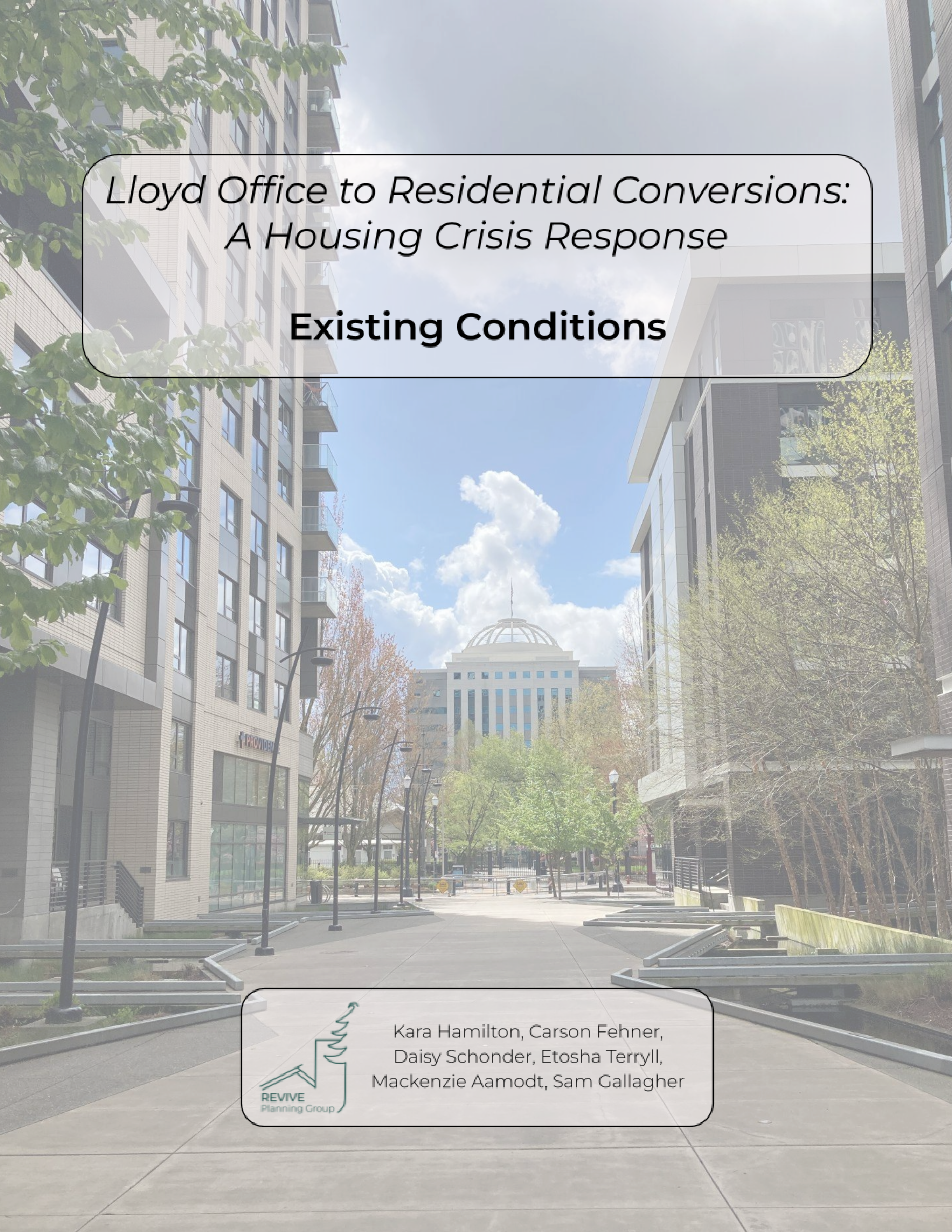

Lloyd Office to Residential Conversions: A Housing Crisis Response

Existing Conditions

REVIVE Planning Group

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Introduction

This report analyzes existing conditions in the Lloyd as a foundation for further research into the possibility of office to residential conversions in the district. The report is divided into four sections. The first covers the neighborhood; its history, demographics, housing stock, livability, and zoning. The second section focuses on current city, state, and federal policies supporting office-to-residential conversion. Section three covers the existing research on conversion feasibility in Portland, and the factors behind other successful conversions. The final section focuses on the financial conditions of the office market in Portland as whole and the Lloyd district specifically. It also covers the structural conditions of the three buildings we are studying: Lloyd 700, the Liberty Center and Lloyd Tower. The goal is to lay the groundwork for our analysis and future recommendations.

Key takeaways from the report include:

- Lloyd is still primarily commercial over residential, but the zoning code allows a lot of flexibility and thus potential to make meaningful changes.
- Lloyd has a legacy of displacement in favor of economic development, especially due to the large infrastructure projects in the second half of the 20th century which displaced a large portion of Portland's Black community.
- A number of policies have been implemented recently to make conversion easier, but they are either too new or insufficient to meaningfully move the needle.
- There are significant financial hurdles to conversion especially with seismic retrofit requirements in Portland. Office vacancy rates are still lower than in the Commercial Business District (CBD), and current market conditions have not deteriorated enough for conversion to be attractive for most buildings.

Neighborhood Overview

Location

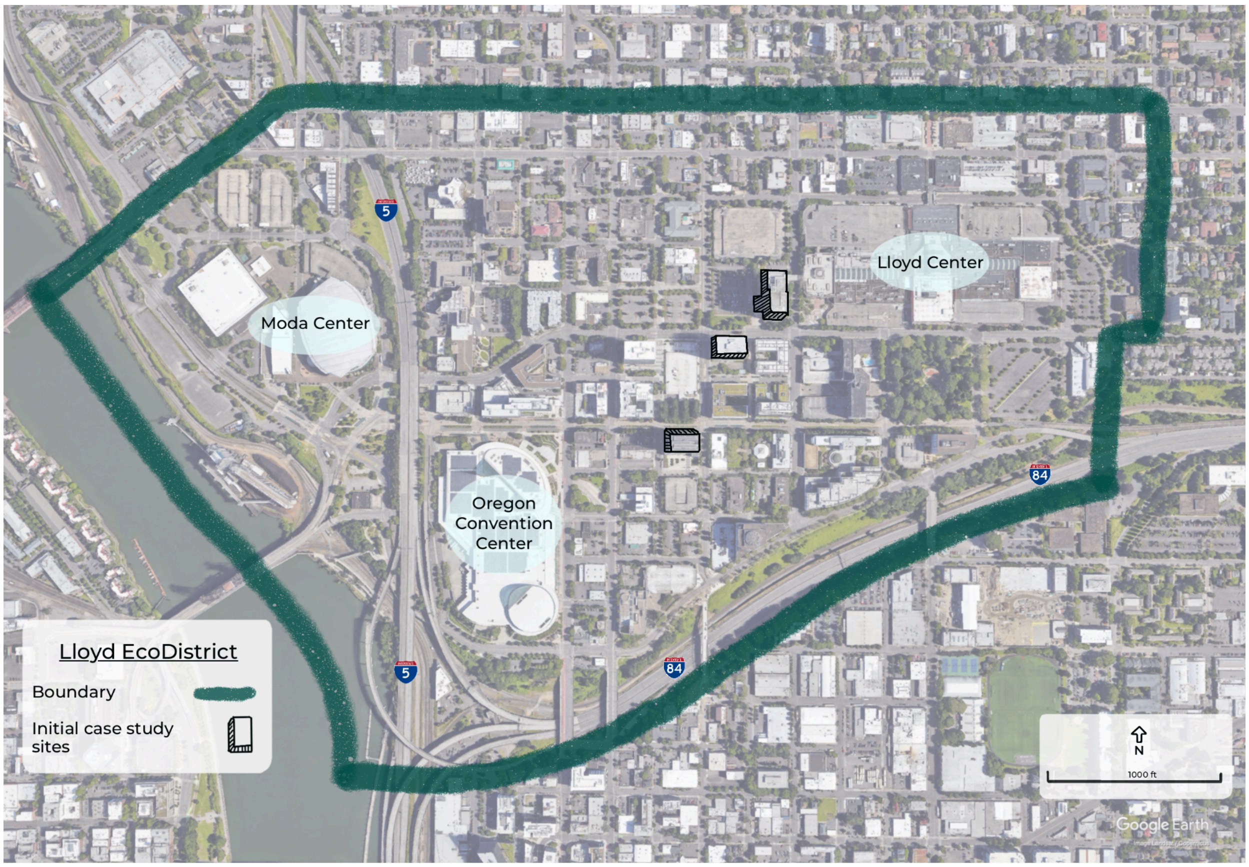

Figure 1: Lloyd Ecodistrict Boundary Map, source Google Maps

The Lloyd neighborhood is located in the northeast region of Portland, OR bounded by the Willamette River to the west, and I-84 to the south. The Lloyd EcoDistrict (the EcoDistrict) has developed the boundary depicted above through community engagement that combined definitions from the City of Portland, Lloyd Neighborhood Association, and the Enhanced Service District.[1] This is the boundary we will use in our analysis.

History / Past Harms

The area called the Lloyd District today was originally the traditional land of the Cowlitz, Clackamas, Bands of Chinook, Kathlamet, Multnomah, Tualitin Kalapuya, Wasco, and many other tribes that lived along the Willamette and

[1] Aye, Hanson, and Baker, "Lloyd EcoDistrict Roadmap."

Columbia Rivers.[2] These groups were driven out by Euro-American settlement in the mid 19th century and by the late 1840s it was estimated that the local indigenous population had decreased by as much as 90% due to disease.[3]

The City of Portland was incorporated in 1851, though much of the development remained on the west side of the Willamette River. The east side remained largely agricultural until rail magnate Ben Holliday arrived in the 1860s.[4] He planned a large residential development north of Sullivan's Gulch but his failure to install streetcar lines early on, and the financial panic of 1873, doomed any development efforts.[5] The land remained sparsely residential until the arrival of the district's namesake, Ralph Llloyd, in 1926.[6]

Figure 2: 1890 Portland Map looking Southwest with Holliday's addition in the foreground, source: City of Portland Archives

A California rancher, oilman, and real estate developer, Lloyd had grand plans for the eastern part of the district. He purchased 171 parcels for $1.65 million

[2] Aye, Hanson, and Baker.
[3] Ibid
[4] Ibid
[5] Ibid
[6] Anderson, "The Secret History of Portland's Weirdest Neighborhood."

($28 million today) with the vision of a second downtown complete with hotels, offices, and apartments.[7] The lack of community and city support, combined with the Great Depression thwarted his dreams.[8] His daughters however had more success opening a hotel in 1958 and the Lloyd Center in 1960 - which at the time was advertised as the largest mall in the United States.[9]

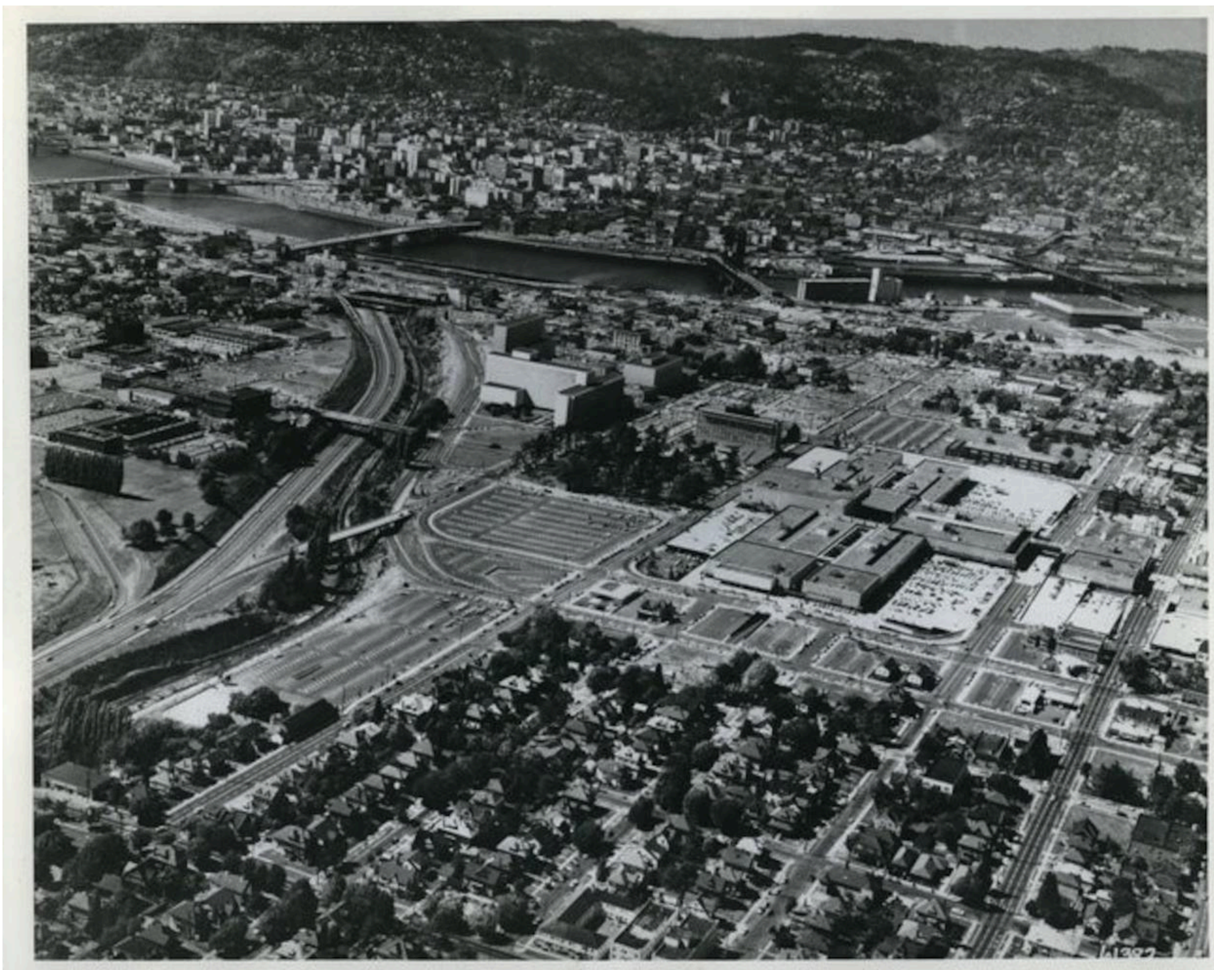

Figure 3: Lloyd Center Mall in 1960 when it opened, source: Oregonian Archives

The western half of the district has a starkly different story. The Lloyd District shares a border on its northwest side with the Albina Neighborhood. By the early 20th century, 75% of Portland's Black community lived in Lower Albina due to the nearby railroad and docks and the jobs they provided and

[7] Aye, Hanson, and Baker, "Lloyd EcoDistrict Roadmap."
[8] Aye, Hanson, and Baker.
[9] Ibid

discriminatory real estate practices which limited where Black people could live at the time. This was further reinforced by the 1948 Vanport flood which destroyed another Black community along the Columbia River.[10] Urban renewal efforts in the middle of the 20th century decimated the lower Albina and Lloyd communities. The construction of I-5, I-84, and the Memorial Coliseum in the late 1950s and early 1960s razed much of the thriving Black community, pushing them further north into the city.[11] It's estimated that the development of the Memorial Coliseum alone destroyed 467 homes.[12] This displacement was further cemented by the 1990 opening of the convention center and 1995 opening of the Moda center.

Figure 4: Portions of the NE Waterfront and Lower Albina Neighborhood in 1934. Picture is looking northeast with the Steel and Broadway bridgeheads on the left, source: City of Portland Archives

On the eastern half of the Lloyd District, Pacificorp purchased most of the

[10] Aye, Hanson, and Baker, "Lloyd EcoDistrict Roadmap."
[11] City of Portland Bureau of Planning and Sustainability and City of Portland Bureau of Transportation, "Central City 2035 N/NE Quadrant Plan."
[12] City of Portland Bureau of Planning and Sustainability and City of Portland Bureau of Transportation.

properties from Lloyd's children, and with partners American Assets Trust, have developed a series of large residential and office buildings over the last three decades.[13]

In 2009, the Portland Development Commission (now Prosper Portland) along with several other interested government parties explored the possibility of a "green" district. The Lloyd EcoDistrict was started in 2014 initially as an economic development driver to improve the value proposition of the district businesses while also targeting sustainability goals.[14] The Lloyd EcoDistrict has since evolved in their mission to a more holistic view of sustainability that centers equity, resilience, and climate protection.[15]

Over the last decade and a half the district has seen a variety of new multifamily residential developments, but much of the land remains underutilized as parking lots and low density uses. In late 2021, the owners of the Lloyd Center mall announced that they were in foreclosure. Seattle based Urban Renaissance Group bought the property and announced plans for a mixed use development with as many as 5,000 new units of housing.[16] This new development promises to be transformative for the district, though it will hopefully not follow in the long line of previous developments that favored economic growth and led to displacement.

Demographics

As of 2020 there were 2,665 people living in Lloyd, up from 1,002 in 2010.[17] Table figures 5 and 6 below highlight key demographic indicators about Lloyd residents, however it's important to note that these numbers are based on the U.S. Census Bureau 2020 estimates, and there may have been notable shifts in the last four years, especially given the impacts of COVID-19.

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[13] Aye, Hanson, and Baker.
[14] Aye, Hanson, and Baker.
[15] Ibid
[16] Effinger, "Owners of Lloyd Center Unveil Master Plan for Mall That Restores Street Grid and Adds Housing."
[17] City of Portland Office of Community & Civic Life, "Lloyd District Neighborhood Profile."

	Portland 2020	Lloyd 2020
Race/Ethnicity	percent	percent
Two or More Races	4.8%	7%
Black or African American Alone	5.7%	6%
Hispanic or Latinx	9.8%	7%
American Indian and Alaska Native Alone	0.6%	1%
Asian Alone	8.6%	5%
Native Hawaiian and Other Pacific Islander Alone	0.6%	-
Some Other Race Alone	0.4%	-
White Alone	75.3%	74%

Figure 5: Demographics Table, source: ECONorthwest, Economic & Market Conditions Central City Subdistricts, American Community Survey Data 2020

	Portland	Lloyd District
Housing & Income	Percent of residents	Percent of residents
Rent burdened	47%	52%
Severely rent burdened	24%	32%
Severely crowded	2%	7%
Households below poverty line	13%	21%
Age		
Population 65 and over	14%	11%
Population 18 and under	17%	3%
Population with a disability	12%	19%

Figure 6: Income Data, source: City of Portland Neighborhood Demographic Profiles, U.S. Census 2020 Estimates

About 26% of residents identify as Black, Indigenous, or People of Color (BIPOC) in Lloyd, which is just .5 percentage points lower than people citywide. From a more disaggregated perspective the percentage of bi-racial or multi-racial residents is higher in Lloyd than Portland on average, and the percentage of residents that identify as Black is also slightly higher, but the percentage of residents who identify as Hispanic / Latinx or Asian are both lower.

In terms of vulnerability to displacement a greater percentage of Lloyd residents were experiencing some sort of housing insecurity in 2020, compared to the city as a whole, whether they were cost burdened, over crowded, or both. Likewise a greater percentage of Lloyd residents than the city as a whole were experiencing poverty.

The data also suggests that there are far fewer families with children living in Lloyd than the city as a whole, as only 3% of residents were children, and the average household size was 1.4 people compared to 2.2 citywide. On the other hand the percentage of people with a disability in Lloyd exceeded the percentage of people with a disability citywide.

Altogether the area has become more residential, but has failed to attract the kind of BIPOC, particularly Black, community that existed prior to Urban Renewal. The population increase may reflect the increase in housing stock in the area, likewise the demographic make-up of residents may provide insight into the types of housing and amenities that are (or are not) available.

Housing Stock

Portland's 2023 Housing Needs Analysis states that by 2045 the city will need to add an additional 120,560 units to accommodate population growth, and of these 13,989 units are necessary to account for current unmet need as a result of underproduction.[18] Of the units currently needed, 58% need to be affordable for households earning between 0-30% AMI. According to the buildable lands inventory the Central City has the capacity to accommodate 29% of the forecasted housing need. [19] Lloyd is expected to add a significant amount of that housing. In the more immediate term, the 2035 North /

[18] City of Portland Bureau of Planning and Sustainability, "City of Portland Housing Needs Analysis (As-Adopted): Ordinance 191547."
[19] City of Portland Bureau of Planning and Sustainability.

Northeast Quadrant plan set a goal of 6,100 units in Lloyd by 2035, a 5,000 unit increase from the 1,100 that existed in 2012.[20]

Our analysis of Metro Regional Land Information System data for single family dwellings and multifamily housing inventory, showed that as of February 2024 there were 2,832 housing units in Lloyd. This was an increase of 487 units since 2022, but in order to meet 2035 goals the neighborhood will still need to add an additional 2,168 units. Of the total current units, 467 (roughly 16.5% of total units) are regulated affordable for households between 30% and 60% of Area Median Income. These units are spread across three buildings, and one is a sober living facility. One is operated by Home Forward and two by Central City Concern. There are also two senior living buildings with offerings ranging from independent living to skilled nursing. [21] At present most units in Lloyd appear to be rentals, as 81% of units were estimated to be renter occupied in 2020. [22]

Figure 7 below shows that most residential buildings are clustered around the northern and eastern borders. These areas also may serve as gateways or points of connection to nearby neighborhoods which are much more residential such as Eliot, Irvington, and Sullivan's Gulch. Several multi-family residential buildings (depicted in blue) are clustered in the central and western portions of the neighborhood, including three large apartment complexes known as "Hassalo on Eighth'' which were built by American Asset Trust in 2015. [23] Notably there is no housing in the Rose Quarter Sports and Entertainment District, or in the southern third of the neighborhood.

[20] City of Portland Bureau of Planning and Sustainability and City of Portland Bureau of Transportation, "Central City 2035 N/NE Quadrant Plan."
[21] Holladay Park Plaza, "How Our Fees Work."
[22] ECONorthwest, "Economic & Market Conditions: Central City Subdistricts."
[23] Next Portland, "Design Commission Approves Phased Oregon Square (PT I)."

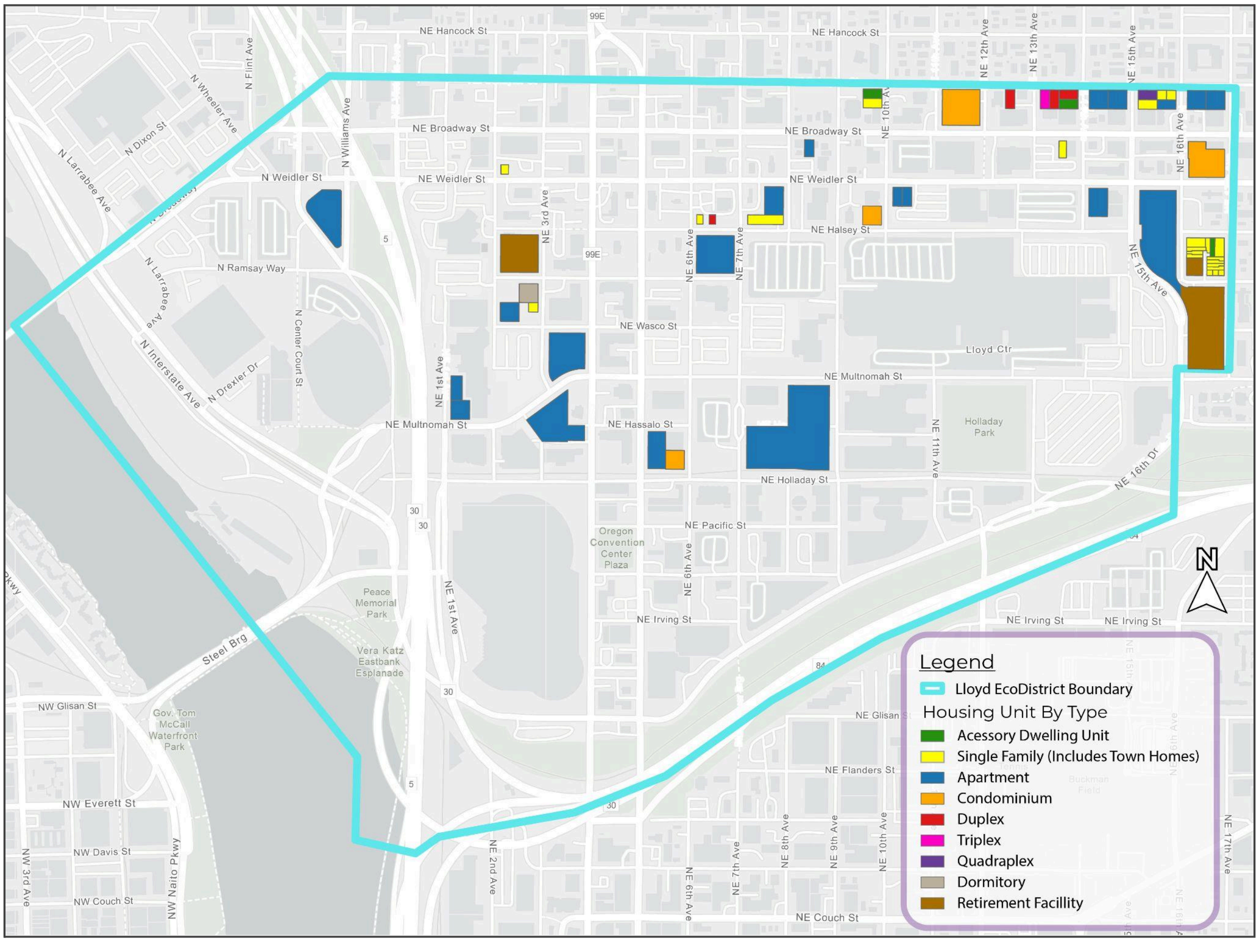

Figure 7: Lloyd Housing Stock, source Metro RLIS

Livability

The EcoDistrict anticipates that the neighborhood will be attractive to future residents due to its central location and high concentration of multi-modal transportation opportunities (depicted in figure 8 below).

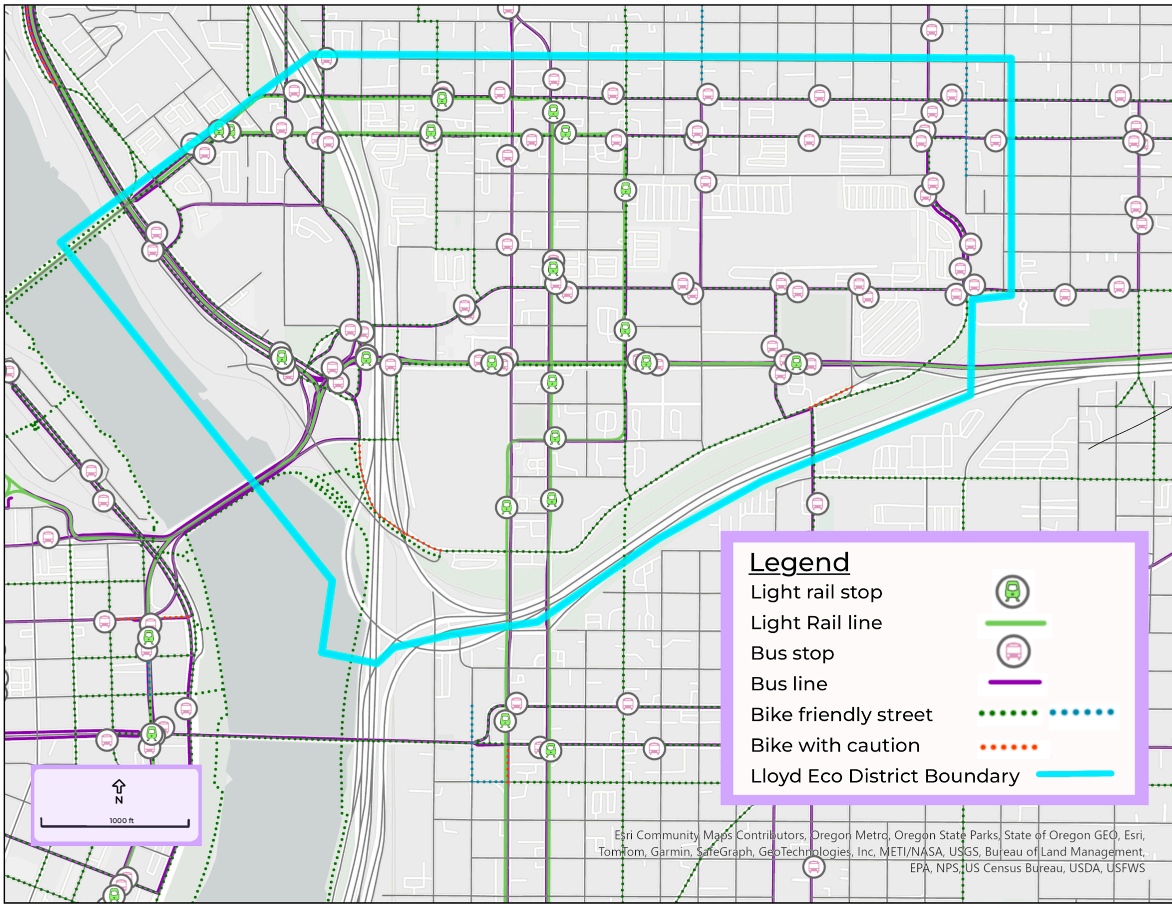

Figure 8: Lloyd Transportation Map, source Metro RLIS

On the other hand, the EcoDistrict has noted that the area has less green space than city wide averages, both in terms of tree canopy and public parks and consequently is susceptible to urban heat island effects. [24] In response the EcoDistrict included advocating for increased access to publicly available green space in their 2022 Roadmap. [25]

[24] Aye, Hanson, and Baker, "Lloyd EcoDistrict Roadmap."
[25] Aye, Hanson, and Baker.

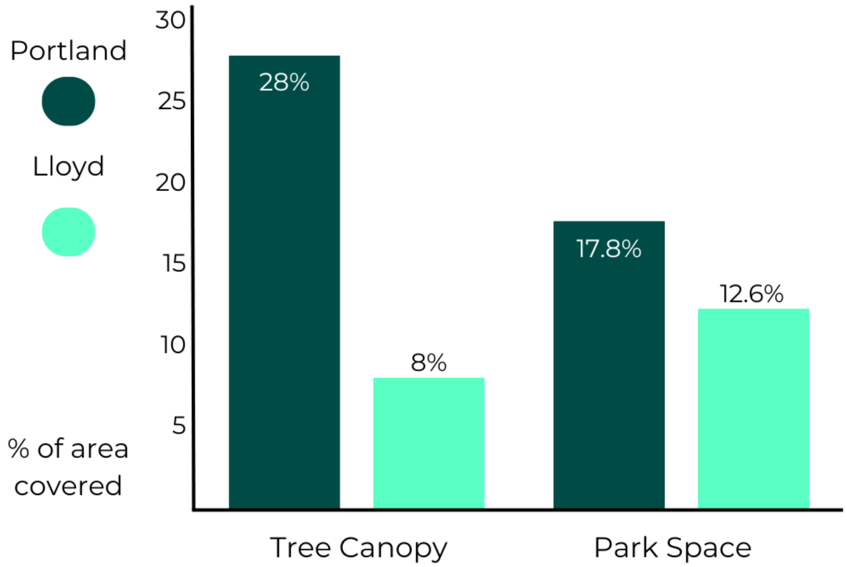

Figure 9: Tree Canopy and Park Space Graph, source City of Portland

Although much of the Lloyd district is focused on entertainment, tourism, and employment there are a handful of community-oriented resources available. The Rose Quarter Sports and Entertainment District and the Oregon Convention Center are major regional attractions that largely draw locals and tourists from outside the neighborhood. In terms of neighborhood amenities there are several medical institutions like Kaiser Permanente and Unity Center for Behavioral Health. There are also several faith based organizations like the Holy Rosary Parish. Nationally known companies in the automotive industry along with restaurant and retail chains exist throughout the district, while there are a number of local restaurants and shops along the Broadway Corridor. As of 2020, Safeway, located on NE Broadway and 10th Avenue, is the only grocery store in the neighborhood. There are no public schools in the neighborhood, but Lloyd residents are within the catchment areas for Cleveland High School, Hosford Middle School, and Buckman Elementary School.[26]

[26] Aye, Hanson, and Baker.

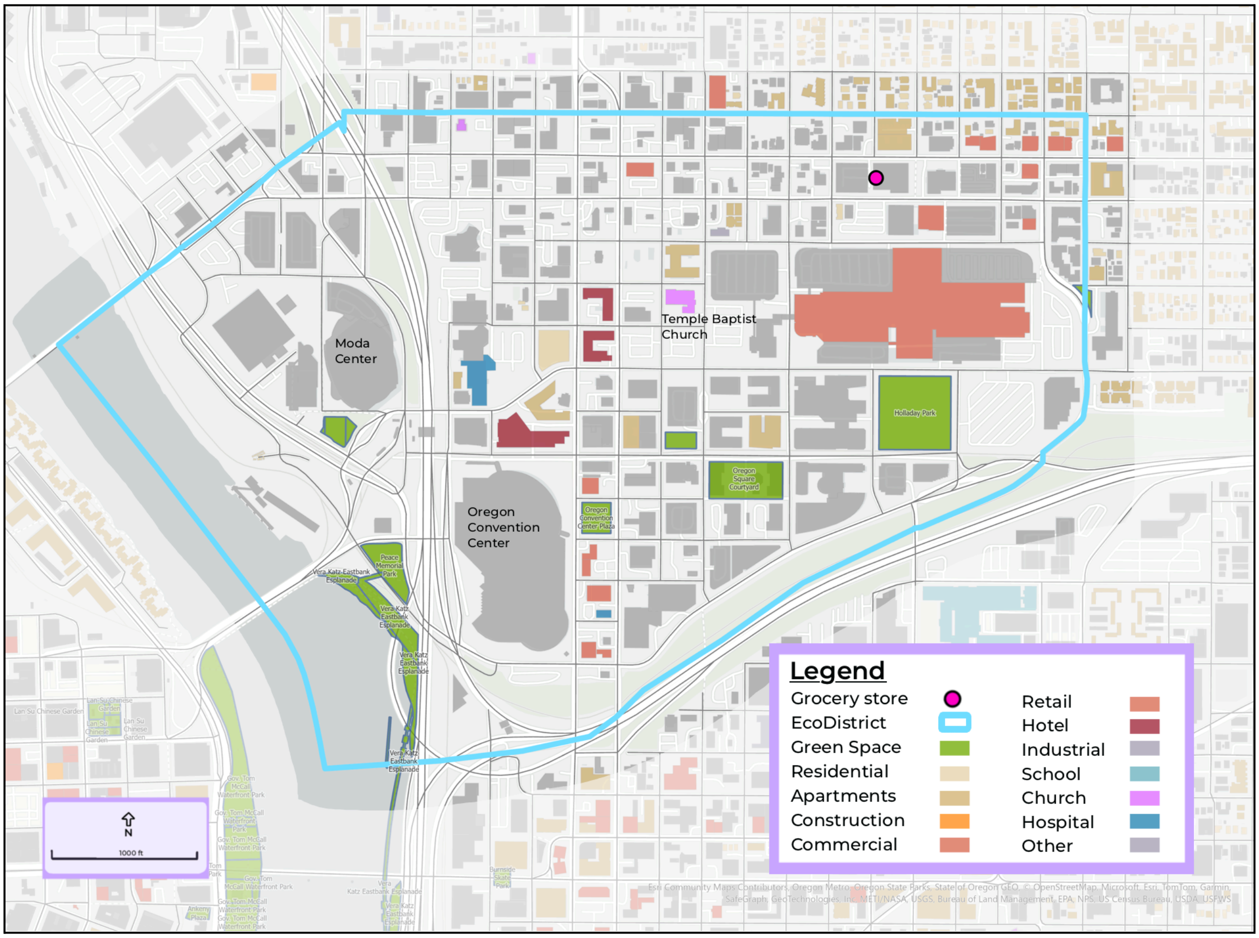

Figure 10: Lloyd Cultural Assets Map, source Metro RLIS

There is some evidence of a correlation between the loss of foot traffic in Lloyd due to increased office vacancies as a result of COVID-19 and a decline in privately provided amenities– like grocery stores. [27] Although in person work mandates are increasingly popular, the regulation has yet to increase office foot traffic to pre-COVID levels; nationally, foot traffic fell 36.5% in December 2023 from the end of 2019.[28] In Portland the Central City experienced a 31% loss in foot traffic compared to pre-pandemic levels.[29] Between 2019 and 2022

[27] Njus, "Green Zebra Grocery to Reopen One Shuttered Portland Store, but Another Is Closed for Good."
[28] Burke and Shih, "More In-Person Mandates Have Yet to Boost Office Foot Traffic to Pre-Pandemic Levels."
[29] ECONorthwest, "Economic & Market Conditions: Central City Subdistricts."

retail vacancies in Lloyd increased from 2% to 15%, and food service employment dropped from over 1,800 jobs in 2019 to less than 900 in 2021. [30]

In their analysis of central city subdistricts, ECONorthwest found that a balanced mix of residential and commercial spaces within a neighborhood seemed to be a factor in their economic recovery. [31] It's possible that an increase in housing supply could foster the creation of privately supplied amenities (like retail and restaurants), which in turn could incentivize even more people to choose Lloyd as their future home.[32]

Planned Development

As the EcoDistrict noted in their 2022 Roadmap, any projects they or the community advance will be impacted by developments in the area that have already been planned. [33] Of the planned developments in the vicinity, the most direct impacts are likely to be felt from the Lloyd Center redevelopment due to its proximity to all three case study buildings. Spearheaded by Urban Renaissance Group, KPFF, and ZGF Architects, the design team plans to tear down Lloyd Center and replace it with new office, retail, open spaces, and as many as 5,000 new residential units. [34] They also plan to reconnect the street grid with special attention to 12th Avenue. [35] The design team completed a second design review in December of 2023, and they anticipate a land use review hearing in spring of 2024.[36]

The creation of new office space in our study area may actually create an incentive for the owners of existing office buildings to consider conversion to residential, due to the "flight to quality" (to be explained in a later section) in the Portland office market. The planned improvements to the public domain also have the potential to increase surrounding land values, which may help attract private investment to conversion projects, but could increase acquisition costs for developers. Finally, given that the development team for Lloyd Center is planning to conduct right of way improvements to Multnomah and other streets adjacent to our sites, it's possible that City of Portland staff may require property owners to conduct similar upgrades

[30] ECONorthwest.
[31] Ibid
[32] Campbell, Arnold, and Zucker, "How Office-to-Residential Conversions Could Revitalize Downtown San Francisco."
[33] Aye, Hanson, and Baker, "Lloyd EcoDistrict Roadmap."
[34] ZGF Architects et al., "Lloyd Center Redevelopment Central City Master Plan: Design Advice Request."
[35] ZGF Architects et al.
[36] Dorsey, "Lloyd Center Master Plan Gets a Second Look."

based on a proportional increase in infrastructure use at our three sites, or a pay an in-lieu-of fee in order to obtain building permits for onsite improvements, both of which represent additional costs to the project. [37]

The Oregon Department of Transportation (ODOT) is also coordinating a major transportation project in Lloyd: the I-5 Improvement [sic] Project. This project includes the addition of auxiliary lanes and widened shoulders to decrease the need for cars to merge to get between I-5, I-405, and I-84; the relocation of the I-5 south off-ramp; a freeway cap; a pedestrian bridge over NE Hancock St.; and improvements to other local streets. [38] It has been intensely debated due to the fact that the State displaced a large contingent of Portland's Black community to build I-5 in the first place, and because climate activists argue we should not be expanding freeways amidst a climate crisis.[39] The non-profit Albina Vision Trust (as well as other members of the Historic Albina Advisory Board) has strongly voiced that if the plan were to move forward there must be meaningful benefits to the community. [40] [41]

While the project had been stalled due to a budget shortfall, Albina Vision Trust was recently awarded $450 million toward the cost of the freeway cap.[42] Should the project move forward in the coming years, the impacts are likely to be similar to the Lloyd Center redevelopment in terms of attracting private investment, increased land values, and potentially setting the standard for required right of way improvements.

At present Albina Vision Trust (AVT) is working to redevelop 94 acres of Lower Albina as part of what they call "restorative development" which is meant to directly benefit displaced Black residents and their descendants. [43] The organization is currently constructing their first affordable housing project: Albina One. Most recently AVT has been negotiating with Portland Public

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[37] City of Portland Bureau of Transportation, "Right-of-Way Improvement Requirements for Land Use Reviews or Building Permits."
[38] Oregon Department of Transportation, "About."
[39] Maus, "'This Is Not Okay': Black Committee Members Respond to Rose Quarter Funding Shortfall at Emotional Meeting"; Vaughn, "Despite Design Update, Climate Advocates Still Slam I-5 Rose Quarter Project."
[40] Maus, "'This Is Not Okay': Black Committee Members Respond to Rose Quarter Funding Shortfall at Emotional Meeting."
[41] Bailey Jr., "Community Nonprofit, Portland-Area Elected Officials Say They No Longer Support I-5 Rose Quarter Project."
[42] Ramakrishnan, "Feds Grant $450 Million toward I-5 Freeway Caps in North Portland's Albina District."
[43] De Dios, "Albina Vision Trust Leaders Show Visiting Architects a Vision for Black Joy in Portland."

Schools (PPS) to purchase the district's headquarters– the 10.5 acre Dr. Matthew Prophet Education Center– and turn the area into housing. [44] AVT commissioned a study that found a full renovation for the district would cost $220 million, so AVT's plan is to demolish the structures and construct housing from the ground up. [45] The Oregon Legislature passed SB 1530 on March 5, 2024 which allocated $25 million toward the project. [46] While $25 million is a significant amount of capital, given the scale of the Prophet Center project and its proximity to Lloyd it is possible that any conversion projects in Lloyd may compete with AVT for additional funding (depending on the sources each project pursues). Similar to the Lloyd Center redevelopment, improvements to Lower Albina will also make the area more attractive overall, and likely increase land values within Lloyd.

Land Use and Zoning Code

As seen in figure 9 the majority of Lloyd is zoned as Central City Commercial Mixed Use (CX).

[44] Pate, "Portland School Board Moves Ahead with Plans to Relocate District Headquarters."
[45] Manning and Pate, "Albina Vision Trust Proposes Buying Portland School District Building, Moving PPS Headquarters Downtown."
[46] Oregon Legislature, SB 1530; Seger, "Legislature Poised to Support Albina Vision Trust to Help Rebuild Northeast Portland Neighborhood."

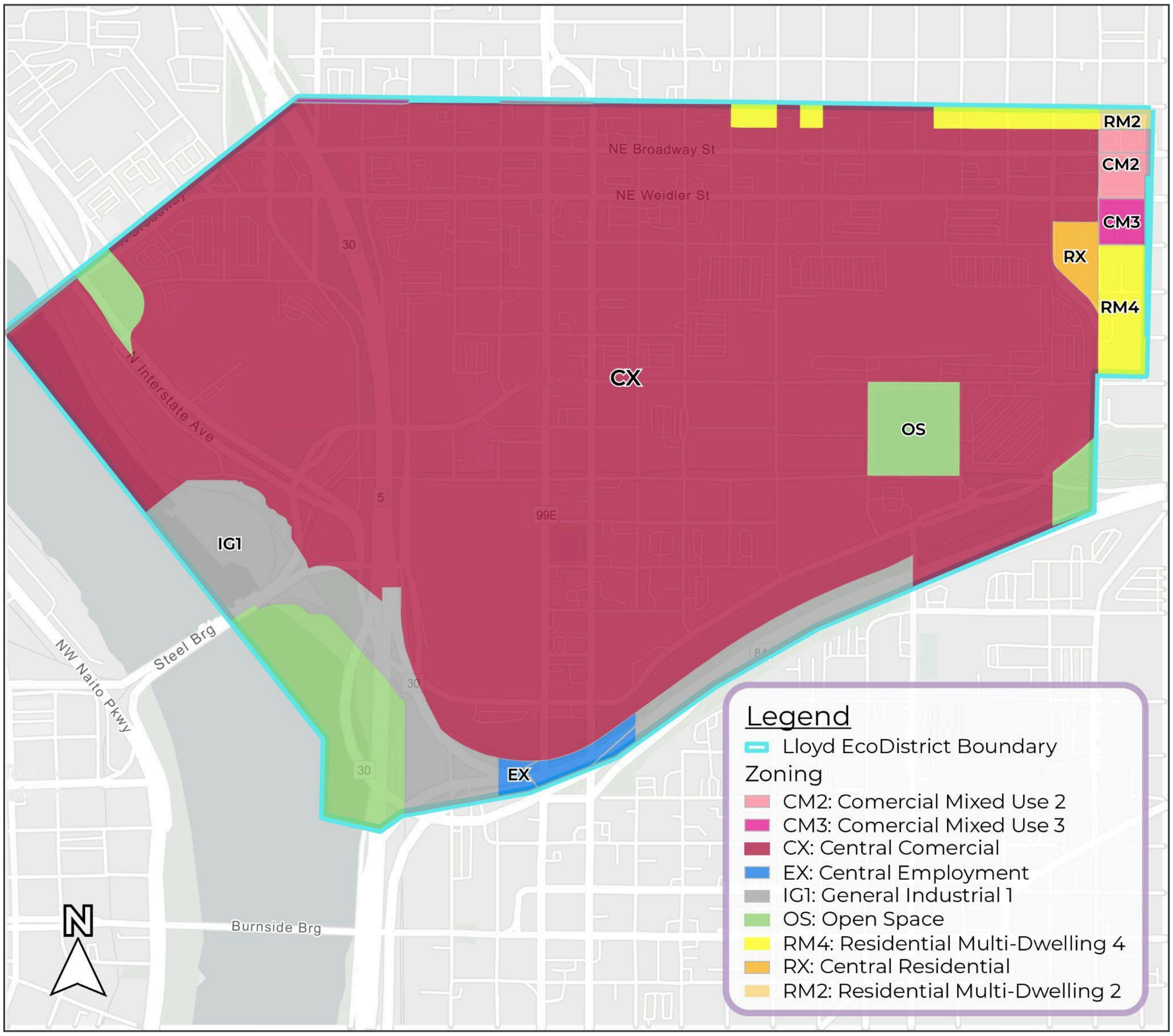

Figure 11: Zoning Map, source Metro RLIS

Fortunately, the CX zone offers a great deal of flexibility; perhaps most important is that residential use is allowed by right, meaning a conversion project would not have to go through land use review. [47] Additionally, there are no minimum parking requirements. The Central City Plan district also allows for high density in Lloyd on a number of blocks, with bonus heights as high as 350 feet, and maximum floor area ratios as high as 12:1.[48] This would allow developers to maximize revenue, as each project could have a large rentable square footage.

[47] City of Portland, "Title 33.130 Commercial/Mixed Use Zones."
[48] City of Portland.

Development in Lloyd is also subject to the Design Overlay, and the Special Design Guidelines for the Lloyd District adopted by Portland City Council on September 11, 1991. The Design District was created shortly after the completion of the Oregon Convention Center with the idea of Lloyd being "the front door for Oregon and our city."[49] The chart below depicts specific design requirements:

Development Standards for the Lloyd District	
Standard	Lloyd Design Overlay
1. Support a Convenient Pedestrian Linkage between the Convention Center and Lloyd Center	a. Active Ground Level Retail b. Landscaping c. An Interesting Sequence of Space for Pedestrians d. Incorporate Water Features - encouraging public fountains bonus provisions of the Central City Plan District
2. Accommodate or incorporate Underground Utility Service	Transformer vaults, condensers, electrical and gas meters, etc., should be placed underground or away from public spaces and rights-of-way
3. Re-use/Rehabilitate/Restore Buildings	No Additional Context Provided in the Design Overlay Guidelines
4. Pedestrian Emphasis - reinforce and enhance the pedestrian system	a. Protect Pedestrian Areas from Mechanical Exhaust b. Incorporate Additional Lighting c. Provide Pedestrian Rain Protection (awnings, exterior building arcades, galleries, and covered walkways)
5. Respect Architectural Integrity	a. Maximize View Opportunities i. adding balconies, terraces, and roof gardens b. Graceful Transition Between Buildings and Open Space

[49] City of Portland Bureau of Planning, "Special Design Guidelines for the Design Zone of the Lloyd District of the Central City Plan."

<table>
<tr><td></td><td>c. Design Corners that Build Active Intersections
d. Integrate Roofs and Use Roof Tops
e. Use Masonry Materials
    i. masonry, precast concrete with exposed aggregate, modular stone, tile, brick, etc., is preferred
f. Design Exterior Building Walls that are Transparent in Glazed Areas and Sculptural in Surface
g. Use Light Colors</td></tr>
</table>

Figure 12: Lloyd Design Standards, source: City of Portland Planning Department

While specific design standards in both the Design Overlay and Lloyd Design Guidelines may increase the hard costs of construction, the most impact is likely to come from design review, as the Lloyd Guidelines require a public hearing before the Design Commission, which has the potential to severely delay permitting.[50]

Given the overall flexibility of CX, these standards do not seem to be the major barrier for conversion projects in Lloyd. Of all the costs associated with code requirements, some of the most expensive do not come from zoning, but rather from building codes which are not specific to Lloyd. Of these, seismic standards, which we will discuss in the next section, represent one of the biggest costs.

Existing research on office-to-residential conversion

Feasibility

Converting office spaces into residential units presents a complex venture and is heavily influenced by various factors ranging from financial considerations to structural challenges. In general, feasibility is very site specific and highly dependent on the unique attributes of an existing building, the site, and regulatory environment. While the process is generally

[50] City of Portland Bureau of Planning.

considered broadly infeasible, there are opportunities at certain properties with the right set of characteristics.

General Considerations

One of the bigger considerations is the time it takes to convert. While conversions are most successful when vacancy rates are high (and rental income is low), unless a building is completely empty there must be a phase out period for existing leases.[51] This can take up to three years, and combined with two years of construction, results in a five year period where there is declining or no revenue. Tenants can also be bought out, but this is also an expensive option.[52]

The unique characteristics of the site also play a role. While some buildings may work well for weekday daytime office usage, they may have less utility as a residential space. The presence or absence of transit, natural light, view obstructions, and other amenities like nightime entertainment can constrain the value proposition (and thus anticipated rents) of any residential units. If the area does not create an inviting place to live, developers may be reluctant to convert underperforming office space into underperforming residential.[53]

Finally, the lack of comparable conversion projects creates a lot of unknowns and risk around the process. With conversions being so site specific, property owners may not be willing to take the risk without having a long track record of success to follow. The process has significant financial and structural hurdles and owners may feel more comfortable sticking with the property type they know even if it means taking losses in the short term. The general assessment of feasibility is based on current office market conditions and future predictions which are liable to change significantly in the future.[54]

Financial Considerations

In the Portland area the biggest financial consideration is the cost of seismic building upgrades. As scientific knowledge of the earthquake risks in the Pacific Northwest have increased, building codes have tightened. Driven by probabilistic models, the demands of the building code reflect the likelihood

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[51] Wilkerson, Anderson, and Bagent, “Office to Residential Conversion Study – Feasibility Results Memo.”
[52] HR&A Advisors Inc., “Downtown San Francisco Office Conversion Study.”
[53] Campbell, Arnold, and Zucker, “How Office-to-Residential Conversions Could Revitalize Downtown San Francisco.”
[54] HR&A Advisors Inc., “Downtown San Francisco Office Conversion Study.”

that a person will be in a building during a seismic event. Since people spend more time in residential spaces, the codes are stricter than for office buildings. Any conversion effort, especially if it is an older building, will have to pay to strengthen the floors and walls in addition to all the other conversion costs. Typical upgrades may include adding lateral elements, adding bracing, and attaching the building's facade or "skin" to the structure. An EcoNorthwest report noted these costs to range from 13% to 28% of total development costs in the properties they studied.[55] They also cautioned however that the costs were highly site dependent and could be higher or lower than that.

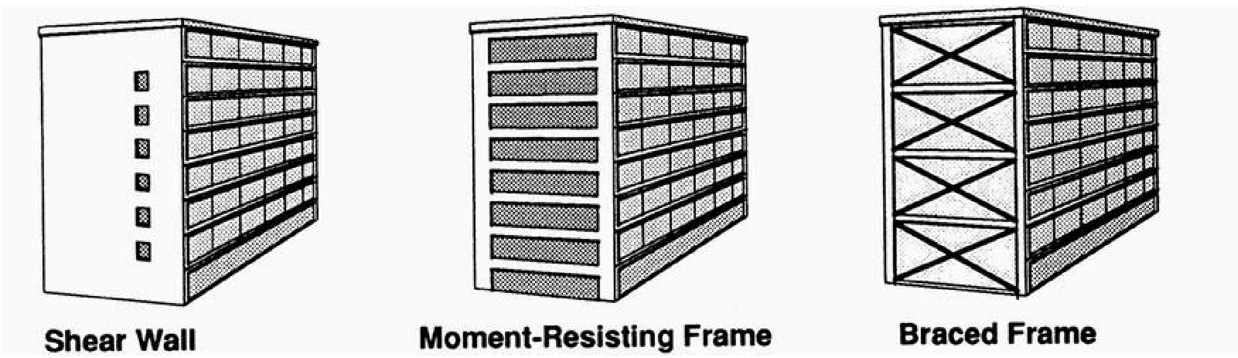

Figure 12: Seismic Retrofit Techniques, source: Lux Construction Group 2021

The same analysis noted that regulatory fees also pose a barrier to conversion; including system development charges (SDCs), construction excise taxes (CETs), inclusionary housing requirements, and property taxes once conversion is complete. They noted however that rolling back seismic requirements for conversions to be the most impactful policy change on financial feasibility of the five policies tested - accounting for half of the 1.6% increase in return on cost if all of the policies were implemented.[56]

[55] Wilkerson, Anderson, and Bagent, "Office to Residential Conversion Study – Feasibility Results Memo."
[56] Ibid.

Figure 13: Portland State University Lincoln Hall Seismic Retrofit, Bora Architecture & Interiors

Aside from seismic retrofits, the majority of the costs come from the loss of office revenue during lease down and significant hard costs during construction.[57] Increased levels of inflation have driven costs sharply upward in the last few years and the current elevated interest rate environment makes any kind of development, conversion or otherwise, less attractive. The interplay between vacancy and existing office rents is the ultimate driver of office conversion.[58] Figure 14 from a study done in San Francisco illustrates this point. A gradient exists between the two variables where conversion becomes more feasible as current office rents decrease, vacancy rates increase, or both.

[57] HR&A Advisors Inc., "Downtown San Francisco Office Conversion Study."
[58] HR&A Advisors Inc.

Scenario 1 Sensitivity Analysis: Type 1

Although conversion is broadly infeasible, if office market conditions stay the same, some Type 1 buildings with very high vacancy may make sense to convert now.

Typology	GSF	Scenarios
Type 1	140,000	High Rise Up To 12K

Difference in RLV/SF by Office Rent and Vacancy

	25%	35%	45%	55%	65%	75%
$15	$101	$115	$129	$143	$157	$171
$25	$27	$51	$74	$98	$121	$145
$35	($47)	($14)	$19	$52	$85	$118
$45	($120)	($78)	($36)	$7	$49	$91
$55	($194)	($142)	($91)	($39)	$13	$64
$65	($268)	($207)	($146)	($85)	($23)	$38
$75	($342)	($271)	($201)	($130)	($60)	$11

Baseline Scenario 1 Condition Modeled for Typology 1: $55/SF Rent

Figure 14: SF Office Conversion Study, source: HR&A Advisors 2023

All of this, as noted above, is based on the expectation of future market activity. The COVID-19 pandemic has emptied office buildings across the country and laid the groundwork for conversations around office conversions . However, any building that is feasible now is based partially on the assumption that the office market will remain stagnant or falter further. Should the office market improve (as it has in certain asset classes), it will make more economic sense for owners to hold onto their underperforming office buildings.[59] While significant housing demand exists across all west coast cities, the vacancy of office buildings, and the higher rents they could potentially command if occupied, is the far more important variable.

Structural Considerations

The physical structure of the building in question also plays a significant role in feasibility. Modern office buildings tend to be based on open floor plans and have large floor plates around an elevator core. These designs do not allow for sufficient light penetration and traditional conversion would lead to long, narrow, and dark units. Other alternatives like using the center for storage and other creative solutions are being explored. Another alternative is to excavate a core in the middle of the building to allow for light to filter

[59] HR&A Advisors Inc.

through, but this is costly and can result in the loss of leasable square footage. Older office buildings followed earlier trends in office layouts which tried to maximize the number of windowed offices. This resulted in buildings with multiple small alcoves that, due to the number of windows and smaller depths, lend themselves better to residential conversion.[60]

Odd shaped buildings can also create unique pockets that are difficult to make leasable units out of. The architecture firm Gensler created a model to judge office building compatibility for conversion and noted building shape as contributing 30% to the final score. The full scoring structure is listed below in Figure 14 but other factors include the change in service requirements as well as the building envelope and how well the windows can be used in a residential setting. The service requirements in particular, especially the additional electric, water, and sewer needs, are costly.

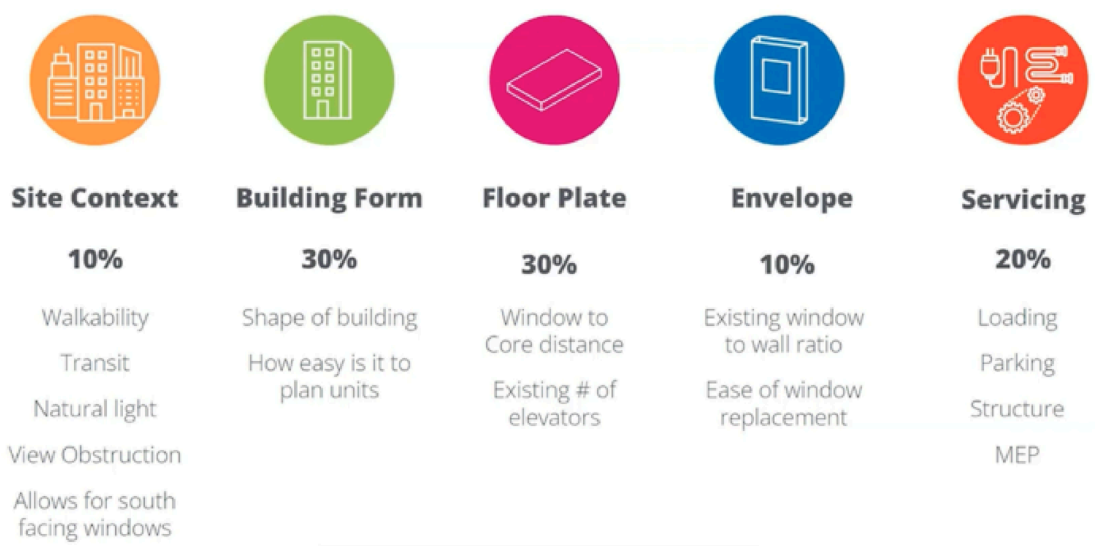

Figure 15: Gensler Compatibility Report 2023, source: Gensler Architects

Environmental Benefits

Reducing greenhouse gas emissions is one of the potential benefits of office to residential conversions. Research suggests that as much as 40% of global

[60] Campbell, Arnold, and Zucker, "How Office-to-Residential Conversions Could Revitalize Downtown San Francisco."

$C0_2$ emissions are linked to buildings and construction. [61] In Multnomah County 41% of carbon emissions are linked to buildings. [62] There is a significant amount of research on the efficacy of retrofitting buildings to increase energy efficiency as a strategy for reducing operational carbon, but less research to date on adaptive reuse as a strategy for reducing embodied carbon or diverting materials from waste streams. [63] Gensler reports that as much as 11% of global emissions comes from, “the harvesting, manufacture, and transportation of the raw materials used in building construction”. [64] As environmental health and climate mitigation are largely pure public goods, the market (and consequently property owners) are less likely to value environmental benefits of adaptive reuse. However, climate scientists and economists have engaged in attempts to monetize carbon emissions to capture the social value of emissions reduction. As a team we hope to learn more about the scale of environmental benefits through adaptive reuse in order to fully analyze the costs and benefits of office to residential conversions in Lloyd, and add to the national conversation on conversions.

Case Studies

We reviewed a number of office to residential conversions projects and several themes stood out. First, the majority of projects are concentrated in places like New York City, and Maryland (particularly the D.C. metropolitan area).[65] Both locations are less prone to high magnitude seismic activity than the Pacific Northwest, so seismic retrofits requirements are likely less stringent and thus overall costs are lower. In their review of conversion case studies the National Association of Realtors also highlighted the importance of local markets in conversion success, particularly where office vacancies are higher than residential vacancies, and where residential rents are higher than office rents.[66] They hypothesized that the “Metro areas or submarkets with the potential to create at least 2,000 housing units from office building conversions are New York (7,484), Chicago (5,688), Los Angeles (4,200), Orange County (3,065), Boston (2,808), Atlanta (2,799), Philadelphia (2,733), Minneapolis (2,081), and Denver (2,009). Seattle rounds out the top 10 (1,709).”[67]

[61] Hart, D’Amico, and Pomponi, “Whole-life Embodied Carbon in Multistory Buildings.”
[62] City of Portland Bureau of Planning and Sustainability, “Portland Clean Energy Community Benefits Climate Investment Plan.”
[63] Hart, D’Amico, and Pomponi, “Whole-life Embodied Carbon in Multistory Buildings.”
[64] Briefel and Star, “Climate Action Through Design: Transforming the Built Environment for a Net Zero Future.”
[65] National Association of Realtors Research Group, “2021 Analysis and Case Studies on Office-to-Housing Conversions.”
[66] National Association of Realtors Research Group.
[67] Ibid

Figure 16: Cordell Place - Conversion in Bethesda Maryland, source: National Association of Realtors

We also noted several themes less related to location. For example, many of the successful conversion projects fit Gensler's structural typology of buildings compatible with office to residential to conversion. Access to capital was also a large success factor. Many of these projects either had access to private equity and were able to secure large loans to develop luxury units, or they had access to public subsidies and developed units with affordability at some income levels.[68] In addition to direct subsidies some local governments had created incentive programs. For example, Washington D.C. is piloting a program that offers conversion projects in downtown a 20 year property tax

[68] National Association of Realtors Research Group, "2021 Analysis and Case Studies on Office-to-Housing Conversions."

abatement, exemptions from equity in construction contracting requirements, and exemption from the Tenant Opportunity to Purchase Act.[69] Finally, the National Association of realtors emphasized the importance of development teams and investors that have experience with conversion, and who have a commitment to the local community.[70]

Existing Recommendations

Based on our review of successful conversion projects, as well as the current literature on conversion we compiled a list of known recommendations for increasing feasibility of office to residential conversions as depicted in figure 17 below.[71] Recommendations fell across three broad categories: public policy (incentives and regulations), building design, and building programming.

Public Policy Recommendations
Government Incentives:
System development charge (SDC) waivers
Construction excise tax waivers
Property tax abatement / reimbursement
Real estate loan / grant program
Regulatory Relief:
Decreasing seismic standards
Decreasing review time and type (e.g. ministerial versus discretionary review)
Environmental review exemptions

[69] Government of the District of Columbia: Office of the Deputy Mayor for Planning and Economic Development, "Washington DC's Housing in Downtown Program: Program Explainer Deck FY24."
[70] National Association of Realtors Research Group, "2021 Analysis and Case Studies on Office-to-Housing Conversions."
[71] Skidmore, Owings & Merrill, "Office-to-Residential Conversion Study: 1633 Broadway"; Government of the District of Columbia: Office of the Deputy Mayor for Planning and Economic Development, "Washington DC's Housing in Downtown Program: Program Explainer Deck FY24"; Berube and Mars, "Office Space"; Garcia and Kwon, "Adaptive Reuse Challenges and Opportunities in California"; HR&A Advisors Inc., "Downtown San Francisco Office Conversion Study"; Wilkerson, Anderson, and Bagent, "Office to Residential Conversion Study – Feasibility Results Memo"; National Association of Realtors Research Group, "2021 Analysis and Case Studies on Office-to-Housing Conversions."

Decrease or eliminate inclusionary housing requirements
Increase FAR maximums
Adopt overlay zone or model code
Building Design Recommendations
Small “micro” units to increase rents
Vertical carve outs to increase light penetration in large floor plate buildings
Opaque glass panels in bedrooms to capture borrowed light from windows
Preserve and market architectural details like high quality floor finishes
Focus on buildings that make good candidates (small floor plate)
Wall off central core to make unusable and add unused FAR to height
Building Programming Recommendations
Mixed income residential
Mixed tenure (rental and ownership)

Figure 17: Policy Recommendations Table, source Revive Planning Group

Most issues related to conversion stem from financial feasibility, but some are also related to design in terms of meeting building code standards for residential units and market preferences, and the recommendations reflect that.

A majority of the recommendations involve some sort of public private partnership which raises several issues. In her testimony on Washington D.C.’s incentive program, Erica Williams, executive director of the D.C. Fiscal Policy Institute, suggested that a public loan or grant program to defray upfront construction costs would be a more efficient use of public dollars than subsidizing operating costs with property tax abatement. [72] She also argued that if market conditions for offices continue to decline that owners will begin to consider conversions, and public subsidies won’t be necessary. [73] Finally, she argued that projects like this should not be exempt from inclusionary zoning requirements or equity in contracting goals.[74]

[72] Williams, “Downtown Conversion Tax Abatement Is an Ineffective Use of Public Dollars.”
[73] Williams.
[74] Ibid

Williams testimony highlights several important questions the City of Portland must grapple with when considering policies to support office to residential conversions. How are these projects in alignment with other City goals around climate and housing? What is the most efficient level of subsidy? How much revenue is the City willing to forego? What benefits must the City and the larger Portland community receive in return? Finally, within the Portland community what populations should be prioritized? In the next section we'll analyze current City of Portland, Oregon State, and federal policies that are relevant to conversion projects in Lloyd.

Current city, state, and federal policy

In response to the COVID-19 pandemic and its effect on office spaces, governments at all levels have passed policies to encourage the conversion of these underutilized spaces. Unfortunately, these policies appear to be either too new or insufficient to bridge the financial feasibility gap.

As discussed previously, ECONorthwest published an analysis of financial feasibility of office to residential conversions in downtown Portland in 2023. While their analysis was limited, they estimated that in order for a project to be financially viable, in the absence of a seismic waiver, a project would need incentives (ranging from property tax abatement to inclusionary housing waivers) and a direct subsidy of as much as $25.2 million.[75] As ECONorthwest noted, costs (and thus the amount of incentives needed) are dependent on location and acquisition costs. This is highly relevant given acquisition costs were just over $330 per square foot in the Central Business District in quarter 1 for 2024, and only $298 per square foot in Lloyd– a difference of over $30 a foot.

One of the incentives ECONorthwest suggested was waiving the inclusionary housing requirement and implementing a property tax exemption.[76] In February of 2024 Multnomah County approved the expansion of the Portland Housing Bureau's Multiple Unit Limited Tax Exemption (MULTE) program for projects outside of the central city, to an area that now encompasses all of Lloyd as well as several other neighborhoods.[77] Through MULTE, projects subject to inclusionary housing (any building adding 20 units or more) are eligible for 10 years of property tax abatement on all units, not just those

[75] Wilkerson, Anderson, and Bagent, "Office to Residential Conversion Study – Feasibility Results Memo."
[76] Wilkerson, Anderson, and Bagent.
[77] Dorsey, "Multnomah County Expands Coverage of Portland Incentive Program."

regulated at 60% AMI.[78] The purpose of the incentive is to offset the cost of lost revenue from restricted rents. A study conducted by BAE for the City found that within the central city MULTE can effectively balance a project's budget, and in some instances over subsidize it.[79]

Since ECONorthwest's report came out the City of Portland also eased seismic standards and temporarily waived system development charges for projects converting from commercial to residential (Ordinance 191203 and 191202 below). As of March 2023 buildings upgrading to multifamily residential are only required to upgrade to ASCE Basic Performance Objectives for Existing Buildings (ASCE 41-BPOE), as opposed to Basic Performance Objectives for New Buildings which is a higher (and thus more expensive) standard. The ASCE 41-BPOE standards also lists "benchmark" building types and years, meaning that buildings built that year or after are built to an acceptable standard and don't require improvements. Unfortunately, most of the buildings we have reviewed were built prior to any of the benchmark years (typically 2000 and beyond).

Several groups within the real estate industry submitted testimony to Portland City Council in favor of Ordinance 191203 and 191202, including the Portland Metropolitan Association of Realtors and Oregon Smart Growth. Echoing ECONorthwest's report, representatives from Oregon Smart Growth cautioned, "Office-to-residential conversions are an extremely challenging type of development. The changes to the seismic improvement standards and companion System Development Charge waiver before you today are a step in the right direction to support these projects. But as OSG [Oregon Smart Growth] members have shared with City staff, it is very likely that additional incentives will still be required to make projects like these feasible.".[80]

Figure 18 depicts the policies, incentives and subsidies from the federal, state and local levels our team is aware of that would be applicable to conversion projects in Lloyd.

[78] City of Portland, "Learn More about Recent Policy Changes to Promote New Housing."
[79] BAE Urban Economics, "Inclusionary Housing Calibration Study."
[80] Ruiz and Oregon Smart Growth, "191202 Amend System Development Charge Exemptions Code for Office-to-Residential Conversion Projects Amend Code Section 17.14.070 Testimony," March 15, 2023.

Policy	Date Enacted	Funding	Description
City of Portland			
Ordinance 191609 [81]	2024 - 2029	None	Portland's Housing Regulatory Relief Project provides temporary waivers to zoning regulations and reduces several identified development costs for residential units. Relief measures include: ● Reduces required of bicycle parking spaces from 1.5 to 1.0 spaces per dwelling unit ● Waives ground floor active use requirements ● Waives higher ground floor window percentages within the Central City plan district ● Waives the 10% spending requirement for nonconforming upgrade requirements for housing projects ● Removes 35 day posting requirements before applying for land use review or building permits, and suspends neighborhood meeting requirement
Inclusionary Housing Calibration[82]	2024	Savings per project vary	Properties subject to inclusionary housing (any project with 20 units or more) within the Central City and several other neighborhoods are eligible for 10 years of property tax abatement for all units.

[81] Portland City Council, Ordinance 191609, 196.
[82] Portland Housing Bureau, "Inclusionary Housing Calibration Study."

Ordinance 191203[83]	2023	None	Lowers seismic standards for change in use for multi-family residential.
Ordinance 191202[84]	2023 - 2027	Savings per project vary	Temporarily waives system development charges for projects converting from office to residential.
Central City TIF Exploration[85]	2023	To be confirmed	Prosper Portland is analyzing a TIF District for the Central City (which includes Lloyd), which could be a potential funding stream for conversions. Final decision pending.
Portland Clean Energy Community Benefits Fund (PCEF)[86]	2018	Up to 10% of hard costs for eligible uses.	Local funding source for clean energy retrofits for multifamily buildings. Minimum of 20 units at or below 60% AMI.
Advance Portland[87]	2023	None	Recommended strategies for increasing equitable economic growth developed by Prosper Portland, but not legally binding. Incentivizing office to residential conversions in the central city is listed as a strategy.
State of Oregon			
HB2984[88]	2024	None	An act prohibiting local governments from requiring a zoning change or conditional use permit for office to residential conversion.

[83] Portland City Council, Ordinance 191203.
[84] Portland City Council, Ordinance 191202.
[85] Harpole, "Central City TIF Exploration."
[86] Portland Bureau of Planning & Sustainability, "PCEF Climate Investment Plan."
[87] Prosper Portland and City of Portland Bureau of Planning & Sustainability, "Advance Portland: A Call to Action for Inclusive Economic Growth."
[88] Oregon Legislature, HB2984.

Federal U.S. Government			
Whitehouse Guidance on Converting Commercial Properties to Residential Use[89]	2023		Clarifies and updates existing federal funding sources for expanding housing supply including:
		Funding varies	Community Development Block Grant (CDBG) funds can be used for acquisition as well as development costs of conversion. Projects must benefit low and moderate income populations.
		No maximum, but $35 billion available nationwide	Transportation Infrastructure Finance & Innovation Act (TIFIA) and Railroad Rehabilitation & Improvement Financing (RRIF) funding for transit oriented development projects. No affordability requirement, but projects must be within half mile of a transit station.
		$500 - $5,000 per unit	Inflation Reduction Act Tax Credits for projects meeting energy efficiency guidelines.

Figure 18: Local, National & Federal Policy Review Table, sources cited

Given costs of conversion are site specific, and exact award amounts are variable it's unclear if under the best of circumstances these policies taken together would be enough to incentivize owners to consider conversion. It is also unlikely that any one project would be eligible for all of the funding streams listed in figure 18. For example, the U.S. Department of Transportation specifies that to be eligible for TIFIA funds a project must be,

[89] White House Press Briefing Room, "FACT SHEET: Biden-Harris Administration Takes Action to Create More Affordable Housing by Converting Commercial Properties to Residential Use."

"connected to, or is within ½ mile of, a fixed guideway transit station, an intercity bus station, a passenger rail station, or multimodal station, provided that the location includes service by a railroad." [90] While Lloyd encompasses several MAX stations as well as the Rose Quarter Transit Center, none are serviced by a railroad. As of February 29, 2024 Bloomberg reported that no loans have closed under this program in the entire U.S. (though three were in the "underwriting state").[91] Likewise, in Portland Community Development Block Grant (CDBG) funds are administered by the Portland Housing Bureau (PHB), which prioritizes rental projects regulated at or below 60% Area Median Income, and uses per unit costs as one metric for allocating these limited dollars.[92] As a result, even if a conversion project included affordable units, it would be evaluated against new construction projects that may have lower per unit costs.

On the other hand it is worth noting that as a team we are unaware of any projects that have tried applying for each of the funds listed. Likewise some funds (such as a Central City TIF District) have yet to be confirmed. Furthermore, the assumptions about the level of incentives an owner would require are predicated on the perspectives of market rate developers who require a minimum of 6% return on costs.[93] The necessary incentive structure for an affordable developer could be different.

Finally, unless the City of Portland actively participates in development, regardless of the policies in place, the decision to undertake a conversion project or not will ultimately rest with individual property owners. Each owner will have to evaluate not only the individual costs to convert their building, but also potential versus present revenue (in light of Lloyd submarket trends for office and housing), their ability to access debt and equity (at what levels and costs), their own aversion to risk, their relationship with the Portland community at large, their personal values, their responsibility to investors, and more. Each owner is also likely to have their own assessment of the likelihood of the office market to recover. In the next section we will explore some of these factors and how they may play out for three class A office buildings in Lloyd.

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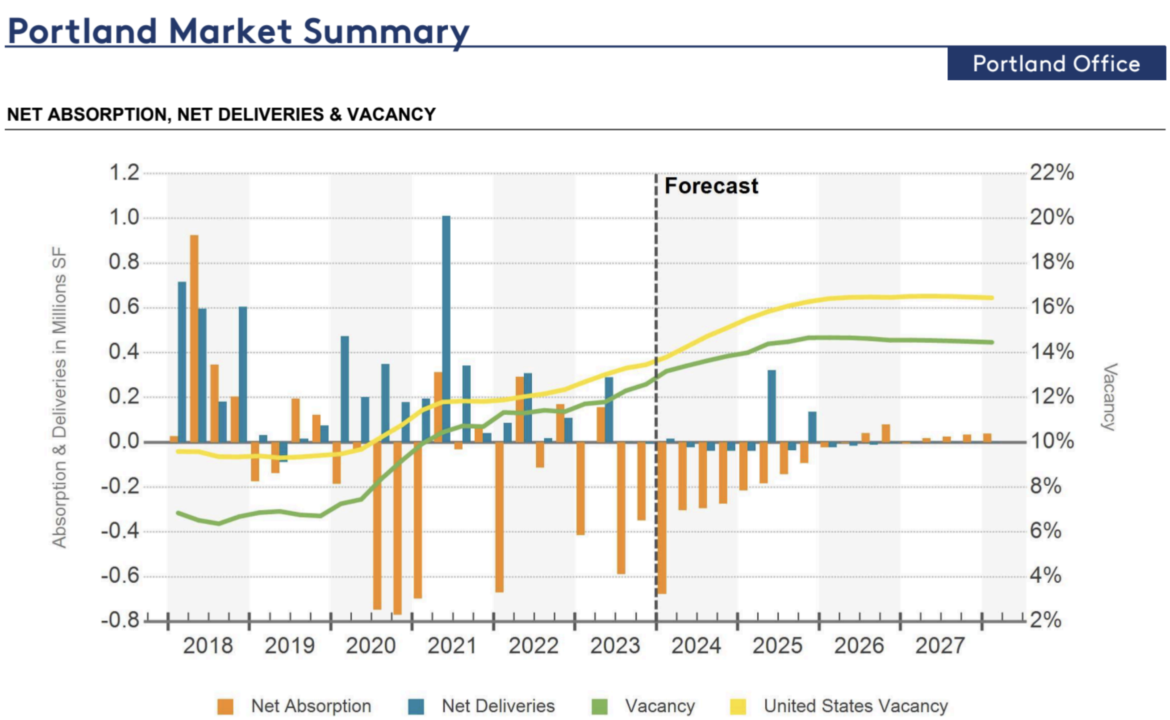
[90] U.S. Department of Transportation, "Transit-Oriented Development - Project Eligibility Frequently Asked Questions."
[91] Capps, "Why a White House Plan to Fund Office-to-Housing Conversions Isn't Working Yet."
[92] Inclusionary housing requirements are capped at a maximum of 80% AMI. While home ownership programs can go as high as 120% AMI.
[93] Wilkerson, Anderson, and Bagent, "Office to Residential Conversion Study – Feasibility Results Memo."

Lloyd Case Studies: Financial and structural conditions

Portland Office Market

Overall, the office market as a whole is filled with uncertainties. Many companies have come back to the office though office usage is still below pre-pandemic levels. Portland as a whole has seen sustained occupancy losses with 1.6 million square feet vacated in just the last 12 months. Portland's overall vacancy rate still sits below the U.S. average by two percentage points at 13%. This number does not capture however how many active leases are currently unused or underutilized. Another factor working in Portland's favor is the limited amount of new office space under construction. Of the 50 biggest markets, only 14 have smaller pipelines giving Portland a small advantage toward returning to full occupancy in the future. Different asset classes have diverged however with class A buildings beginning to see greater absorption and class C and B buildings continuing to struggle. This larger "flight to quality" pattern is evident across the Portland market but is especially pronounced in the higher density downtown office spaces.[94]



[94] CoStar, "Office Market Report: Portland, OR."

Figure 19: Portland Market Summary, source: Costar Data 2024

Lloyd Office Market

Lloyd is the Portland Metro's third largest office submarket but well behind downtown and the Sunset Corridor in Hillsboro in total inventory. Like Portland overall, Lloyd has seen the effects of office downsizing and has seen a negative net absorption of 88,000 SF over the past year. This has driven the vacancy rate to 12.2% though this remains below the Portland vacancy rate of 13% and central business district rate of 25.6%. Significant headwinds in the office market city wide due to the COVID-19 pandemic suggest that vacancy rates will grow over the next couple years before stabilizing. The redevelopment of the Lloyd Center Mall into a new mixed use development offers some intrigue to office owners in the area as a possible catalyst to more companies leasing space. The mall's redevelopment will be transformative for the area and many property owners in the district are likely waiting to see its impact before making large investments of their own.[95]

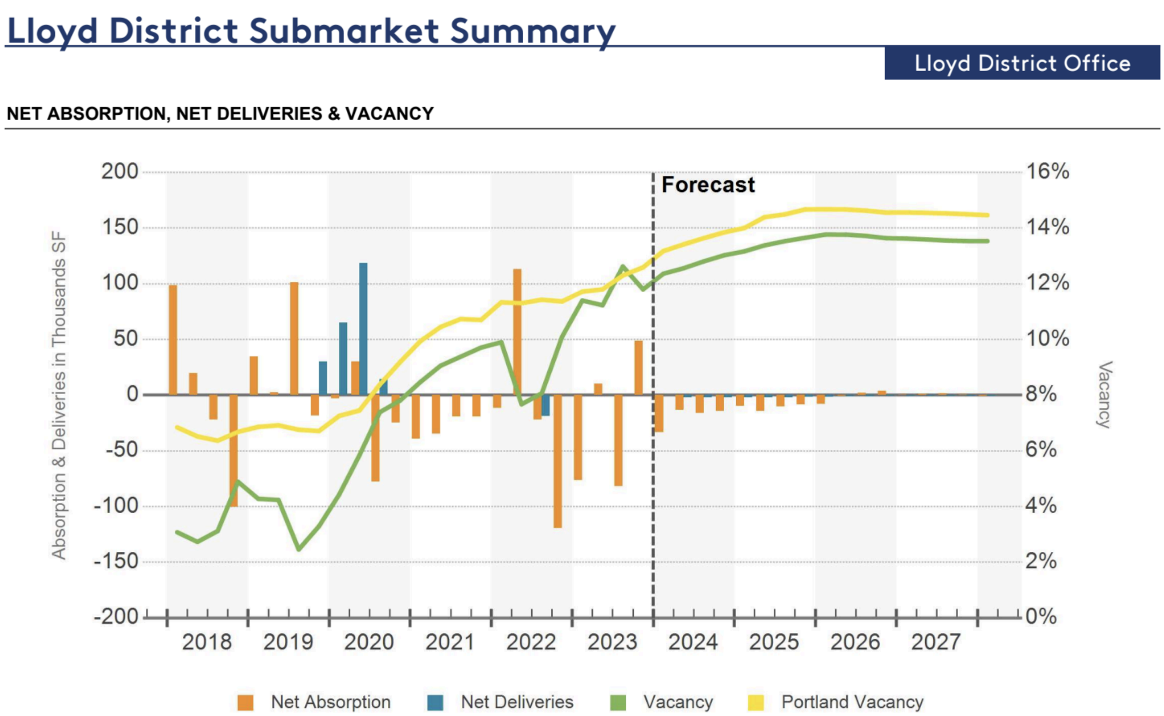


Figure 20: Lloyd SubMarket Summary, source: Costar Data 2024

[95] CoStar, "Office Submarket Report: Lloyd District."

Study Profiles

Liberty Centre

Address: 650 NE Holladay St.

Owner: Ashforth Company

Year Purchased: 1996

Year Built: 1997

Year Renovated: N/A

Floors: 18

Total Square footage: 310,000 SF

Class: A

Costar Rating: 4 stars

Typical Floor Size: 17,222 SF

Market Value: $48,000,000.00

Current Vacancy Rate: 30.0%

Year Ago Vacancy Rate: 69.8%

Peers Vacancy Rate: 26.2%

Current Asking Rent: $37.00 per sf

Lloyd 700

Address: 700 NE Multnomah St

Owner: American Assets Trust

Year Purchased: 2011

Year Built: 1971

Year Renovated: 2011

Floors: 16

Total Square footage: 261,955 SF

Class: A

Costar Rating: 4 stars

Typical Floor Size: 16,372 SF

Market Value: $41,809,660.00

Current Vacancy Rate: 21.7%

Year Ago Vacancy Rate: 12.0%

Peers Vacancy Rate: 29.5%

Current Asking Rent: $34.00 per sf

Lloyd Tower

Address: 825 NE Multnomah St

Owner: American Assets Trust

Year Purchased: N/A

Year Built: 1981

Year Renovated: N/A

Floors: 20

Total Square footage: 453,701 SF

Class: A

Costar Rating: 4 stars

Typical Floor Size: 22,685 SF

Market Value: $41,809,660.00

Current Vacancy Rate: 10.1%

Year Ago Vacancy Rate: 8.9%

Peers: 25.4%

Current Asking Rent: Not Available

Figures 20, 21, 22: Case Study Sites, source: Costar Data 2024

Building Analysis

Based on their financial situation, none of the three buildings under study present themselves immediately as great candidates for residential conversion. As Class A office buildings, the three buildings under consideration benefit from larger flight to quality patterns in the Portland region. Lloyd 700 might be the best opportunity with a steady vacancy rate of almost 22%. We are unsure however if this is sufficient to warrant a change in asset type. The Liberty Centre is higher at 30% but over the last year they have decreased vacancy by almost 40 percentage points. Conversations with the building manager however revealed that the vacancy rate was closer to 40% currently and will jump far higher later this year with expiring leases. The Lloyd Tower is the most stable of all three with a low and stable vacancy rate. Furthermore, all three buildings are owned by large national corporations that likely have the capacity to absorb several years of losses in their office properties to realize future gains still years ahead. Lower quality office buildings have borne the brunt of the office vacancy and may offer some opportunity for further study for conversion feasibility in the Lloyd.

Conclusion

The Lloyd is a dynamic district located near the center of Portland. The neighborhood is primarily made up of commercial uses with lots of office buildings and regional institutions like the Moda Center, Oregon Convention Center, and the Memorial Coliseum. The zoning for most of the neighborhood is Central City Commercial Mixed Use (CX) which provides the ample flexibility needed for an office conversion. Any conversion would need to be mindful however of the district's history of displacement in favor of economic development so as not to repeat this pattern.

Future conversions would benefit from a raft of recent policies aimed at easing the path to office conversion and shrinking the financial feasibility gap that exists on many projects. Unfortunately most of these policies are either too new or simply insufficient to have an impact. As with all public policy, elected officials have to weigh the cost and benefits of any additional assistance that could possibly be spent elsewhere to achieve greater amounts of housing. The financial barriers to conversion are significant especially with the added cost of seismic retrofits that would be required of most conversions. While vacancy rates are especially high in the central business district, they are far lower in Lloyd and not elevated enough in either to encourage conversion. Public policy and real estate markets aside, any conversion is first predicated on a building owner willing to take the risk of a project that is highly site specific and without a variety of comparisons in the market.

Cited References

Anderson, Michael. "The Secret History of Portland's Weirdest Neighborhood." *Bike Portland* (blog), July 21, 2015. https://bikeportland.org/2015/07/21/lloyd-part-ii-148125.

Aye, Elaine, Marta Hanson, and Joshua Baker. "Lloyd EcoDistrict Roadmap," June 10, 2022.

BAE Urban Economics. "Inclusionary Housing Calibration Study," November 3, 2023. https://www.portland.gov/phb/documents/portland-inclusionary-housing-study-final-report/download.

Bailey Jr., Everton. "Community Nonprofit, Portland-Area Elected Officials Say They No Longer Support I-5 Rose Quarter Project." *The Oregonian*, June 30, 2020. https://www.oregonlive.com/commuting/2020/06/community-nonprofit-portland-area-elected-officials-say-they-no-longer-support-i-5-rose-quarter-project.html.

Berube, Chris, and Roman Mars. "Office Space." 99% Invisible, n.d. https://99percentinvisible.org/episode/office-space/.

Briefel, David, and Scott Star. "Climate Action Through Design: Transforming the Built Environment for a Net Zero Future." Gensler, 2021.

Campbell, Amy, Holly Arnold, and Doug Zucker. "How Office-to-Residential Conversions Could Revitalize Downtown San Francisco." *Gensler* (blog), February 16, 2023. https://www.gensler.com/blog/office-to-residential-conversions-revitalize-san-francisco.

Capps, Kristin. "Why a White House Plan to Fund Office-to-Housing Conversions Isn't Working Yet." *Bloomberg*, February 29, 2024. https://www.bloomberg.com/news/features/2024-02-29/white-house-funds-to-convert-offices-to-housing-find-few-takers?utm_source=linkedin&utm_content=citylab&utm_campaign=socialflow-organic&utm_medium=social&embedded-checkout=true.

City of Portland. "Learn More about Recent Policy Changes to Promote New Housing," March 14, 2024. https://www.portland.gov/bds/news/2024/3/14/learn-more-about-recent-policy-changes-promote-new-housing.

———. “Title 33.130 Commercial/Mixed Use Zones,” March 1, 2022. https://www.portland.gov/sites/default/files/code/130-c-zones_3.pdf.

City of Portland Bureau of Planning. “Special Design Guidelines for the Design Zone of the Lloyd District of the Central City Plan,” September 11, 1991.

City of Portland Bureau of Planning and Sustainability. “City of Portland Housing Needs Analysis (As-Adopted): Ordinance 191547,” December 2023. https://efiles.portlandoregon.gov/Record/16503359/.

———. “Portland Clean Energy Community Benefits Climate Investment Plan,” August 2023. https://www.portland.gov/bps/cleanenergy/climate-investment/documents/pcef-climate-investment-plan/download.

City of Portland Bureau of Planning and Sustainability, and City of Portland Bureau of Transportation. “Central City 2035 N/NE Quadrant Plan,” October 25, 2012. https://www.portland.gov/sites/default/files/2020-01/complete-adopted-plan_lores_0.pdf.

City of Portland Bureau of Transportation. “Right-of-Way Improvement Requirements for Land Use Reviews or Building Permits.” City of Portland, 2024. https://www.portland.gov/transportation/development/right-way-improvement-requirements.

City of Portland Office of Community & Civic Life. “Lloyd District Neighborhood Profile,” 2024. https://www.portland.gov/civic/documents/lloyd-neighborhood-profile-2023/download.

CoStar. “Office Market Report: Portland, OR,” 2024.

———. “Office Submarket Report: Lloyd District,” 2024.

De Dios, Austin. “Albina Vision Trust Leaders Show Visiting Architects a Vision for Black Joy in Portland.” *The Oregonian*, October 20, 2023. https://www.oregonlive.com/living/2023/10/albina-vision-trust-leaders-show-visiting-architects-a-vision-for-black-joy-in-portland.html.

Dorsey, Hilary. “Lloyd Center Master Plan Gets a Second Look.” *DJC Oregon*, December 21, 2023.

———. “Multnomah County Expands Coverage of Portland Incentive Program.” *DJC Oregon*, February 26, 2024. https://djcoregon.com/news/2024/02/26/multnomah-county-expands-coverage-of-portland-incentive-program/.

ECONorthwest. “Economic & Market Conditions: Central City Subdistricts,” January 2023. https://econw.com/wp-content/uploads/EconomicMarketConditions_CentralCity_smaller_3.15.2023-1.pdf.

Effinger, Anthony. “Owners of Lloyd Center Unveil Master Plan for Mall That Restores Street Grid and Adds Housing.” *Willamette Week*, September 21, 2023. https://www.wweek.com/news/business/2023/09/21/owners-of-lloyd-center-unveil-master-plan-for-mall-that-restores-street-grid-and-adds-housing/.

Garcia, David, and Elliot Kwon. “Adaptive Reuse Challenges and Opportunities in California.” Terner Center for Housing Innovation UC Berkeley, November 2021. https://ternercenter.berkeley.edu/wp-content/uploads/2021/11/Adaptive-Reuse-November-2021.pdf.

Government of the District of Columbia: Office of the Deputy Mayor for Planning and Economic Development. “Washington DC’s Housing in Downtown Program: Program Explainer Deck FY24.” March 2024. https://dmped.dc.gov/sites/default/files/dc/sites/dmped/page_content/attachments/Housing%20in%20Downtown_DMPED%20March%202024_Launch.pdf.

Harpole, Sarah. “Central City TIF Exploration.” Prosper Portland, 2024. https://prosperportland.us/portfolio-items/central-city-tif-exploration/.

Hart, Jim, Bernardino D'Amico, and Francesco Pomponi. "Whole-life Embodied Carbon in Multistory Buildings: Steel, Concrete and Timber Structures." *Journal of Industrial Ecology* 25, no. 2 (April 2021): 403–18. https://doi.org/10.1111/jiec.13139.

Holladay Park Plaza. "How Our Fees Work." Holladay Park Plaza, 2024. https://www.retirement.org/hpp/community/explore-pricing/.

HR&A Advisors Inc. "Downtown San Francisco Office Conversion Study," February 2023. https://www.spur.org/sites/default/files/2023-10/HR%26A_SF_Office_to_Residential_Conversion_Feasibility_Study_Sept_2023.pdf.

Manning, Rob, and Natalie Pate. "Albina Vision Trust Proposes Buying Portland School District Building, Moving PPS Headquarters Downtown." *OPB*, January 24, 2024. https://www.opb.org/article/2024/01/24/albina-vision-trust-proposes-buying-portland-school-district-building-moving-pps-headquarters-downtown/.

Maus, Jonathan. "'This Is Not Okay': Black Committee Members Respond to Rose Quarter Funding Shortfall at Emotional Meeting." *Bike Portland* (blog), June 29, 2023. https://bikeportland.org/2023/06/29/this-is-not-okay-black-committee-members-respond-to-rose-quarter-funding-shortfall-at-emotional-meeting-376685.

National Association of Realtors Research Group. "2021 Analysis and Case Studies on Office-to-Housing Conversions," November 2021. https://cdn.nar.realtor//sites/default/files/documents/2021-analysis-and-case-studies-on-office-to-housing-conversions-report-11-11-2021.pdf.

Next Portland. "Design Commission Approves Phased Oregon Square (PT I)." *Next Portland* (blog), November 14, 2016. https://www.nextportland.com/2016/11/14/oregon-square-phased-pt-i/.

Njus, Elliot. "Green Zebra Grocery to Reopen One Shuttered Portland Store, but Another Is Closed for Good." *The Oregonian*, September 30, 2021. https://www.oregonlive.com/business/2021/09/green-zebra-grocery-to-reopen-one-shuttered-portland-store-but-another-is-closed-for-good.html.

Oregon Department of Transportation. "About." I-5 Rose Quarter Improvement Project, 2023. https://i5rosequarter.org/about/.

Oregon Legislature. HB2984 (2024). https://olis.oregonlegislature.gov/liz/2023R1/Measures/Overview/HB2984.

———. SB 1530 (2024). https://olis.oregonlegislature.gov/liz/2024R1/Measures/Overview/SB1530.

Pate, Natalie. "Portland School Board Moves Ahead with Plans to Relocate District Headquarters." OPB, February 21, 2024. https://www.opb.org/article/2024/02/21/portland-public-schools-board-moves-ahead-plans-relocate-district-headquarters/.

Portland Bureau of Planning & Sustainability. "PCEF Climate Investment Plan," August 2023. https://www.portland.gov/bps/cleanenergy/climate-investment/documents/pcef-climate-investment-plan/download.

Portland City Council. Ordinance 191202 (2023). https://www.portland.gov/council/documents/ordinance/passed/191202.

———. Ordinance 191203 (2023). https://www.portland.gov/council/documents/ordinance/passed/191203.

———. Ordinance 191609 (2024). https://www.portland.gov/council/documents/ordinance/passed/191609.

Portland Housing Bureau. "Inclusionary Housing Calibration Study," 2024. https://www.portland.gov/phb/inclusionary-housing/calibration-study.

Prosper Portland. "Cully TIF Preliminary Report," January 2022. https://prosperportland.us/wp-content/uploads/2022/01/Cully-TIF-Preliminary-Report.pdf.

Prosper Portland, and City of Portland Bureau of Planning & Sustainability. “Advance Portland: A Call to Action for Inclusive Economic Growth,” April 2023. https://static1.squarespace.com/static/6447ffc89a1ab06f2ff06d22/t/648b8fc42e3da64f2af3a4ad/1686867928235/Advance-Portland.pdf.

Ramakrishnan, Jayati. “Feds Grant $450 Million toward I-5 Freeway Caps in North Portland’s Albina District.” *The Oregonian*, March 9, 2024. https://www.oregonlive.com/commuting/2024/03/feds-grant-450-million-toward-i-5-freeway-caps-in-north-portlands-albina-district.html.

Ruiz, Amy, and Oregon Smart Growth. “191202 Amend System Development Charge Exemptions Code for Office-to-Residential Conversion Projects Amend Code Section 17.14.070 Testimony,” March 15, 2023. https://efiles.portlandoregon.gov/Record/15984383/.

Seger, Tess. “Legislature Poised to Support Albina Vision Trust to Help Rebuild Northeast Portland Neighborhood.” Office of Kayse Jama, February 28, 2024. https://www.oregonlegislature.gov/senatedemocrats/Documents/Albina%20Vision%20Trust%20Press%20Release.pdf.

Skidmore, Owings & Merrill. “Office-to-Residential Conversion Study: 1633 Broadway,” 2024. https://www.som.com/research/office-to-residential-conversion-study-1633-broadway/.

U.S. Department of Transportation. “Transit-Oriented Development - Project Eligibility Frequently Asked Questions,” October 26, 2023. https://www.transportation.gov/buildamerica/TOD/faqs.

Vaughn, Courtney. “Despite Design Update, Climate Advocates Still Slam I-5 Rose Quarter Project.” *Portland Tribune*, January 5, 2023. https://www.koin.com/news/oregon/despite-design-update-climate-advocates-still-slam-i-5-rose-quarter-project/.

White House Press Briefing Room. “FACT SHEET: Biden-Harris Administration Takes Action to Create More Affordable Housing by Converting Commercial Properties to Residential Use,” October 27, 2023. https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/27/fact-sheet-biden-harris-administration-takes-action-to-create-more-affordable-housing-by-converting-commercial-properties-to-residential-use/.

Wilkerson, Mike, Michelle Anderson, and Brittany Bagent. “Office to Residential Conversion Study – Feasibility Results Memo.” ECONorthwest, n.d.

Williams, Erica. “Downtown Conversion Tax Abatement Is an Ineffective Use of Public Dollars,” April 10, 2023. https://www.dcfpi.org/all/downtown-conversion-tax-abatement/.

ZGF Architects, Urban Renaissance Group, DOWL, Field Operations, and KPFF. “Lloyd Center Redevelopment Central City Master Plan: Design Advice Request.” November 2, 2023.