# ECONorthwest
## ECONOMICS · FINANCE · PLANNING

DATE:       October 29, 2019
TO:         Erika Leak, City of Austin LDC Revision Team
FROM:       Ian Carlton, Michelle Anderson, Madeline Baron - ECONorthwest
SUBJECT: AUSTIN LAND DEVELOPMENT CODE – AHBP SUMMARY

## Project Understanding

ECONorthwest assisted the City of Austin to define the *Affordable Housing Bonus Program* (AHBP) aspects of the proposed *Land Development Code (LDC) Revision*. Our work helps City of Austin staff address City Council's resolution to update the LDC in a manner that supports the *Austin Strategic Housing Blueprint* (ASHB) by incentivizing the private market production of income-restricted housing. The Austin City Council set goals for increasing affordable housing capacity through an LDC update.

Based on City Council's policy direction and *Neighborhood Housing and Community Development Department* (NHCD) guidance, our work focused on helping City staff maximize feasible affordable housing capacity. To do so, we provided staff with feedback on proposed LDC changes as they were under consideration, which informed the base and bonus entitlements of zones found in the LDC Revision released October 4th. We also provided input on the AHBP parameters that could influence AHBP productivity.

We also calibrated the income-restricted unit set-aside requirements of the bonus program, which involved identifying the optimal proportion of affordable units required in each zone so that developments could maximize affordable housing delivery and maintain the financial incentive for real estate interests to use bonus entitlements rather than base entitlements. Based on our input, City staff from NHCD defined the AHBP parameters that were used when calculating the set-aside requirements. We conducted calibrations of all revised LDC zones on two occasions: once based on a preliminary draft of the revised LDC and once based on the LDC Revision released on October 4th. In both instances, we sent the calibrated affordable housing set-aside requirements to Cascadia Partners so that their team could model the expected affordable unit capacity that might be yielded from the AHBP. Calibration of existing density bonus programs, including the Downtown and University Neighborhood Overlay, fell outside of the scope of this work.

This memorandum summarizes ECONorthwest's work, including the data sources, approach, and rationales for program designs.

## LDC Zoning Revision

To be responsive to City Council direction, the City's LDC Revision team set out to produce a zoning code that would increase the capacity for affordable housing in Austin through a market-reliant density bonus program. We provided feedback on proposed revised LDC zones during staff's development of the LDC Revision.

The City of Austin produced multiple interim draft zoning specifications for the LDC leading up to the October 4th release of the draft LDC Revision. To assist their efforts, we reviewed multiple interim drafts of the LDC Revision and provided feedback on each zoning specification.

To provide an initial assessment of the proposed AHBP, particularly the potential affordable unit capacity, we first reviewed the draft zones to determine which zones in the LDC Revision saw changes from *CodeNEXT Draft 3* (D3. We noted several instances when LDC revisions might impact affordable bonus capacity. For example, initial drafts of the LDC zones consolidated several D3 zones into a single LDC zone such that some of the resulting LDC zones had a smaller bonus than the D3 zones that were consolidated, reducing the affordable housing potential. We also analyzed the specifications of all the LDC zones that included bonuses and provided feedback to City of Austin staff, offering ideas on how to increase the potential for the production of affordable bonus units in each zone. City of Austin staff revised the zones in the revised LDC after reviewing our recommendations and the results of the first capacity analysis.

# Program Parameters

To determine the calibration of the income restricted unit set-asides (the proportion of affordable units required in any building relying on bonus entitlements) for the interim draft zones, we referred to a set of bonus program parameters determined by City of Austin staff. These parameters built upon the most recent D3 policy specifications,[1] feedback that had been provided during the CodeNEXT process, and additional analysis during the LDC revision process. The parameters included policy geographies, tenure (rental versus ownership), development / construction types, zone bonuses, unit set-asides, target incomes (percent of median family income), and alternative compliance options (e.g., in-lieu fees).

## Affordability Targets and Requirements

Based on Council direction to achieve ASHB goals, NHCD determined that the affordability targets and requirements found in D3 would remain the same in the AHBP of the LDC Revision. In particular, NHCD determined that rental housing would be provided at an affordability depth of 60% of *median family income* (MFI) for 40 years and for-sale product would be reserved at an affordability depth of 80% MFI for 99 years. We relied on these affordability targets and requirements when calculating the appropriate AHBP set-asides.

---

[1] Division 23-3E-1: Citywide Affordable Housing Bonus Program and Article 23-3E: Proposed General Administrative Procedures for Affordable Housing Bonus and Downtown Density Bonus Programs

## Policy Geographies

To make the AHBP policy more legible and easier to administer than the D3 proposal, the LDC Revision includes fewer geographies where distinct set-asides could be required. We assisted NHCD with the development of these policy geographies.

CodeNEXT proposed set-aside requirements that could vary across all 220 census tracts in the City of Austin. To define the new policy geographies, these census tract geographies were consolidated into fewer policy geographies through an iterative process. With a focus on reducing the policy geographies to the fewest possible while achieving City Council's capacity targets, we tested multiple options that reflected considerations such as market demand across Austin and the existence of other geographic and political boundaries.

To assist NHCD with this process, we used multiple data sources (CoStar, CMR, Zillow) to estimate achievable rents for each census tract in Austin. Using a clustering algorithm, we consolidated census tracts into fewer geographies that had similar housing rents and price points. These maps were shared with NHCD to help them define new policy geographies. For example, our calibration of the preliminary draft zones relied on a set of policy geographies that clustered census tracts into five geographies with similar prices and rents.

We ran summary statistics on each set of geographic options (e.g. mean, max, and standard deviations of rents and calibrated set-asides), which illuminated a large variance in set-asides in certain areas of the city, suggesting that policy nuance was lost due to consolidation into as few as five geographies. The lack of nuance would contribute to an ineffective bonus policy that required affordable unit set-asides far below what might be feasible in some areas, leaving feasible affordable housing unit capacity "on the table."

We provided additional data and NHCD provided guidance on policy geographies that could capture more market nuance, especially in areas with higher rents and prices, while remaining simpler than the D3 proposal. NHCD's draft policy specification ultimately used more than 10 geographies, which better reflected the market's capacity for delivering affordable units across the city. The geographies are displayed in Figure 1.

**Figure 1. Resulting AHBP Policy Geography Map**
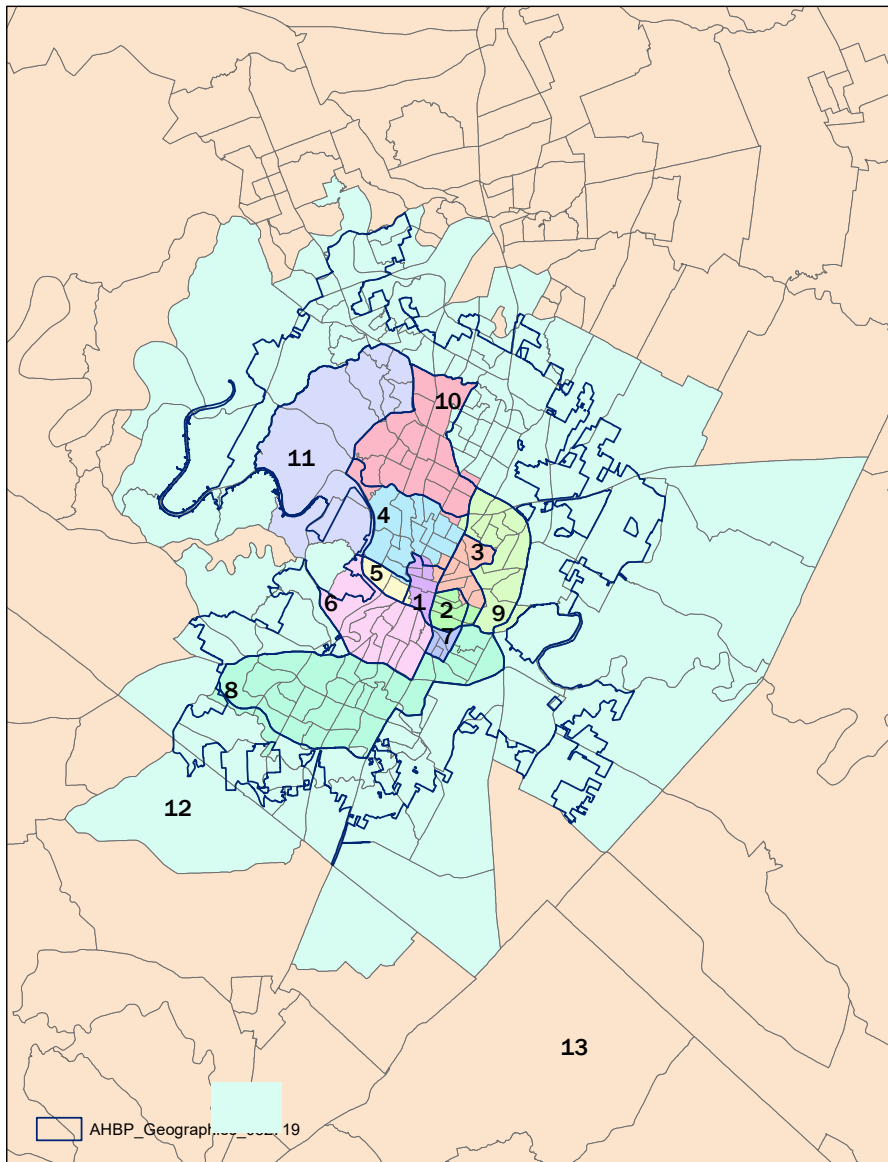


Our analysis calculated set-aside requirements for each zone in each census tract, which did not correspond to the new policy geographies. We tested several methods for translating our tract-level results into NHCD's policy geographies, including the following: a) use the minimum observed census tract-based set-aside found within the larger policy geography to define the requirement in that policy geography, b) use the maximum observed set-aside, c) use the mean observed set-aside, d) use the mean plus one standard deviation, and e) use the mean plus two standard deviations. NHCD decided to translate our census tract results into set-aside requirements for the larger policy geographies by using the lesser of (1) the max observed value of census tracts in the policy geography and (2) the value of the mean plus two standard

deviations based on census tract results in the policy geography. The policy geography results were then rounded down to the closest set-aside requirement found in NHCD's policy tables.

## Set-Aside Options

Based on early feasibility testing, it was noted that the D3 bonus requirements did not reflect the range of set-asides that were feasible across Austin. In the D3 draft set-aside tables, there were relatively large gaps between some set-aside requirements (e.g., 5%, 10%, 15%) such that an Austin submarket that might support 12.5% set-aside was rounded down to a 10% requirement even when a 12.5% set-aside was feasible. NHCD changed the zoning code policy tables to include more set-aside options, which allowed the policy to require higher rates of affordability in markets that supported higher set-asides.

Furthermore, the additional set-aside breakpoints allowed the policy to be simplified. Multiple set-aside requirement tables were included in D3 to capture nuance, but NHCD only needed one table of affordable unit set-aside percentages to define the breakpoints in the LDC Revision, shown in Figure 2.

**Figure 2. AHBP Policy Set-Aside Table\***

| Area | Set-Aside |
|------|-----------|
| A | 5% |
| B | 7% |
| C | 10% |
| D | 12% |
| E | 15% |
| F | 17% |
| G | 20% |
| H | 25% |
| I | 30% |
| J | 40% |
| K | 50% |

Source: ECONorthwest and NHCD
*Note: Rental set-asides are calibrated based on a depth of 60% MFI for 40 years affordability and for-sale set-asides are based on a depth of 80% MFI for 99 years affordability

As noted above, the results of our calibrations defined precise set-aside percentages for each geography that were rounded down to the closest set-aside requirement found in NHCD's policy tables (rounding up would reduce the incentive to use bonus entitlements and contribute to lower total housing capacity and affordable unit capacity). In instances where the feasible set-aside percentage was less than 7%, the values were rounded to the lowest value in the table, 5%. This included instances when our calculations determined that feasible delivery of affordable bonuses was 0%-5%.

## Value Capture

The AHBP rests on the premise that incremental entitlements confer value to real estate interests such that some portion of that value might be used to subsidize affordable housing while the remaining value provides an incentive for real estate interests to use bonus entitlements rather than base entitlements. This is imperative because requiring too much

affordable housing as part of the LDC Revision would diminish the incentive to deliver bonus units, which would reduce overall housing capacity and affordable housing capacity. NHCD determined that the AHBP set-aside requirements would capture one half of the potential bonus value. Remaining bonus value would ensure that the bonus option remained attractive. We used this direction to calculate the AHBP set-aside rates for each revised LDC zone in each policy geography.

To determine how many affordable units might be subsidized as part of a development project, we analyzed how much value an LDC zone's bonus might confer and how much value would be required to subsidize affordable housing in each case. The value that might be conferred and the financial implications of making a unit affordable both vary by submarket, by tenure (rental and for-sale), and based on the differences between what can be built under base and bonus entitlements. To capture these variables, we produced pencil-out pro forma models that reflect how developers, investors, and lenders evaluate real estate deals.

The pro forma analyses used two feasibility models for each LDC zone. One model reflected the base entitlements, including multiple residential for-sale, residential rental, and commercial development options. A second model reflected the residential bonus entitlements for multiple for-sale and rental development options. Depending on the entitlements of each LDC zone, an array of development types (e.g. duplexes, courtyard apartments, and mid-rise apartments) were tested to estimate what a hypothetical developer could feasibly build. These pro forma models were run for each submarket in Austin to reflect the market conditions in each area.[2]

We used *residual land value* (RLV) to consider development feasibility and the value that a density bonus might confer. RLV is an estimate of what a developer would be willing to pay for land when building a particular type of development given income from leases or sales, the cost of construction, and the returns they would need to deliver to investors. While there are other quantitative methods for calculating density bonus value and calibrating affordable density bonus requirements, like an IRR-threshold approach, all of the potential methods share concerns regarding the quality of inputs and sensitivity. An advantage of the RLV approach is that it does not rely on land prices as an input. Rather, observed land prices can be compared with the model outputs to help calibrate the model and ensure it reflects reality.

For each zone in each geography, we compared the RLV results for the development options under base entitlements to those under bonus entitlements to identify the value that might be conferred by a bonus. We calculated the number of affordable units that could be feasibly subsidized with half this incremental bonus value. The set-aside rate was calculated using the number of potential affordable units that might be delivered using the value from bonus entitlements divided by the total number of bonus units. We used this method to arrive at the

---

[2] The market variables were the same as those used to evaluate D3 so that an "apples-to-apples" comparison could be made between D3 capacity results generated by Fregonese Associates in 2018 and LDC capacity results generated by Cascadia Partners in 2019

set-asides for both rental and for-sale product in each census tract in Austin for every revised LDC zone.

## Draft Calibration in LDC Revision

We calibrated the AHBP set-aside requirements for the LDC Revision based on the new parameters described above, the revised LDC zones released in October, and 2017 market variables. The market variables were required to be the same as those used to evaluate D3 so that an "apples-to-apples" comparison could be made between D3 capacity results generated by Fregonese Associates in 2018 and LDC capacity results generated by Cascadia Partners in 2019.

We delivered the bonus program calibration results to the City of Austin and Cascadia Partners. Given that zones can be mapped anywhere in Austin, the resulting policy specified affordable housing set-asides for each zone in each of the policy geographies whether or not an LDC zone was mapped in each geography. The results were limited to those revised LDC zones that incorporated affordable housing density bonuses and were outside of existing bonus programs. For the affordable bonus capacity for downtown zones and other regulating plans and overlays with density bonuses, the anticipated affordable unit capacity was extrapolated from recent and anticipated production trends.[3]

Finally, the results were used by NHCD to produce maps found in their Affordable Housing Bonus Program Guidelines.

If the LDC Revision is adopted, we anticipate that an updated AHBP calibration will be required prior to implementation. Any changes to bonuses and other influential characteristics of the revised LDC zones could lead to different bonus value and affordable unit set-asides. Further, market conditions can influence the effectiveness of the bonuses, so updating the set-asides to reflect more recent market dynamics would lead to more bonus uptake and greater affordable housing production.

---

[3] The Housing Blueprint anticipated that existing bonus programs would produce 1,500 units over 10 years. Approximately 300 of those units were expected to come from VMU zones, which will be replaced by revised LDC zones. Therefore, existing bonus programs that will continue to exist after the LDC revision could be expected to produce 1,200 affordable housing units. Modifications to the existing bonus programs could enable greater unit yield.