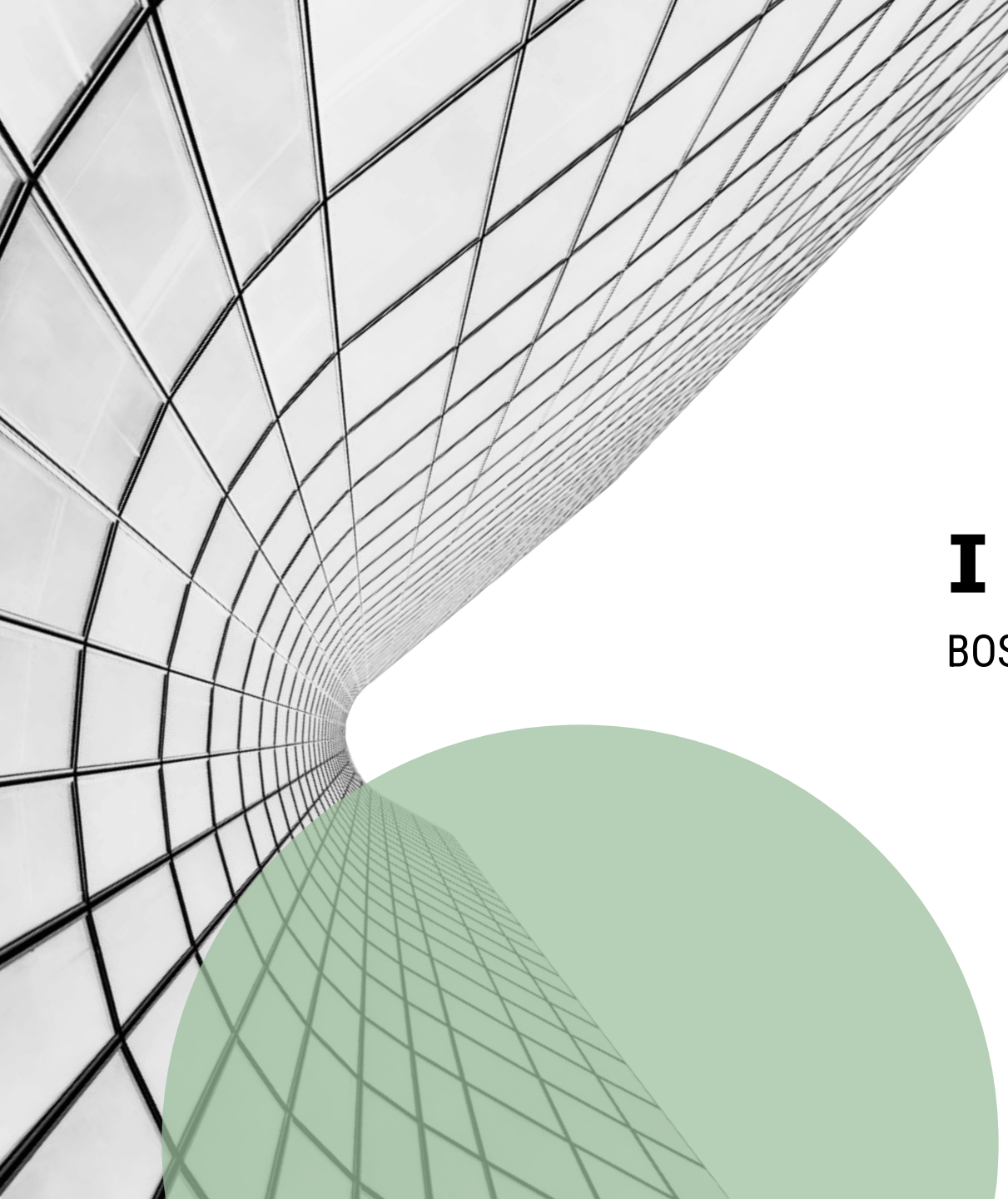
PREPARED BY RKG ASSOCIATES

BOSTON'S INCLUSIONARY DEVELOPMENT POLICY (IDP) ANALYSIS

RKG ASSOCIATES INC

TABLE OF CONTENTS



INTRODUCTION

BOSTON INCLUSIONARY DEVELOPMENT POLICY

BACKGROUND

The City of Boston has decided to investigate the feasibility of making modifications to the city's affordable housing requirements for new housing development through the Inclusionary Development Policy (IDP).

This effort was borne, in principle, through the City's Housing Needs Assessment, which has identified the substantial housing needs across the city.

The City of Boston hired RKG to build a financial feasibility model to evaluate approaches toward enhancing the existing IDP requirements.

PROCESS - ENGAGEMENT

The process undertaken was collaborative and included engaging City staff, local and regional housing developers, local debt and equity investors, and other real estate professionals to understand the market dynamics and performance indicators in Boston.

In parallel, RKG engaged housing advocates, community groups, and citizens to learn more about the specific needs, concerns, and vision for modifying the IDP.

Further, the city established a Working Group of these disparate perspectives to participate in and advise the process.

While the IDP is one of many factors influencing, and being influenced by, the ever-shifting housing market in Boston, the engagement process focused on ensuring the city heard several perspectives about developing more price diversity opportunities in the city.

RKG utilized information gained from market research and interviews to construct an adaptable financial model. All assumptions used in the model were reviewed and approved by City staff and the Working Group.

PROCESS – WORKING GROUP

Donna Brown, Executive Director, South Boston Neighborhood Development Corporation

Jesse Kanson-Benanav, Executive Director, Abundant Housing Massachusetts

George Lee, Coalition for a Truly Affordable Boston/Keep it 100 for Real Affordable Housing & Racial Justice

Abe Menzin, Principal and Executive Vice President of Development, Samuels & Associates

Greg Minott, Managing Principal, the D/R/E/A/M Collaborative

Markeisha Moore, Coalition for a Truly Affordable Boston/Dot Not For Sale

Leslie Reid, Chief Executive Officer, Madison Park Development Corporation

Erica Schwarz, Board Member, Boston Neighborhood Community Land Trust

Tamara Small, Chief Executive Officer, NAIOP Massachusetts

Peter Spellios, Principal, Transom Real Estate

Justin Steil, Associate Professor of Law and Urban Planning, MIT

PROCESS - ANALYSIS

The model enables the City to test a series of prototypical developments to understand the financial implications of changing the existing IDP ordinance.

RKG tested specific scenarios chosen by city staff and the Working Group to determine the relative impact in relation to developments constructed under the current development and approval process followed by the city.

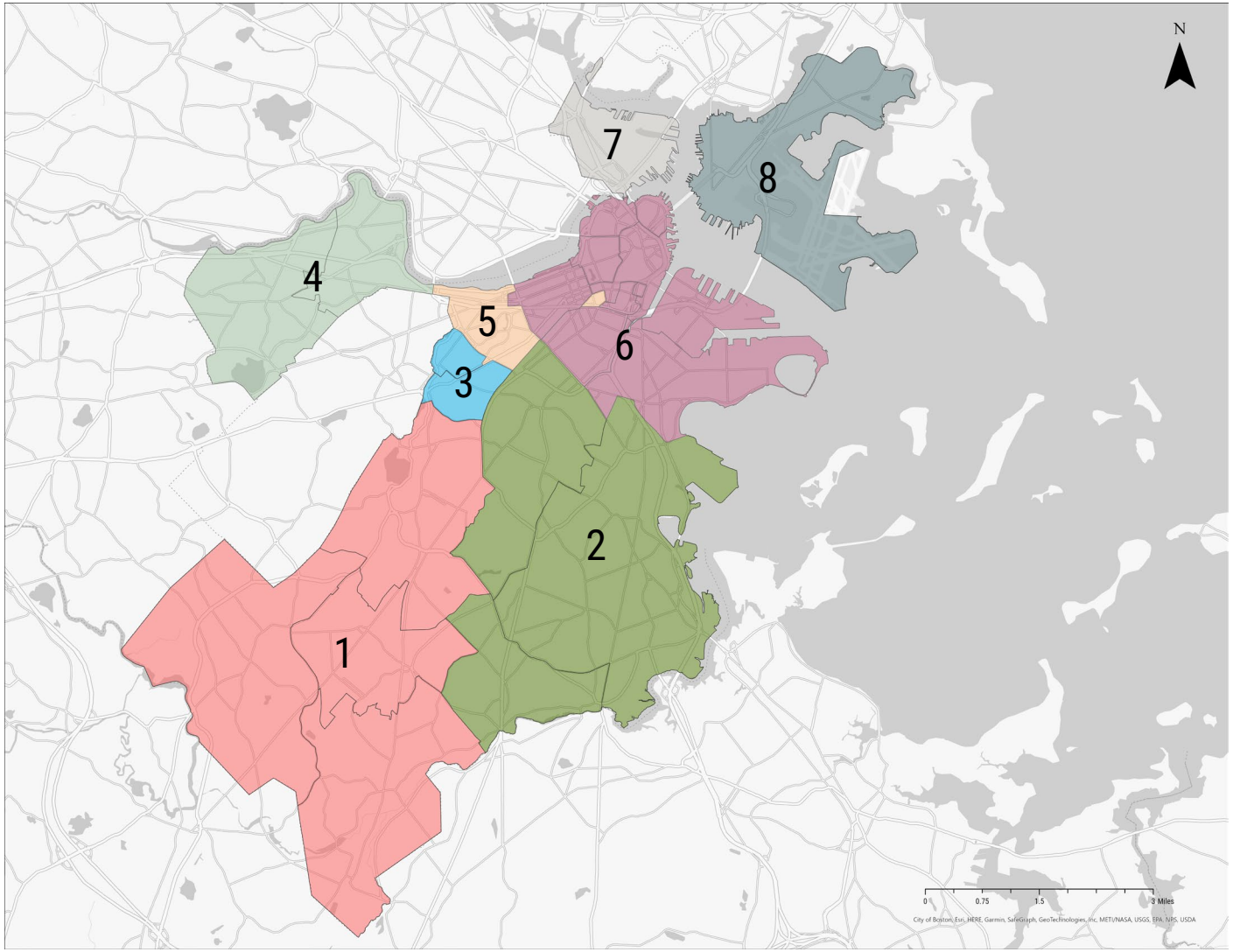
RKG modeled projects in eight distinct subareas, defined through empirical and market analysis, to test potential changes across the city's very distinct housing submarkets.

The importance of this analysis cannot be understated, as setting the appropriate parameters for an updated IDP ordinance is key to ensuring housing development accommodates various income levels across the city while minimizing impact on existing development activity.

SUBAREA BOUNDARY MAP

The city neighborhoods were organized into eight subareas for the purpose of this analysis. These subareas were assembled based on having similar market climates, development patterns, and socioeconomic conditions. While the groupings are not exact, they offer the opportunity to understand how proposed changes influence different areas of the city.

NEIGHBORHOOD SUBAREAS	MAP NUMBER
Jamaica Plain/Hyde Park/Roslindale/West Roxbury	1
Roxbury/Mattapan/Dorchester	2
Longwood Medical Area/Mission Hill	3
Allston/Brighton	4
Bay Village/Fenway	5
Back Bay/Beacon Hill/Chinatown/Downtown/North End/ South Boston/South Boston Waterfront/ South End/West End	6
Charlestown	7
East Boston	8



EXISTING POLICY REVIEW

BOSTON INCLUSIONARY DEVELOPMENT POLICY

OWNERSHIP POLICY

SET ASIDE

Projects are required to designate 13% of the total number of units on-site as affordable.

AMI

Average of ***90% of AMI*** for affordable units, with half to be priced at 80% of AMI and half priced at 100% of AMI.

OFF-SITE

Units must be built within one-half mile from the proposed project site, and equal to or greater than 18% of the total number of units within the proposed project in Zone A and B, or equal to or greater than 15% in Zone C.

PAYMENT IN LIEU

Contribution of the equivalent of 18% of the total number of units multiplied by the greater of either the Zone factor or half the difference between the average actual market rate price and the affordable price per unit, by unit type. Zone C requires a payment based on 15% of the units.

The payment threshold is determined by which IDP Zone a project is located. The payment amounts are:

Zone A - $516,000 per unit

Zone B - $415,000 per unit

Zone C - $240,000 per unit

RENTAL POLICY

SET ASIDE

Projects are required to designate 13% of the total number of units on-site as affordable.

AMI

Average of ***70% of AMI*** for affordable units.

OFF-SITE

Units must be built within one-half mile from the proposed project site, and equal to or greater than 18% of the total number of units within the proposed project in Zone A and B, or equal to or greater than 15% in Zone C.

PAYMENT IN LIEU

Contribution of the equivalent of 18% of the total number of units multiplied by the requisite zone factor per unit. Zone C requires a payment based on 15% of the units.

The payment threshold is determined by which IDP Zone a project is located. The payment amounts are:

Zone A - $516,000 per unit

Zone B - $415,000 per unit

Zone C - $240,000 per unit

CURRENT IMPLEMENTATION

New developments generally require a rezoning, variances, or both, opening the opportunity to negotiate various components of the development and its program.

Data provided by MOH and BPDA for projects over the past five years indicates that residential-only apartment developments average 25 units set aside.

Projects that have cross-subsidies (typically include large office or laboratory spaces) can reach higher set asides ratios

The financial feasibility analysis indicates that 17% unit set aside at 70% of AMI has been normalized to suitable return levels

1515 Commonwealth Ave
151 Total Units
25 Affordable (16.5%)

CASE STUDY SOMERVILLE

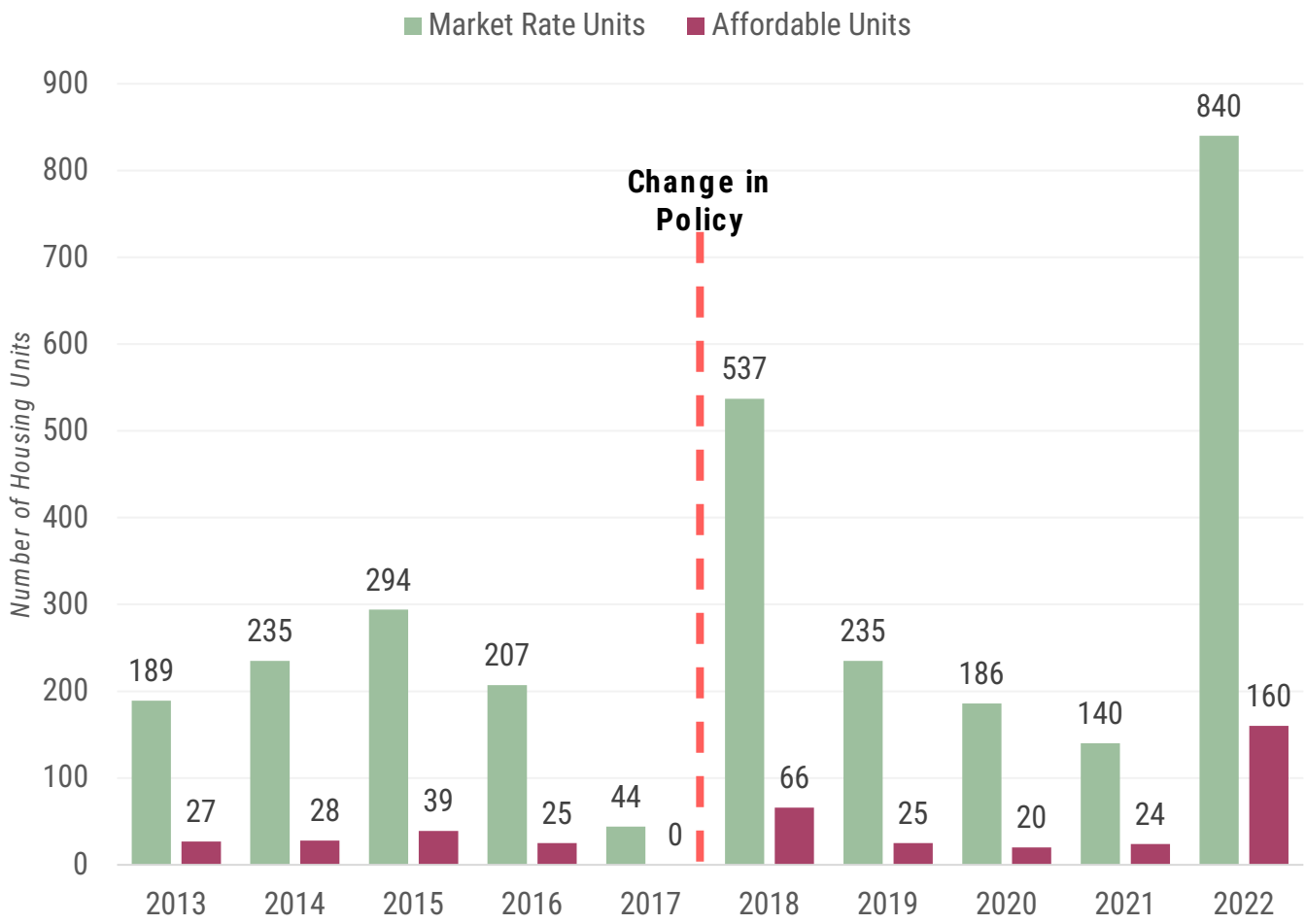
In May 2016 and December 2019, Somerville amended their inclusionary zoning ordinance to require 20% of units in new developments of four units or more to be affordable.

In the five-year period after the change, there was a 148% increase in the cumulative number of affordable units built and a 100% increase the cumulative number of market rate units built.

Development since 2018 has largely been legacy projects approved under the previous IZ policy.

Number of Housing Units by Type

Built Before and After IZ Policy Change in Somerville
Based on Date of Certificate of Occupancy



Source: City of Somerville Development Log, RKG Associates, 2022

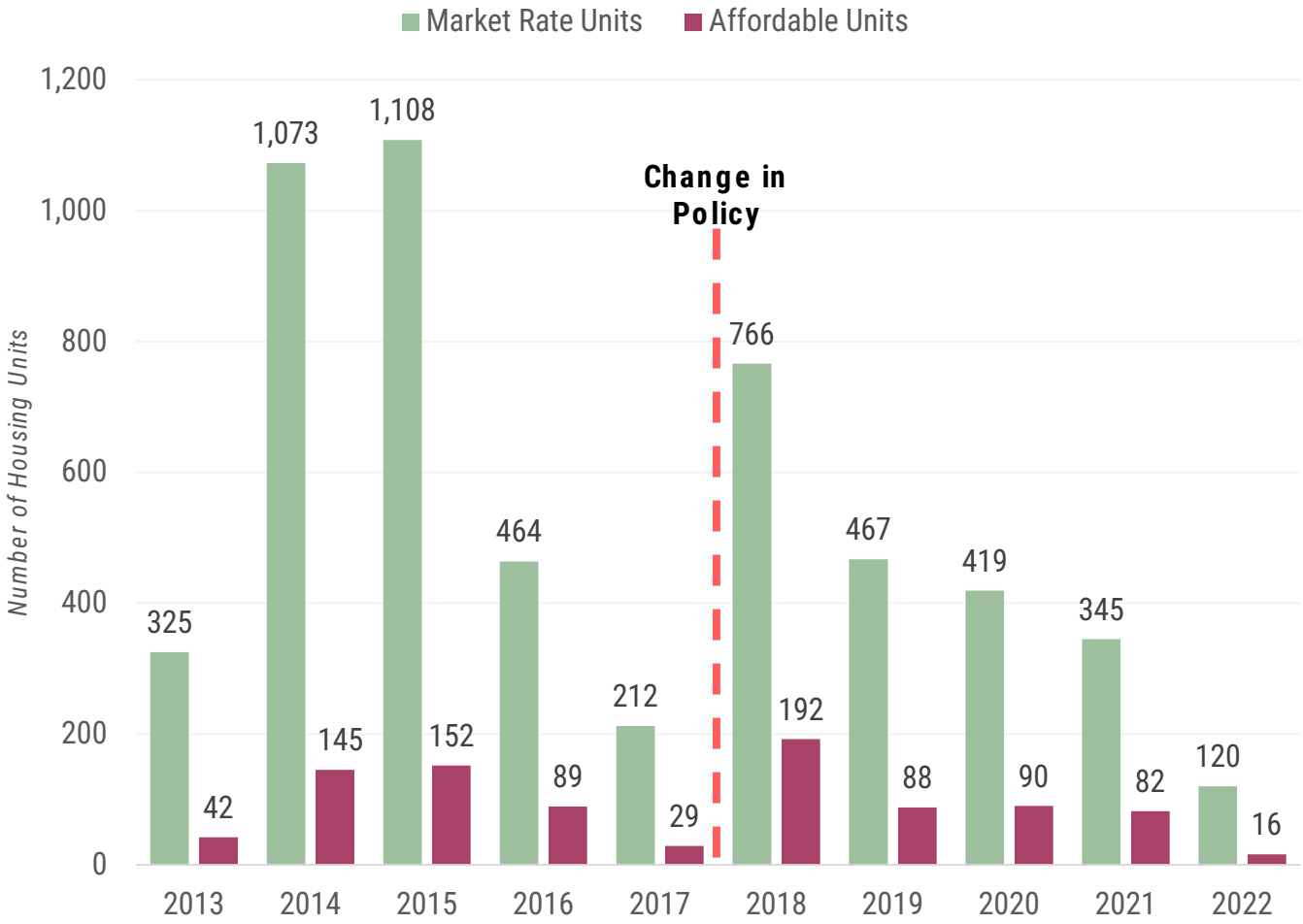
CASE STUDY CAMBRIDGE

In April 2017 Cambridge amended their inclusionary zoning ordinance to require 20% of units in developments of ten or more units to be affordable.

In the five-year period after the change, there was a 2% increase in the cumulative number of affordable units built and a 33% decrease in the cumulative number of market rate units built.

A significant number of units were built in East Cambridge and Alewife during 2014 and 2015 .

Number of Housing Units by Type
Built Before and After IZ Policy Change in Cambridge
Based on Date Completed



Source: City of Cambridge Development Log, RKG Associates, 2022

SUMMARY

Based on the existing policy review:

Real estate market has normalized the existing IDP policy with recent projects averaging around 17% of units based on negotiations.

Changes to the existing IDP policy have the potential to generate more units, however based on the outcomes in Cambridge and Somerville, due care should be taken to ensure the development pipeline does not decrease.

IMPLICATIONS

CURRENT POLICY IS LIMITED

- Market is producing affordable units based on the existing policy.
- Over the last decade, housing demand has increased resulting in a greater need for affordable housing.
- Current policy is not sufficient to accommodate expected demand.

CHANGE IS REQUIRED

- Rental and ownership policy require changes to meet current and future demand
- The impact of a policy change will be minimal if done strategically, delivering a greater amount of income-controlled units while maintaining a consistent development activity.

AN OPPORTUNITY FOR INCREASING HOUSING FOR ALL

- Housing price growth is outstripping income growth.
- Low- and middle-income households have limited options.
- Supply of housing needs to increase.

HOUSING NEED ANALYSIS

BOSTON INCLUSIONARY DEVELOPMENT POLICY

DEMOGRAPHIC ANALYSIS

The racial and ethnic diversity in Boston has increased over time; however, incomes for the BIPOC population have lagged those of the White population. This is true for both family and non-family households.

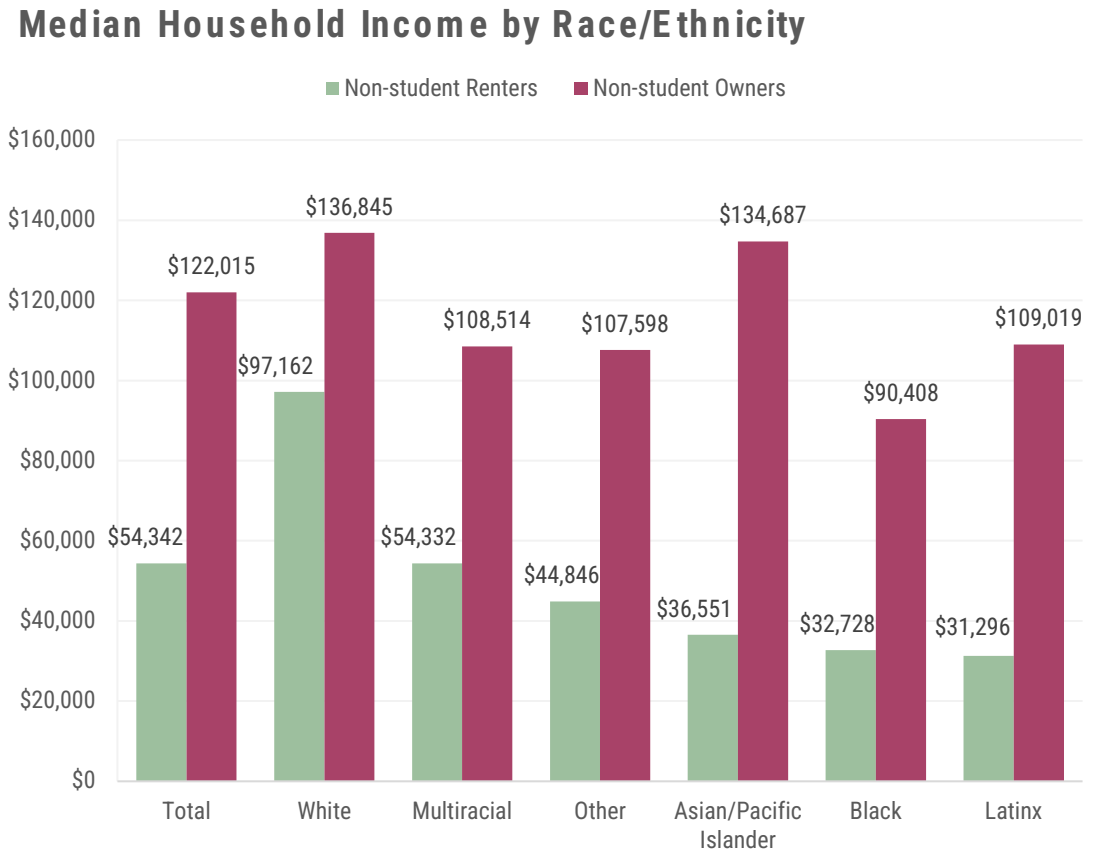
With the cost of living in Boston rising each year, more and more BIPOC households are living in larger multigenerational households due to the lack of income necessary to afford housing.

Owning a home has become out of reach for most households in Boston, as the existing supply cannot meet current demand with prices rising year over year for the past decade.

MEDIAN HOUSEHOLD INCOME BY RACE/ETHNICITY

Median household income varies widely by race and ethnicity. The median household income for non-student renters is $54,342; however, the median income for White renters is $97,162, while the median income drops to $54,332 for multiracial households, $36,551 for Asian and Pacific Islanders, $32,728 for Blacks, and $31,296 for Latinx.

The overall median household income for non-student homeowners is over double the number of renters, at $122,015. White and Asian/Pacific Islander households have median incomes above the overall median; all other races/ethnicities are below the overall median income, with Black ownership households the lowest at a median of $90,408.



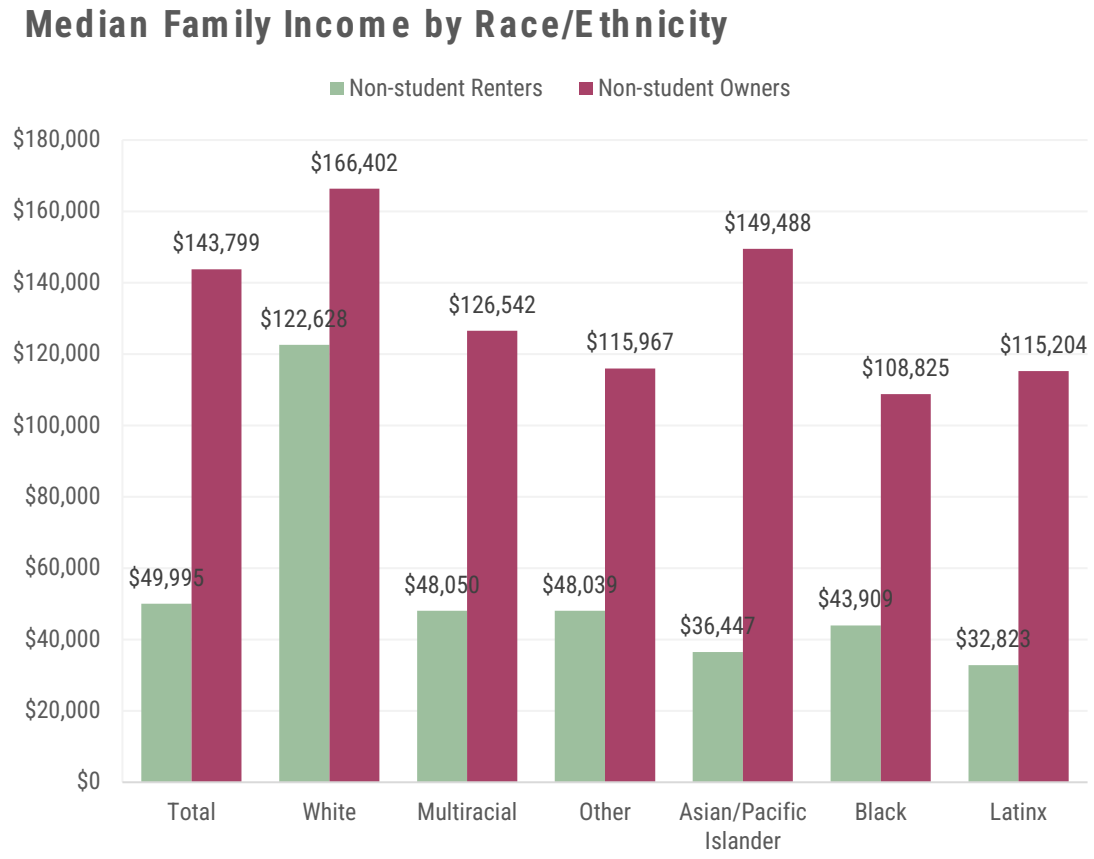
Source: Boston Housing Needs Assessment

MEDIAN FAMILY INCOME BY RACE/ETHNICITY

Another measure of income is median family income, which also varies widely by race and ethnicity. While median household income includes family and non-family households, such as single individuals or roommates, median family income only includes households with related individuals.

The median family income for non-student renter families ($49,995) is lower than the median household income for all non-student renter households ($54,242). The median income for White family renters is $122,628, while all other races/ethnicities are below the median, with Latinx having the lowest median family income of $32,823.

The overall median household income for families who own their home is close to triple the amount of family renters, at $143,799.



Source: Boston Housing Needs Assessment

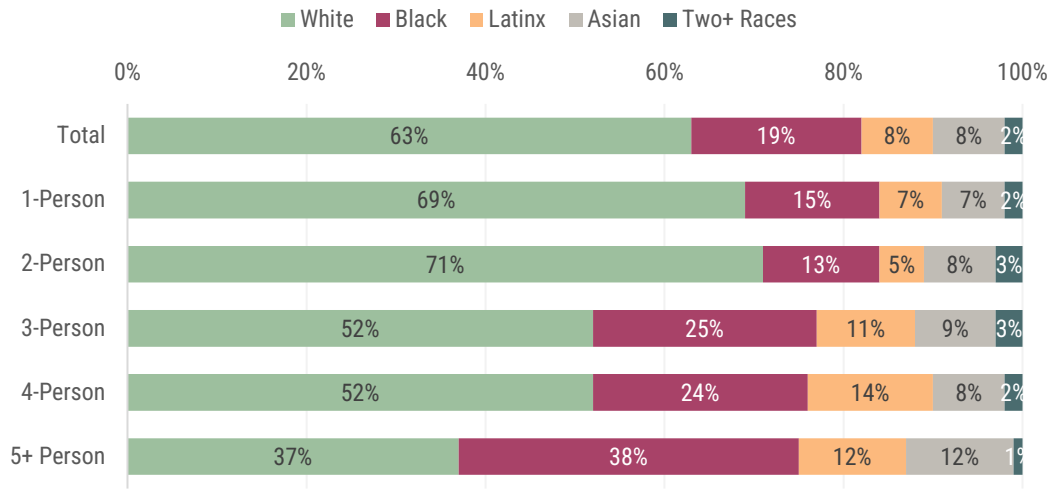
HOUSEHOLD SIZE BY RACE/ETHNICITY

In total, ownership households are more likely to be White (63 percent) than BIPOC (37 percent). This contrasts renter households, where White households constitute 44 percent of the total market.

Regardless of housing tenure, larger households tend to be BIPOC, with 63 percent of owner households and 86 percent of renter households with 5+ individuals are BIPOC.

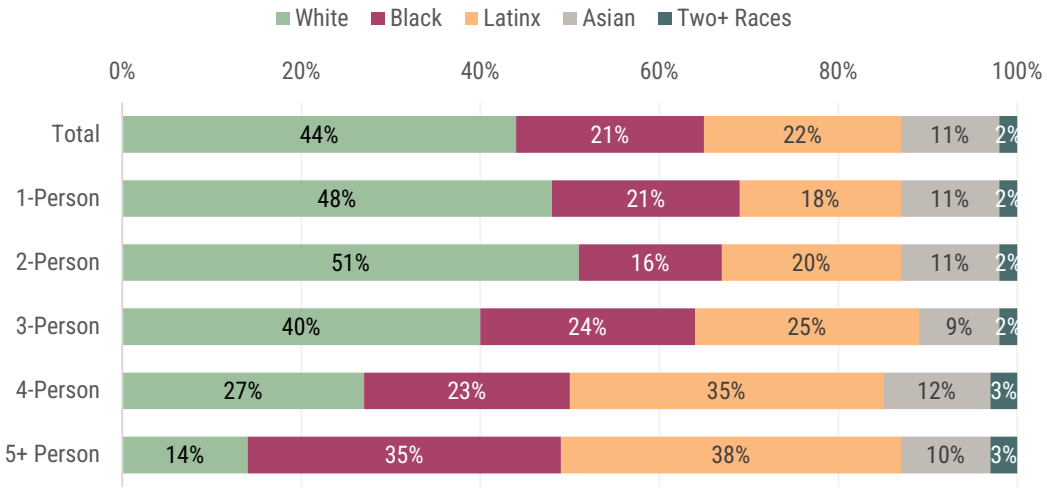
In contrast, 1-person and 2-person households are disproportionately White than overall averages. This data indicate that housing programs that target BIPOC households will skew towards larger units (2+ bedrooms).

Owner Household Size by Race/Ethnicity



Source: Boston Housing Needs Assessment

Renter Household Size by Race/Ethnicity



Source: Boston Housing Needs Assessment

MARKET ANALYSIS

The price of land in the City of Boson has historically been high and has become even more expensive in in recent years. Land prices fluctuate based on the underlying zoning and the total number of units which can be developed.

An example being that in highly dense areas such as the Downtown or Seaport, land is selling nearly $150,000 per unit for new construction, while in peripheral neighborhoods such as Jamacia Plain land prices are around $60,000 per unit.

The high price of land indicates that developable land is scarce in the City of Boston. This development trends analysis presents data related to ongoing pipeline projects in the City of Boston.

AVERAGE LAND PRICE PER UNIT FOR CITY OF BOSTON

RKG used all available databases to understand current prices being paid 'per door' for housing projects. The analysis conducted by RKG, parsed out mixed use projects and any non-residential developments to ensure that purely residential development projects (which are not cross subsidized by lab or office components) were evaluated.

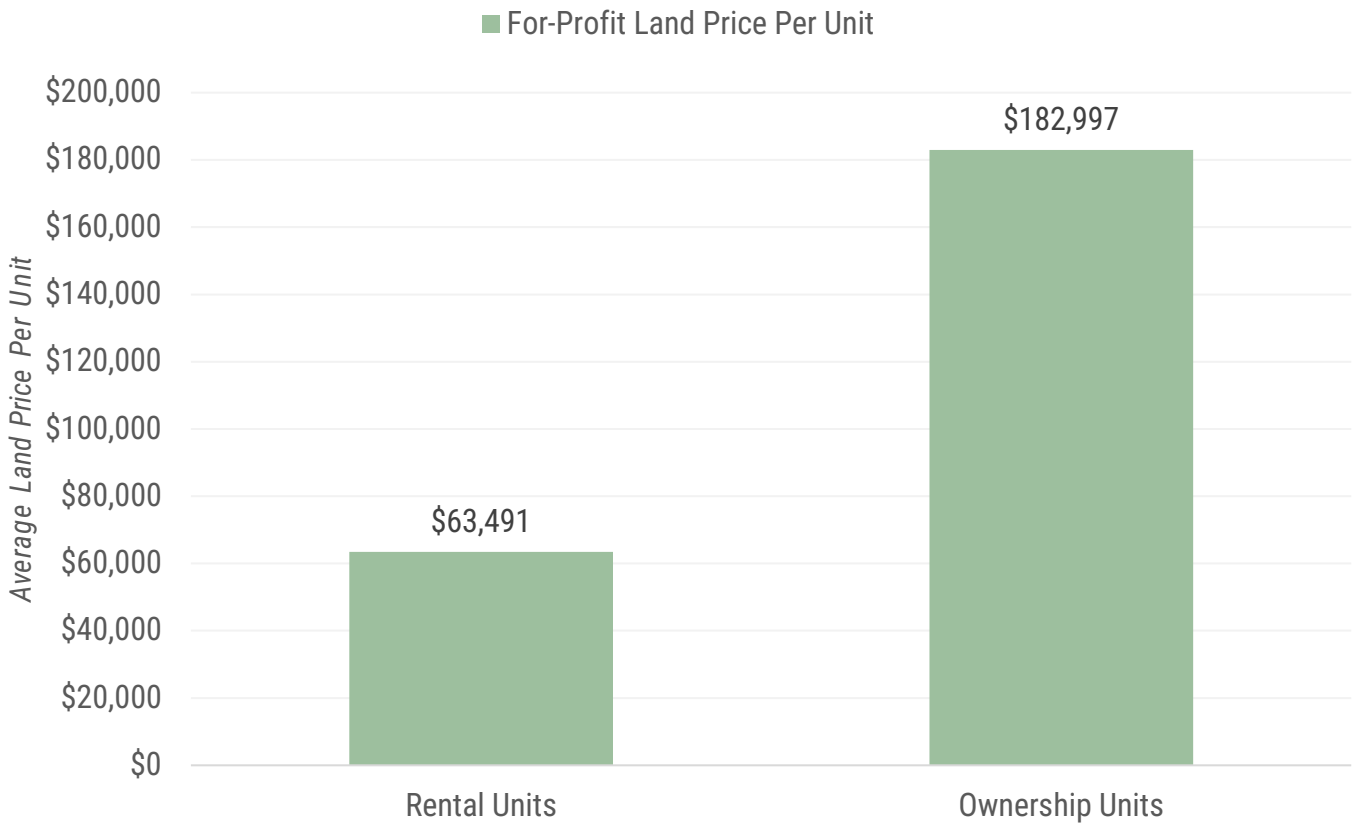
Land costs are influenced by two primary factors:

- Unit density
- Cost of land per unit

City-wide the differential in land costs paid for rental units and condos is substantial where on average a rental unit developer pays about $63,000 per unit compared to a condo developer paying $183,000 per unit.

This indicates that condo projects are scarcer and limited to only certain parts of the city.

Average Land Price Per Unit
For Approved BPDA Projects in Pipeline



Note: RKG used the BPDA's approved pipeline database and matched data with Suffolk County land sales and Warren Group sales data records. In some instances, land record documentation was not readily available.

Source: BPDA Pipeline Database, The Warren Group, RKG Associates, 2022

AVERAGE UNITS PER ACRE FOR CITY OF BOSTON

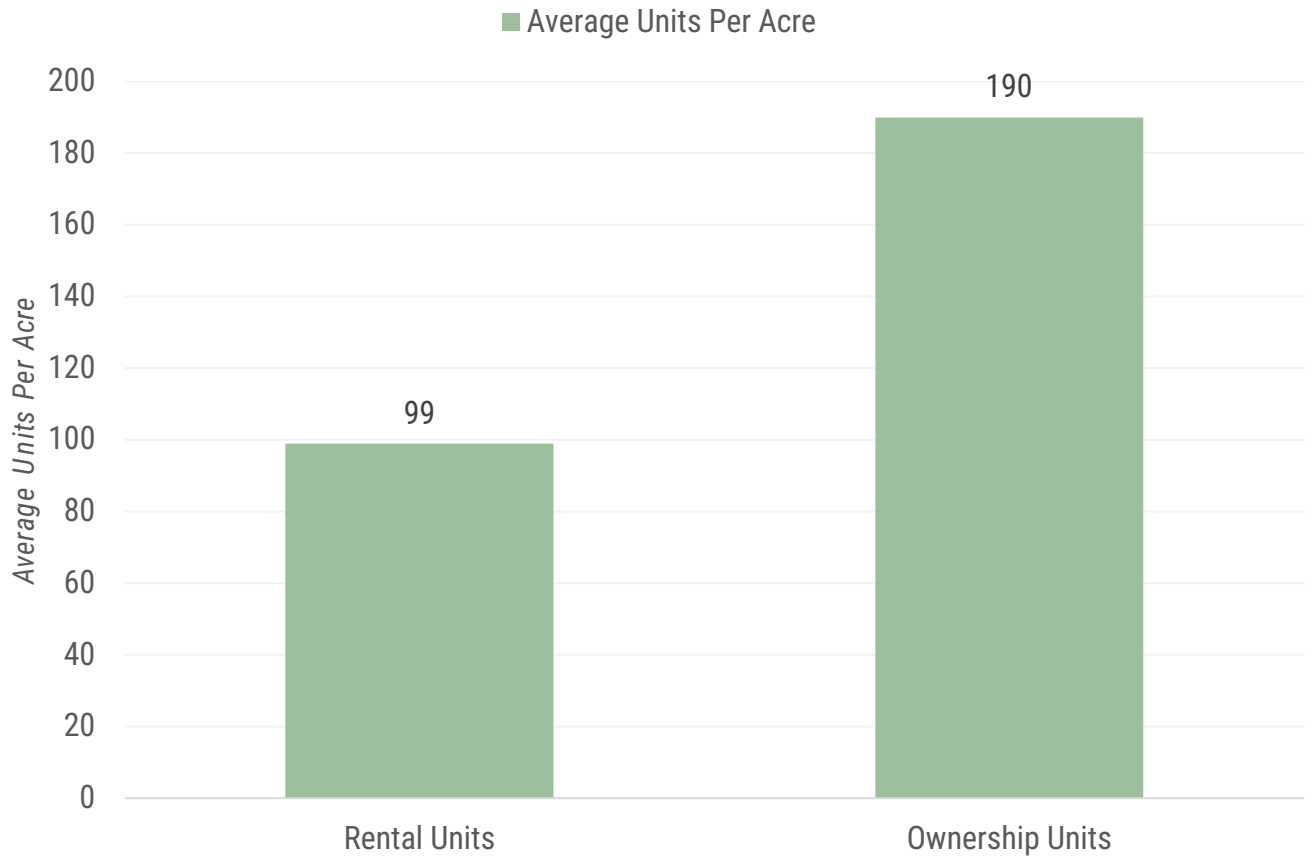
The price of land is directly linked to its development potential. For example, if a parcel is under restrictive zoning and value creating development would not be possible, then the market price would reflect that circumstance.

In the City of Boston, developers typically can obtain a zoning variance to maximize the development potential of a piece of land. As such, land prices reflect the development potential of the land.

To better understand the price of land and its associated development potential, RKG calculated the land yield (units per acre) for projects currently in the BPDA's pipeline. Unit yield ranges substantially, often impacted by adjacent uses (scale), neighborhood opposition, and legal challenges.

On a per acre basis, rental projects yield 99 units, while ownership projects yield 190 units. This shows that development densities are consistent with an urban development scale

Average Units Per Acre
For Approved BPDA Projects in Pipeline



Note: RKG used the BPDA's approved pipeline database and attempted to match data with Suffolk County land sales records. In some instances, land record documentation was not readily available.

Source: BPDA Pipeline Database, The Warren Group, RKG Associates, 2022

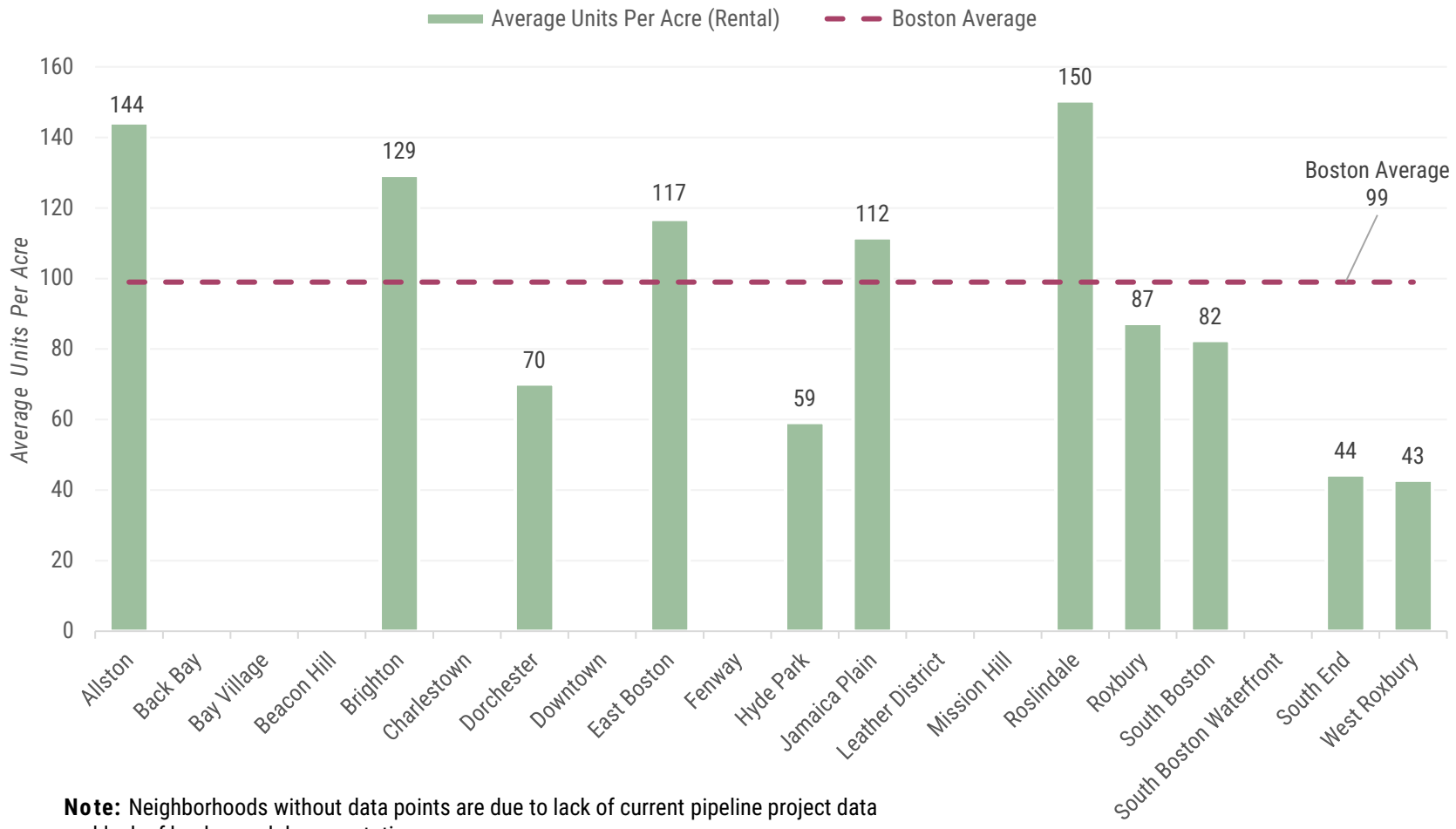
RENTAL PROJECTS UNIT DENSITY BY NEIGHBORHOOD

For rental units, the average units per acre vary by neighborhood.

Highest number of units per acre are typically found in denser neighborhood.

Lowest number of units per acre found in neighborhoods with a residential fabric that is more suited for smaller projects.

Average Units Per Acre
For BPDA Approved Rental Projects in Pipeline



Note: Neighborhoods without data points are due to lack of current pipeline project data and lack of land record documentation.

Source: BDPA Pipeline Data, The Warren Group, RKG Associates, 2022

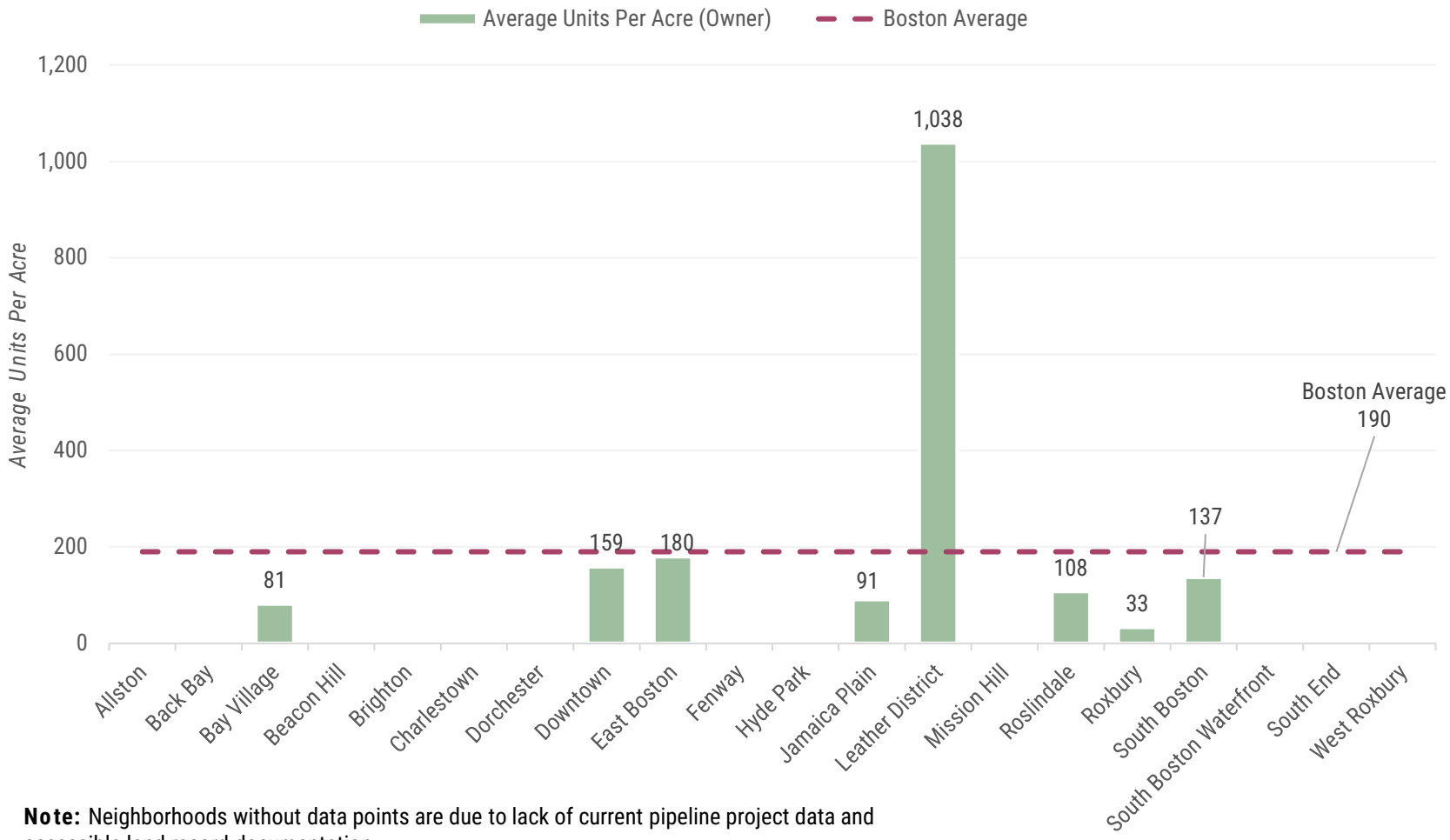
CONDO PROJECTS UNIT DENSITY BY NEIGHBORHOOD

For ownership units, the average units per acre vary by neighborhood.

Highest number of units per acre typically found in denser neighborhoods.

Lowest number of units per acre found in neighborhoods with a residential fabric that is more suited for smaller projects.

Average Units Per Acre
For BPDA Approved Ownership Projects in Pipeline



Note: Neighborhoods without data points are due to lack of current pipeline project data and accessible land record documentation.
Source: BDPA Pipeline Data, The Warren Group, RKG Associates, 2022

AFFORDABILITY ANALYSIS

Viewing housing affordability in terms of income and cost (affordability threshold) serves as a proxy for understanding the challenges households face to afford adequate housing.

This is particularly true in understanding the supply and demand imbalance that exists in the marketplace. With many households spending more than 30% and in some cases 50% of their income on housing. This occurrence is particularly acute for the BIPOC population.

Bridging the gap in the market is the key to ensuring the City of Boston has housing affordable and available to all income and ethnic groups.

INCOME BY RACE/ETHNICITY

The U.S. Census ACS data provides information on income levels by race and ethnicity.

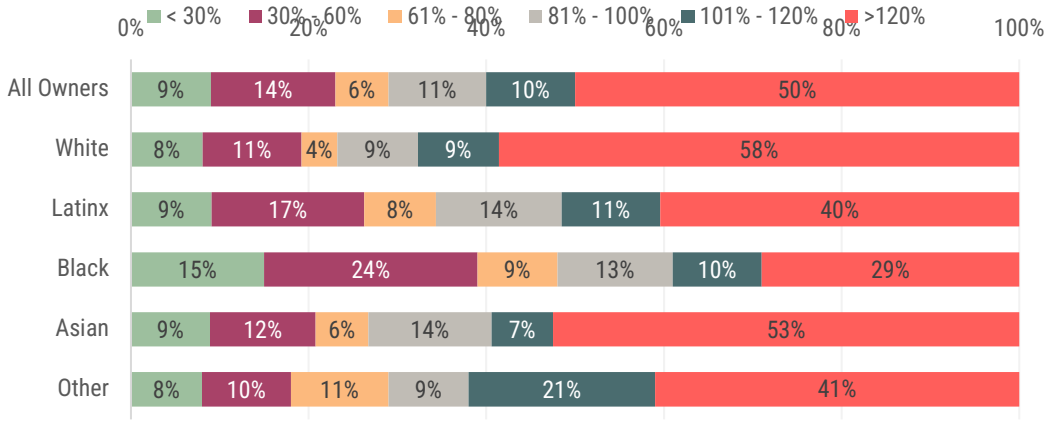
Renter households of color more concentrated in the lowest income thresholds (under 50% of AMI)

- Latinx households = 75% under 50% of AMI
- Black households = 77% under 50% of AMI
- Only 6% of all households earn between 60% of AMI and 80% of AMI

Income disparity smaller, but still notable for ownership households

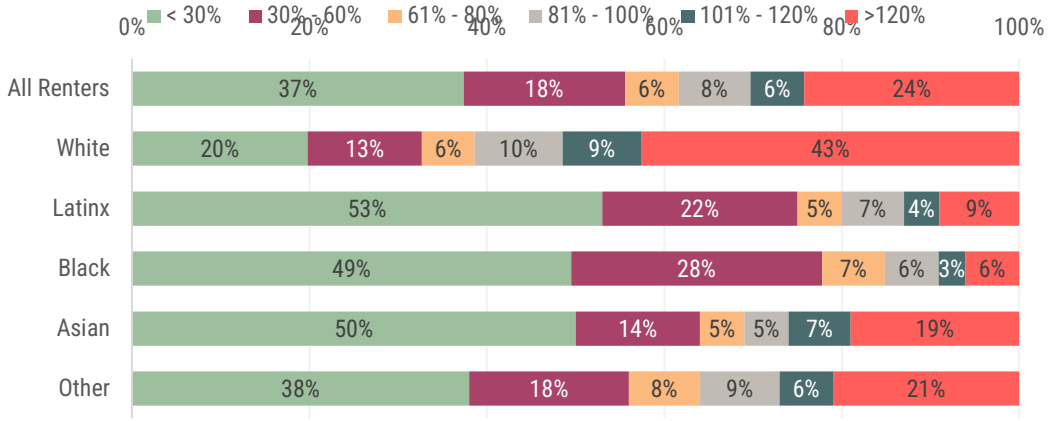
- Burden of down payment and income qualifications 'self-select' households

Owner Household Income (AMI) by Race/Ethnicity



Source: Boston Housing Needs Assessment

Renter Household Income (AMI) by Race/Ethnicity



Source: Boston Housing Needs Assessment

COST BURDENING

American Community Survey (ACS) and the U.S. Housing and Urban Development (HUD) Department track cost burdened households.

- Those paying over 30% of their gross income on housing and essential utilities.

Cost burdening is most intense for households earning less than 60% of AMI, averaging more than two out of every three households.

- Most severe for households earning less than 30% of AMI.

Ownership households less impacted, but primarily due to higher concentrations of higher-earning households (>120% of AMI).

BIPOC renter population is significantly affected by the city's affordability crisis as most of the housing available is financially out of reach.

Renter Occupied Households	Total Non-Student	Cost Burdened	Percent of Cohort	Percent of Total
Under 30% AMI	56,747	42,477	77%	58%
31% to 60% AMI	28,412	19,031	67%	25%
61% to 80% AMI	9,191	4,686	51%	6%
81% to 100% AMI	12,098	4,220	35%	6%
101% to 120% AMI	9,886	1,907	19%	3%
Above 120% AMI	37,263	1,895	5%	3%
TOTAL HOUSEHOLDS	153,597	75,216	49%	100%

Owner Occupied Households	Total Non-Student	Cost Burdened	Percent of Cohort	Percent of Total
Under 30% AMI	9,213	7,700	84%	29%
31% to 60% AMI	13,055	7,765	59%	29%
61% to 80% AMI	5,351	2,512	47%	9%
81% to 100% AMI	10,091	3,529	35%	13%
101% to 120% AMI	9,074	2,279	25%	9%
Above 120% AMI	46,602	2,843	6%	11%
TOTAL HOUSEHOLDS	93,386	26,628	29%	100%

HOUSING UNITS BY AFFORDABILITY

Mayor's Office of Housing (MOH) tabulates income restricted units in the city.

Approximately 19% of all units have an income restriction, almost all of these units are rental units.

Income restriction is concentrated for households earning less than 60% of Area Median Income (AMI), consistent ratio with cost burdening data.

Almost all the lowest income housing is Housing Authority or projects with city/state/federal subsidy.

	All Units	Rental Units	Owner Units
Total Housing Units in Boston	296,035	198,189	97,846
Income Restricted Units	56,695	53,898	2,797
Percent Income Restricted	19.2%	27.2%	2.9%

Income Restriction Limit	Unit Count	Percent of Total
Under 30% AMI	15,483	27.3%
31% to 50% AMI	21,065	37.2%
51% to 60% AMI	11,908	21.0%
61% to 80% AMI	5,736	10.1%
81% to 120% AMI	1,745	3.1%
Above 120% AMI	143	0.3%
Unknown	615	1.1%
TOTAL UNITS	56,695	100%

IMPLICATIONS

DEMOGRAPHIC

As the City of Boston becomes more diverse, greater numbers and types of housing are required to ensure the growing population has a place to stay. The BIPOC population tends to live in larger households resulting in the need for potentially larger units. The existing housing stock is not sufficient to effectively house the current population, let alone absorb the expected population growth.

MARKET

The market, while currently producing housing units, is not producing enough housing at a price point that is affordable to most of the population. Without the inclusion of affordable housing, more units will be built toward the top-end of the market which will further accelerate gentrification and displacement.

AFFORDABILITY

Higher housing costs crowd out disposable income for other necessities such as food, healthcare, and transportation. Given the recent rise in rents and sales prices, and basic foodstuffs, stable housing costs through deed-restricted affordability can ensure long-term stability for residents during a time of rapid inflation.

MODELING INPUTS

BOSTON INCLUSIONARY DEVELOPMENT POLICY

METHODOLOGY
MODELING INPUTS

All financial feasibility modeling is based upon three principal components: construction costs, operational revenues, and operational costs. Each component relies upon several market-based and financial inputs for the model to be effective.

RKG Associates' approach to model building focuses on using locally-derived inputs so that findings are relevant to the community/study area being considered. To this point, RKG conducted a comprehensive analysis of all facets of financial feasibility of residential development in the City of Boston.

The primary inputs for which local data was derived include, but is not limited to:

Construction Costs
- Soft costs – design and preparation
- Hard costs – materials and construction
- Land costs – physical location

Operation Costs
- Financing costs – debt and equity to pay for the project
- Marketing, management, repairs, property taxes

Operational Revenues
- Rental rates and sale prices
- Parking revenue

METHODOLOGY
CONSTRUCTION COSTS

To determine hard costs for construction and parking, RKG interviewed several for-profit and non-profit developers, as well as referencing Marshall & Swift Valuation Services data to build out customized per square foot construction costs for stick, stick over podium, and steel frame construction typologies.

Similarly, RKG collected information on construction costs for three types of parking costs in Boston: surface, structured podium parking, and underground.

Lastly, a land cost analysis was conducted by RKG on recently completed residential projects to understand the land price per unit developers have paid.

METHODOLOGY
OPERATIONAL COSTS

Development financing is possibly the most important element of any real estate deal. Different types of financing are available depending upon the scale of the project.

Through interviews with for-profit and non-profit developers, RKG gained an understanding around debt, operational costs, and vacancy assumptions used in developer proformas.

Additionally, information on financial return expectations was obtained and used as a benchmark for the IDP financial feasibility model to understand the impact policy changes may have on a projects financial return metrics.

METHODOLOGY
REVENUES

RKG collected rental rate data for residential projects completed since 2018, which included pricing for efficiency (studio), one-bedroom, two-bedroom, and three-bedroom apartments.

The market rental rates were used as a baseline for the analysis and compared to information obtained from developer interviews.

The sales values of housing units were determined through a combination of market research and utilizing the BPDA's property sales database to parse the most recent sales values by bedroom count.

The results were used to set baseline assumptions around sale prices in the model.

DEVELOPMENT ASSUMPTIONS
HARD AND SOFT COSTS

Hard construction costs vary by building construction type:

- Stick
- Stick over podium
- Steel

Soft costs average around 20% of hard costs.

Underground parking is extremely expensive and averages about $125,000 per space.

Construction Assumptions

Hard Construction Costs (PSF)	Apartment	Condo
Stick	$340	$390
Stick Over Podium	$390	$440
Steel Frame	$490	$540

Soft Costs (% of Hard Cost)	
Soft Costs	20.00%

Parking Costs (Per Space)	
Surface	$35,000
Underground	$67,500
Structured Above	$125,000

Note: Values are based on data collected from stakeholders.

OPERATING EXPENSES

Operating expenses are the cost of a property owner to market, maintenance and manage a rental property.

Operating costs do not vary for market rate or income-controlled units, as costs do not change dramatically based on a tenant.

Vacancy and collection loss for new construction projects are consistent throughout Boston, with most impacts reflecting turnover (time between tenant occupation).

Operating Expenses (% of Rev)	
Operating Costs	25%
Vacancy Rates	5%

Note: Values are based on data collected from stakeholder interviews.

Source: Developer Interviews, RKG Associates, 2022

DEVELOPMENT ASSUMPTIONS FINANCIAL

Changing interest rate environment makes financing a project more difficult.

Larger developers can attain better rates than smaller developers.

Equity requirements average around 30%

Developer returns vary depending on the type of metrics they use.

Financial Assumptions

Financing Costs	
Interest Rate	5.00%
Equity Required	30%

Expected Financial Return	Average
Internal Rate of Return (IRR)	15.00%
Cash on Cash (COC)	5.00%
Return on Cost	5.50%

Note: Values are based on data collected from stakeholder interviews.

REVENUE ASSUMPTIONS
MARKET RATE RENTS PER SF

RKG conducted a market survey and used the MOH rental database to analyze rents by neighborhood for new construction product built in the last five years.

Median rent for new construction product built in the last five years across all unit types is $5.36/SF ($4,609 per month).

Based on interviews with developers, rent on new product is now between $5-$7/SF depending on location.

Neighborhood	Studio	1BR	2BR	3BR
Jamaica Plain/Hyde Park/Roslindale/West Roxbury	$4.78	$4.38	$3.96	$4.24
Roxbury/Mattapan/Dorchester	$5.43	$4.64	$4.46	$3.92
Longwood Medical Area/Mission Hill	$5.12	$4.91	$4.72	$4.57
Allston/Brighton	$6.45	$5.36	$5.16	$5.78
Bay Village/Fenway	$7.50	$6.67	$5.88	$7.84
Back Bay/Beacon Hill/Chinatown/Downtown/North End/ South Boston/South Boston Waterfront/ South End/West End	$7.29	$6.34	$5.40	$7.84
Charlestown	$5.89	$4.47	$3.92	$5.78
East Boston	$6.16	$5.09	$4.34	$3.98

Note: In cases where data points were unavailable, RKG used the average price of the neighborhood's existing IDP zone
Source: BPDA Rental Database, RKG Associates, 2022

REVENUE ASSUMPTIONS MARKET RATE CONDO SALE PRICES PER SF

RKG used the MOH sales database to analyze sales prices by neighborhood for new construction product built in the last three years.

Median sales price for new construction product built in the last three years across all unit types is $1,026/SF ($1.1 million).

Neighborhood	Studio	1BR	2BR	3BR
Jamaica Plain/Hyde Park/Roslindale/West Roxbury	$1,138	$661	$646	$497
Roxbury/Mattapan/Dorchester	$1,061	$668	$591	$464
Longwood Medical Area/Mission Hill	$1,286	$1,339	$980	$1,833
Allston/Brighton	$1,140	$992	$958	$637
Bay Village/Fenway	$1,286	$1,587	$1,617	$1,833
Back Bay/Beacon Hill/Chinatown/Downtown/North End/ South Boston/South Boston Waterfront/ South End/West End	$1,146	$1,250	$1,076	$1,193
Charlestown	$1,138	$792	$785	$920
East Boston	$1,061	$866	$731	$656

Note: In cases where data points were unavailable, RKG is showing the average price of that neighborhood's IDP zone
Source: BPDA Sales Database, RKG Associates, 2022

PARKING REVENUES PER SPACE

In Boston (and most urban settings) the type of parking provided for the building often dictates how much the developer can charge in monthly parking fees.

RKG researched newly constructed residential developments and asked developers during interviews about the typical average monthly parking rate for different types of parking facilities. We found the average monthly price ranges from about $215 per month for surface parking to just under $400 per month for underground parking.

Parking Type	Min	Max	Average
Surface	$215	$215	$215
Aboveground	$140	$400	$278
Underground	$199	$475	$399

Source: Apartments.com, RKG Associates, 2022

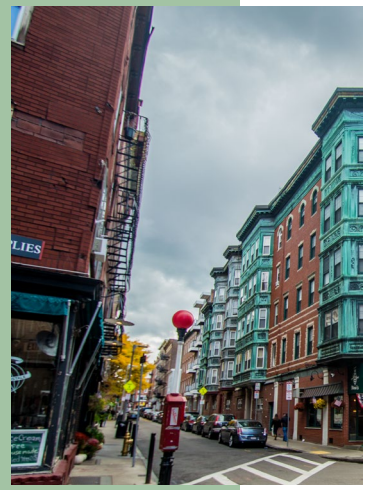
METHODOLOGICAL OVERVIEW

THE IDP FINANCIAL FEASIBILITY MODEL IS A PROFORMA-BASED EXCEL MODEL THAT IS DESIGNED TO TEST THE FINANCIAL IMPACT OF POTENTIAL POLICY CHANGES AGAINST THE FINANCIAL RISK/REWARD OF A POTENTIAL INVESTMENT.

RKG's financial feasibility model uses locally-sourced data to determine how changes to Boston's IDP could impact the financial performance of a potential project. At its most basic level, the model is designed to capture construction and operational costs and compare those to potential revenues to determine if the project will meet or exceed local return expectations.

The model has the capability to test variations across nearly all data points to test the sensitivity of dozens of variables on financial feasibility. This includes variability in construction costs, land costs, operational costs, development type and size, location within the city, and more. The model is also set up to test changes in IDP metrics such as the percentage of affordable units, target AMIs, unit thresholds, and more.

While the model is a powerful tool to understand the impacts of changes to the IDP and the sensitivity of modifying assumptions, it is not intended to be the only analytic or policy tool the City of Boston should consider as it weighs changes to IDP.



MODEL OUTPUTS

THE CORE FUNCTION OF THE IDP MODEL IS TO UNDERSTAND HOW CHANGES IN POLICY IMPACT FINANCIAL RETURNS COMPARED TO MARKET EXPECATATIONS.

FINANCIAL ANALYSES

The model measures three financial outcomes using three different metrics; Cash On Cash (COC), Internal Rate of Return (IRR), and Land Values. Each measure represents a decision point for those involved in the transactions that make residential development financially feasible:

- COC – Investors/Developers
- IRR – Developers/Operators
- Land Values – Property Owners

For a project to move forward, each group must have confidence that their investment requirements and return expectations can be met. Each group is measuring the risk/reward of a given project compared to other opportunities that may be in Boston, elsewhere in Massachusetts, or in other markets across the United States.

It is important to recognize that for a project to move forward, it requires support from all three groups to move forward.

PROJECT EXAMPLES

To test the financial implications of changes to IDP, the model was constructed with data local to different subareas across the city recognizing that development costs and revenue assumptions vary depending on where a project is located in Boston.

To highlight these differences, this report provides examples of how different development and location assumptions can impact financial feasibility including:

- Selected neighborhoods that have varying development typologies and market factors (e.g., price points)
- Impacts of smaller (25 units) and larger (200 units) projects in each subarea
- Using different development assumptions based on project size and location

IMPLICATIONS

THE FINANCIAL FEASIBILITY MODEL IS LIMITED BY ITS INPUTS.

Given the complexity of development projects in urban environments like Boston, it is difficult to model every possible nuance or special situation that may create unique outcomes for a project. This model uses averages and typical development scenarios based on recent development trends in Boston. The model is sensitive to changes in these underlying assumptions, so in the future if costs and revenues deviate from normal averages, we may anticipate outcomes in the model to change as well.

FINANCIAL PERFORMANCE IS JUST ONE FACTOR IN THE DECISION-MAKING PROCESS OF DEVELOPERS.

It is important to acknowledge that the financial performance of a project is one of many factors developers and investors consider when looking at a deal. Developers also assess project risk and feasibility based on ease of process and permitting, flexibility in zoning, location and amenities, strength of the market, and strategic value. Given the variability and difficulty of assessing all of these additional factors, the model focuses primarily on the financial aspects of the project.

FEASIBILITY ANALYSIS

BOSTON INCLUSIONARY DEVELOPMENT POLICY

INPUTS

The model functions on a traditional proforma analysis platform, measuring the potential revenue of a real estate investment and comparing it to the costs and expenditures to construct, operate, and capitalize the asset.

The modeling efforts compared the financial performance of 16 distinct residential development scenarios under the existing IDP against the financial performance of those same scenarios under an enhanced IDP.

INPUTS

The model has three primary components that drive the financial performance analysis:

Development Assumptions – The development assumptions focus on the 'bricks and mortar' facets of the proposed residential developments. Factors such as total unit count, unit breakout by bedroom count, average unit size by bedroom count, type of parking, and the cost of land to accommodate the development. These factors influence construction costs, potential operational revenues (for rental housing) and sale values (for ownership housing).

Financial Assumptions – The financial assumptions include factors relating to debt and equity requirements, the cost of development financing (i.e., mortgage rates), inflation and appreciation rates (for operational costs and revenues), and project return expectations.

Affordability Assumptions – The affordability assumptions include the market performance data such as market rent rates, target income thresholds for the IDP units, assumptions about the size of the inclusionary units, and the percent requirement of IDP units of the total development.

RENTAL FEASIBILITY ANALYSIS

BOSTON INCLUSIONARY DEVELOPMENT POLICY

TESTING COC FOR CHANGES IN INCLUSIONARY DEVELOPMENT POLICY

ANALYSIS OF SMALL TO LARGE SIZED

PROJECTS IN INNER CORE AND OUTER AREA

SITES

ANALYSIS OF EXISTING IDP PROJECTS

The financial feasibility analysis conducted by RKG provides key insights regarding the relative impact on development finance resulting from abiding by the exiting IDP policy.

To that end, RKG modeled multiple prototypical development scenarios by calibrating the model with market-tested assumptions and tested the findings against real world examples.

The financial model calculates the basic go/ no-go decision a developer must make about a potential project. The decision to pursue a project comes down to overall financial return and risk exposure.

The model tests Internal Rate of Return (IRR), Return on Cost (ROC), and Cash on Cash (COC) metrics. The rental analysis focuses on the COC metric, as it was proven to be the most difficult to reach market return expectations (noted through feedback to currently be 5.00% preferred, 4.50% minimum).

The market scenario analysis provides an assessment of how a project would perform (financially) based on market averages for acquisition, construction, operation, and reversion.

The analysis presents the performance of projects when using varying inclusionary percentages and AMI thresholds.

Across all subareas of the city, the results of the analysis hold true, as both the percentage requirement of IDP units increases as well as affordability, project profitability decreases.

EXISTING IDP PROJECT ANALYSIS
ASSUMPTIONS USED

SMALLER PROJECT SCENARIO

- 10% premium in rent above existing newer units
- Stick built construction
- Land values adjusted for project size and neighborhood
- Parking type varies by neighborhood
- Parking ratio varies by neighborhood
- Contribution for partial unit to IDP Fund
- Existing Zone determines contribution value

LARGER PROJECT SCENARIO

- 10% premium in rent above existing newer units
- Construction varies by neighborhood
- Land values adjusted for project size and neighborhood
- Parking type varies by neighborhood
- Parking ratio varies by neighborhood
- Contribution for partial unit to IDP Fund
- Existing Zone determines contribution value

The 'Fine Print'

- The model was built on market averages
  - Citywide – construction costs, financing
  - Neighborhood – land values, revenues
- Each project is unique, there is no way for a model to be able to predict every contingency of development
- The IDP model offers the user substantial latitude to change assumptions to understand the sensitivity of each variable on financial performance
- That said, the model is very capable of showing the relative impact of assumption changes on the performance of a project

SMALL PROJECT 25 UNITS

RKG tested the existing IDP requirement of 13% of the units to be priced at 70% of AMI for a small project in Allston/Brighton. **Under the current policy, 3.25 of the 25 new units would be required to be affordable.**

The financial return both from a COC and IRR perspective are above a developer's expected return and therefore the project would be pursued. As indicated in the table, as affordability and inclusionary requirements increase, project viability decrease.

Ultimately, a straight 20% of units at 60% of AMI would yield a 3.64% COC, making the project infeasible to a potential investor without some cost offsets. These results are similar throughout the city.

Inner Core
Allston/Brighton

COC		Target Income AMI (Average)				
		70% AMI	60% AMI	50% AMI	40% AMI	30% AMI
Share of All Units	13%	5.37%	5.18%	4.99%	4.79%	4.60%
	17%	4.61%	4.35%	4.09%	3.83%	3.58%
	20%	3.95%	3.64%	3.33%	3.01%	2.70%
	25%	2.89%	2.51%	2.12%	1.73%	1.35%
	30%	2.13%	1.68%	1.22%	0.77%	0.32%

IRR		Target Income AMI (Average)				
		70% AMI	60% AMI	50% AMI	40% AMI	30% AMI
Share of All Units	13%	17.34%	17.00%	16.66%	16.31%	15.96%
	17%	15.97%	15.50%	15.03%	14.55%	14.06%
	20%	15.09%	14.49%	13.89%	13.28%	12.65%
	25%	12.75%	11.98%	11.20%	10.40%	9.58%
	30%	10.94%	10.02%	9.07%	8.09%	7.06%

LARGE PROJECT 200 UNITS

RKG tested the existing IDP requirement of 13% of the units to be priced at 70% of AMI for a small project in East Boston. **Under the current policy, 26 of the 200 new units would be required to be affordable.**

Under this scenario the project is borderline viable depending on the metrics used by the developer. From a COC perspective the project is not viable, while under an IRR perspective it could potentially be viable.

If there were changes to the IDP policy this project would become infeasible as affordability requirements increase.

Outer Area
East Boston (non-waterfront)

COC		Target Income AMI (Average)				
		70% AMI	60% AMI	50% AMI	40% AMI	30% AMI
Share of All Units	13%	3.85%	3.65%	3.44%	3.23%	3.02%
	17%	3.15%	2.88%	2.61%	2.34%	2.06%
	20%	2.54%	2.22%	1.89%	1.57%	1.24%
	25%	1.64%	1.24%	0.83%	0.43%	0.02%
	30%	0.79%	0.30%	-0.18%	-0.66%	-1.14%

IRR		Target Income AMI (Average)				
		70% AMI	60% AMI	50% AMI	40% AMI	30% AMI
Share of All Units	13%	14.90%	14.51%	14.11%	13.70%	13.30%
	17%	13.55%	13.01%	12.47%	11.92%	11.36%
	20%	12.34%	11.67%	11.00%	10.31%	9.61%
	25%	10.47%	9.60%	8.70%	7.77%	6.80%
	30%	8.59%	7.48%	6.32%	5.10%	3.82%

TESTING COC FOR PREFERRED APPROACH

- ANALYSIS OF SMALL TO LARGE SIZED PROJECTS IN INNER CORE AND OUTER AREA SITES
- FINE TUNED FINANCIAL AND COSTS ASSUMPTIONS BASED ON LOCATION AND PROJECT SIZE

ANALYSIS OF PREFERRED APPROACH

Based on the results of the analysis of the existing IDP program, RKG and the MOH have engaged on how the IDP policy can be modified to enhance the city's efforts to promote housing diversity. To that end, a new and emerging concept has begun to take shape which integrates the current IDP approach with BHA Tenant-Based Vouchers, which serve extremely low-income households while paying 120% to 165% of AMI.

Using BHA vouchers, offers an alternative that meets the need of households requiring deeply affordable units, while at the same time ensuring developers can make projects work.

To test the results of this approach, RKG calibrated the financial model to allow for 20% of the units to be affordable, under a scenario where 17% of units are at 60% of AMI and 3% of the units are part of the BHA program.

The hybrid approach improves the financial feasibility of a prototypical project and results in being able to serve lower-income households.

Across all subareas of the city, the analysis indicate that financial feasibility can be achieved through this method. That said, the results are not strong in all subareas and will require development or financial adjustments to reach financial feasibility in some areas of the city (assuming market averages for costs and revenues hold consistent).

SMALL PROJECT 25 UNITS

Under the hybrid approach towards IDP, RKG tested an IDP requirement of 20% of the units being affordable, with 17% of the units at 60% of AMI and 3% of the units using BHA vouchers. Under this scenario, 5 of the 25 new units would be required to be affordable.

Based on a COC (5.45%) approach **the project would be financially viable to a potential developer**.

Inner Core

Back Bay/Beacon Hill/Chinatown/ Downtown/North End/South Boston/ South Boston Waterfront/South End/West End

Construction Assumption	
Construction Type	Wood Frame
Parking Ratio (Spaces per Unit)	0.375
Land Price per Door	$75,000

Revenue Assumptions	
Percentage Set-Aside at 60% AMI	17%
Percentage Set-Aside at 121% AMI	3%
Market Rate Rents	
Studio	$6.96
1-Bedroom	$6.05
2-Bedroom	$5.16
3-Bedroom	$7.48

Financial Return	
Cash on Cash (COC)	**5.45%**

SMALL PROJECT
25 UNITS

Outer Area
Roxbury/Mattapan/Dorchester

Under the hybrid approach towards IDP, RKG tested an IDP requirement of 20% of the units being affordable, with 17% of the units at 60% of AMI and 3% of the units using BHA vouchers. Under this scenario, 5 of the 25 new units would be required to be affordable.

Based on a COC (4.41%) approach, **the project is below return expectations and would be require a developer to seek some cost relief** through mitigating other expenses (e.g., community benefit contributions).

Construction Assumption	
Construction Type	Wood Frame
Parking Ratio (Spaces per Unit)	0.375
Land Price per Door	$50,000

Revenue Assumptions	
Percentage Set-Aside at 60% AMI	17%
Percentage Set-Aside at 121% AMI	3%
Market Rate Rents	
Studio	$5.43
1-Bedroom	$4.64
2-Bedroom	$4.46
3-Bedroom	$3.92

Financial Return	
Cash on Cash (COC)	**4.41%**

MID-SIZED PROJECT
125 UNITS

Inner Core
Allston/Brighton

Under the hybrid approach towards IDP, RKG tested an IDP requirement of 20% of the units being affordable, with 17% of the units at 60% of AMI and 3% of the units using BHA vouchers. Under this scenario, 25 of the 125 new units would be required to be affordable.

Based on a COC (4.89%) approach, **the project falls within the range of current market viability but may not be financially viable to all investors.** However, the difference between achieving the preferred rate of return versus the actual return is relatively small.

Construction Assumption	
Construction Type	Stick-on-Podium
Parking Ratio (Spaces per Unit)	0.375
Land Price per Door	$45,000

Revenue Assumptions	
Percentage Set-Aside at 60% AMI	17%
Percentage Set-Aside at 121% AMI	3%
Market Rate Rents	
Studio	$6.45
1-Bedroom	$5.36
2-Bedroom	$5.16
3-Bedroom	$5.78

Financial Return	
Cash on Cash (COC)	**4.89%**

MID-SIZED PROJECT
125 UNITS

Outer Area
Jamaica Plain/Hyde Park/Roslindale/West Roxbury

Under the hybrid approach towards IDP, RKG tested an IDP requirement of 20% of the units being affordable, with 17% of the units at 60% of AMI and 3% of the units using BHA vouchers. Under this scenario, 25 of the 125 new units would be required to be affordable.

Based on a COC (4.83%) approach, **the project falls within the range of current market viability but may not be financially viable to all investors.** However, the difference between achieving the preferred rate of return versus the actual return is relatively small.

Construction Assumption	
Construction Type	Wood Frame
Parking Ratio (Spaces per Unit)	0.375
Land Price per Door	$40,000

Revenue Assumptions	
Percentage Set-Aside at 60% AMI	17%
Percentage Set-Aside at 121% AMI	3%
Market Rate Rents	
Studio	$5.22
1-Bedroom	$4.78
2-Bedroom	$4.32
3-Bedroom	$4.62

Financial Return	
Cash on Cash (COC)	**4.83%**

LARGE PROJECT 200 UNITS

Under the hybrid approach towards IDP, RKG tested an IDP requirement of 20% of the units being affordable, with 17% of the units at 60% of AMI and 3% of the units using BHA vouchers. Under this scenario, 40 of the 200 new units would be required to be affordable.

Based on a COC (4.57%) approach, **the project falls within the range of current market viability but may not be financially viable to all investors.** This scenario is close to the noted minimum rate of return currently sought in the marketplace. Finding a reduction in development costs may be needed to attract investors.

Inner Core

Back Bay/Beacon Hill/Chinatown/ Downtown/North End/South Boston/ South Boston Waterfront/South End/West End

Construction Assumption	
Construction Type	Stick-on-Podium
Parking Ratio (Spaces per Unit)	.375
Land Price per Door	$45,000

Revenue Assumptions	
Percentage Set-Aside at 60% AMI	17%
Percentage Set-Aside at 121% AMI	3%
Market Rate Rents	
Studio	$6.90
1-Bedroom	$6.05
2-Bedroom	$5.16
3-Bedroom	$5.78

Financial Return	
Cash on Cash (COC)	**4.57%**

LARGE PROJECT 200 UNITS

Outer Area
East Boston (non-waterfront)

Under the hybrid approach towards IDP, RKG tested an IDP requirement of 20% of the units being affordable, with 17% of the units at 60% of AMI and 3% of the units using BHA vouchers. Under this scenario, 40 of the 200 new units would be required to be affordable.

Based on a COC (4.50%) approach, **the project falls within the range of current market viability but may not be financially viable to all investors.** This scenario is close to the noted minimum rate of return currently sought in the marketplace. Finding a reduction in development costs may be needed to attract investors.

Construction Assumption	
Construction Type	Wood Frame
Parking Ratio (Spaces per Unit)	.375
Land Price per Door	$30,000

Revenue Assumptions	
Percentage Set-Aside at 60% AMI	17%
Percentage Set-Aside at 121% AMI	3%
Market Rate Rents	
Studio	$6.16
1-Bedroom	$5.09
2-Bedroom	$4.34
3-Bedroom	$3.98

Financial Return	
Cash on Cash (COC)	**4.50%**

IMPLICATIONS

THE HYBRID APPROACH USING BHA VOUCHERS HELPS TO SOLVE THE ISSUE OF BUILDING DEEPLY AFFORDALBE UNITS.

The combination of BHA vouchers and 60% AMI units assists in bridging the gap between deeper affordability and project viability. Households in the low- to middle- income category will potentially have greater housing choice to meets their needs.

GREATER NUMBERS OF BHA VOUCHERS AND GREATER SUBSIDY AMOUNT WILL BE REQUIRED TO IMPLEMENT THE HYBRID APPROACH.

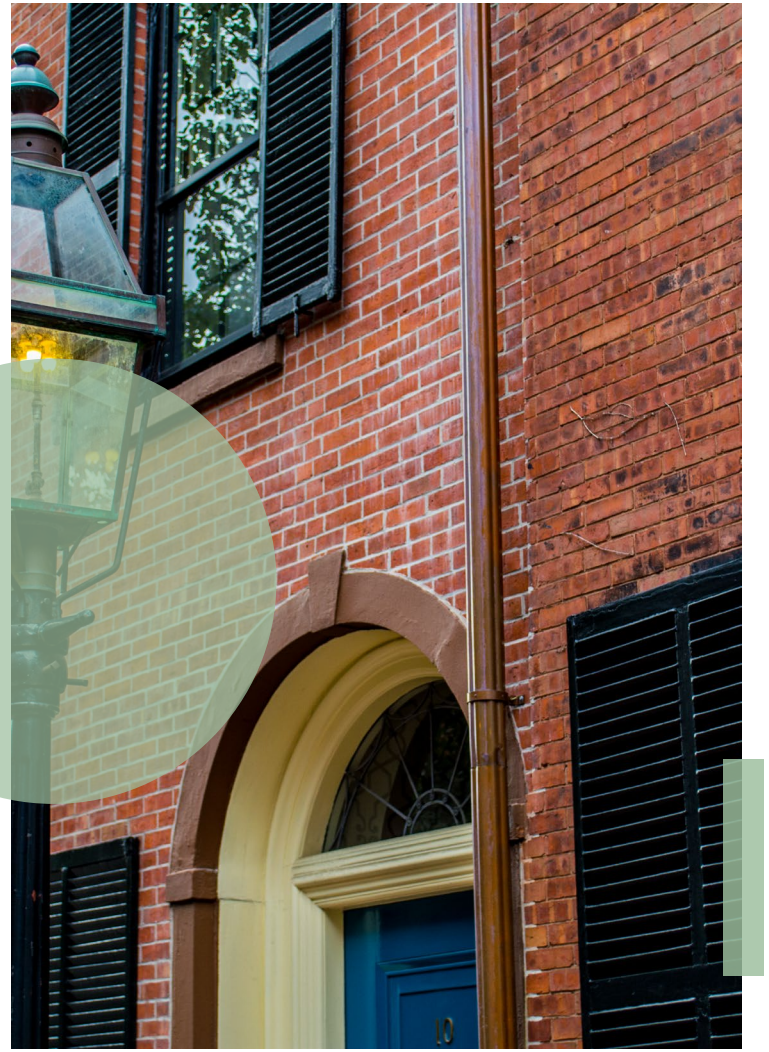
To enact the Hybrid IDP approach, the city will be required to commit several housing vouchers to these market-rate projects, potentially creating competition with subsidized projects (e.g., LIHTC projects) and/or commit greater funds toward subsidizing units. Currently, long waitlists exist for housing vouchers as demand outstrips supply. If the policy change is enacted, then voucher demand will further increase.

OWNERSHIP FEASIBILITY ANALYSIS

BOSTON INCLUSIONARY DEVELOPMENT POLICY

TESTING IRR FOR CHANGES IN INCLUSIONARY DEVELOPMENT POLICY

ANALYSIS OF MID-SIZED PROJECTS IN INNER CORE AND OUTER AREA SITES



ANALYSIS OF EXISTING IDP OWNERSHIP UNIT POLICY

The current IDP program for ownership units requires a developer to set aside 13% of the units with 50% of the units priced at 80% of AMI and 50% of the units priced at 100% of AMI. This results in a blended rate of 90% AMI units. The IDP also allows for off-site units which must be built within one-half mile from the proposed project site. And requires that in Zones A and B 18% of the units must be set aside, while only 15% are required to be set aside in Zone C

Recent projects indicate the program has an effective set aside rate of 17%. This rate is higher than the 13% outlined in the ordinance and is a result of the negotiation process during permitting between the developer and the city.

As part of the analysis, RKG modeled increases in the minimum set aside across all eight subareas. RKG tested a mid-size 50-unit ownership development in various locations of the city with differing construction types and associated finishes. The analysis investigated the impact on development feasibility by looking specifically at the Internal Rate of Return (IRR). The IRR is a standard metric developers use to assess financial feasibility on for-sale product. **An IRR of 20% typically indicates a project is financially feasible.**

MID-SIZE PROJECT 50 UNITS

Outer Area
Jamaica Plain/Hyde Park/Roslindale/West Roxbury

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the outer areas of the city (JP/Hyde Park/Roslindale/West Roxbury) is not financially feasible. Even with a relatively low land cost per unit, the average market sales price of a unit is not sufficient to generate the required financial return on investment.

Given that the project is currently financially infeasible, **increasing the required set aside would further decrease the financial performance of the project.**

Project Assumptions	
Construction Type	Wood Frame
Construction Finishes	Standard
Parking Type	Surface
Average Market Price (PSF)	$735
Average Land Cost (Per Unit)	$59,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	18%	19%	20%
Internal Rate of Return (IRR)	-100%	-100%	-100%	-100%

MID-SIZE PROJECT 50 UNITS

Outer Area
Roxbury/Mattapan/Dorchester

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the outer areas of the city (Roxbury/Mattapan/Dorchester) is not financially feasible. Even with a relatively low land cost per unit, the average market sales price of a unit is not sufficient to generate the required financial return on investment.

Given that the project is currently financially infeasible, **increasing the required set aside would further decrease the financial performance of the project.**

Project Assumptions	
Construction Type	Wood Frame
Construction Finishes	Standard
Parking Type	Surface
Average Market Price (PSF)	$693
Average Land Cost (Per Unit)	$59,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	-100%	-100%	-100%	-100%

MID-SIZE PROJECT 50 UNITS

Inner Core
Longwood Medical Area/Mission Hill

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the inner core of the city (LMA/Mission Hill) is financially feasible. Even with a high land cost per unit, the average market sales price of a unit is more than sufficient to generate the required financial return on investment. A prototypical project yields an IRR of 28%.

Given that the project is currently financially feasible, **increasing the required set aside to 20% would decrease the financial performance of the project and push the IRR below the 20% threshold.**

Project Assumptions	
Construction Type	Stick-on-Podium
Construction Finishes	Higher-End
Parking Type	Aboveground
Average Market Price (PSF)	$1,359
Average Land Cost (Per Unit)	$337,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	28.0%	22.9%	22.1%	16.0%

MID-SIZE PROJECT 50 UNITS

Inner Core
Allston/Brighton

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the inner core of the city (Allston/Brighton) is financially feasible. Even with a moderately high land cost per unit, the average market sales price of a unit is more than sufficient to generate the required financial return on investment. A prototypical project yields an IRR of 32.4%.

The analysis indicates that **increasing the required set aside to 20% would result in an IRR of 20.9%, slightly above the target financial performance threshold of 20%.**

Project Assumptions	
Construction Type	Wood Frame
Construction Finishes	Above Average
Parking Type	Aboveground
Average Market Price (PSF)	$931
Average Land Cost (Per Unit)	$82,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	32.4%	26.9%	25.3%	20.9%

MID-SIZE PROJECT 50 UNITS

Inner Core
Bay Village/Fenway

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the inner core of the city (Bay Village/Fenway) is financially feasible. Even with a very high land cost per unit, the average market sales price of a unit is more than sufficient to generate the required financial return on investment. A prototypical project yields an IRR of 43.0%.

Because recent condominium development in the Bay Village/Fenway area has a high price point, the project remains viable at 20% of the units.

Project Assumptions	
Construction Type	Stick-on-Podium
Construction Finishes	Premium
Parking Type	Aboveground
Average Market Price (PSF)	$1,580
Average Land Cost (Per Unit)	$337,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	43.0%	39.2%	36.4%	34.1%

MID-SIZE PROJECT 50 UNITS

Inner Core

Back Bay/Beacon Hill/Chinatown/ Downtown/North End/South Boston/ South Boston Waterfront/South End/ West End

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the inner core of the city (Back Bay/Beacon Hill/etc.,) is financially feasible. Even with a very high land cost per unit, the average market sales price of a unit is more than sufficient to generate the required financial return on investment. A prototypical project yields an IRR of 32.3%.

The analysis indicates that **increasing the required set aside to 20% would result in an IRR of 20.6%, slightly above the target financial performance threshold of 20%.**

Project Assumptions	
Construction Type	Stick-on-Podium
Construction Finishes	Premium
Parking Type	Aboveground
Average Market Price (PSF)	$1,166
Average Land Cost (Per Unit)	$337,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	32.3%	27.2%	25.5%	20.6%

MID-SIZE PROJECT 50 UNITS

Outer Area
Charlestown

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the outer areas of the city (Charlestown) is not financially feasible. Even with a relatively low land cost per unit, the average market sales price of a unit is not sufficient to generate the required financial return on investment.

Given that the project is currently financially infeasible, **increasing the required set aside would further decrease the financial performance of the project.**

Project Assumptions	
Construction Type	Wood Frame
Construction Finishes	Standard
Parking Type	Surface
Average Market Price (PSF)	$908
Average Land Cost (Per Unit)	$59,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	24.0%	18.5%	17.4%	13.3%

MID-SIZE PROJECT 50 UNITS

Outer Area
East Boston (non-waterfront)

Under the current effective rate of 17% of the units set aside at 90% of AMI on a 50-unit project in the inner core of the city (East Boston) is financially feasible. Even with a moderately high land cost per unit, the average market sales price of a unit is more than sufficient to generate the required financial return on investment. A prototypical project yields an IRR of 32.5%.

The analysis indicates that **increasing the required set aside to 20% would result in an IRR of 21.0%, slightly above the target financial performance threshold of 20%.**

Project Assumptions	
Construction Type	Wood Frame
Construction Finishes	Above Average
Parking Type	Surface
Average Market Price (PSF)	$829
Average Land Cost (Per Unit)	$82,000

	Unit Set Aside Rate (at 90% Blended AMI)			
	17%	**18%**	**19%**	**20%**
Internal Rate of Return (IRR)	32.5%	27.9%	26.5%	21.9%

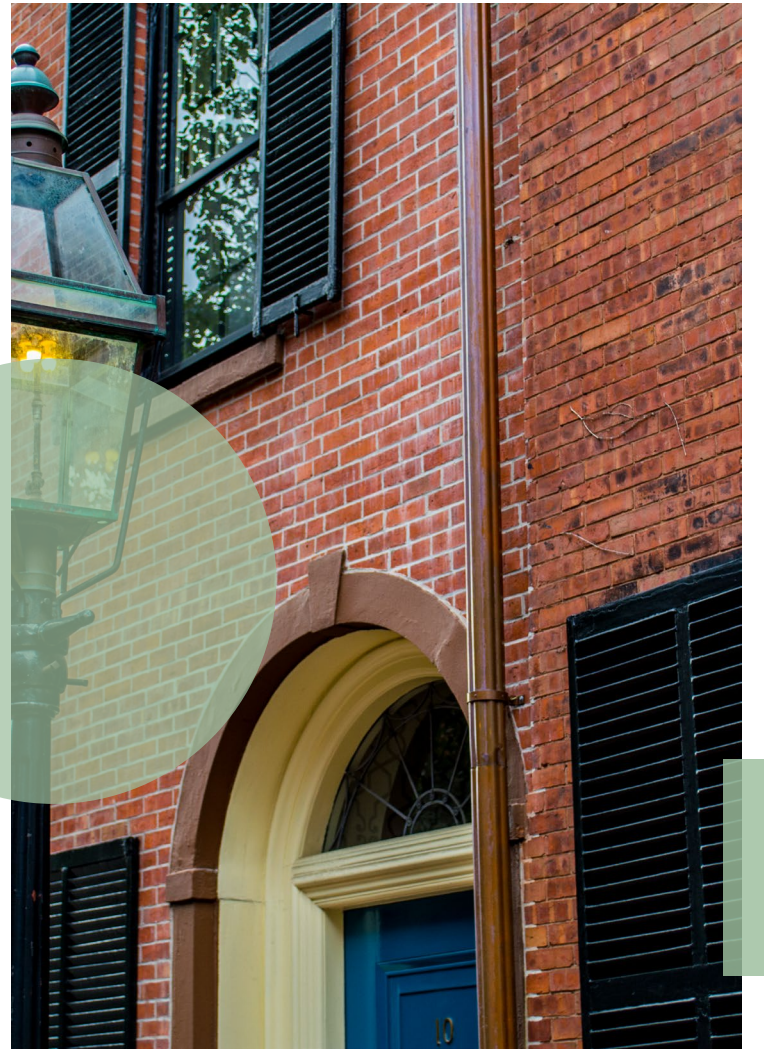
IMPLICATIONS

OWNERSHIP DEVELOPMENTS IN THE OUTER AREA OF THE CITY ARE GENERALLY NOT FEASIBLE.

Based on the feasibility analysis of the existing IDP policy, the financial outcome of constructing ownership units in the outer areas of the city is mixed. Financial viability is highly dependent on location, construction type, and sales prices, indicating that special circumstance projects may be developed, but the average project continues to have difficulty.

THERE IS AN OPPORTUNITY TO INCREASE THE IDP PERCENTAGE SET ASIDE FOR OWNERSHIP UNITS IN THE URBAN CORE.

Even with very high land prices in the urban core, ownership projects are shown to have IRR's exceeding the 20% expected return. As such, an opportunity exists to increase the set aside percentage in certain areas (Zone A and B) to 20%. That said, efforts to increase the set aside above 20% or lower the average AMI below 90% further reduces the financial analysis results, reducing the areas where projects can be supported (under current market climate metrics).



OTHER POLICY IMPLICATIONS

BOSTON INCLUSIONARY DEVELOPMENT POLICY

UNIT THRESHOLD

The city is considering modifying the minimum threshold for when a development project must adhere to the IDP policy. The current threshold is 10 units. RKG tested the financial impact of reducing the threshold downward from 10 to 6 units across the city, the results within Allston/Brighton and Roxbury/Mattapan/Dorchester are presented here.

Data indicate that reduction in the threshold adversely impacts projects, with smaller projects being more sensitive to IDP changes. The reason for the greater impact is that smaller projects do not generate enough financial return on a dollar basis, to offset the cost of building and delivering a unit. **These findings are consistent throughout all the subareas.**

To avoid 'downsizing' projects, or having development remain one unit below the minimum threshold, the city would need to set the threshold to two units.

COC	Allston/Brighton		Roxbury/Mattapan/ Dorchester	
	With IDP (Preferred Approach)	Without IDP	With IDP (Preferred Approach)	Without IDP
10 Units	4.95%	8.66%	4.71%	7.95%
9 Units	6.68%	8.58%	6.32%	7.94%
8 Units	5.76%	8.08%	5.49%	7.47%
7 Units	6.17%	8.54%	5.85%	7.88%
6 Units	5.70%	8.44%	5.50%	7.84%

VALUE GAP CALCULATIONS

The existing IDP policy offers a developer the opportunity to make a payment in-lieu of delivering units on-site. Typically, this option is exercised by developers of ownership units.

The existing payment in-lieu is based on Zone, with Zone A having the highest payment amount of $380,000 and Zone C having the lowest at $200,000. These values were codified into the zoning ordinance and have not been updated since 2015.

Payment in-lieu values are typically based on the value differential between delivering an affordable and market rate unit. The value differential is based on the expected net operating income and capitalization rate/sales value. RKG quantified the value differential for both owner and renter units for various unit types. **The differential ranges between 1.5x and 3x the existing payment in-lieu fee, which indicates the city has the potential to raise the fee.**

Blended Average Value Gap	Existing IDP Units	Rental Units		Ownership Units	
	Payment in-Lieu Fee	Per Unit Value Gap Differential	Per Square Foot Value Gap Differential	Per Unit Value Gap Differential	Per Square Foot Value Gap Differential
Zone A	$380,000	$629,000	$674.39	$1,031,000	$850.45
Zone B	$300,000	$428,000	$458.88	$599,000	$494.10
Zone C	$200,000	$340,000	$364.53	$366,000	$301.91

IMPLICATIONS

REDUCING THE UNIT THRESHOLD MAY RESULT IN SMALLER PROJECTS WHICH FALL UNDER THE IDP REQUIREMENT.

If the city reduces the 10-unit threshold, the immediate impact would be project proposals falling under the new threshold. The reason for the reduction in units is that on smaller projects the cost of building and delivering an affordable unit is significant in comparison to the financial return and initial capital outlay. As such, developer may try to avoid projects which triggers IDP.

INCREASING THE PAYMENT IN-LIEU THRESHOLD WILL ADJUST THE PAYMENT LEVEL TO BE COMMENSURATE WITH CURRENT MARKET CONDITIONS.

Developers are currently accustomed to the existing IDP payment in-lieu policy. Updating the fee, to a value gap approach will mitigate the 'jump' in return levels for staying one unit under the requirement to deliver the next on-site unit.

COMPREHENSIVE HOUSING ISSUES

BOSTON INCLUSIONARY DEVELOPMENT POLICY

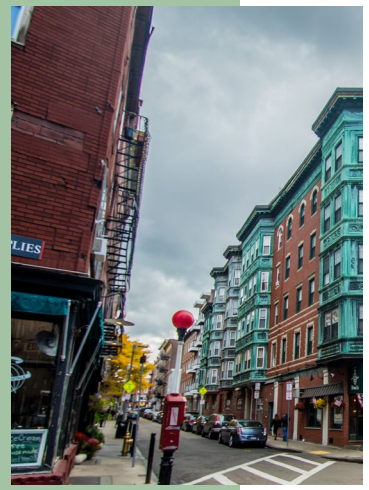
COMPREHENSIVE HOUSING ISSUES

As mentioned in the Introduction section, the IDP is one of many considerations for the city when trying to address the city residents' housing needs. Focusing changes on a singe tool in the toolbox is inefficient and minimizes effectiveness.

The purpose of this section is to outline some of the other market, regulatory, and financial factors that can influence the provision and sustainment of housing price diversity—often several times greater than the inclusionary development policy income and unit threshold.

The following are a list of some of these key variables:

- Zoning
- Approval Process
- Financial Incentives
- Cross-Subsidization
- Linkage
- Construction Costs
- Phasing
- Public Land



ZONING

Zoning is an extremely powerful tool for setting up predictable yet flexible land use policies in the city. There are several ways Boston could use zoning to create a more simplified and streamlined process, as well as incentivize development where desired.

Enacting zoning where specific uses and projects of a certain size are allowed by-right can help reduce the time it takes to get an approval and therefore the cost associated with that approval process. It can also help make development outcomes more predictable in the eyes of the neighborhood.

Zoning that clearly defines density, land use, and design can also save time and reduce costs, but can also create value if incentives are in place to capture value for public good as a trade-off for deeper levels of affordable housing.

The use of zoning tools like density bonuses can be a way to help increase affordability within a project.

APPROVAL PROCESS

The development approval and permitting process in the City of Boston can be long and expensive depending on where a project is located, the size and complexity of the project, and if there is any neighborhood opposition to the project. Speaking with developers across Boston, it was noted that soft costs for construction can constitute 20% of hard costs (between $70 and $100 PSF) for a project. This is a sizable percentage of total construction costs on a per square foot basis and is one of the few cost metrics the City can influence.

Finding ways to reduce those costs through predictable and flexible zoning, streamlined approval processes, and neighborhood planning that sets expectations for residents about future development can have a substantial impact on development costs, and therefore financial feasibility.

FINANCIAL INCENTIVES

The use of financial incentives already exist in Massachusetts and the City of Boston. Both the city and state provide financial support for certain housing projects (e.g., LIHTC Projects), and are making direct and indirect contributions (e.g., reduced cost of publicly-owned land) to increase the production of price-diverse housing.

However, the city's financial tools have been exclusively used to augment other state and federal grant funds, and not invested into private-sector IDP projects. The feasibility analysis reveals that achieving greater set-asides or lower income thresholds are not financially feasibility without some form of financial assistance. The city can use existing programs, or even consider tax abatements, to increase the reach of the IDP without greater risk of market disruption.

CROSS-SUBSIDIZATION

The IDP model measures residential-only developments. Mixed-use projects, particularly those that have included a life science/lab component, offer a substantially different financial reality. Recently developed and approved projects that include a substantial commercial/lab component have offered higher percentages of affordable units because the revenue from life science uses is great enough to offset the revenue losses of the additional affordable units.

There are numerous examples of these mixed-use projects in Boston, Cambridge, and Somerville where cross-subsidization has been a successful model for deeper residential affordability. However, those projects are likely to occur in specific locations that are conducive to the life science market. These projects also require larger land area, higher floor to floor heights, and more intensive infrastructure. These projects are not appropriate for all neighborhoods in Boston and should not be considered a "typical" example of how residential development happens in Boston.

LINKAGE

In addition to analyzing the financial feasibility of changes to IDP, the City is also undertaking a study of the current linkage fee program that applies to commercial development. The current linkage fee program applies a fee of $15.39 per square foot to commercial projects over 100,000 SF in size. Linkage is important to advancing affordable housing in Boston because $13.00 of the $15.39 is dedicated to affordable housing. The linkage fee program generates millions of dollars of flexible funds the City can direct toward affordable housing projects.

The interplay between linkage fees and IDP is important to understand because setting the linkage fees too high could impact commercial feasibility in Boston which would in turn reduce linkage fees for affordable housing. Setting the fee too low could encourage more commercial development at the expense of residential or mixed-use projects. This is why these two policies should be considered in parallel.

CONSTRUCTION COSTS

Construction costs (specifically hard costs) in Boston are twice as high as most other markets across the United States. Some of this is related to the complexities of building in an urban environment with existing infrastructure, but the impact of high construction costs creates the need to generate offsetting revenue from residential rents or sale prices. The pandemic created dramatic shifts in labor and material costs which in turn placed pressure on raising market rents and sale prices. This cycle creates less price diversity in the city and leads to greater levels of gentrification and displacement of existing residents.

The higher construction costs also erode the developer's ability to provide more affordable housing or lower AMIs. Through our modeling efforts we noted a 5% reduction in hard costs (about $19 PSF) for the sample project we tested would have supported 5% more affordable units at 70% of AMI (6 more units) without impacting the financial feasibility of the project.

PHASING

Substantial and immediate changes to any policy or program that impacts development in the city can have a cooling effect on the market and could result in a slowdown of development in the near-term. To moderate these potential shocks to the market, changes to the IDP could be phased in over time with the goal of increasing the affordable housing percentage as well as lowering the AMI targets.

Creating a strategy that increases requirements over a set period can add a level of predictability for both developers and property owners and allow the market to absorb and plan for future changes along the way.

PUBLIC LAND

In addition to regulatory changes and financial incentives, the City of Boston also has control over publicly owned land. Given that land costs are a substantial factor in financial modeling, using low- or no-cost land leases of public land in return for greater levels of residential affordability could be another effective tool.

The City has already begun to explore opportunities for leveraging public land for public good through the Mayor's recent study of city-owned parcels. To date, Boston identified 9.5 million SF of vacant or underutilized land across 1,238 individual parcels. While this land may be used for a variety of public purposes, affordable housing is a top priority for the administration.

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Boston Inclusionary Development Policy
December 2022