



HOUSING OAHU: Affordable Housing Strategy APPENDIX

- 1. Current Affordable Housing Incentives**
- 2. Affordable Housing Requirements Comparison of Select Cities**
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Executive Summary only in this Appendix. See separate document for the full 80-page Residential Nexus Analysis.

September 8, 2015

Attachment 1:

Current Affordable Housing Incentives (City & County of Honolulu)

Notes in italics include suggestions in draft Affordable Housing Strategy to refine incentives (may need revisions to existing ordinances or policies)

Legal Source	Program	Description	Lead Org.
	CDBG	Annual federal grant to support low- and moderate income households and neighborhoods. <i>The draft Housing Strategy proposes reassessing the priorities in the HUD Consolidated Plan and allocating more CDBG money towards supportive infrastructure.</i>	BFS/DCS
	HOME	Annual federal grant to support low- and moderate income housing. <i>The draft Housing Strategy proposes reassessing the priorities in the HUD Consolidated Plan and allocating more HOME funds towards affordable housing production/acquisition.</i>	BFS/DCS
201H, 46-15.1, HRS	201H	"One-stop" land use approval of qualifying housing projects; may exempt from certain standards and fees.	HHFDC /DPP
LUO, Ch 21, ROH	Special Needs Housing for Elderly	Allows relaxation of development standards in residential and apartment districts with a conditional use permit (public hearing).	DPP
LUO, Ch 21, ROH	Group Living Facility	Allows relaxation of development standards in agricultural, residential and apartment districts with a conditional use permit (public hearing).	DPP
LUO, Ch 21, ROH	Cluster Housing, Planned-Development Housing	Provides development options in residential and apartment districts to reduce costs by allowing flexibility in subdivision standards.	DPP
Ch 8, Article 10, ROH	Real Property Tax Exemptions	Various exemptions for specific populations: disabled veterans, other disabled, Hansen's Disease, low-income rental housing. <i>Consider allowing Real Property Tax Exemptions for production of affordable housing under the proposed Affordable Housing Requirement, making it easier to get exemptions for the required affordable units.</i>	BFS
Ch 6, Article 26	Housing and Community Development Rehabilitation Loan Fund	Offers loans to low- and moderate-income landowners.	BFS
Ch 6, Article 34	Rental Housing	Construction loans for multi-family rental housing using tax-exempt revenue bonds.	BFS / DCS
Ch 34, ROH, HRS 46-80.1	Community Facilities Districts	Special assessment within specific districts to construct certain infrastructure improvements. <i>As an alternative to Tax Increment Financing, Community Facility Districts – in TOD areas - could be</i>	Council

Legal Source	Program	Description	Lead Org.
		<i>created for infrastructure and streetscape improvements using bonds funded by projected tax increment revenue or special assessments.</i>	
Ch 14 & 36, ROH	Special Improvement Districts (business improvement districts)	Add-on to property tax within specific districts to perform improvements or maintain existing neighborhood amenities and services.	Council
Ch 6, Article 63, ROH	Affordable Housing Fund	Approved by voters in 2006, for land acquisition, construction, and preservation of low-income housing that remains available in perpetuity for households earning less than 50% AMI <i>The Charter could be revised to modify the existing fund, which dedicates 1/2% of real property tax revenue annually, to change the "in perpetuity requirement" to a long-term specified period, and adjust the 50% AMI requirement to 60% to align with other funding policies. .</i>	BFS
Ch 14, Article 10, ROH	Wastewater Low-income Housing Projects Reduction in Wastewater System Facility Charges	Reduces per unit charges for low-income units in qualifying projects. <i>Consider allowing reduced charges for affordable housing under the proposed Affordable Housing Requirement, making it easier to get lower charges for the required affordable units.</i>	ENV
LUO, Ch 21, ROH	<i>Proposed:</i> TOD Special District	<i>Proposed:</i> Density and height bonuses would be available in return for more affordable units. Reduced parking requirements, with no parking required for units under 300 SF.	DPP
DPP Admin. Rules	Unilateral Agreement	Affordable housing is produced in conjunction with zone changes; developers are offered enhanced credits for construction of affordable housing near transit stations.	DPP

Attachment 2:

Affordable Housing Requirements Comparison of Select Cities

The Unilateral Agreement (UA) rules have helped produce about 300 affordable units annually since 2010. UAs are contributing to a more affordable housing stock, but the rules need updating. The strategy that housing developers can be required to contribute to the production of affordable housing has been implemented extensively on the mainland since the mid-1970s and remains an effective policy solution for many communities in response to rising housing costs.

Most programs requiring developers to contribute to the production of affordable housing are not linked to requests for zone changes (as in Honolulu). Rather, the requirements are triggered by either a request for subdivision or building permit. Many cities use a very similar framework. In general, municipalities require that developers set aside 10% to 25% of the total proposed units for low- to moderate-income households. The number of affordable units is lower than what Honolulu currently requires in rezoning, but the units generally target households with Area Median Incomes (AMIs) lower than Honolulu. In effect, these regulations create fewer units, but help more households with greater needs, and typically for a longer term. Even in “hot markets” like San Francisco, Boston, Sacramento and San Diego the affordable rental units are dedicated to households with AMIs in the 65 to 80% range, while affordable homeownership opportunities target households with AMIs that do not exceed 100%.

If the developer cannot construct the affordable units on-site, many communities offer an alternative to either build off-site or pay a fee deposited into an account dedicated to the production or preservation of affordable housing. Often, in return for that contribution, density bonuses are provided or parking requirements are reduced – benefits that are similar to what Honolulu is proposing in the areas near transit stations. Another common component is a longer period of affordability. Affordable units produced by Honolulu’s UA must remain affordable for only 10 years, whereas Denver, San Francisco, Sacramento and San Diego require that units remain affordable for up to 55 years. In terms of a local comparison, developers benefiting from HHFDC tax credits are required to maintain affordability for 60 to 70 years (although this is in return for significant financing). The table below summarizes Honolulu’s current and proposed requirements.

Current Unilateral Agreement Rules	Proposed Affordable Housing Requirement
Applies to projects needing rezoning at 10 units or more. Options:	Applies to projects islandwide needing building permits for 10 units or more, with different percentages for rental and for-sale. May be adjusted for varying unit sizes and lower income ranges. Four options:
A minimum of 30% of total units must be affordable to those earning up to 140% AMI.	CONSTRUCTION ON-SITE: If Rental: 15% of the units at up to 80% of AMI If For-Sale: 20% of the units at up to 120% of AMI (1/2 up to 100%)
Of this 30% , a minimum 20% of the total units must be affordable to those earning up to 120% AMI, of which 10% of the total units must be affordable to those earning up to 80% AMI.	CONSTRUCTION OFF-SITE: If Rental: 15% of the units at up to 80% of AMI If For-Sale: 25% of the units at up to 120% of AMI (1/2 up to 100%) IN LIEU OF CONSTRUCTION FEE or LAND DEDICATION: Cash contribution or improved land in lieu of building affordable units (proposed fee \$45 per finished SF).
Minimum required period of affordability 10 years .	Minimum required period of affordability 30 years .
<i>Note: HCDA Reserved Housing Rules for development in Kakaako require 20% of for-sale units (for 5 years) and 15% of rental units (for 15 years), both at up to 140% of AMI. Updated draft rules under review by HCDA are more in alignment with the City's draft affordable housing requirement.</i>	

Select Cities with Affordable Housing Requirements

City (yr. adopted)	Applicability	Set Aside Requirement	Income Targets	Alternatives To On Site Development	Incentives	Control Period
Boston, Massachusetts (2000)	Developments with 10 or more units	10%	At least one-half of affordable units for households earning less than 80 % of AMI; Remaining affordable units for households earning 80-120 % of AMI, with an average of 100 % of AMI	In lieu fee must be equal to 15% of the total number of market-rate units times an affordable housing cost factor; May build off-site, but set-aside requirement increases to 15 %	No citywide developer incentives, but increased height and FAR allowances permitted in the financial district	Maximum allowable by law
Denver, Colorado (2002)	Developments with 30 units or more	10 % of for sale units or a voluntary 10% for rental units	65 % of AMI for rental units and less than 80 % of AMI for sale units	In lieu fee tied to actual construction costs; Off-site construction; Land dedication	\$5,000 reimbursement for each for sale unit, up to 50 % of total units; \$10,000 reimbursement for each affordable rental unit if unit is priced for households at 50 % of AMI or below; Expedited permit process; Parking reductions	15 years for all types of units
Sacramento, California (2000)	Any development over 9 units	15 %	One-third of households making 50-80% of AMI. Two-thirds of households making less than 50 % of AMI	Can dedicate land off-site or build off-site if: <ul style="list-style-type: none"> • there is insufficient land zoned as multifamily on-site • alternative land or units must be in “new growth” areas 	Expedited permit process for affordable units; Fee waivers; Relaxed design guidelines; May receive priority for subsidy funding	30 years for all types of units
San Diego, California (1992, revised in 2003)	Developments with 10 or more units	10 %	Rental units are set aside for households earning at or below 65 % of AMI; For sale units are set aside for	In lieu fee calculated based on the square footage of an affordable unit. Fee increases between 2003 and	None	55 years for all types of units

City (yr. adopted)	Applicability	Set Aside Requirement	Income Targets	Alternatives To On Site Development	Incentives	Control Period
			households earning at or below 100 % of AMI	2006 from \$1.00 per square foot to \$2.50 per square foot; Developers can opt to build off-site (set-aside does not increase)		
San Francisco, California (1992, revised in 2002)	Developments with 10 or more units	10 %	For rental units, households earning 80 % or less of AMI; For sale units, households earning 120 % of AMI	In lieu fee determined by several factors including the projected value of on-site affordable units; In lieu payments are made to the Citywide Affordable Housing Fund; Developers can elect to build affordable units off-site, but the set aside requirement increases to 15 %	Refunds available on the environmental review and building permit fees that apply to the affordable units	50 years for Rental and For Sale units
Montgomery County, Virginia (1974)	Developments with more than 50 units	12.5–15% of all units. Of these, local housing authority may purchase 33%; Qualified non-profit organizations	Up to 65% of MSA median income	In lieu fee not permitted; Developer may request approval to build affordable units off-site in contiguous planning area	Waiver of water/sewer development charge and development impact fees; 10% compatibility allowance and other incentives; Up to 22% density bonus	For Sale: 10 years Rental: 20 years
Fairfax County, Virginia (1990)	Developments with more than 50 units (fee charged on projects with fewer than 50 units)	12.5% in single-family home developments; 6.5% in multifamily developments	Up to 70% of MSA median income	In lieu fee and other alternatives to on-site construction permissible	25% Density Bonus	For Sale: 15 years Rental: 20 years
Loudoun County, Virginia (1993)	Developments with more than 50 units on sites	6.25%	Between 30-70% AMI for owners; 30-50% of AMI for	Buy-out (cash, units, land) under certain circumstances	Allows developers to convert unsold affordable units to	Rental: 20 years For Sale: 15

City (yr. adopted)	Applicability	Set Aside Requirement	Income Targets	Alternatives To On Site Development	Incentives	Control Period
	with sewer and water		renters		market-rate units 120 days after the zoning permit has been issued	years
Boulder, Colorado (1999)	No threshold number – applicable to all residential developments	20% in for sale and rental developments (depending on project size)	60% AMI for renters; Low- income for owners as determined by the city	Half of the for sale units may be built off-site; Developers have flexibility with on/off-site mix of rental units; In lieu fee accepted	Waiver of development excise taxes	Permanent affordability by deed restriction
Davis, California (1990)	Developments with more than 5 units	25% in for sale developments; 25% in rental developments (depending on project size)	35% for up to 140% AMI; No more than 37.5% for over 140% and up to 160% AMI; And no more than 40% for over 160% and up to 180%	In lieu fee permitted for developments under 30 units or demonstration of “unique hardship”	25% density bonus	Permanent affordability for rental units; For sale units have no control period
Longmont, Colorado (1995)	No threshold number – applicable on all annexed land	10% of all units in annexation areas	60% AMI for renters, 80% AMI for owner-occupied units	In lieu fee permitted; case-by-case consideration of off-site construction	Relaxed regulatory requirements on parking, setbacks, landscaping etc.	For sale units have no control period; 5 years for rental units
Santa Fe, New Mexico (1998)	Applicable to developments with any unit targeted to over 120% of AMI, or sales price over \$240,000	11% in developments with homes priced \$240,000 - \$400,000; 16% in developments with homes priced over \$400,000	0-65% AMI, 65-80% AMI, 80-100% AMI, and 100-120% AMI	Not permitted, except in case of economic hardship	Bonus equivalent to set-aside percentage; 16% in developments targeting under 80% AMI, or sales price of \$150,000; Waiver of building fees	30 years for all types of units; 30 year period starts over with each new occupant
Irvine, California (1978)	No threshold number–applies to all residential development	Voluntary goal: 15% of all units	5% very low, 5% low, 5% moderate	In lieu fee and other alternatives to on-site construction permissible	Development standard flexibility, fee waivers, monetary assistance	20 - 30 years; case-by-case depending on financing

City (yr. adopted)	Applicability	Set Aside Requirement	Income Targets	Alternatives To On Site Development	Incentives	Control Period
Pasadena, California (2001)	Developments with 10 units or more	15%	10% low and 5% low or moderate income (rental units only)	In lieu fees, off-site development, land donation	Fee waivers, density bonus, financial assistance for projects that exceed 15% set aside requirement, reduction in impact fees	Rent: in perpetuity For Sale: 30 years
San Clemente, California (2006)	Developments with 6 units or more	4%	Very low income households	In lieu fee, off-site development, land donation	Development standard flexibility, monetary assistance	30 years for all types of units, or longer depending on financing
Oxnard, California (1999)	Developments with 10 units or more	10%	Very low income households, moderate income households, seniors	In lieu fee, off-site development, land donation	N/A	30 years for all types of units, or longer depending on financing
Brea, California (1993)	Developments with 20 units or more	10%	Not specified	In lieu fee	Density bonus, development standard flexibility, fee waivers, building code alternatives, fund application assistance	Rental: 55 years For Sale: 45 years
Santa Paula, California (2004)	Coastal developments with 10 units or more	25%	40% very low, 60% low or moderate income	In lieu fee; Off-site construction allowed at 29% set-aside	Fee waivers	45 – 55 years

1. Southern California Association of Non-Profit Housing (2005) scanph.org/files/IZ.Guide_.pdf
2. Brunick, Nicholas J. (2004) Inclusionary Housing: Proven success in large cities, Chicago, IL: American Planning Association <http://www.planning.org/zoningpractice/2004/pdf/oct.pdf>
3. Expanding Affordable Housing Through Inclusionary Zoning: Lessons From The Washington Metropolitan Area (2001) <http://www.brookings.edu/~media/research/files/reports/2001/10/metropolitanpolicy%20brown/inclusionary.pdf>
4. Expanding Housing Options through Inclusionary Zoning (2001) http://www.planningcommunications.com/housing/inclusionary_zoning_ideas_at_work.pdf

Attachment 3:

Comparison between Current Unilateral Agreement Rules and Proposed Affordable Housing Requirement

Current Unilateral Agreement	Proposed Islandwide Affordable Housing Requirement
<p>Applies to projects needing rezoning for 10 units or more.</p> <p>Options:</p>	<p>Applies to projects islandwide needing building permits for 10 units or more, with different percentages for rental and for-sale. May be adjusted for varying unit sizes and lower income ranges.</p> <p>Four options:</p>
<p>A minimum of 30% of total units must be affordable to those earning up to 140% AMI.</p>	<p>CONSTRUCTION ON-SITE:</p> <p>If Rental: 15% of the units at up to 80% of AMI</p> <p>If For-Sale: 20% of the units at up to 120% of AMI (1/2 up to 100%)</p>
<p>Of this 30%, a minimum of 20% of the total units must be affordable to those earning up to 120% AMI; and a minimum of 10% of the total units must be affordable to those earning up to 80% AMI.</p>	<p>CONSTRUCTION OFF-SITE:</p> <p>If Rental: 15% of the units at up to 80% of AMI</p> <p>If For-Sale: 25% of the units at up to 120% of AMI (1/2 up to 100%)</p>
	<p>IN LIEU OF CONSTRUCTION FEE or LAND DEDICATION:</p> <p>Cash contribution or improved land in lieu of building affordable units (proposed fee \$45 per finished SF).</p>
<p>Minimum required period of affordability of 10 years.</p>	<p>Minimum required period of affordability of 30 years.</p>
<p><i>Note: HCDA Reserved Housing Rules for development in Kakaako require 20% of for-sale units (for 5 years) and 15% of rental units (for 15 years), both at up to 140% of AMI.</i></p> <p><i>Updated draft rules under review by HCDA are more in alignment with the City's draft affordable housing requirement.</i></p>	



KEYSER MARSTON ASSOCIATES

RESIDENTIAL NEXUS ANALYSIS Honolulu, Hawaii

Prepared for
City and County of Honolulu

Prepared by:
Keyser Marston Associates, Inc.

September 2015

**Executive Summary only in this Appendix.
See separate document for the full 80-page
Residential Nexus Analysis.**

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I. EXECUTIVE SUMMARY

Keyser Marston Associates (KMA) prepared this residential nexus analysis for the City and County of Honolulu pursuant to a contractual agreement. This Executive Summary contains a concise overview of the residential nexus analysis; full documentation of the analysis is contained in the body of the Report and its Appendices.

A. Residential Nexus Analysis

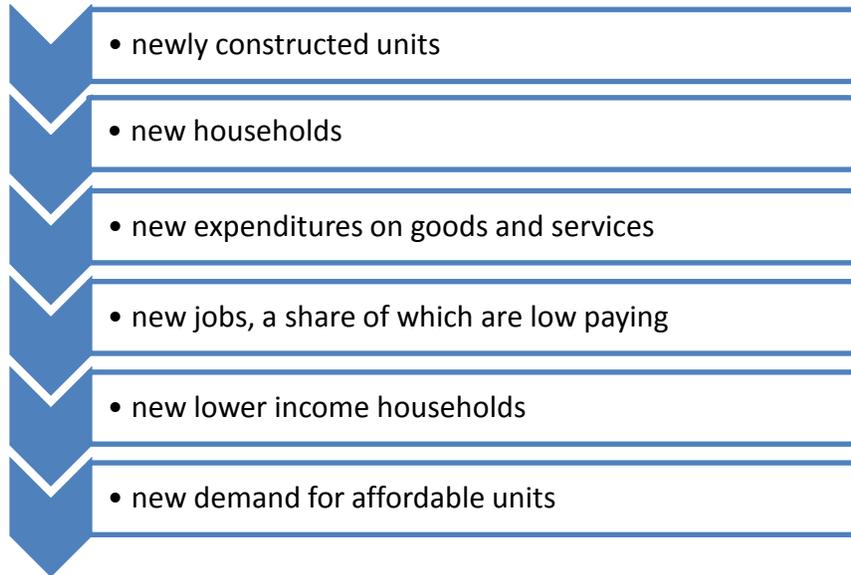
A residential nexus analysis demonstrates and quantifies the impact of new market rate housing development on the demand for affordable housing. The underlying nexus concept is that the newly constructed market rate units represent net new households in Honolulu. These households represent new income in Honolulu that will consume goods and services, either through purchases of goods and services or 'consumption' of government services. New consumption translates to jobs; a portion of the jobs are at lower compensation levels; low compensation jobs relate to lower income households that cannot afford market rate units in Honolulu and therefore need affordable housing.

The City and County of Honolulu has requested this Residential Nexus Analysis in conjunction with the consideration of potential inclusionary requirements applicable to new residential development in Oahu as one component of the proposed Housing Oahu: Islandwide Housing Strategy. The purpose of this Residential Nexus Analysis is to provide information about the impact that new residential development has on the need for affordable housing and to determine inclusionary housing percentage and in-lieu fee requirements that are proportionate to these impacts and sufficient to fully mitigate them.

1. Impact Methodology and Models Used

The analysis is performed using two models. The IMPLAN model is an industry accepted, commercially available model developed over 30 years ago to quantify the impacts of changes in a local economy, including the employment impacts of changes in personal income. The input into the IMPLAN model is net new personal income in Honolulu available for expenditures; the IMPLAN model then estimates a distribution of expenditures and ultimately produces a quantification of jobs generated by industry. IMPLAN is based on a similar methodology to the Hawaii's State Input Output Study developed by the Department of Business Economic Development and Tourism. The analysis uses the IMPLAN data set for Honolulu. The KMA Jobs Housing Nexus model, which was initially developed over 25 years ago to analyze the income structure of job growth, is used to determine the household income of new employee households and identify how many are in five housing affordability tiers ranging from Extremely Low-Income up through 140% of Area Median Income (AMI).

Nexus Analysis Concept



To illustrate the linkages by looking at a simplified example, we can take an average household that buys a house at a certain price. From that price, we estimate the gross income of the household (from mortgage rates and lending practices) and the portion of income available for expenditures. Households will “purchase” or consume a range of goods and services, such as purchases at the supermarket or services at the bank. Purchases in the local economy in turn generate employment. The jobs generated are at different compensation levels. Some of the jobs are low paying and as a result, even when there is more than one worker in the household, there are some lower and middle-income households who cannot afford market rate housing in Honolulu.

An underlying assumption of the analysis is that households that purchase or rent new units represent net new households in Honolulu. The nexus does not make the argument that construction of new units is solely responsible for population and household growth. Household growth in Honolulu occurs through a combination of natural increases in population and relocations from off-island. Construction of new residential units is a major contributing cause to population and household growth because without new housing supply, population and household growth would not continue to occur over a sustained period. In the short-term, population growth may occur without additions to the housing supply through accommodating additional people within the existing housing stock. However, over the long-term, households would not continue to relocate to Honolulu from off-island if they could not find adequate housing available. Without construction of new housing, out-migration could also become more of a factor offsetting natural increases in population as households seek places where housing is more available. Families may respond to a lack of adequate housing by delaying childbearing or having fewer children. Recent college graduates born in Honolulu may decide not to return based on challenges in finding adequate housing.

2. Market Survey and Residential Prototypes

The first step of the nexus analysis is to identify residential prototypes that are representative of what is generally being built by the private marketplace in Honolulu. KMA developed programmatic assumptions in consultation with the City and County of Honolulu for five residential prototypes – four ownership prototypes and one rental prototype. KMA then undertook a market survey of projects covering these prototypes to estimate sales prices and rent levels for the prototype units. The prototypes are designed to be representative of averages for residential development activity occurring island-wide as described in the Appendix 1 market survey. The prototypes are summarized in the following table.

Prototypical Residential Units					
	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Avg. Unit Size	1,700 SF	1,200 SF	1,000 SF	1,000 SF	900 SF
Avg. Sales Price / Rent	\$700,000	\$575,000	\$525,000	\$700,000	\$2,500 /mo.

From the sales prices and rent levels, household income is determined using assumptions with respect to a share of income spent on housing and housing purchase terms. For ownership units, 37% of income is spent on housing (including mortgage payments, property taxes, home owner association dues, and insurance) based on the current average for new purchase home loans being underwritten in Honolulu. Renters are assumed to spend 30% of their income on rent, a relationship commonly used in housing policy to establish affordable rent levels relative to income.

Gross household income is adjusted to a net amount available for expenditures after deducting the portion of income dedicated to income taxes, contributions to Social Security and Medicare, savings, and repayment of household debt. Housing costs are not deducted as part of this adjustment step because they are addressed separately as expenditures within the IMPLAN model. In addition, an adjustment is made to account for rental vacancy and a share of ownership units likely to be used as second homes and occupied only part of the year. The adjusted household income available for expenditures becomes the input into the IMPLAN model. As a result, household income and expenditures associated with each of the prototypes is as follows:

Household Income and Expenditures					
	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Gross Household Income	\$115,000	\$101,000	\$95,000	\$127,000	\$100,000
Percent Income available for Expenditures	67%	71%	72%	67%	65%
Spending adjustment for vacancy/ 2 nd homes occupied part of year	99%	96%	96%	96%	95%
Household Income Available for Expenditures [Input to IMPLAN model]	\$76,300	\$68,800	\$65,700	\$81,700	\$61,800

The nexus analysis is conducted on 100-unit project modules (i.e., 100 new households) for ease of presentation and to avoid awkward fractions.

3. IMPLAN Model Results

The IMPLAN model was applied to link household income to job growth occurring in Honolulu. IMPLAN data sets are available for each county in the United States and are tailored to reflect the economic base in each area. The analysis uses the IMPLAN data set for Honolulu. The IMPLAN model distributes spending among various types of goods and services based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study, to estimate employment generated. Job creation, driven by increased demand for products and services, is projected for each of the industries that will serve the new households. The employment generated by this new household spending is summarized in the following table.

Jobs Generated Per 100 Units					
	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Annual Household Expenditures (100 Units)	\$7,630,000	\$6,880,000	\$6,570,000	\$8,170,000	\$6,180,000
Total Jobs Generated per IMPLAN, 100 Units	67.1	60.5	55.7	71.8	54.3
Net New Jobs after 17% reduction for declining industries	55.7	50.2	46.2	59.6	45.1

The IMPLAN model quantifies jobs generated at establishments that serve new residents directly (i.e. supermarkets, banks or schools), jobs generated by increased demand at firms which service or supply these establishments (wholesalers, janitorial contractors, accounting

firms, or any jobs down the service/supply chain from direct jobs), and jobs generated when the new employees spend their wages in the local economy and generate additional jobs. Retail, restaurants, and health care represent the largest share of jobs generated by household expenditures.

Employment estimates represent net new jobs after making a 17% downward adjustment to the IMPLAN employment estimates based on the expectation that a portion of jobs will be filled by existing workers who already have housing. The 17% adjustment is based upon job losses in declining sectors of the local economy over a historic period. “Downsized” workers from declining sectors are assumed to fill a portion of the new jobs in sectors that serve residents.

4. Compensation Levels of Jobs and Household Income

The output of the IMPLAN model – the numbers of jobs by industry – is then entered into the Keyser Marston Associates jobs housing nexus analysis model to quantify the compensation levels of new jobs and the income of the new worker households. The KMA model sorts the jobs by industry into jobs by occupation, based on national data, and then attaches local wage distribution data to the occupations, using recent data for Honolulu from the Bureau of Labor Statistics Occupational Employment Survey. Further description is provided in Section III. C.

The KMA model makes a conversion from number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers is reduced. The calculation is shown in the table below. For purposes of the adjustment from jobs to housing units, the average of 1.92 workers per working household in Honolulu is used, which is a higher number of workers per household than in other jurisdictions KMA has performed similar analyses. Application of the 1.92 factor effectively assumes the existing pattern of high numbers of workers per housing unit will continue and result in a reduced need for affordable units.

Adjustment from No. of Workers to No. of Households					
	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Net New Jobs	55.7	50.2	46.2	59.6	45.1
Divide by No. of Workers per Worker Household in Honolulu	1.92	1.92	1.92	1.92	1.92
Net new worker households	29.0	26.2	24.1	31.1	23.5

The output of the model is the number of new worker households by income level (expressed in relation to the Area Median Income, or AMI) attributable to the new residential units and new households in Honolulu. Five categories are addressed: Extremely Low (under 30% of AMI), Very Low (30% to 50% of AMI), Low (50% to 80% of AMI), Moderate (80% to 120% of AMI), and a “140% AMI Tier” representing household incomes from 120% to 140% of AMI.

Following are the numbers of worker households by income level associated with the Honolulu prototype units.

<i>New Worker Households by Income Level per 100 Market Rate Units</i>					
	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Extr. Low (0% - 30% AMI)	4.0	3.6	3.2	4.3	3.2
Very Low (30% - 50% AMI)	7.7	7.0	6.4	8.3	6.2
Low (50% - 80% AMI)	8.0	7.2	6.6	8.6	6.5
Moderate (80% - 120% AMI)	5.0	4.5	4.2	5.3	4.0
Subtotal through 120% AMI	24.7	22.2	20.4	26.4	20.0
140% Tier (120% -140% AMI)	1.2	1.1	1.0	1.3	1.0
Subtotal through 140% AMI	25.8	23.3	21.4	27.7	20.9
Greater than 140% AMI	3.2	2.9	2.7	3.4	2.6
Total, New Households	29.0	26.2	24.1	31.1	23.5

The above findings represent the number of new affordable units required to offset the new affordable housing demand associated with services to each 100 new market rate residential units.

5. Inclusionary Percentages Supported

Nexus findings regarding the number of affordable units needed per 100 market rate units can be converted to a percentage of units provided on-site within a project that would fully mitigate the affordable housing impacts. The percentages are calculated including both market rate and affordable units (for example, 25 affordable units per 100 market rate units translates to a project of 125 units; 25 affordable units out of 125 units equals 20%). Each tier is cumulative, or inclusive of the tiers above. The purpose of showing the figures on a cumulative basis is so they can be readily compared to potential inclusionary requirements that may be considered. As an example, for new single family projects, the analysis indicates that an inclusionary requirement of 19.8% with affordable units available to households earning up to 120% of AMI would be sufficient to mitigate the affordable housing needs of service worker households earning up through 120% of AMI. The percentages represent the inclusionary requirement that would be sufficient to fully offset the increased affordable housing need from the services and service workers that support the new residential development.

Cumulative Inclusionary Percentage to Mitigate Increased Affordable Housing Need					
	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Extr. Low (up to 30% AMI)	3.8%	3.5%	3.1%	4.1%	3.1%
Very Low (up to 50% AMI)	10.5%	9.5%	8.8%	11.1%	8.7%
Low (up to 80% AMI)	16.5%	15.1%	14.0%	17.4%	13.8%
Moderate (up to 120% AMI)	19.8%	18.2%	16.9%	20.9%	16.7%
140% Tier (up to 140% AMI)	20.5%	18.9%	17.6%	21.7%	17.3%

6. Impact Fee Levels Supported by the Nexus Analysis

The last step in the analysis puts a dollar amount on the cost of mitigating the affordable housing impacts. The conclusions of the nexus analysis, expressed as the number of worker households by income affordability category, are linked to the cost of delivering housing to the households in need. Each income or affordability tier is associated with a subsidy needed to produce and deliver a unit at the specified affordability level; this subsidy is referred to as the 'affordability gap.'

Affordability gaps are calculated for each of the five affordable tiers. The analysis assumes households earning less than 80% of Area Median Income will be assisted in rental units, while households earning between 80% and 140% of Area Median Income will be assisted in ownership units.

The resulting affordability gaps are as follows:

- \$367,300 for households in the under 30% AMI category;
- \$288,300 for households in the 30% to 50% AMI category;
- \$169,300 for households in the 50% to 80% AMI category;
- \$69,850 for households in the 80% to 120% AMI category; and
- \$0 (no affordability gap) for households in the 120% to 140% AMI category.

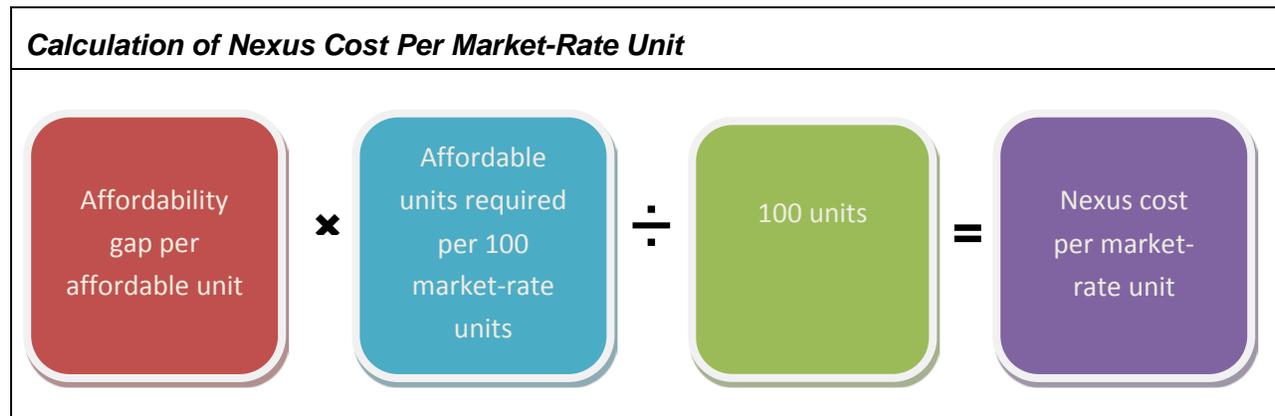
No affordability gap is indicated for the 140% AMI Tier based on sales prices affordable to this income level and development costs for affordable townhome units¹.

When the affordability gap conclusions for each income tier are linked to the number of affordable units required per 100 market rate units and divided by 100 units, the result is a Total Nexus Cost per new market rate residential unit. The results per unit are:

¹ Development costs are higher for other for-sale unit types such as high-rise. There would be an affordability gap associated with providing 140% AMI affordable units in other more expensive product types.

Nexus Cost Per Market Rate Unit						
<i>Income Category</i>	<i>Affordability Gap</i>	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
Ext. Low (30% - 50% AMI)	\$367,300	\$14,600	\$13,200	\$11,900	\$15,700	\$11,800
Very Low (30% - 50% AMI)	\$288,300	\$22,200	\$20,100	\$18,300	\$23,800	\$18,000
Low (50%-80% AMI)	\$169,300	\$13,500	\$12,200	\$11,200	\$14,500	\$11,000
Moderate (80%-120% AMI)	\$69,850	\$3,500	\$3,100	\$2,900	\$3,700	\$2,800
140% Tier (120%-140% AMI)	None	\$0	\$0	\$0	\$0	\$0
Total Nexus Costs		\$53,800	\$48,600	\$44,300	\$57,700	\$43,600

The chart below illustrates how the above nexus costs per unit are calculated:



The Total Nexus Costs, or Mitigation Costs, indicated above, may also be expressed on a per square foot level. The results per square foot of building area (net rentable or sellable Sq.Ft.) are as follows:

Total Nexus Cost Per Sq.Ft. of Building Area						
<i>Income Category</i>	<i>Affordability Gap</i>	<i>Single Family</i>	<i>Low-Rise Townhomes</i>	<i>Mid-Rise Condo</i>	<i>High-Rise Condo (PUC)</i>	<i>Rental Apartment</i>
<i>Prototype Size</i>		<i>1,700 SF</i>	<i>1,200 SF</i>	<i>1,000 SF</i>	<i>1,000 SF</i>	<i>900 SF</i>
Ext. Low (30% - 50% AMI)	\$367,300	\$8.60	\$11.00	\$11.90	\$15.70	\$13.10
Very Low (30% - 50% AMI)	\$288,300	\$13.10	\$16.80	\$18.30	\$23.80	\$20.00
Low (50%-80% AMI)	\$169,300	\$7.90	\$10.20	\$11.20	\$14.50	\$12.20
Moderate (80%-120% AMI)	\$69,850	\$2.10	\$2.60	\$2.90	\$3.70	\$3.10
140% Tier (120%-140%)	none	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Nexus Costs		\$31.70	\$40.60	\$44.30	\$57.70	\$48.40

These costs express the total linkage or nexus costs for the five prototype developments in Honolulu. These total nexus costs represent the cost of creating new affordable units to offset increased affordable housing needs associated with new market-rate residential development. **The totals are not recommended levels for fees; many other policy considerations may be brought to bear in selecting appropriate in-lieu fee requirements.**

The flow chart below provides a graphical illustration of the nexus analysis.

