildings represented in this figure are strong candidates for conversion to housing, let alone affordable housing.

Office Building Vacancy in the District

According to data provided to the Task Force by JLL Research, a real estate market research firm, the District and the surrounding regions of Maryland and Virginia have 334 million sf of privately-owned office space, of which 51 million sf was vacant as of the end of 2018 (amounting to a 15.3 percent vacancy rate).[3] Within the District, two sources show a vacancy rate of approximately 11 percent. JLL Research reported that the District has 121.6 million sf of privately-owned office space, over 13 million sf of which is vacant. CoStar, a commercial real estate information company, counted 154.6 million sf of office space in the District, approximately 16.9 million sf of which is vacant. These vacancy levels have existed for the past several years, with higher vacancy rates in the neighboring suburbs of Virginia and Maryland than in the District.

Given the abundance of vacant office space, some older office buildings in the region have been converted into other uses (e.g., hotels, schools, etc.). Over the past few years, regional conversions total 3 million sf, with 1.5 million sf of conversions within the District. However, residential conversion only accounted for 50 percent of these conversions in the District (0.6 percent of total sf of privately-owned office space).[4] Hotels, schools, and other non-commercial uses are strong competitors for office-space conversion.[5]

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[2] Whitehead, D. (2017, October 17). DC has over 14 million square feet of vacant office space. What if some became homes? Greater Greater Washington, https://ggwash.org/view/65195/dc-has-over-14-million-square-feet-of-vacant-office-space-what-if-some-became-homes.

[3] JLL Research

[4] DowntownDC BID

[5] JLL Research

Office buildings are loosely designated by the following rating system: Trophy, class A, class B, class C, and class F.[6] The District's vacant space breaks down as follows:

- 0.6 million sf of vacant Trophy office space
- 7.4 million sf of vacant class A office space
- 4.4 million sf of vacant class B office space
- 0.8 million sf of vacant class C office space.[7]

Figure 1. District Vacant Office Space

	City-Wide		Downtown Core		
Type	**All**	**A**	**All**	**A**	**B,C,F**
# Buildings	2,368	348	774	223	551
Existing sf	154,584,770	94,967,266	95,694,448	59,391,952	36,302,496
Vacancy sf	16,854,463	11,889,020	10,946,705	7,528,635	2,537,777
Vacancy %	10.9	12.5	11.4	12.7	9.5

Source: CoStar, December 2018. CoStar does not designate Trophy buildings.

The data reveal that nearly two-thirds of the vacant space, or roughly 10.9 million sf, is clustered within the District's downtown core (Figure 1). The fact that the downtown core experiences the largest concentration of vacancy fits with dominant market themes. Since 2013, much of the rise in vacancy can be attributed to a convergence of multiple storms, beginning with sequestration several years ago on a city heavily dependent upon federal government spending and General Services Administration office leasing. At the same time, the open office space "right sizing" trend dominated new leasing activity. Law firms, traditionally downtown's dependable large occupiers of space, saw double digit percentage decreases in office space use as firms relocated, rightsized, and redesigned their space. These firms are now seeking brand new class A buildings delivering in new and emerging submarkets. These factors left a large glut of "legacy class A" vacancies in the downtown core, or older, second generation, office-intensive space.

[6] Buildings are classified based on criteria such as age of the building, location, amenities, infrastructure (e.g., HVAC), maintenance and technological capabilities. Though standards are relative to the market, Trophy buildings represent the "cream of the crop" and are industry leaders in design, environmental sustainability and technology. class A buildings represent the newest and highest-quality, generally in central locations with high occupancy rates and premier tenants. class B buildings are older, often between 10 and 20 years, and well-maintained, but not necessarily state-of-the-art. class C buildings are over 20 years old, potentially run-down and lack amenities such as on-site parking, lobby attendants, and central air conditioning. class F buildings are functionally or economically obsolete and are not competitive with any other properties in the market.

[7] JLL Research. JLL does not designate class F buildings.

Office-to-Residential Conversions

Based on data from the DowntownDC BID, the Task Force identified office-to-residential conversions in the District that are completed, under construction, and planned (Figure 2).[8] From 2002 to 2018, fourteen office spaces have been converted for new uses; eight of those uses are residential (apartments or condos). Of the 1,371 conversion residential units completed, only 23 units (or 2 percent) are affordable. Another 2,430 conversion residential units are either under construction or planned, 370 of which will be affordable (or 15 percent). Taking into account conversions that are completed, under construction, and planned since 2002, the District will have created only 393 affordable housing units and 3,408 market-rate housing units through office-to-residential conversions.

Despite the high vacancy rate, market-driven office-to-residential conversions have not been higher in the District due to several barriers. These include:

- **Office market economics.** Net operating income (NOI) is a calculation used to analyze profitability of real estate investments. In most District office submarkets, the expected office NOI per sf exceeds that of multifamily NOI per sf (Figure 3), meaning that property owners do not expect to profit from conversion of office to residential use. Therefore, the current economic calculation made by most office property owners does not support a market-rate conversion, before even considering the higher costs of a residential conversion compared to an office renovation.
- **Staggered expiration dates of a building's leases.** Most office landlords like to diversify their office lease expiration dates to lower the risk of cash flow disruptions. This practice means that, while there may be an overall high vacancy rate, vacancies are spread across buildings. There are very few completely or mostly empty office buildings that are not already being repositioned for other purposes, which makes it difficult for a building to move quickly into an office-to-housing conversion.
- **A building's physical features.** The individual physical features of each building may result in a loss of sf during conversion to comply with residential housing regulations and building codes. Light and air requirements for multifamily residential properties, for example, could require a reduction of floor plates or leave some areas of the building unused.
- **Little conversion construction experience.** The District has undertaken few office-to-residential conversions, historically. As the conversion of each building poses unique challenges, there is uncertainty over the costs and logistics of conversion.

[8] It is possible that there are office-to-residential conversions that are completed, under construction, or planned of which the Task Force is not aware.

Figure 2. District of Columbia Office-to-Housing Conversions, 2002-2018

				Office				Hotel		Other
Year	Building/Building Address	New Use	Developer	Office SF	SF	Units	Afford	SF	Rooms	SF
Completed										
2002	806 15th St NW -- Sofitel Hotel	Hotel	Sofitel	54,000	154,000	-	-	154,000	237	-
2008	733 15th St NW --The Woodward	Residential -- Apartments	SJG Properties	164,000	164,000	189	-	-	-	-
2009	1255 25th St -- WestEnd25	Residential -- Apartments	Vornado	273,000	273,000	283	-	-	-	-
2013	1151 Fourth St SW -- The Lex	Residential -- Apartments	Urban Atlantic/JBG	198,000	198,000	266	-	-	-	-
2014	1150 Fourth St SW -- The Leo	Residential -- Apartments	Urban Atlantic/JBG	200,000	200,000	264	-	-	-	-
2015	1522 K St NW -- Hyatt Place	Hotel	Songy Highroads	80,000	-	-	-	80,000	164	-
2016	1100 Penn Ave NW -- Old Post Office	Hotel	Trump Hotels International	375,000	-	-	-	375,000	270	-
2017	2501 M St NW	Residential -- Condos	Tasea Invsmnt Co & Auger	98,000	98,000	59	-	-	-	-
2017	300 D St SW	Museum of the Bible	Museum of the Bible	391,000	-	-	-	-	-	391,000
2017	1025 15th St NW -- Architect Hotel	Hotel	Honey Bee Hospitality	29,000	-	-	-	29,000	50	-
2018	1255 22nd St NW -- Legacy West End	Residential -- Apartments	1255 22nd Street Lap	116,000	178,000	197	15	-	-	-
2018	4000 Brandywine St NW -- Frequency	Residential -- Apartments	Urban Investment Properties	50,000	50,000	100	8	-	-	-
2018	1108 16th St NW -- The Adele	Residential -- Condos	Red Multifamily Dev/Ellisdale	19,000	19,000	13	-	-	-	-
2019	4000 Connecticut Ave NW	School PK--12th Grade	Whittle School & Studios	650,000	-	-	-	-	-	650,000
				2,697,000	1,334,000	1,371	23	638,000	721	1,041,000
Under Construction										
	2100 2nd St SW -- Riverpoint	Residential -- Apartments	Akridge, Western	609,265	500,000	450	36	-	-	-
	1900 Half St SW	Residential -- Apartments	Douglas Development	478,000	481,000	462	37	-	-	15,000
	3900 Wisconsin Ave NW	Mixed Use	Roadside	228,000	-	-	-	148,000	145	80,000
	2225 Georgia Ave NW	Residential -- Apartments	Howard University	123,000	123,000	176	176	-	-	-
				1,438,265	1,104,000	1,088	249	148,000	145	95,000
Planned										
	4620 Wisconsin Ave NW	Residential -- Apartments	Urban Investment Properties	130,000	130,000	146	12	-	-	-
	515 22nd St NW	Residential -- Apartments	Insight	102,000	102,000	153	13	-	-	-
	3939 Wisconsin Ave NW	School	Sidwell Friends	40,000	-	-		-	-	40,000
	4250 Connecticut Ave NW	School	UDC (buying from Bernstein)	213,000	-	-		-	-	213,000
	4000 Wisconsin Ave NW	Residential -- Apartments	Donohoe Development	492,000	716,000	716	70	-	-	
	5151 Wisconsin Ave NW	Residential -- Apartments	Donohoe Development	105,000	180,000	280	22	-	-	17,000
	1724 Kalorama Rd NW	Add'l residential units	Jubilee Housing	27,000	27,000	47	4	-	-	
				1,109,000	1,155,000	1,342	121	-	-	270,000
		Total Completed, Under Construction and Planned		5,244,265	3,593,000	3,801	393	786,000	866	1,406,000

Source: DowntownDC BID

Figure 3. Comparison of Office NOI to Multifamily NOI in Submarkets of the District

Area	Difference in adjusted NOI/sf between multifamily residential and office building	Office building class	Total vacant sf	Inventory sf
Upper Northwest	$14.13	C	77,632	333,727
West End	$11.15	A	179,156	543,472
Market District	$9.49	A	98,822	276,000
Ballpark	$8.76	C	-	274,396
East End	$8.00	C	492,457	1,933,632
Dupont-Logan-Shaw	$7.53	C	8,920	491,726
Market District	$6.95	C	26,567	82,140
Upper Northwest	$4.56	B	308,775	2,146,356
Georgetown	$3.10	C	-	79,606
Ballpark	$1.90	B	25,898	1,193,471
Southwest	$1.63	A	1,366,697	7,427,700
CBD	$1.47	C	191,634	2,469,198
Georgetown	$1.19	A	43,072	730,904
Georgetown	$1.11	B	124,406	1,846,063
Capitol Hill	$0.11	A	638,140	2,141,411
Market District	-$0.15	B	9,498	116,221
Southwest	-$1.67	C	32,868	572,416
West End	-$2.67	C	-	613,540
Southwest	-$2.95	B	215,651	3,989,848
NoMa	-$3.03	C	-	430,785
NoMa	-$3.49	B	333,371	3,951,296
CBD	-$3.55	B	1,252,914	16,632,343
East End	-$3.73	B	1,750,983	16,957,031
Dupont-Logan-Shaw	-$4.50	B	219,606	3,748,190
Ballpark	-$4.53	A	280,328	3,151,876
Capitol Hill	-$4.91	C	10,059	184,199
Capitol Hill	-$5.14	B	81,534	2,364,668
NoMa	-$5.70	A	463,990	4,986,463
West End	-$8.18	B	86,138	2,824,188
East End	-$9.56	A	2,739,051	20,594,370
CBD	-$12.07	A	1,628,734	9,580,787
CBD	-$24.45	Trophy	142,030	2,840,596
East End	-$26.52	Trophy	383,357	4,852,621
Capitol Hill	-$28.31	Trophy	93,391	972,822
Southwest	-$28.53	Trophy	21,137	267,560

Source: DowntownDC BID

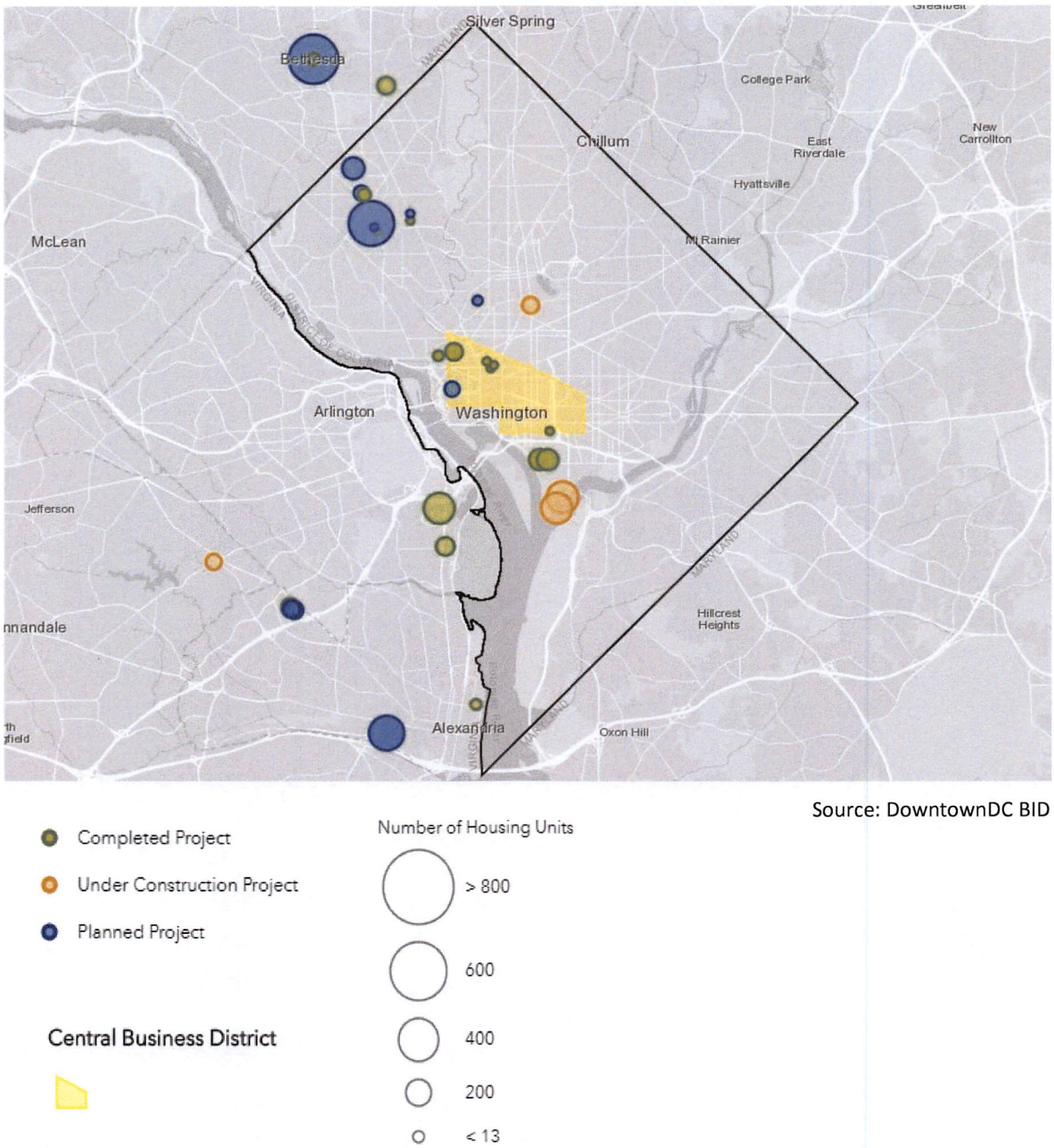
Profitability of Potential Office-to-Residential Conversions

Figure 3 shows the difference between the multifamily residential NOI and the office NOI across submarkets in the District, grouped by their building class. The light blue highlighting indicates submarkets and office building class where office-to-residential conversions would increase the NOI per sf. In other words, these are the combination of submarkets and office building class in which conversion has the potential to be profitable for the property owner or landlord. This analysis is based on the average NOI per sf by submarket of office space and multifamily residential, respectively. The NOI for both uses is adjusted based on vacancy rates as of February 2019, and estimates of operating expenses and taxes.

In areas where an office-to-residential conversion would result in greater NOI per sf, class C buildings were the most common; they also demonstrated the greatest average difference between NOI for multifamily and NOI for office—$7.13 per sf (compared with $4.72 per sf for class A buildings and $2.52 per sf for class B buildings).

The District's zoning code permits greater residential density than office density, so modest increases in NOI per sf, and even small decreases in NOI per sf, could still result in a multifamily building that is more profitable than an office building. Regardless of the expected NOI, Trophy buildings are the least likely to result in greater NOI if they were to be converted to multifamily residential units. This analysis suggests that conversions would lead to the greatest increase in NOI per sf in the Upper Northwest, West End, Market District, and Ballpark submarkets. The amount of vacant office space that would lead to profitable conversions in these submarkets is constrained. In all submarkets, the vacancy area is distributed across multiple buildings.

Figure 4. Office-to-Residential Conversions in the Washington, DC Metropolitan Area, 2010-2018



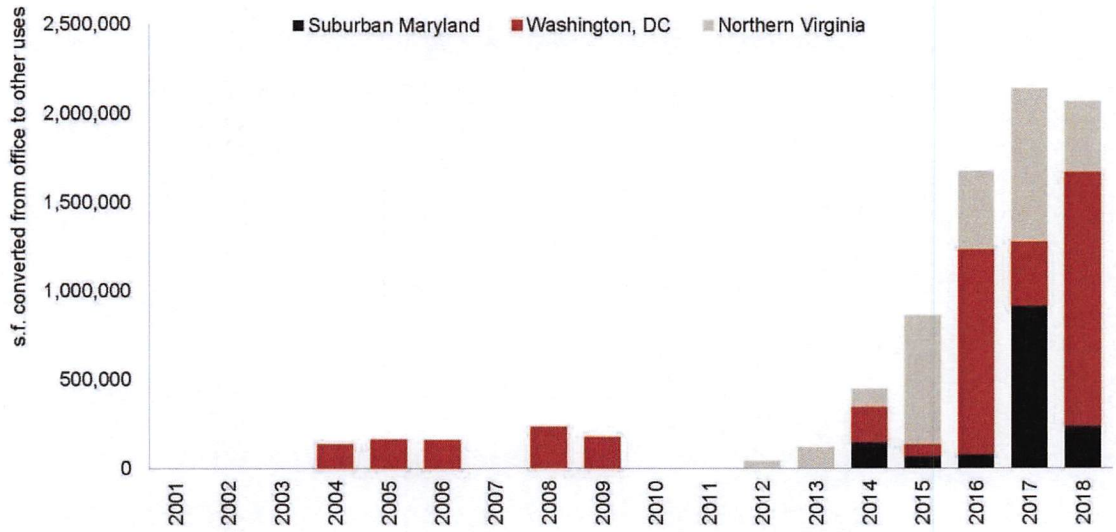
Source: DowntownDC BID

Location of Potential Conversions

The overwhelming amount of conversions in the region and District have occurred outside the downtown core, in submarkets like Upper Northwest, Southwest, and West End. Figure 4 shows the distribution of office-to-residential conversions in and around the District since 2010. Most office-to-residential conversions occur outside of the District's central business district (and thus outside of central employment areas). Further, the few office-to-residential conversions that have occurred within the central business district have resulted in comparably fewer residential units than conversions outside the central business district.

There are several reasons that office-to-residential conversions are more common outside of the downtown core.[9] For one, there is a high concentration of class A and Trophy office space in the downtown core. This office space remains high-value and converting it for residential use would likely result in significant reductions in NOI (see Figure 3). Office-to-residential conversion is also disincentivized in the downtown core by high acquisition costs and the high density of jobs, which generally increases the value of the office space. These findings align with the Task Force consensus that high acquisition costs within the central business district make office conversions more likely outside of central employment areas. The projects most likely to convert to residential are those located near or in primarily residential neighborhoods, where the current residential rent is approximate to (or greater than) the office rents.

Figure 5. Metro Area Office Conversions, 2001-2018



Source: JLL Research

[9] Identifying the vacancy cluster's location is vital, as portions of the economics of opportunity cost change drastically for property owners within the cluster area. Like an interconnected network, what affects one can affect all, as near historically high landlord concessions become uniform across a submarket, or ultra-low capitalization rates from a sale raise real estate taxes on their neighbor. Thus, we can identify location-based motivating themes for potential conversions, essentially to identify the "where" to understand the "why."

Figure 5 illustrates the distribution of commercial conversions in the metro area. Data provided to the Task Force by JLL Research indicates that since 2014, 7.9 million sf of office space in the metro area has been converted to other uses—41 percent of which is in the District.

Analysis of Office Buildings with Highest Potential for Conversion

Class A office buildings represent the newest, most desirable, and expensive commercial real estate. Large scale class A ownership in the District is dominated mostly by large institutional asset managers or Real Estate Investment Trusts (REITs), whose decisions may be influenced outside of the direct vacancy factors described above. REITs and institutions with high levels of liquidity can wait out the market, undergo costly renovations, or sell in a climate of ever-increasing prices per sf paid for large class A downtown office buildings. Therefore, a challenging market alone may not be enough of a motivating factor for these participants to convert an office building to residential use.

The most likely candidates for office-to-residential conversions are vacant class B, C, and F office buildings. However, the Task Force found that there are far fewer vacant class B, C, and F buildings than they had expected. Using data from CoStar, the Task Force found that as of December 2018, there were only 45 class B and C properties that were 50 to 100 percent vacant,[10] totaling just over 1 million sf cumulatively. This means that only six to eight percent of vacancies in the District were in class B and C. As shown in Figure 6, most of these are older buildings (median year built = 1925), are of masonry construction, and are 2 to 4 stories tall. Figure 7 shows the location, size (in sf), and vacancy rate of these building. The variation in size of the points shows the difference in square footage of each building and the color goes from yellow to red as the vacancy rate approaches 100 percent. Most of these buildings are clustered in and near the downtown core (Wards 1 and 2), with a few outlying buildings located in major commercial corridors and in industrial areas (primarily in Wards 5 and 6).

Many of the class B and C buildings in Figure 6 are unlikely to consider conversion to residential uses as the expected returns (or NOI) from conversion are lower than if those buildings remained office space. Additionally, the increase in class A inventory has coincided with a decrease in the comparatively smaller inventory of higher-grade class B office space. Although higher grade class B office space is well-suited for conversion, increased tenant demand for the remaining class B space mitigated potential conversions. As many of the existing higher-grade class B building owners with liquidity chose to undergo renovations and took their office space off the market, existing cost-conscious class B tenants exhibited high demand for what remained. Thus, one of the main conversion-motivating drivers for class B landlords—reduced NOI—quickly diminished as inventory shrank drastically, due to near double-digit percentage increases in asking rates. However, this dynamic helps keep rents low, which helps maintain affordability for many smaller commercial tenants.

While market forces may discourage the conversion of the limited inventory of higher-grade class B buildings, smaller class C building owners who do not have the liquidity or potential demand for their product might consider conversion rather than undergo costly renovations or high concession packages. Characteristically, most class C buildings are smaller than their counterparts, averaging around 14,000 sf, they have fewer amenities, and are located on the fringes of major downtown corridors. Having to compete with higher-class building subleases and an ever-expanding supply of co-working space within the District may push additional class C buildings toward conversion. Therefore, owners of class B and C

[10] While CoStar includes a designation for class F buildings, they do not list vacancy rates, vacancy sf, and direct available sf for class F buildings.

buildings face more pressure to find a productive use for their vacant office space, especially as new office trends demand different layouts and tastes (e.g., co-working spaces), and new class A office construction continues to come online. However, given the economic calculus and other barriers to conversion, buildings with high vacancy rates are primarily being repositioned as offices (e.g., Washington Metro Area Transit Area purchase of 300 7th Street SW and the redevelopment of 609 H Street NE) and it is expected for that trend to continue.

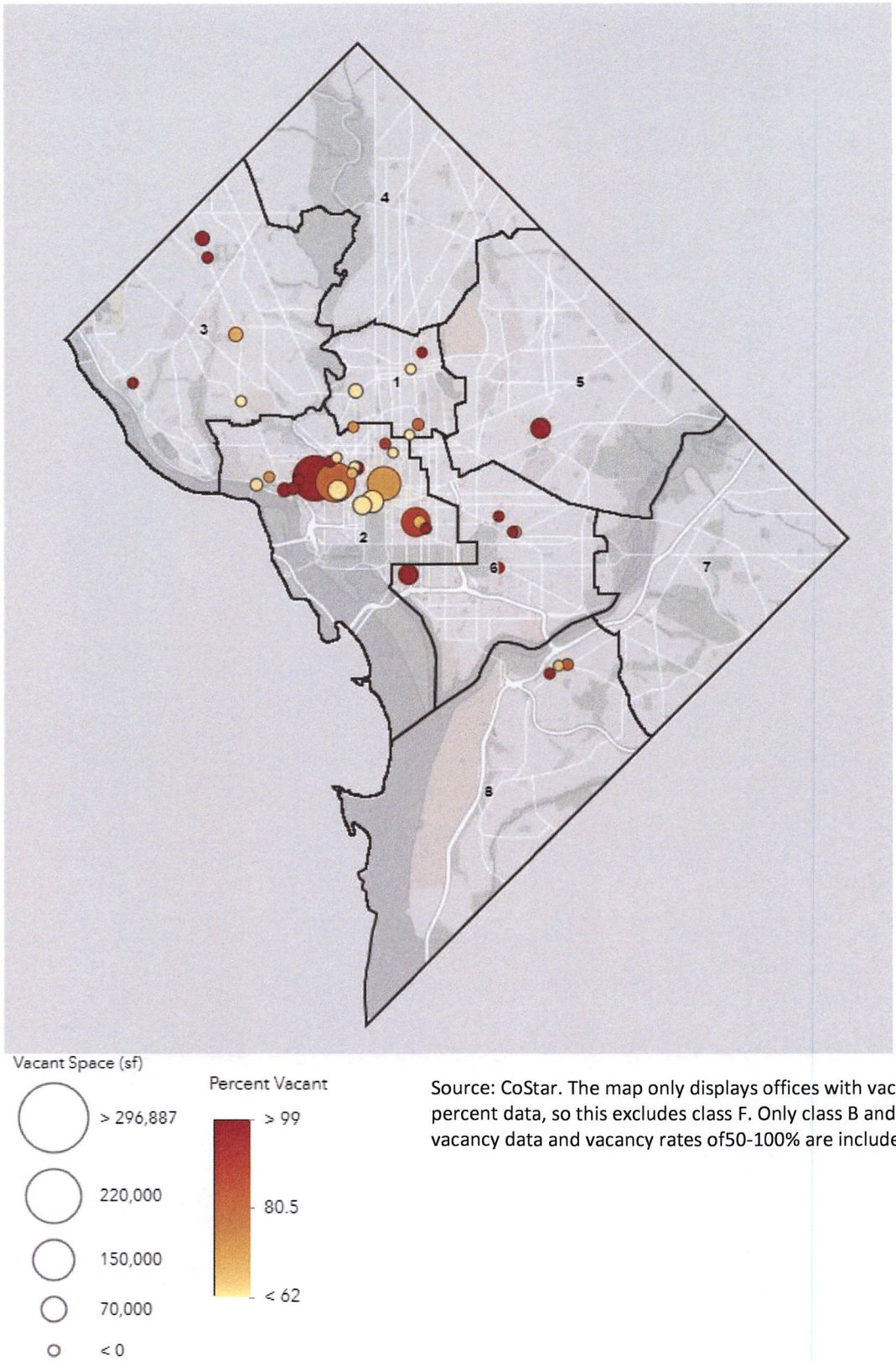
Developers that include affordable housing in the conversion would benefit from existing federal incentives. Figure 8 shows the class B and C office buildings with 50 to 100 percent vacancy rates (the same properties from Figure 6 and 7) overlaid with the federal Difficult to Develop Areas (Red), Qualified Census Tracts (Green), and Opportunity Zones (Blue outline). Projects located in Difficult to Develop Areas or Qualified Census Tracts receive a 30 percent boost in federal Low Income Housing Tax Credits (LIHTC), which could help to incentivize the inclusion of affordable housing in any conversion in those areas. This can also support the District's path toward a more equitable distribution of affordable housing.

Figure 6. Class B, C, and F Office Buildings with 50 to 100% Vacancy Rates as of December 2018

Property Address	Building Class	Percent Vacant (%)	Year Built	Direct Available Space (sf)	Direct Vacant Space (sf)
750 17th St NW	B	44.14	1989	72416	71394
2428 Wisconsin Ave NW	B	51.23	1984	3900	3900
888 16th St NW	B	53.38	1969	102605	102605
3003 Williams Aly	B	53.49	2019	2300	2300
1763 Columbia Rd NW	B	58.30	1910	31482	31482
2033 K St NW	B	59.38	1975	78728	83867
1541 14th St NW	B	59.56	1914	1000	1000
1506 21st St NW	B	63.52	1912	2150	2150
1827 Jefferson Pl NW	B	67.79	1902	3796	3796
905-909 E St NW	B	68.84	1910	25402	25402
3400 Idaho Ave NW	B	70.00	1988	31286	31286
518 C St NE	B	70.44	1990	9499	9499
1125 15th St NW	B	72.50	1971	263848	197924
3246 Prospect St NW	B	73.89	1870	1995	1995
2100 M St NW	B	82.30	1969	248000	248000
999 E St NW	B	89.48	1931	157659	157659
1077 30th St NW	B	97.57	1985	16030	16030
2445 M St NW	B	99.64	1986	296887	296887
214 2nd St SE	B	99.92	1890	2598	2598
405 8th St NW	B	100.00	1927	6428	6428
1015 31st St NW	B	100.00	1985	28792	28792
2801-2803 M St NW	B	100.00	1850	10500	10500
5025 Wisconsin Ave NW	B	100.00	1981	31876	31876
1413-1415 22nd St NW	B	100.00	1940	9604	9604
2124 Martin Luther King Jr Ave SE	B	100.00	1957	4278	4278
1900 W Pl NE	B	100.00	1993	83250	83250
1804 11th St NW	C	50.00	1915	2210	1105
1312 18th St NW	C	56.01	1910	4901	4901
3401 K St NW	C	63.12	1988	19049	19049
1916 13th St SE	C	66.67	1905	1520	1520
1806-1808 Florida Ave NW	C	73.66	1912	2240	3041
918-920 U St NW	C	83.06	1920	10300	12400
1418 Good Hope Rd SE	C	83.96	1939	7000	7000
1439 R St	C	90.95	1920	1738	1738
603 2nd St NE	C	99.86	1890	1398	1398
1319 18th St NW	C	100.00	1900	23850	23850
500 C St NE	C	100.00	1986	3240	3240
3328 Georgia Ave NW	C	100.00	1909	2160	2160
5115 Macarthur Blvd NW	C	100.00	1927	2000	2000
300 12th St SW	C	100.00	1937	79385	79385
4748 Wisconsin Ave NW	C	100.00	1909	6232	6232
615-619 14th St NW	F	--	1924	--	--
1340 G St NW	F	--	1920	--	--
1342 G St NW	F	--	1920	--	--
913 L St NW	F	--	1900	--	--

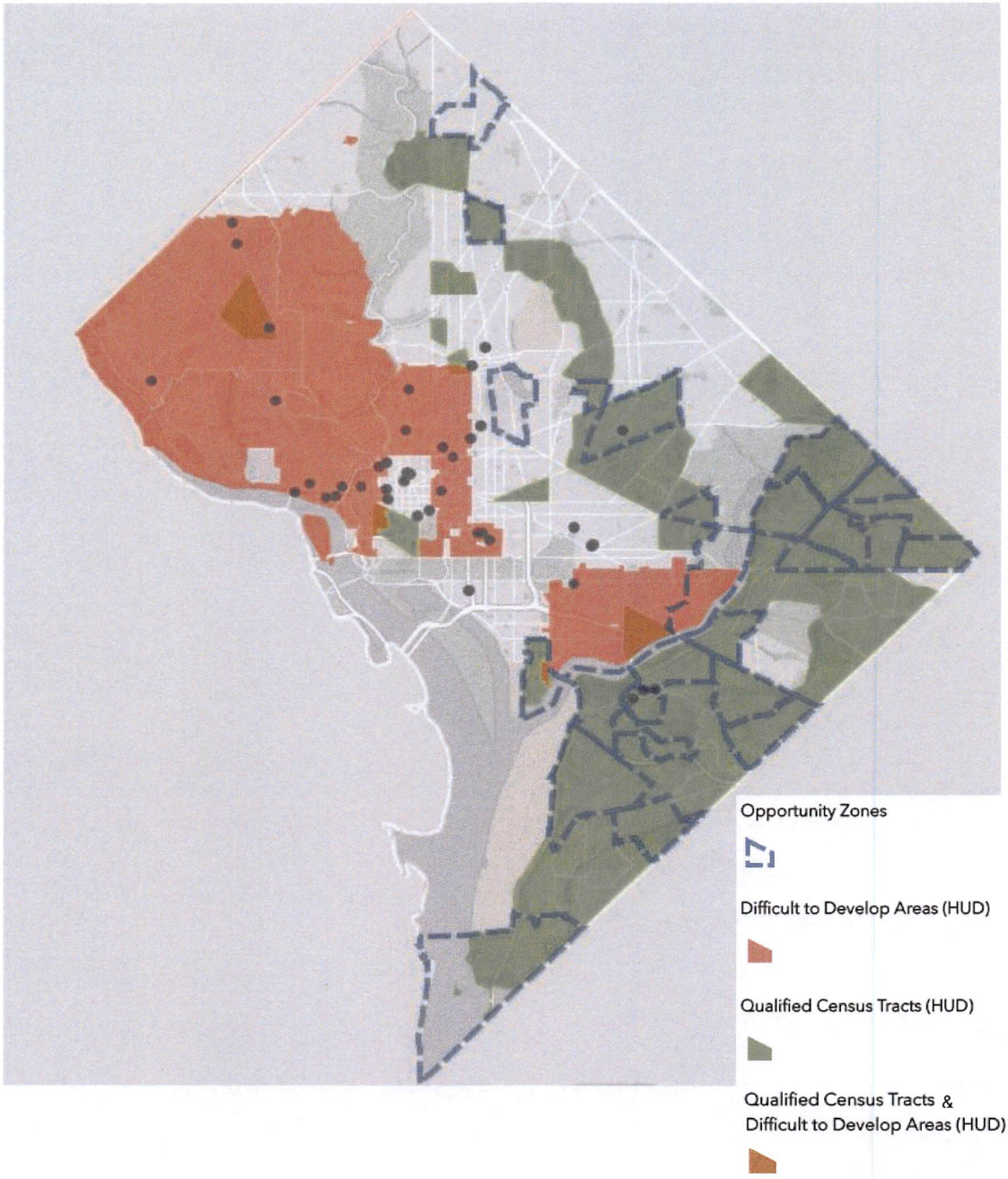
Source: CoStar, July 2019

Figure 7. Map of Class B and C Office Buildings with 50 to 100% Vacancy Rates as of July 2019



Source: CoStar. The map only displays offices with vacancy percent data, so this excludes class F. Only class B and C with vacancy data and vacancy rates of50-100% are included.

Figure 8. Class B, C, and F properties with 50-100% vacancy rates overlaid with Difficult to Develop Areas (HUD), Qualified Census Tracts (HUD), and Opportunity Zones



Source: CoStar, DC Office of the Chief Technology Officer.
The map only displays offices with vacancy percent data, so this excludes class F.
Only class B and C with vacancy data and vacancy rates of 50-100% are included.

Office Tenant Concessions

Downtown property owners have responded aggressively to the recent recession by offering historically high concessions, mainly in the form of tenant improvement allowances and free rent. In fact, the District has recently been competing with New York City in offering the highest concessions in the nation. According to the 2018 Savills Studley Effective Rent Index, which measures actual deal terms of higher-caliber class A product among the nation's largest central business districts, the District set a national and local record for landlord concession per sf at $201.88, versus the national average of $94.83.[11]

These concessions affect a property owner's return in the form of NOI. Property owners may consider multifamily residential conversion, if bottom line profits look weak, depending on their asset management plan. Savills Studley provides further data on this economic calculus by examining percentage change in landlord effective rents from the pre-recession market peak of 2007. Landlord effective rents are closely related to the actual income a landlord received when factoring in concessions. Among the nation's largest central business districts, the District is one of the worst performers with a drop of 58.5 percent in landlord effective rent; only downtown New York City and San Diego dropped more dramatically during the period 2007-2017.[12]

A major factor for the District's increasingly high vacancy rate is the large amount of new construction and renovated building supply delivering over the next few years. On the demand side, private and government office users continue to require less space per employee than before. This "office market compression" means that even as the number of jobs in the District grows, the demand for office space lags behind. An even bigger issue is the District's office space availability rate, which is determined by adding the current amount of sublease space on the market to the vacancy rate (Figure 9). The availability rate can be thought of as the total amount of office space that is on the active market, or space available for lease, sublease, or sale. The high availability rate in the District provides further evidence that the market is in the tenant's favor and concessions are likely to remain elevated for the foreseeable future. As such, landlords are eager to find value-add opportunities in this challenging market wherever they can.

Figure 9. District Availability Rate and Vacancy Rate

Source: CoStar

[11] Savills Studley 2018 Effective Rent Index
[12] *Ibid.*

Physical and Regulatory Considerations for Office-to-Residential Conversions

This section provides stakeholders with an understanding of the various codes that impact the physical requirements and needs of buildings that are being considered for conversion. It addresses the second question posed to the Task Force: "would any legislative, regulatory, zoning, or policy changes promote the transition of vacant commercial office buildings to affordable housing units, including units with multiple bedrooms?" It is also intended to be a starting place for factors that need to be considered when performing a feasibility study on a specific office building that is a candidate for conversion to housing.

Construction classification Type

The major structural consideration for office-to-residential conversion is the building construction classification type. Construction classification will impact the allowable heights, areas, and use classifications, influencing the conversion to residential use groups. Potential building types for conversion generally are one of three types: Type I (Concrete Framed); Type II (Steel Framed); Type IV (Heavy Timber). (See Appendix A for a detailed breakdown of Construction classification Type challenges.)

Structural Considerations for Office-to-Residential Conversions

Though the developer or owner of each building/property will need to study the property to determine the potential benefits of conversion, each of the construction types listed above will grapple with similar considerations, which may be associated with additional costs that could make office-to-residential conversions cost-prohibitive. These include:

1. The coordination of units and systems would require navigation around the structural floor assembly, which can impact placement of elements such as kitchens and bathrooms. This ultimately impacts conversion efficiencies.
2. Vertical transportation issues, such as stairs' egress capacity for the occupancy change, elevator capacity for an ambulance stretcher, and location of elevators for conversion, may be limiting factors.
3. Introducing light wells required to create a habitable space within a large building may be a challenge in a typical double loaded corridor, which ranges between 60'- 70', and some large buildings have wider floor plates. Light and air requirements for residential can mean a reduction of floor plates or building footprint.
4. The zoning code typically allows for more residential density than commercial. With a change in occupancy from commercial to residential, the building code typically reduces the allowable building area per floor (except Type I), which means that some areas of the building could remain unused with an all-residential conversion. It does present an opportunity for mixed-use conversions.
5. While the District provides credits for conversions to help offset stormwater and green area ratio requirements, it is unclear if the credits would mitigate the costs involved in complying with these regulations in a conversion.

6. Other considerations include façade redesigns to accommodate operable windows to meet current energy codes, stiffening structures for HVAC loads on roof, and revised/upgraded utilities from the street (because residential projects typically have heavier loads than office buildings).

In addition to the structural challenges outlined above, it is important to consider the size, location within a block, and shape of a building when assessing whether a building would be a good candidate for conversion.

Structural Opportunities for Office-to-Residential Conversions

Office-to-residential conversions make use of the existing structural systems of office buildings that are typically either steel (Type I) or concrete (Type II) construction. The required structural loads are similar enough that substantial reinforcement typically is not required. However, the condition of the existing system must be verified by a thorough structural analysis. Depending on the building, the following features may facilitate office-to-residential conversions:

1. Concrete (Type I) office buildings already have fire ratings above and beyond those required for residential units.
2. Residential buildings typically have a lower parking demand than office buildings, which provides an opportunity for repurposing surplus parking into an amenity space or to generate an additional income stream.
3. There is the opportunity for partial conversions where the existing building area exceeds the maximum allowable area for residential use. This may be beneficial for communities that suffer from un-activated streets after business hours and right sizing the supply of office space in the community. By partially converting the building to residential use, the owner could take advantage of the preference that the Zoning Code gives to residential uses. To fully take advantage of mixed-use redevelopment, the District will need to fully examine its zoning codes and regulations.
4. Residential uses typically allow more floor area ratio (FAR) and density than a previously maxed-out office building. Owners and prospective developers may also be able to take advantage of that additional density by adding floors and gross building area, structure permitting.

Policy and Regulatory Considerations

Zoning and land use regulations are designed to achieve multiple District-wide goals, such as mixed-use zoning that encourages pedestrian access and reduces the need for automobile trips; light and air lot occupancy requirements to support high-quality, livable residential units; and stormwater management for environmental sustainability. Many of the District's approaches to growth help office-to-residential conversions. For instance, the District's pursuit of Transit Oriented Development (TOD) mixes uses and brings uses closer together to encourage pedestrian connections. However, at times, the goals of different regulations conflict with one another. The Task Force noted that there will need to be a comprehensive review of any regulatory conflicts for an existing conversion.

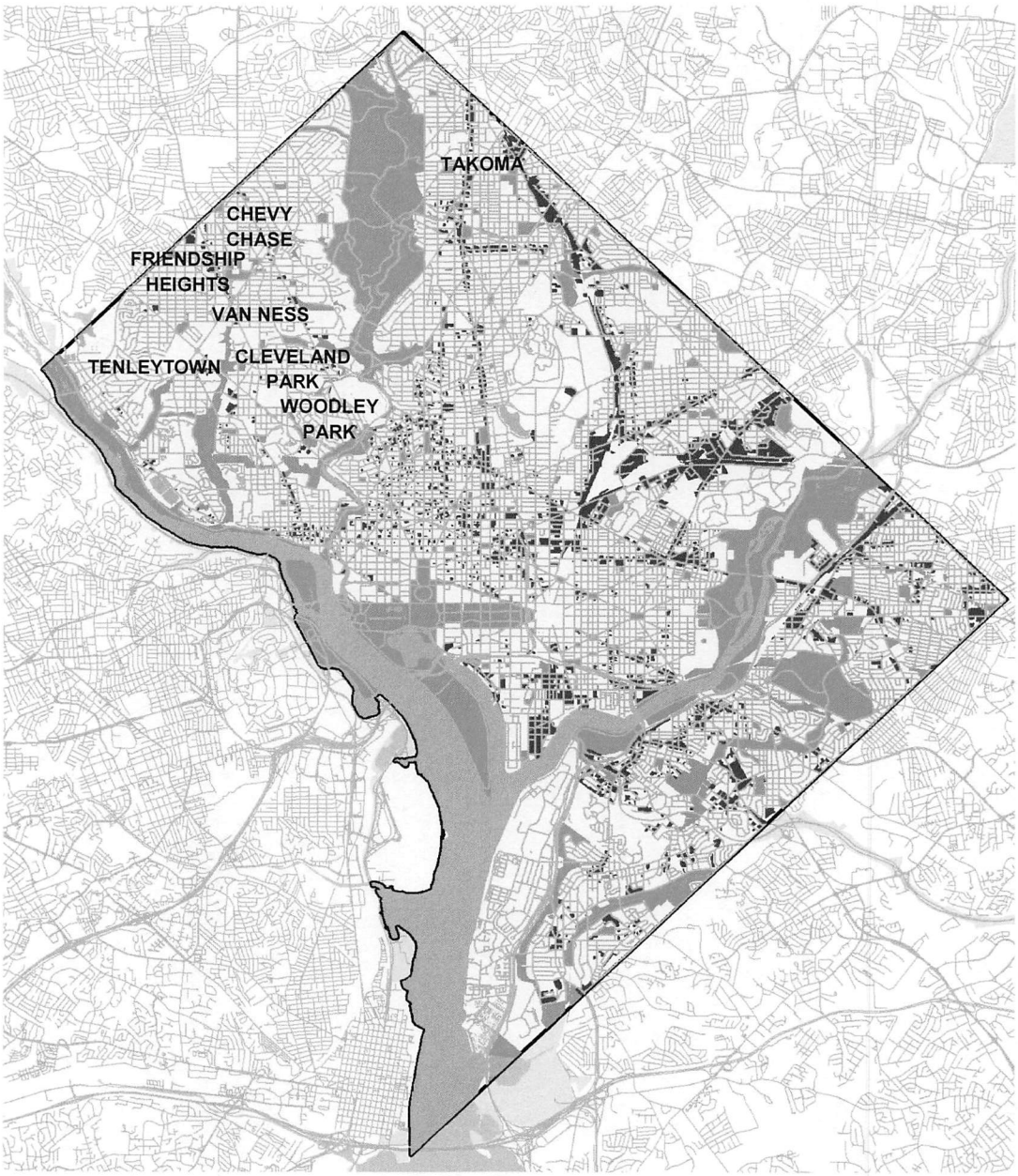
In general, the District's land use regulations support office-to-housing conversions. Most of the District's mixed-use zoning permits more residential development than commercial development. This zoning not only facilitates conversion to residential but also enables more housing to be built in addition to the converted space. In some cases, the form non-residential uses are permitted to take, such as

using 100 percent of lot occupancy, make conversions difficult when floor plates need to be reduced to permit light and air for living or bedroom windows. This requirement may result in the reduction of the building floor plates; however, in the majority of zone districts, increased density is permitted through additional stories above the non-residential use. Even in the District's downtown core, zoning regulations provide incentives for residential uses to balance the market value difference between office and housing.

Still, there are many mixed-use corridors where the existing zoning and allowable heights and densities are not sufficient to encourage the redevelopment of existing office to housing, when those existing uses have relatively strong value. Some of these areas include Takoma, Woodley Park, Cleveland Park, Van Ness, Tenleytown, Chevy Chase on Connecticut Avenue, and Friendship Heights (Figure 10). Redevelopment and conversion to housing in these areas tends only to happen when the building has lost significant value as it reaches the end of its functional life. Each of these corridors have direct and immediate Metro access and old, underutilized office buildings.

Figure 10, based on an analysis by the DC Office of Planning in 2013, illustrates where vacant and underutilized land (in purple) exists in the District. The Office of Planning is in the process of updating this map, which will help to identify where remaining opportunities exist and inform how zoning could be refined to encourage redevelopment.

Figure 10. Vacant & Underutilized Land in Multi-Family and Mixed-Use and Commercial Zones: 2013



Source: Office of Planning 2013. Some mixed-use corridors where the existing zoning and allowable heights and densities are not sufficient to encourage the redevelopment of existing office to housing are labelled on the map. These areas include Takoma, Woodley Park, Cleveland Park, Van Ness, Tenleytown, Chevy Chase on Connecticut Avenue, and Friendship Heights.

Office-to-Affordable-Housing Conversion Costs

The District is exploring more ways to produce affordable housing in a cost-effective manner. In response to the third question posed to the Task Force: "would there be any costs to the District and property owners associated with the recommended changes?", this section provides a cost analysis about conversions from office-to-residential versus new construction. We explore how the District could fund incurred costs in the recommendations section.

Construction Costs for Affordable Housing

To address whether there would be any costs to the District and property owners associated with conversions, DHCD conducted an analysis of all projects admitted into its pipeline since 2015, as well as all the applications submitted during the most recent 2018 Consolidated Request for Proposals (RFP). The data set included 79 selected and proposed projects in all wards, except Ward 3 (Figure 11). DHCD determined that the most applicable comparison for office-to-affordable-housing conversions was the acquisition costs for projects with existing buildings and the construction cost for new buildings. The average acquisition cost at application for projects with existing buildings accepted into DHCD's pipeline was $94 per sf and for proposed projects was $118 per sf. Construction costs in DHCD's pipeline are harder to compare with office-to-affordable-housing conversions, as construction costs vary by the type of construction and level of rehabilitation. The Consolidated RFP has existing standards for construction costs.

The Task Force expects office-to-affordable housing conversions to have hard construction costs (less contingency) that would not exceed the new construction guidelines in the below chart from the RFP. The RFP does allow for waivers for projects that deviate from the above standards by up to 15 percent or a maximum of $276 per sf as of the most recent summer 2018 RFP. The average construction cost at application for new construction projects accepted into DHCD's pipeline was $208 per sf and for proposed projects it was $181 per sf. DHCD did not complete an analysis of soft costs/financing costs for current Housing Production Trust Fund (HPTF) projects, as these costs should be similar for both office to affordable housing conversions and current HPTF projects. All projects in the District receiving HPTF funding need to comply with Davis-Bacon and Related Acts prevailing wages, with the "residential" wage rates applying for all buildings below 5 stories, and the "building" wage rates applying for all projects six stories and higher. The value of already poured concrete and avoided construction costs is higher for these projects and may be greater than the five to ten percent that would be expected for market rate developments.

Figure 11. Maximum Construction Costs for Affordable Housing per Gross Square Foot ($)

Type of Building	New Construction	Substantial Rehabilitation	Moderate Rehabilitation
Townhouses	180	145	100
Garden Apartments/ Condos	175	135	95
Elevator Buildings (5 floors)	210	150	125
Mid-Rise Buildings (6+ floors)	240	165	140

Source: DHCD

Costs of Office-to-Apartment Conversion versus Apartment Full Gut Renovations

To assess the costs of office-to-apartment conversions versus apartment full gut renovations, the Task Force compared each of these to the cost of new construction. Office-to-apartment conversions typically save 5 to 10 percent versus the cost of new construction, whereas apartment full renovations typically save 20 to 40 percent. Office-to-residential conversions typically require a full rework of the following, which is not typical in an apartment full renovation: skin/façade, mechanical, electrical, and plumbing (MEP) systems, and vertical circulation (stairwells and elevators). Full renovations offer the ability to save the structure, skin/façade, interior framing, MEP risers/branch in some cases, and vertical circulation. These reasons contribute to the higher cost of conversion as opposed to renovation.

Though renovations do not inevitably increase the housing stock, they do hold the potential to increase the amount of affordable housing in the District, if subsidized. Conversions, on the other hand, indisputably add to the housing stock. If all is held equal—meaning if subsidies are offered for office-to-residential conversions and for full gut renovations—it is less costly to increase the stock of affordable housing through renovations than through conversions.

Figure 12. Estimates of Potential Costs to Convert Office to Residential

Trade	Unit Cost	Unit	% of Total
Demolition	$3.98	Total Bldg. sf	4.4%
Exterior Enclosure	$17.53	Exterior sf	10.7%
Interior Finishes	$32.76	Bldg. Equiv. sf	33.0%
Elevators	$7,500	Elevator stops	0.8%
Plumbing	$9.96	Bldg. Equiv. sf	10.0%
HVAC	$10.07	Bldg. Equiv. sf	10.1%
Fire Protection	$3.30	Bldg. Equiv. sf	3.7%
Electrical	$16.23	Bldg. Equiv. sf	16.3%
General Cond. And Fees	$0.11	% of Total	11.0%

Source: Dwyer, Mike. Spring Cost Corner – Office to Residential Conversion. Merritt & Harris: Construction Consultants. http://www.merrittandharris.com/news/archives/spring-cost-corner-2/

Figure 12 contains estimates of potential costs to convert from office to residential. Items such as parking, sitework, retail, utilities, etc. are excluded from the above, and would be independent of this analysis.

Recommendations

While there are some opportunities to convert vacant office space to affordable housing in the District, the initial findings of the Task Force reveal that office-to-residential conversions are not the most efficient way to address the city's pressing housing needs. Given their cost effectiveness, class C office buildings along and near commercial corridors (and outside the central business district) present the greatest potential for conversions. Additional density—permitted under residential zoning regulations—would also need to be allowed for conversions to be a viable way to increase the affordable housing stock. Should the District choose to pursue office-to-residential conversions as a means to increase housing, the following recommendations would support those conversions.

Directly Subsidize Conversions

The factors working against property owners undergoing office-to-residential conversions are numerous. As such, the District government would need to make a policy decision that it is in the public interest to increase the frequency of conversions to produce affordable housing. If the District government decides to pursue such a policy, it would need to directly subsidize office-to-affordable-housing conversions to make the projects economically feasible. The Task Force's analysis shows that without such subsidies, the District may continue to see small numbers of office-to-residential conversion with very few affordable units.

The District government may find that some office buildings offer unique advantages that mitigate the increased subsidy costs to produce affordable housing. Converting office to affordable housing could help the District's housing challenge by contributing to its affordable housing stock.

Furthermore, Mayor Muriel Bowser has directed the Office of Planning and DHCD to create fair share goals that would promote more equitable distribution of affordable housing, and the District remains committed to Affirmatively Furthering Fair Housing (AFFH) goals. Converting office to affordable housing in areas with fewer affordable housing options could help the District achieve these goals.

While current market conditions make the owners of smaller class C office buildings in residential areas the most likely candidates for conversion, the addition of government subsidies could increase Transit Oriented Development in areas near Metro stops, which may be considered Communities of Opportunity under HUD's AFFH guidelines.

Provide Zoning Incentives to Increase Density and Affordable Units

While regulatory changes to the District's building codes would not be advisable to facilitate office-to-residential conversions, zoning incentives and direct financial subsidies are already used to achieve policy ends. The District could explore opportunities to increase allowable densities under zoning regulations, especially along and near commercial corridors, or offer property owners matter-of-right increases in density and height in exchange for producing office-to-residential conversions that provide a minimum threshold of affordable housing units, with preference or further incentives for family-sized units with three or more bedrooms. Other cities have used zoning to successfully achieve family-sized units.

Much of the District's capacity for growth exists along commercial corridors where existing one and two-story uses, including small office buildings, can be redeveloped into four to seven story buildings. In the

vast majority of these areas, zoning regulations permit 50 to 100 percent more floor area ratio for housing compared to non-residential uses. This additional density would enable new housing, in addition to the conversion of the existing vacant office space.

When considering zoning changes, the District should conduct a thorough investigation into how the changes will improve the likelihood of achieving policy goals. These market analyses could be used by the Office of Planning to balance between increased density, desired community benefits, and market forces that might produce unintended consequences. For example, the loss of class C office space to residential conversion could have a negative impact on the rental costs for small businesses. However, mixed-use projects that add residential units and retain office space could provide a solution to the competition for space.

The District could investigate and implement mixed-use zoning amendments to increase capacity along key corridors where office space can be converted to residential. The most likely conversions will occur in class C office building along or adjacent to commercial corridors outside the central business district (see planned conversions on Wisconsin Ave. in Figure 2 and Figure 4). Specific corridors include Takoma, Woodley Park, Cleveland Park, Van Ness, Tenleytown, Chevy Chase, and Friendship Heights. Each of these corridors have direct and immediate Metro access and older, underutilized office buildings. Matter-of-right density increases and mixed-use zoning, coupled with mandatory inclusionary zoning and direct financial subsidies and tax abatements, could help catalyze office-to-residential conversions with affordable units.

Fund Feasibility Studies

If the District chooses to further explore the potential of class-C-to-mixed-use-residential conversions with affordable units, it could fund feasibility studies to determine the costs of project-specific conversions along or near commercial corridors. The District could provide a special pool of matching predevelopment funding to which developers could apply to fund feasibility studies for the conversion of non-residential buildings to affordable housing. In exchange for providing the predevelopment funding, the District should receive copies of the feasibility studies for collective evaluation.

Financial subsidies, tax abatements, and zoning changes also may be needed to achieve deeper levels of affordability and to serve tenants with policy-preferred levels of household income (percent of Area Median Income). The Mayor and District Council would need to appropriate the necessary funds to provide direct financial subsidies for the creation of affordable housing through the Consolidated RFP, either through the HPTF or LRSP or a new program. To include tax abatements in any subsidy incentive package, the Mayor and Council would have to legislate a new tax abatement program and appropriate whatever funding the District's Chief Financial Officer determines is necessary for implementation in the bill's fiscal impact statement.

Review Regulatory Requirements to Streamline Office-to-Housing Projects

While the District's land use and zoning regulations generally support office-to-housing conversions, the District could conduct a review of building and development regulations to identify and address any existing regulatory conflicts for a conversion project. This review should prioritize building safety and harmonize requirements that pose barriers to a streamlined regulatory environment for office-to-housing developments.

APPENDIX A

This Appendix is a sample building assessment questionnaire that developers and the District could use when analyzing potential buildings for conversion. It should serve as the template for future studies and conversion analyses, and as a tool for discovering the needs of each building during the feasibility phase. The professional performing the study would need to carefully analyze the building and should supplement the checklist below based on their findings.

Note that a simple formulaic approach cannot be applied to the attached checklist because the office stock varies in size, age and construction type. In fact, the age of the building can be just as impactful because the best practices of that period, may differ from today's building standards.

CODE RELATED ISSUES

Construction classification:

Description of the Issue: These are the three main building types that most likely will qualify for conversion consideration, according to the IBC (International Building Code).

Type I – concrete framed structure	Cost driver?	Yes ☐	No ☐
Type II – steel framed structure	Cost driver?	Yes ☐	No ☐
Type IV – heavy timber structure	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: Type I concrete framed buildings are the most cost effective construction classification type building for conversion of office buildings to affordable housing.

Fire Rating/ Separation Assemblies:

Description of the Issue: Conversions will be a change in use that may have impacts on the fire protection requirements.

Type I: The structure ratings remain the same because it's based on the protection of the structure not occupancy type	Cost driver?	Yes ☐	No ☐
Type II: What would be adjusted or need to be looked at is the fire separation requirement for floors and structural components between units and egress protection, which would have to be performed/ done regardless.	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: The Practical Solutions Committee of the Task Force (the Committee) found that fire rating assemblies is a reasonable cost to have budgeted, unless it is a steel building because the fire proofing may need to be redone.

Permissible Use Areas:

Description of the Issue: The International Building Code (IBC) has height and area restrictions based on the use of the building which may dictate how much of an existing building can be converted based on the construction type.

Type I: B use to R2 use			
• Unlimited height	Cost driver?	Yes ☐	No ☐
• Has the advantage of being able to add floors, structure permitting?	Cost driver?	Yes ☐	No ☐
• More likely to be able to take advantage of zoning FAR increase based on construction type vs other uses	Cost driver?	Yes ☐	No ☐
Type II: B use to R2 use			
• Reduction in allowable area per floor from 35,000 to 24,000 sf	Cost driver?	Yes ☐	No ☐
• 5 – 6 floors max assuming sprinkled	Cost driver?	Yes ☐	No ☐
• What do you do with upper floors, if building is allowed to be 6 floors? Opportunity for mixed use?	Cost driver?	Yes ☐	No ☐
• If fire walls are required to compartmentalize a larger building the costs outweigh the benefits. May be better to lose that additional building area.	Cost driver?	Yes ☐	No ☐
Type IV: B use to R2 use			
• Reduction in allowable area per floor from 36,000 to 20,500	Cost driver?	Yes ☐	No ☐
• 5 floors max, assuming building is fully sprinkled	Cost driver?	Yes ☐	No ☐

Solution/Recommendation:

Additional study needs to be conducted on the cost benefit analysis on Type II buildings and the requirement to compartmentalize fire wills.

The Committee does not see a lot of opportunity for the conversion of Type IV buildings.
In some cases larger buildings may be repurposed for mixed-use, providing the opportunity to have multiple types of activities in a neighborhood and helping it to keep activated.

Code Mandated Upgrades:

Description of the Issue:

Change of Use leading to higher Risk Category	Cost driver?	Yes ☐	No ☐
Ratio of construction costs to value of a property	Cost driver?	Yes ☐	No ☐

HVAC/Systems:

Description of the Issue: Different uses have different Heating, cooling and air exchange requirements. The change of use will have an impact of existing systems.

Systems are heavier, therefore stiffening of the structure may be required	Cost driver?	Yes ☐	No ☐
Can the existing boiler/ chiller infrastructure be reused to condition space?	Cost driver?	Yes ☐	No ☐
Incoming utility demand from the street increases.	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: This needs to be studied on an individual basis. The systems may need to be replaced.

STRUCTURAL MODIFICATIONS

Existing Conditions/Repairs (perform due diligence or facility condition assessment):

Description of the Issue: Can the structure withstand the change in load (weight) caused by the requirements of the new use?

Structural engineer may need to lead with the analysis of areas of building that can more easily be modified/ penetrated. Could inform design choices.	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: Structural engineer should lead the process early on.

Coordination/ Integration of Utilities:

Description of the Issue: Residential buildings typically have more plumbing, and more intricate electrical and mechanical needs than an office building. Does the configuration of the building structure allow easy conversion or for the developer to meet the required unit count to be successful? What compromises need to be made?

Slab Penetrations (cores)			
• Do major cores need to be grouped?	Cost driver?	Yes ☐	No ☐

• 2 way-slab vs one-way slab	Cost driver?	Yes ☐	No ☐
Slab Openings	Cost driver?	Yes ☐	No ☐
• Can new opening be made without new framing?	Cost driver?	Yes ☐	No ☐
• Can new framing be incorporated with available ceiling heights?	Cost driver?	Yes ☐	No ☐
Horizontal Distribution (Wall Openings, Beam Openings)			
• In some cases, openings will be prohibited. We will have to go below beam. Do we have the ceiling heights to accommodate for running pipes/ ductwork through corridors? Or how do you zone the systems so that horizontal runs have minimal impact on ceiling heights/ bulkheads.?	Cost driver?	Yes ☐	No ☐
• Where structural modifications are required, has feasibility/cost been confirmed?	Cost driver?	Yes ☐	No ☐
Unit piping and distribution			
• Type II and IV pose more coordination challenges based on beams and joists spacing for toilet and bathtub placement	Cost driver?	Yes ☐	No ☐
• For beam or joist structural systems, is there flexibility in unit layout to adjust vertical risers to avoid framing?	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: Identify this system requirement and allow flexibility in unit layouts.

Mechanical Equipment Relocated to Roofs:

Description of the Issue:

Reinforcement of Structure (is this necessary?)	Cost driver?	Yes ☐	No ☐
Reinforcement for Screenwalls (is this necessary?)	Cost driver?	Yes ☐	No ☐
Roofing modifications (Warrantee affected?)	Cost driver?	Yes ☐	No ☐

Vertical Transportation/ADA Upgrades:

Description of the Issue: The change in use has different circulation requirements, both by code and for proper function.

Stair Modifications

• Guardrails may not be compliant and need to be replaced	Cost driver?	Yes ☐	No ☐
• We may need additional stairs based on remoteness requirements, dead end corridors and unit layouts	Cost driver?	Yes ☐	No ☐
• Verify non-compliant stairs where larger new structural openings are required/may affect adjacent units.	Cost driver?	Yes ☐	No ☐
Elevator Modifications			
• Many elevators probably don't meet stretcher requirements. Shafts may need to be enlarged.	Cost driver?	Yes ☐	No ☐
External Ramping and Site Work Retaining Structures			
• Identify/monitor impact on stormwater regulations	Cost driver?	Yes ☐	No ☐
Introduction of Internal Ramps or built-up floors for Existing Elevation Differences			
• Verify structural capacity for added load	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: Use lightweight construction/systems where appropriate.

Stormwater Requirements:

Description of the Issue: As part of its green initiative The District imposes stormwater requirements for conversions of a certain size and value. These projects most likely will fall within those requirements and the cost must be studied.

Introduction of Greenroofs - Upgrades to existing structure for additional weight and mass.	Cost driver?	Yes ☐	No ☐
• The Zoning Administrator cannot modify Green Area Ration (GAR) standards, a special exception to allow a lesser GAR score would be required.	Cost driver?	Yes ☐	No ☐
• There may be some DOEE alternatives to meet the score.	Cost driver?	Yes ☐	No ☐
• Or do you buy credits from other developers?	Cost driver?	Yes ☐	No ☐
Introduction of Bioretention and impact on foundations on existing structures.	Cost driver?	Yes ☐	No ☐
• Or do you buy credits from other developers?	Cost driver?	Yes ☐	No ☐

• If its possible great. If impossible would the city be willing to waive or modify the requirements.	Cost driver?	Yes ☐	No ☐

Solution/Recommendation: Unless the district provides grant funding this will be born by the developer. Conduct early feasibility study to understand challenges and opportunities.

Expansion:

Description of the Issue: This section pertains to determine if the building volume can be increased.

Reinforcement of structure for increased gravity and lateral load resisting systems.	Cost driver?	Yes ☐	No ☐
• Has cost/schedule been established?	Cost driver?	Yes ☐	No ☐
Potential for IEBC code mandated upgrades.	Cost driver?	Yes ☐	No ☐
• Perform early code analysis	Cost driver?	Yes ☐	No ☐
Vertical Expansion	Cost driver?	Yes ☐	No ☐
• Penthouse – verify load capacity	Cost driver?	Yes ☐	No ☐
• Multi-floor additions - require seismic upgrade	Cost driver?	Yes ☐	No ☐
Lateral expansion	Cost driver?	Yes ☐	No ☐
• New foundations require geotechnical investigation	Cost driver?	Yes ☐	No ☐
• Other site utilities/considerations	Cost driver?	Yes ☐	No ☐
Floor Plate Reduction	Cost driver?	Yes ☐	No ☐
• Verify stability of revised configuration	Cost driver?	Yes ☐	No ☐
• Coordinate performance requirements for new enclosure	Cost driver?	Yes ☐	No ☐

RELATED TOPICS

Envelope modifications (performance and/or penetration):

Description of the Issue:

Will we keep existing or reclad to update building appearance or give it more residential appeal	Cost driver?	Yes ☐	No ☐
Will have to update to meet new energy codes (existing cannot remain without some modification)	Cost driver?	Yes ☐	No ☐

Conversion from Parking:

Description of the Issue: Parking in excess of the minimum parking can be converted for other uses.

Storage/ gym	Cost driver?	Yes ☐	No ☐
Opportunity to rent/ sell existing spaces for additional income.	Cost driver?	Yes ☐	No ☐
Existing parking an asset	Cost driver?	Yes ☐	No ☐

Conversion of Roof for Occupancy (See green roof above):

Description of the Issue:

Stair Modifications	Cost driver?	Yes ☐	No ☐

Loss of class B or C Office Space:

Description of the Issue: Full conversion of these buildings may result in the loss of more affordable rent for small business. (That could drive entrepreneurs outside of the district.)

Put office space on the upper floors of the Type IV construction	Cost driver?	Yes ☐	No ☐
The upper floors could be used for wraparound services Type IV	Cost driver?	Yes ☐	No ☐