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TECHNICAL MEMORANDUM

Date: November 29, 2016

To: Geoff Wentlandt, City of Seattle

From: Elliot Weiss, Community Attributes Inc.

Re: Economic Analysis of MHA

BACKGROUND AND PURPOSE

The City of Seattle recognizes the rising cost of housing in the region and has made housing affordability a key policy priority. Seattle Mayor Ed Murray, along with the City Council, convened a 28-member Housing Affordability and Livability Advisory Committee in September 2014 to provide recommendations on increasing the availability and affordability of housing in the City. The committee returned in 2015 with 65 recommendations, some of which form the basis for the Housing Affordability and Livability Agenda (HALA). One of the cornerstones of HALA is the Mandatory Housing Affordability (MHA) program, which is the focus of this study.

The City requested an economic analysis that evaluates the economic viability of new development with the zoning changes and proposed payment or performance requirements associated with MHA. This study presents analysis of development feasibility, accounting for increased zoned capacity and corresponding MHA requirements. The MHA-related costs are therefore only one factor in this complex feasibility assessment. The analysis is for areas of Seattle that are outside of the Downtown and South Lake Union neighborhoods, presenting feasibility analysis of development projects representative of the Seattle housing markets.

This study uses several specific, realistic development prototypes to evaluate project feasibility. These prototypes are broadly representative of the development projects ongoing in Seattle, but measuring development feasibility is rife with complexity, and the countless combinations of market, regulatory and other factors make each development project unique. Nevertheless, careful evaluation of representative prototypes can inform general findings on project feasibility.

What is HALA?

HALA is a multifaceted strategy that addresses housing affordability in the City of Seattle. Mayor Murray's office set a goal to generate a net increase of 50,000 housing units (20,000 affordable and 30,000 market rate) and appointed a 28-member advisory committee to develop a plan for meeting that goal on a set timeline. This committee was comprised of stakeholders representing a range of housing and community interests, including housing development, finance, tenants' rights, land use, business, and nonprofit organizations. After an intensive process, a final plan was presented in July 2015, consisting of 65 strategies apportioned to four goal areas - more resources for affordable housing, more housing, more support for communities, and more innovation.

This analysis does not contain an appraised valuation of land or development projects. Community Attributes Inc. is not a licensed appraiser and this analysis should not be used to inform investment decisions.

What is MHA?

One critical component of HALA is Mandatory Housing Affordability (MHA). MHA is projected to generate 6,000 affordable housing units over 10 years, which would contribute to the goal of 20,000 affordable units produced under HALA overall. The program offers developers an upzone over current maximum densities, in exchange for providing units affordable to households earning no more than 60% Area Median Income (AMI), or a per square foot fee, paid into a fund used for the construction of affordable housing. The fee amounts will depend on the mix of residential and commercial uses in the building, as well as the part of the city (i.e. market area) in which it is located.

Purpose of this Report

This report constitutes an economic analysis of real estate development projects under a specific set of policy assumptions. The results of the analysis are intended to provide context for an assessment of project feasibility across an array of realistic development prototypes. For the purposes of this study, projects are deemed feasible if the residual land value (RLV)—or the hypothetical amount of money a developer would have left to pay for land, after accounting for project costs and revenues—exceeds an estimate of the cost of the land required. This study can therefore be used to better understand the economic implications of policy decisions on a wide variety of development products and across a range of market and regulatory conditions. The analysis is an attempt to inform the project team of some of the economic considerations that are relevant to private development under hypothetical development regulations, and it uses broad financial modeling to suggest continued conversation on key policy tenets.

The analysis does not contain an appraised valuation of land or development projects. Community Attributes is not a licensed appraiser and this analysis should not be used to inform investment decisions.

Though the financial modeling is intended to be broadly representative of current development economics in the City of Seattle, every development project is different and some projects may not align with those modeled in this study. Furthermore, as market conditions change, so too do the prospects for various project types, and variability of this nature is not possible to quantify at this point in time. Changes in market conditions are expected over time, and project feasibility may need to be reevaluated as these changes occur.

Organization of this Report

This memorandum is divided into three sections, as follows:

- **Key Findings.** A summary of findings supported by the analysis.
- **Methods.** This section discusses the general methodology for the study and documents key data sources and inputs to the pro forma model.
- **Prototype Feasibility.** This section presents a summary of the RLV results for all prototypes tested on a series of three graphs, with each graph representing different construction cost scenarios. This section also isolates key findings from the results.
- **Sensitivity Summaries.** This section provides a summary sensitivity table for every prototype tested. The section may be used as a more detailed reference for all prototypes.

Key Findings

- **Market values for housing and development range broadly amongst neighborhoods throughout the city.** For newer residential construction, lease rates within the city vary from approximately $2.00 to $4.00 per square foot (per month). The rates vary based on location, amenities, unit size, and other factors. Land costs vary from about $30 per square foot to almost $700 per square foot based on an analysis of comparable land sales; given limitations on sample size, these ranges could be wider. Rents and land costs vary within MHA geographies, as well.

  The variability of these metrics calls for sensitivity analysis of key market assumptions, and underscores the fact that each development projects comes with its own financial circumstances that affect profits and feasibility. This study does not assess the impact of MHA on land prices. Zoned capacity and development costs may influence the cost of land, however. Land prices may increase to value higher than those found in analysis of comparable sites, if significant upzone occurs. On the other hand, the addition of new costs to the development process can lower a developer's ability to pay for land, creating downward pressure on land prices or upward pressure on lease rates.

- **In many cases, development projects are less sensitive to MHA than to many other cost and revenue drivers.** However, MHA as a percent of total development costs varies amongst different housing markets. Generally, MHA accounts for between 2% and 3% of total development costs in areas with lower market rates for housing, and up to 5% to 8% in high market areas (*excluding* land acquisition), based on this analysis.

- **The combined impact of MHA zone changes and MHA on development feasibility varies amongst housing markets and zoned capacity.**

  - **In high market areas**, results indicate generally good prospects for project feasibility. Calculated RLV ranges from $58 per square foot to $851 per square foot. Observed land values (based on the sale of comparable properties) in high market areas range from $134 to $520 per square foot. The calculated values therefore compare favorably to observed land prices, though not all zones are represented by the comparable properties. These results are not exclusive to neighborhoods that are categorized as "high" markets, but are attributable to projects that attain lease rates consistent with those applied to high market areas in the model.

  - **In medium market areas**, all but five prototypes show positive residual land values, though some prototypes that show positive RLV may not achieve high enough RLV to afford prevailing land prices. Most low-rise projects show enough RLV to maintain consistency with observed land prices.

    Similarly, most Neighborhood Commercial (NC) and Midrise (MR) prototypes show positive feasibility after accounting for observed land prices. Again, these results are not exclusive to neighborhoods categorized as "medium", but are attributable to projects that attain lease rates consistent with those applied to the medium market areas in the model.

  - **In low market areas**, nearly all development prototypes appear challenged. Smaller projects, particularly in RSL and LR zones, appear to yield enough development value to bear the cost of land acquisition in many cases. Larger projects, however, will need to attain above-market rents in these areas to be feasible.

- **Design choices affect feasibility results.** For example, prototypes in NC40 and NC55 zones provide similar amounts of parking, but the NC55 project achieves a higher density (and therefore more units) that makes it easier to accommodate the cost of parking. The provision of parking at a higher rate in the NC40 prototype is a design decision that creates a feasibility challenge, relative to NC55, in the analysis. In these and similar instances, projects

that are able to modify the design assumed for these prototypes to reduce costs may witness improved feasibility.

- **The policy environment is exceedingly complex.** There are a large number of development types across a large number of zones that each contain a variety of market conditions. Understanding this complexity is essential to policy conversations. Increased development costs will have the effect of reducing developer interest or increasing rents for market-rate units, but it is impossible to ascertain the magnitude of these impacts without knowing the degree to which these factors vary (or the sensitivity of developers to this variability).

METHODS

Modeling Framework

This study uses a residual land value pro forma model to assess the impact of MHA-related zone changes and payment amounts on development feasibility in selected zones within the City of Seattle. For the purposes of this study, feasibility is measured by *residual land value* (RLV), which is the theoretical amount of value a developer retains after considering all revenues and development costs – excluding land acquisition costs. It is from this amount of economic surplus that a developer or investor would consider their willingness to pay for a given parcel (or parcels) of land, along with other criteria, such as the ability to buy comparable land for less elsewhere. If RLV exceeds the anticipated cost of acquiring the property, then the project would generally be considered feasible. In this analysis, demolition costs are not considered. Demolition costs would come out of the residual land value, as well.

Because of the uncertainty that comes with the hypothetical developments modeled in this analysis, one must take care to not interpret residual land value literally for willingness-to-pay for land. Many other site-specific factors come into play for true willingness-to-play, such as opportunity costs of putting that investment toward other sites that might be more attractive.

RLV is expressed in dollars per square foot of land associated with the site on which the development is modeled, calculated as follows:

(1) Stabilized value of net operating incomes (rental income per square foot) generated by new construction over time (the value today of future property income)

(2) Less development costs including MHA (excluding site acquisition)

(3) Less desirable entrepreneurial return (required rate of return) on development

(4) Equals resources (dollars) left to purchase site, or RLV

In summary, the formula for determining residual land value is:
Project value *minus* costs minus return = RLV.

RLV models provide enough detail and structure to understand major cost and revenue drivers and, because they rely on local market data, they effectively convey information about the types of projects that are more or less feasible in a given area. They also provide an avenue to evaluate and compare feasibility efficiently and across a large number of development typologies and zones. An alternative method is a pro forma cash flow model, which incorporates more detailed financial metrics and investment criteria. When underwriting a specific development, a developer will use a cash flow model to gain an in-depth understanding of the financial performance of a development project. Detailed cash flow models are not necessary, nor particularly well-suited, to answer policy questions at this scale and altitude because they require very detailed assumptions that are likely to be highly variable across different development projects.

Data Sources

This study relies on data from independent industry sources, such as RS Means, Dupre and Scott Apartment Advisors, CoStar, Rider Levett Bucknall, CBRE and others. These data sources are supplemented by findings from a survey that CAI administered to local real estate professionals. Independent, primary data collection was limited and is used principally to provide context for assumptions and findings.

Data used in the pro forma model is—to the extent possible—representative of current market conditions. Inherent uncertainty in future local, regional and national markets underscores the value of looking at project feasibility in the near-term, for which robust data is available. Furthermore, requirements of the project underwriting process largely prevent developers from using rent, vacancy and capitalization rates that may be characterized as optimistic or aspirational. For these reasons, this study evaluates projects based on near-term assumptions.

The various sources of data employed in this study are described in greater detail below.

Industry Reports

Several independent industry reports were used to identify critical inputs and assumptions for the RLV model used in this study. The following sources were employed:

- The Apartment Vacancy Report (September, 2016) and the Apartment Development Report (September, 2016) by Dupre and Scott Apartment Advisors
- The CBRE North America Cap Rate Survey (second half 2015)
- The Rider Levett Bucknall (RLB) Construction Cost Report (April, 2016)
- CoStar Advisory Reports (Q1, 2016)

Developer Survey

CAI, along with the City of Seattle, developed a cost survey and administered the survey, via Survey Monkey, to a group of 25 real estate professionals that are active in the Seattle market. Questions focus on hard and soft costs, parking ratios and parking costs, off-site infrastructure costs and other financial aspects of development projects. Participants were asked to provide responses only to the questions that pertained to development prototypes with which they have direct experience.

Survey results were used to inform certain assumptions within the model and to verify data derived from independent industry sources.

Advisory Group Meetings

The project team attended two meetings with a group of local real estate professionals and City staff to review assumptions made in the pro forma modeling process. The input received during these meetings was valuable in ensuring that data from objective industry sources was representative of on-the-ground realities in Seattle.

Modeling Inputs

Development Programs

For each prototype, the City of Seattle provided a detailed development program. These programs were designed collaboratively with the City's selected urban design consultant, and each program stipulates lot size, total built square footage, square footage by use, average housing unit size, parking quantity and parking configuration. The list of prototypes studied in this analysis is included, along with pertinent design details, in **Exhibit 1**.

Exhibit 1. Development Prototypes. MHA Economic Analysis. 2016

Prototypes	Site Size	Height Limit	FAR	Parking Provided	Gross Square Feet	Residential Units	Construction Type
Residential Small Lot (RSL)							
RSL: Stacked Rental	6,000	30	0.75	0	4,500	3	Type VA Wood Frame
RSL: Cottage	10,000	30	0.75	5	7,500	5	Type VA Wood Frame
RSL: Townhouse	6,000	30	0.75	0	4,500	3	Type VA Wood Frame
Lowrise 1 (LR-1)							
LR-1: Multifamily Neighborhood	5,000	30	1.20	0	6,000	10	Type VA Wood Frame
LR-1: Transitional Neighborhood	10,000	30	1.20	4	12,000	14	Type VA Wood Frame
LR-1: Townhouse	5,000	30	1.30	3	6,500	5	Type VA Wood Frame
Lowrise 2 (LR-2)							
LR-2: Larger Site	15,000	40	1.40	0	21,000	26	Type VA Wood Frame
LR-2: Small Infill	10,000	40	1.40	0	14,000	17	Type VA Wood Frame
LR-2: Townhouse	10,000	40	1.40	0	14,000	8	Type VA Wood Frame
Lowrise 3 (LR-3)							
LR-3: Multifamily Neighborhood	15,000	50	2.20	0	33,000	51	Type VA wood frame + concrete slab separating below grade story
LR-3: Transitional Neighborhood	5,000	50	2.20	0	11,000	14	Type VA wood frame + concrete slab separating below grade story
NC40 (old NC30)							
NC40: Multifamily Neighborhood	16,000	40	3.00	49	48,000	47	3 stories Type VA over 1 story Type IA
NC40: Transitional Neighborhood	12,000	40	3.00	37	36,000	34	3 stories Type VA over 1 story Type IA
NC55 (old NC40)							
NC55: Multifamily Neighborhood	18,000	55	3.75	55	67,500	65	4 stories Type VA over 1 story Type IA
NC55: Transitional Neighborhood	15,000	55	3.75	46	56,250	53	4 stories Type VA over 1 story Type IA
NC75 (old NC65)							
NC75: Typical Site	12,000	75	5.50	37	66,000	66	5 stories Type IIIA over 2 stories Type IA (concrete)
NC75: Large Site	46,000	75	5.50	142	253,000	250	5 stories Type IIIA over 2 stories Type IA (concrete)
NC95 (old NC85)							
NC95: 9 Story Highrise	28,800	95	6.25	89	180,000	222	Type IA and/or IB (concrete)
NC95: 8 Story 5 over 3	28,800	95	6.25	89	180,000	222	5 stories Type IIIA over 3 story Type IA (concrete)
Midrise							
MR: Large Site	20,000	75	4.50	28	90,000	111	Type VA wood frame + concrete slab separating below grade story
MR: Infill Site	10,000	75	4.50	0	45,000	62	Type VA wood frame + concrete slab separating below grade story
SM-UD 240							
SM-UD 240: Office	32,960	240	7.00	112	248,400	0	Type IA and/or IB (concrete)
SM-UD 240: Residential	32,960	240	10.00	135	340,100	367	Type IA and/or IB (concrete)

Lease Rates

Lease rates are the amount (in dollars) per square foot that tenants pay to rent space in a development project. Revenues from leasing are typically the most important revenue driver in pro forma modeling, and a therefore a sensitive input. The lease rates used in the model for this study are given below, in **Exhibit 2**.

Exhibit 2. Assumed Lease Rates, MHA Economic Analysis, 2016

	Low Market	Med. Market	High Market	Source
Residential				
Rent/SF/Month - 5% Premium for New Construction	$2.39	$2.88	$3.34	*Dupre and Scott, 9/16*
Commercial				
Retail Rent/SF/Year	$20.00	$25.00	$34.00	*CoStar*
Office Tower Rent/SF/Year	*Not Modeled*	$30.00	$39.00	*CoStar*
Underground Parking				
Rent/Space/Month	$64.00	$107.00	$159.00	*Dupre and Scott, 9/16*

Rental rates from Dupre and Scott are based on the company's survey of apartment properties in Seattle. Model inputs are derived from a segment of surveyed properties that were built no earlier than 2010, and represent an average across all unit sizes. To account for the likelihood that brand-new projects will command higher lease rates (when compared to projects that are included in the DSAA data, but are now four, five or six years old), the model adds 5% to the documented lease rates from the DSAA survey.

An analysis of comparable properties indicates that these lease rates are representative for their market areas. It is important to note, however, that some projects may achieve higher or lower rents than the average for the market area in which they are located. If a property in a low market area is able to achieve rents that are similar to the average lease rate for properties in a medium market area, then the feasibility results for that prototype in a medium market area are also likely to offer a better representation of project financials.

Commercial lease rates are derived from a comparable properties analysis using CoStar, as well as from the CoStar Advisory Report (Q1, 2016).

Construction Costs

Exhibit 3 illustrates estimated hard construction costs and associated softs costs (represented as a percentage of hard costs) assumed for all development prototypes. Hard construction costs represent the actual physical construction of a project. This encompasses costs associated with foundations, structure, interior finishes, materials, plumbing, electrical and other similar activities. For the purposes of the analysis, soft are costs that aren't directly related to labor and building materials. Typical soft costs include architecture and engineering fees as well as permits and taxes.

Hard and soft costs can be highly variable based on location, project type and site specific requirements. For example, site geometry and location can impact the efficiency of construction (e.g. a more steeply sloped site will likely be costlier to develop than a flat site; a site that required upgrades to nearby utilities (water and sewer) will be more expensive to develop than a site that doesn't require such improvements). Because of this variability the analysis draws from industry-accepted construction cost data as well as survey data collected specifically for this study.

To illustrate and account for the variability in construction costs a sensitivity analysis of construction costs was included in the analysis. For each prototype a baseline hard construction cost was established (as shown in **Exhibit 3**). Sensitivity tables included under the Sensitivity Summaries section of the memo illustrate RLV outputs under higher and lower construction cost scenarios for each development prototype.

Exhibit 3. Estimated Construction Costs, MHA Economic Analysis, 2016

Construction Costs			
Prototype	**Hard Cost / SF**	**Soft Cost***	**Source**
RSL: Stacked Rental	$190	28%	*RSMeans*
RSL: Cottage	$137	25%	*CAI Survey*
RSL & LR-1: Townhouse	$189	25%	*CAI Survey*
LR-1: Multifamily Neighborhood	$202	28%	*RSMeans*
LR-1: Transitional Neighborhood	$189	28%	*RSMeans*
LR-2: Larger Site	$179	28%	*RSMeans*
LR-2: Small Infill	$186	28%	*RSMeans*
LR-2: Townhouse	$201	25%	*CAI Survey*
LR-3: Multifamily Neighborhood	$221	28%	*RSMeans*
LR-3: Transitional Neighborhood	$190	28%	*RSMeans*
NC40: Multifamily Neighborhood	$178	28%	*RSMeans*
NC40: Transitional Neighborhood	$181	28%	*RSMeans*
NC55: Multifamily Neighborhood	$177	28%	*RSMeans*
NC55: Transitional Neighborhood	$176	28%	*RSMeans*
NC75: Typical Site	$181	28%	*RSMeans*
NC75: Large Site	$172	28%	*RSMeans*
NC95: 8 Story 5 over 3	$208	28%	*RSMeans*
NC95: 9 Story Highrise	$223	28%	*RSMeans*
MR: Large Site	$178	28%	*RSMeans*
MR: Infill Site	$205	28%	*RSMeans*
SM-UD 240: Office	$163	28%	*RSMeans*
SM-UD 240: Residential	$208	28%	*RSMeans*

** soft costs are expressed as a percentage of total hard costs*

Capitalization Rates

A highly sensitive, and critical input to this analysis is the ***capitalization rate***, or cap rate. The cap rate describes the percentage of a development costs that are represented by annual net operating income. Average cap rates found in a development market at any given time represent the investment market's appetite for risk. Lower cap rates indicate that investors have great confidence in achieving returns, and therefore are willing to pay more for net revenue streams provided by the project. Higher cap rates indicate lower purchase prices of properties, suggesting investors need to see a higher return on their investment to justify the investment (more risk is inherent to the investment).

Analyses such as these are burdened by great sensitivity to small changes in cap rate assumptions. Moreover, cap rates vary widely at any given point in time based on perceptions amongst investors of the relative risk and value of different property types. For the purposes of this report, cap rates are based on research reports produced by CBRE along with input from project stakeholders familiar

with market conditions in the Seattle area. For the analysis, cap rates are varied by 25 basis points between each market area to illustrate unique market conditions in different areas of the City.

MHA Assumptions

The following amounts are used throughout the analysis to calculate the required payment for new development under MHA. Amounts vary by market area and the magnitude of the upzone (Exhibit 5). For mixed use buildings, the residential rates are applied to portions of the building that is in residential use and the commercial rates apply to the portion that is in commercial use.

Exhibit 4. MHA Tiered Rates

	Low Market	Medium Market	High Market	U. District
Zones w/ M Suffix				
Residential	($7.00)	($13.25)	($20.75)	N/A
Commercial	($5.00)	($7.00)	($8.00)	N/A
Zones w/ M1 Suffix				
Residential	($11.25)	($20.00)	($29.75)	($20.00)
Commercial	($8.00)	($11.25)	($12.75)	($20.00)
Zones w/ M2 Suffix				
Residential	($12.50)	($22.75)	($32.75)	N/A
Commercial	($9.00)	($12.50)	($14.50)	N/A

Source: City of Seattle, 2016

Understanding Sensitivities

Summary tables provided in this report illustrate a sensitivity analysis for key cost and revenue drivers, including the following:

Lease Rates

Lease rates vary by market area. High market areas are most expensive, while low market areas are least expensive. Though market areas within the City are characterized by real differences in the rental market, but RLV outputs in different market areas actually represent the range of outputs possible with changes to any number of revenue drivers.

Construction Costs

Construction costs—insofar as they relate to market-driven prices for labor and materials—are typically less variable within a given city than are lease rates. However, there is significant variability in construction costs on a project-by-project basis. This variability is derived from project specifics, including site constraints, the quality of fixtures and finishes, the extent of owner-funded tenant improvements, and other factors. The sensitivity analysis varies construction costs to understand the effects of these factors.

PROTOTYPE FEASIBILITY

The findings from the RLV exhibits (6-8) can be compared to the traded value of land in each zone and market area to provide a general idea of development feasibility. Those land values are dynamic over short periods of time, and therefore this draft does not present land values for direct comparison. However, based on sample of the transactions analyzed, land costs in the city range from $29 to $103 per square foot of land in areas with lower market conditions. Much of the land values in medium market areas trade in the range of $61 to $278 per square foot. Areas of high market value with very high densities trade in the range of $134 to $520 per square foot. Given the limited sample size, these ranges may be wider than presented here.

To contextualize the residual land value outputs in this study, **Exhibit 5** provides some examples of site acquisition costs for recently completed projects comparable to modeled prototypes. As shown, site acquisition costs vary widely, regardless of market area. While these numbers are not adjusted for inflation, there will still be a great degree of variation due to differences in existing improvements on site at the time of acquisition and the nature of the transactions.

Exhibit 5. Land Sale Data, Selected Comparable Properties

Property Name	Market Area	Year Built	Units	Gross SF	Land Price / SF	Sale Date (Year)
Greenwood Place	Low	2015	45	36,500	$38	2003
Array Apartments	Low	2014	319	448,303	$29	2011
The Enclave at Northgate	Low	2014	263	313,595	$103	2002
Leilani on Greenwood	Low	2013	328	274,917	$41	2010
12350 33rd NE	Low	2015	24	17,020	$35	2000
Smith & Burns	Medium	2015	150	175,964	$150	2014
Urbana	Medium	2014	287	473,587	$278	2010
Rooster	Medium	2015	196	215,000	$233	2013
Vibe Fremont	Medium	2015	64	48,678	$154	2013
Odin	Medium	2014	301	199,537	$178	2013
Duo	Medium	2014	25	19,200	$61	2012
Decibel	High	2016	75	71,656	$236	2014
Stream 15	High	2015	34	35,496	$134	2012
AVA Capitol Hill	High	2015	249	270,000	$415	2013
Craft Apartments	High	2016	32	29,549	$169	2012
Cielo Apartments	High	2015	335	322,500	$520	2012

Source: CoStar, 2016; King County Assessor, 2016.

Each of the graphs on the following three pages represent RLV results for every prototype tested in this analysis. In each graph, yellow markers represent RLV for projects in high market areas, blue markers represent RLV for projects in medium market areas, and red markers represent RLV for projects in low market areas. The first graph (**Exhibit 6**) expresses the results using baseline construction costs, while subsequent graphs (**Exhibits 7 and 8**) express the results using higher and low construction cost scenarios.

The analysis shows that small for-sale projects, such as cottages and townhomes, tend to be more feasible under current conditions than comparably small for-rent projects. Only the for-sale prototypes show positive RLV in low market areas. At the other end of the spectrum, high market areas offer high rents, and therefore exhibit significantly higher RLV as densities increase. Projects characterized by medium densities show tremendous variability and sensitivity, such as the NC40

prototype, which is burdened by the cost of a high proportion of structured parking that low and medium market area rents are challenged to afford. For these projects, the specific design is likely to significantly impact project feasibility.

Many of the projects that are not feasible under MHA may not be feasible even without MHA. As discussed earlier in this report, the MHA payment is likely to be a small portion of total development costs, and other factors may be more important in determining whether a particular type of development is feasible. However, in medium and high market areas, the magnitude of the fee is greater, and is likely to have more significant impacts on project feasibility. Nevertheless, higher market areas consistently outperform lower market areas, largely because key revenue drivers (such as lease rates) are higher while many cost drivers vary to a smaller degree between neighborhoods.

Exhibit 6. Residual Land Value Results – Baseline Construction Costs

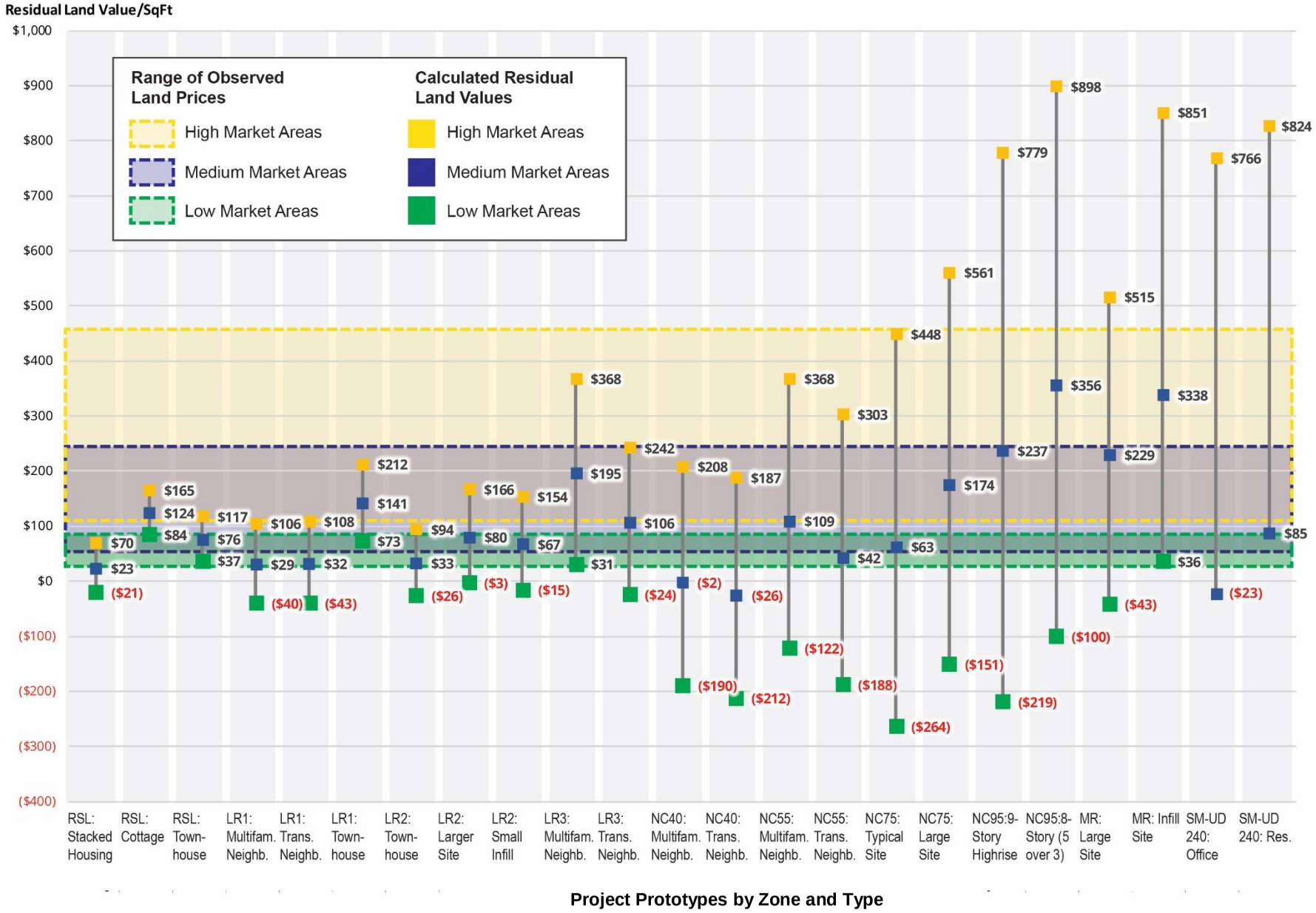


Exhibit 7. Residual Land Value Results – Reduced (10%) Construction Costs

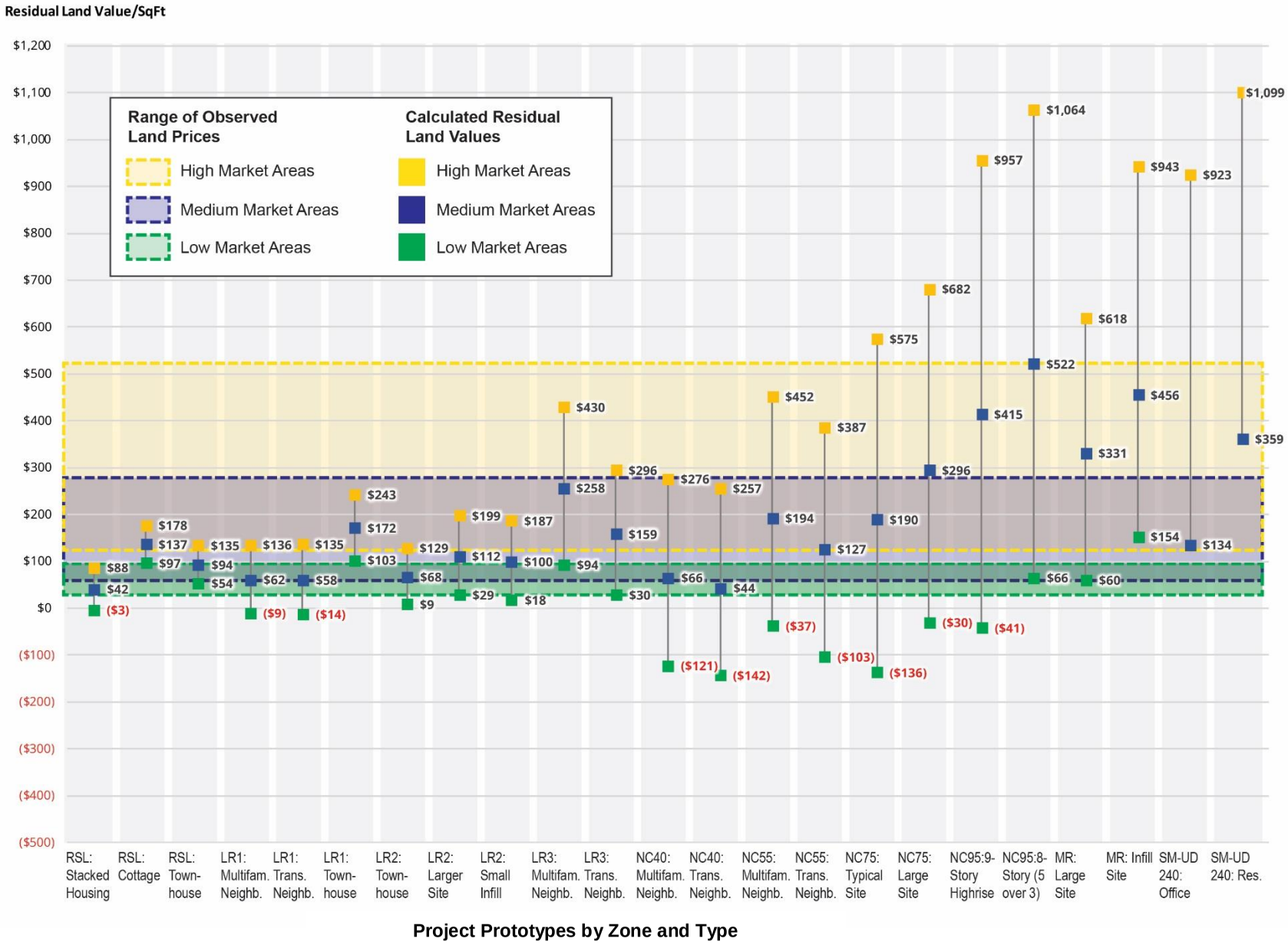
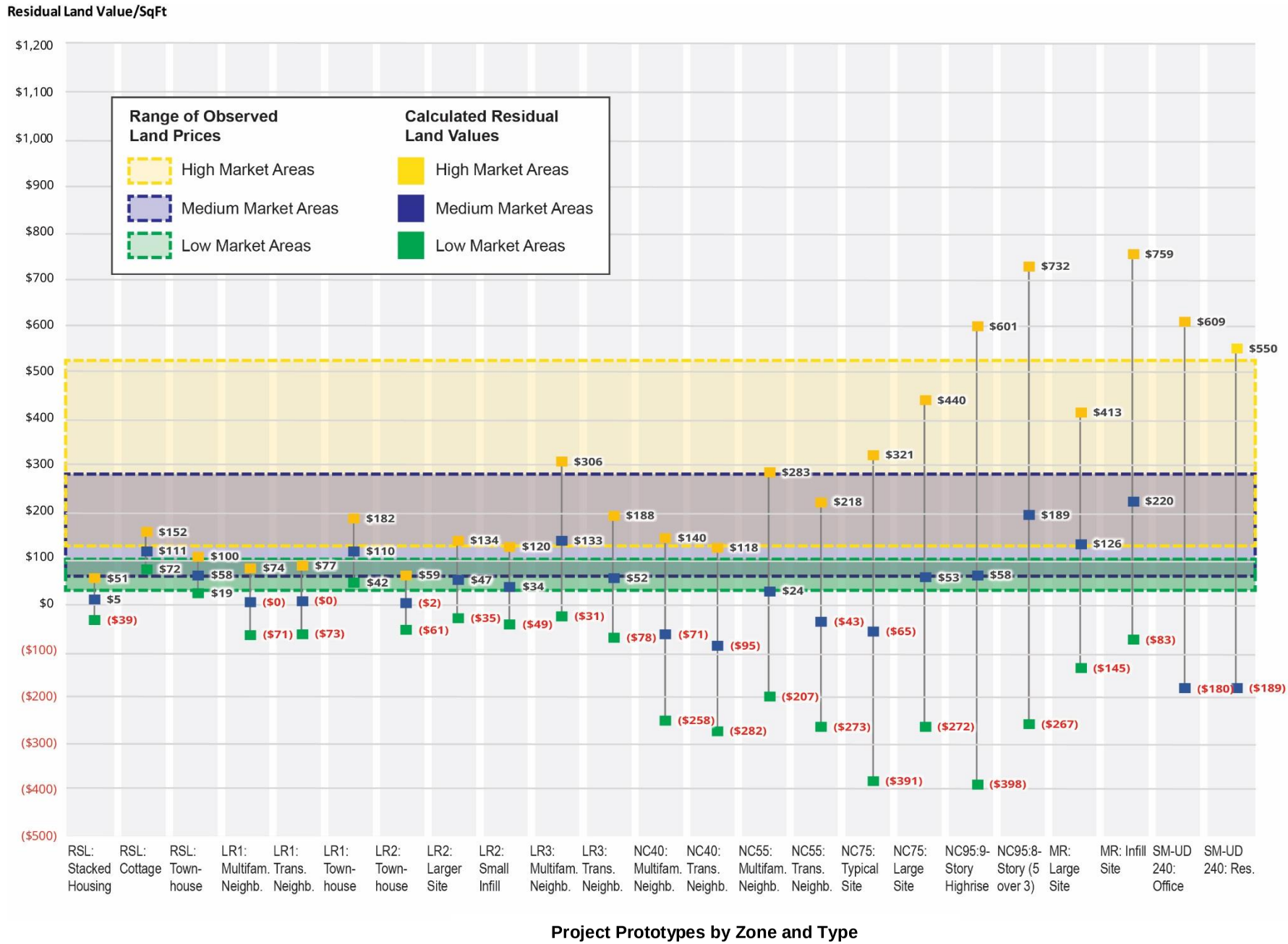


Exhibit 8. Residual Land Value Results – Increased (10%) Construction Costs



SENSITIVITY SUMMARIES

Prototypes Under MHA

The following tables illustrate residual land values for all prototypes and across all sensitivity scenarios with MHA.

Residential Small Lot Summary Tables

RSL: Stacked Rental

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$171		($2.67)	$41.54	$88.01
-5%	$181		($11.80)	$32.41	$78.87
Baseline	$190		($20.94)	$23.27	$69.74
+5%	$200		($30.08)	$14.13	$60.60
+10%	$209		($39.21)	$5.00	$51.47

RSL: Cottage (for-sale)

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$123		$97.26	$136.72	$178.00
-5%	$130		$90.86	$130.32	$171.60
Modeled	$137		$84.46	$123.92	$165.20
+5%	$143		$78.06	$117.52	$158.80
+10%	$150		$71.66	$111.12	$152.41

RSL: Townhouse (for-sale)

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$170		$54.39	$93.85	$134.94
-5%	$180		$45.53	$84.99	$126.08
Modeled	$189		$36.67	$76.13	$117.22
+5%	$198		$27.81	$67.27	$108.36
+10%	$208		$18.96	$58.42	$99.50

LR-1 Summary Tables

LR-1: Multifamily Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$182		($9.07)	$61.67	$136.02
-5%	$192		($24.59)	$46.15	$120.50
Baseline	$202		($40.12)	$30.62	$104.97
+5%	$212		($55.64)	$15.10	$89.45
+10%	$222		($71.17)	($0.43)	$73.92

LR-1: Transitional Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$170		($14.40)	$58.06	$134.65
-5%	$180		($28.92)	$43.53	$120.12
Baseline	$189		($43.45)	$29.00	$105.60
+5%	$199		($57.98)	$14.48	$91.07
+10%	$208		($72.50)	($0.05)	$76.55

LR-1: Townhouse (for-sale)

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$170		$103.45	$171.84	$243.06
-5%	$180		$88.09	$156.49	$227.70
Modeled	$189		$72.73	$141.13	$212.35
+5%	$198		$57.38	$125.78	$196.99
+10%	$208		$42.02	$110.42	$181.63

LR-2 Summary Tables

LR-2: Larger Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$161		$29.25	$111.77	$198.52
-5%	$170		$13.17	$95.69	$182.44
Baseline	$179		($2.91)	$79.62	$166.36
+5%	$188		($18.99)	$63.54	$150.28
+10%	$197		($35.06)	$47.46	$134.20

LR-2: Small Infill

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$168		$17.97	$100.49	$187.24
-5%	$177		$1.26	$83.79	$170.53
Baseline	$186		($15.44)	$67.09	$153.83
+5%	$196		($32.14)	$50.38	$137.13
+10%	$205		($48.85)	$33.68	$120.42

LR-2: Townhouse (for-sale)

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$181		$8.96	$67.89	$129.24
-5%	$191		($8.63)	$50.30	$111.65
Modeled	$201		($26.22)	$32.71	$94.06
+5%	$211		($43.80)	$15.12	$76.48
+10%	$221		($61.39)	($2.46)	$58.89

LR-3 Summary Tables

LR-3: Multifamily Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$198		$93.51	$257.58	$430.03
-5%	$210		$62.46	$226.53	$398.98
Baseline	$221		$31.40	$195.47	$367.93
+5%	$232		$0.35	$164.42	$336.87
+10%	$243		($30.70)	$133.37	$305.82

LR-3: Transitional Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$171		$29.53	$159.22	$295.53
-5%	$181		$2.74	$132.43	$268.74
Baseline	$190		($24.04)	$105.64	$241.95
+5%	$200		($50.83)	$78.85	$215.16
+10%	$209		($77.62)	$52.07	$188.38

NC40 Summary Tables (Former NC30)

NC40: Multifamily Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$160		($121.38)	$65.99	$276.49
-5%	$169		($155.59)	$31.77	$242.28
Baseline	$178		($189.80)	($2.44)	$208.07
+5%	$187		($224.01)	($36.65)	$173.86
+10%	$196		($258.22)	($70.86)	$139.65

NC40: Transitional Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$163		($142.41)	$44.06	$257.02
-5%	$172		($177.21)	$9.25	$222.22
Baseline	$181		($212.02)	($25.55)	$187.41
+5%	$190		($246.82)	($60.35)	$152.61
+10%	$199		($281.62)	($95.16)	$117.80

NC55 Summary Tables (Former NC40)

NC55: Multifamily Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$159		($37.20)	$193.53	$452.44
-5%	$168		($79.59)	$151.14	$410.05
Baseline	$177		($121.98)	$108.75	$367.66
+5%	$185		($164.38)	$66.36	$325.27
+10%	$194		($206.77)	$23.97	$282.87

NC55: Transitional Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$159		($103.32)	$126.71	$387.48
-5%	$168		($145.66)	$84.37	$345.13
Baseline	$176		($188.01)	$42.02	$302.79
+5%	$185		($230.35)	($0.32)	$260.45
+10%	$194		($272.69)	($42.66)	$218.11

NC75 Summary Tables (Former NC65)

NC75: Typical Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$163		($136.38)	$189.80	$575.42
-5%	$172		($199.96)	$126.22	$511.84
Baseline	$181		($263.54)	$62.63	$448.26
+5%	$190		($327.13)	($0.95)	$384.67
+10%	$199		($390.71)	($64.53)	$321.09

NC75: Large Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$155		($29.61)	$295.56	$682.12
-5%	$163		($90.18)	$234.99	$621.55
Baseline	$172		($150.74)	$174.42	$560.98
+5%	$181		($211.31)	$113.85	$500.41
+10%	$189		($271.88)	$53.28	$439.84

NC95 Summary Tables (Former NC85)

NC95: 9 Story Highrise

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$201		($41.19)	$414.95	$957.30
-5%	$212		($130.32)	$325.82	$868.17
Baseline	$223		($219.45)	$236.69	$779.04
+5%	$234		($308.58)	$147.56	$689.91
+10%	$245		($397.71)	$58.43	$600.78

NC95: 8 Story 5 over 3

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$187		$65.98	$522.12	$1,064.47
-5%	$198		($17.20)	$438.95	$981.29
Baseline	$208		($100.38)	$355.77	$898.11
+5%	$218		($183.55)	$272.59	$814.94
+10%	$229		($266.73)	$189.42	$731.76

Midrise Summary Tables

MR: Large Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$161		$60.16	$331.43	$618.10
-5%	$170		$8.77	$280.05	$566.71
Modeled	$178		($42.61)	$228.66	$515.32
+5%	$187		($94.00)	$177.27	$463.94
+10%	$196		($145.39)	$125.89	$412.55

MR: Infill Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,675.80	$2,018.10	$2,169.30
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$185		$154	$456	$943
-5%	$195		$95	$397	$897
Modeled	$205		$36	$338	$851
+5%	$215		($23)	$279	$805
+10%	$226		($83)	$220	$759

Prototypes Absent MHA

The following tables illustrate residual land values for all prototypes and across all sensitivity scenarios without MHA.

Residential Small Lot Summary Tables

RSL: Stacked Rental

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$171		$1.53	$49.49	$100.46
-5%	$181		($7.60)	$40.36	$91.32
Baseline	$190		($16.74)	$31.22	$82.19
+5%	$200		($25.88)	$22.08	$73.05
+10%	$209		($35.01)	$12.95	$63.92

RSL: Cottage (for-sale)

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$123		$102.51	$146.65	$193.57
-5%	$130		$96.11	$140.25	$187.17
Modeled	$137		$89.71	$133.85	$180.77
+5%	$143		$83.31	$127.45	$174.37
+10%	$150		$76.91	$121.06	$167.97

RSL: Townhouse (for-sale)

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$170		$59.64	$103.79	$150.50
-5%	$180		$50.78	$94.93	$141.64
Modeled	$189		$41.92	$86.07	$132.78
+5%	$198		$33.06	$77.21	$123.92
+10%	$208		$24.21	$68.35	$115.06

LR-1 Summary Tables

LR-1: Multifamily Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$182		($2.35)	$74.39	$155.94
-5%	$192		($17.87)	$58.87	$140.42
Baseline	$202		($33.40)	$43.34	$124.89
+5%	$212		($48.92)	$27.82	$109.37
+10%	$222		($64.45)	$12.29	$93.84

LR-1: Transitional Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$170		($4.76)	$73.48	$156.99
-5%	$180		($19.29)	$58.95	$142.46
Baseline	$189		($33.82)	$44.42	$127.94
+5%	$199		($48.34)	$29.90	$113.41
+10%	$208		($62.87)	$15.37	$98.89

LR-1: Townhouse

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$170		$112.55	$189.07	$270.03
-5%	$180		$97.19	$173.71	$254.68
Modeled	$189		$81.83	$158.36	$239.32
+5%	$198		$66.48	$143.00	$223.96
+10%	$208		$51.12	$127.64	$208.61

LR-2 Summary Tables

LR-2: Larger Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$161		$37.09	$126.61	$221.91
-5%	$170		$21.01	$110.53	$205.84
Baseline	$179		$4.93	$94.46	$189.76
+5%	$188		($11.15)	$78.38	$173.68
+10%	$197		($27.22)	$62.30	$157.60

LR-2: Small Infill

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$168		$26	$115	$210
-5%	$177		$9.10	$98.63	$193.77
Baseline	$186		$7.60	$81.93	$177.07
+5%	$196		$24.30	$65.22	$160.37
+10%	$205		$41.01	$48.52	$143.66

LR-2: Townhouse

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Sales Price/SqFt	$369.24	$439.62	$514.08
-10%	$181		$16.80	$82.73	$152.48
-5%	$191		($0.79)	$65.14	$134.89
Modeled	$201		($18.38)	$47.55	$117.30
+5%	$211		($35.96)	$29.96	$99.72
+10%	$221		($53.55)	$12.38	$82.13

LR-3 Summary Tables

LR-3: Multifamily Neighborhood

Construction Costs			RLV - Market Area		
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$198		$109.10	$287.08	$476.24
-5%	$210		$78.04	$256.03	$445.18
Baseline	$221		$46.99	$224.98	$414.13
+5%	$232		$15.94	$193.92	$383.08
+10%	$243		($15.12)	$162.87	$352.02

LR-3: Transitional Neighborhood

Construction Costs			RLV - Market Area		
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$171		$41.85	$182.54	$332.05
-5%	$181		$15.06	$155.75	$305.26
Baseline	$190		($11.72)	$128.96	$278.47
+5%	$200		($38.51)	$102.17	$251.68
+10%	$209		($65.30)	$75.39	$224.90

NC40 Summary Tables (Former NC30)

NC40: Multifamily Neighborhood

Construction Costs			RLV - Market Area		
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$160		($106.11)	$94.89	$321.75
-5%	$169		($140.32)	$60.68	$287.54
Baseline	$178		($174.53)	$26.47	$253.33
+5%	$187		($208.74)	($7.74)	$219.12
+10%	$196		($242.95)	($41.96)	$184.91

NC40: Transitional Neighborhood

Construction Costs			RLV - Market Area		
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$163		($127.65)	$71.99	$300.77
-5%	$172		($162.45)	$37.19	$265.96
Baseline	$181		($197.26)	$2.39	$231.16
+5%	$190		($232.06)	($32.42)	$196.35
+10%	$199		($266.87)	($67.22)	$161.55

NC55 Summary Tables (Former NC40)

NC55: Multifamily Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$159		($17.87)	$229.99	$509.37
-5%	$168		($60.26)	$187.60	$466.98
Baseline	$177		($102.65)	$145.21	$424.59
+5%	$185		($145.04)	$102.82	$382.20
+10%	$194		($187.43)	$60.43	$339.81

NC55: Transitional Neighborhood

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$159		($84.32)	$162.51	$443.34
-5%	$168		($126.66)	$120.17	$401.00
Baseline	$176		($169.01)	$77.82	$358.66
+5%	$185		($211.35)	$35.48	$316.32
+10%	$194		($253.69)	($6.86)	$273.98

NC75 Summary Tables (Former NC65)

NC75: Typical Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$163		($108.91)	$240.56	$653.43
-5%	$172		($172.49)	$176.97	$589.85
Baseline	$181		($236.08)	$113.39	$526.27
+5%	$190		($299.66)	$49.81	$462.68
+10%	$199		($363.24)	($13.78)	$399.10

NC75: Large Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$155		($0.98)	$347.82	$761.64
-5%	$163		($61.55)	$287.25	$701.07
Baseline	$172		($122.12)	$226.68	$640.50
+5%	$181		($182.69)	$166.11	$579.93
+10%	$189		($243.26)	$105.54	$519.36

NC95 Summary Tables (Former NC85)

NC95: 9 Story Highrise

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$201		($0.64)	$488.98	$1,069.94
-5%	$212		($89.77)	$399.85	$980.81
Baseline	$223		($178.90)	$310.72	$891.68
+5%	$234		($268.03)	$221.59	$802.55
+10%	$245		($357.16)	$132.46	$713.42

NC95: 8 Story 5 over 3

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$187		$106.53	$596.15	$1,177.11
-5%	$198		$23.36	$512.98	$1,093.93
Baseline	$208		($59.82)	$429.80	$1,010.75
+5%	$218		($143.00)	$346.62	$927.58
+10%	$229		($226.17)	$263.45	$844.40

Midrise Summary Tables

MR: Large Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$161		$86.09	$379.81	$693.40
-5%	$170		$34.70	$328.42	$642.02
Modeled	$178		($16.68)	$277.03	$590.63
+5%	$187		($68.07)	$225.65	$539.24
+10%	$196		($119.46)	$174.26	$487.85

MR: Infill Site

Construction Costs		RLV - Market Area			
Sensitivity	Cost/SqFt		Low	Medium	High
		Rent/Unit/Month	$1,676	$2,018	$2,169
		Rent/SqFt/Month	$2.39	$2.88	$3.34
-10%	$185		$183	$510	$859
-5%	$195		$123	$451	$799
Modeled	$205		$64	$392	$740
+5%	$215		$5	$333	$681
+10%	$226		($54)	$274	$622

University District Alternatives

The University District may receive a larger increase in zoned development capacity through MHA, and if this happens then the University District may also be subject to higher MHA payment amounts. Some zones could therefore have different payment amounts applied in different neighborhoods. Those zones that are present in both the University District and other neighborhoods are re-analyzed here with assumed University District payment levels. The U-District payment levels are M1 amounts for a Medium area as seen in Exhibit 4. The SM UD-240 zones have an MHA amount of $20.00 per square foot for both Residential and Commercial.

Prototypes under MHA

Other University District Examples

Various Zones

Construction Costs	RLV - Future U District Prototype				
Sensitivity	LR-1: Multifamily	NC55: Multifamily	NC75: Typical Site	NC95: 8 Story 5 over 3	Midrise: Infill Site
Rent/Unit/Month	$2,018.10	$2,018.10	$2,018.10	$2,018.10	$2,018.10
Rent/SqFt/Month	$2.88	$2.88	$2.88	$2.88	$2.88
-10%	$55.19	$174.92	$163.60	$483.65	$428.27
-5%	$39.67	$132.53	$100.02	$400.48	$369.18
Baseline	$24.14	$90.14	$36.43	$317.30	$310.08
+5%	$8.62	$47.75	($27.15)	$234.12	$250.99
+10%	($6.91)	$5.36	($90.73)	$150.95	$191.89

SM-UD 240 Summary Tables

SM-UD 240: Office

Construction Costs		RLV - Market Area
Sensitivity	Cost/SqFt	Medium
	Rent/Unit/Month	Office Tower
	Rent/SqFt/Month	$30/sf
-10%	$147	$133.98
-5%	$155	$55.41
Baseline	$163	($23.16)
+5%	$171	($101.73)
+10%	$179	($180.30)

SM-UD 240: Residential

Construction Costs		RLV - Market Area
Sensitivity	Cost/SqFt	Medium
	Rent/Unit/Month	$2,018.10
	Rent/SqFt/Month	$2.88
-10%	$187	$359.29
-5%	$197	$222.17
Baseline	$208	$85.06
+5%	$218	($52.06)
+10%	$228	($189.18)

Prototypes Absent MHA

Other University District Examples

Various Zones

Construction Costs	RLV - Future U District Prototype				
Sensitivity	LR-1: Multifamily	NC55: Multifamily	NC75: Typical Site	NC95: 8 Story 5 over 3	Midrise: Infill Site
Rent/Unit/Month	$2,018	$2,018	$2,018	$2,018	$1,842/unit
Rent/SqFt/Month	$2.88	$2.88	$2.88	$2.88	$2.88
-10%	$74.39	$229.99	$240.56	$596.15	$510.27
-5%	$58.87	$187.60	$176.97	$512.98	$451.18
Baseline	$43.34	$145.21	$113.39	$429.80	$392.08
+5%	$27.82	$102.82	$49.81	$346.62	$332.99
+10%	$12.29	$60.43	($13.78)	$263.45	$273.89

SM-UD 240 Summary Tables

SM-UD 240: Office

Construction Costs		RLV - Market Area
Sensitivity	Cost/SqFt	Medium
	Rent/Unit/Month	Office Tower
	Rent/SqFt/Month	$30/sf
-10%	$147	$589.64
-5%	$155	$511.08
Baseline	$163	$432.51
+5%	$171	$353.94
+10%	$179	$275.37

SM-UD 240: Residential

Construction Costs		RLV - Market Area
Sensitivity	Cost/SqFt	Medium
	Rent/Unit/Month	$2,018
	Rent/SqFt/Month	$2.88
-10%	$187	$549.61
-5%	$197	$412.49
Baseline	$208	$275.37
+5%	$218	$138.26
+10%	$228	$1.14

Assessing Scale of Upzone

The provisions of MHA dictate that larger upzones may be subject to higher payment amounts. The M, M1 and M2 designations denote the scale of upzone, and varying payment amounts are attached to these designations (see Exhibit 4). The pro forma model used in this analysis provides an assessment of the impact of these changing amounts across all prototypes tested, with the following outputs for each designation.

Exhibit 9. RLV Outputs (Baseline Costs) with MHA Tiered Rates

	Scale of Upzone: M			Scale of Upzone: M1			Scale of Upzone: M2		
	Market Area			Market Area			Market Area		
	Low	Mid	High	Low	Mid	High	Low	Mid	High
Residential Small Lot (RSL)									
RSL: Stacked Rental	($21)	$23	$70	($23)	$19	$64	($23)	$18	$63
RSL: Cottage	$84	$124	$165	$81	$119	$158	$81	$117	$156
RSL: Townhouse	$37	$76	$118	$34	$71	$111	$34	$69	$109
Lowrise 1 (LR-1)									
LR-1: Multifamily Neighborhood	($40)	$31	$105	($44)	$24	$96	($44)	$22	$93
LR-1: Transitional Neighborhood	($43)	$29	$106	($48)	$23	$97	($48)	$20	$94
LR-1: Townhouse	$73	$142	$213	$68	$133	$201	$68	$129	$198
Lowrise 2 (LR-2)									
LR-2: Larger Site	($3)	$80	$166	($8)	$72	$156	($8)	$69	$153
LR-2: Small Infill	($15)	$67	$154	($20)	$60	$144	($20)	$56	$140
LR-2: Townhouse	($26)	$33	$94	($31)	$25	$84	($31)	$22	$81
Lowrise 3 (LR-3)									
LR-3: Multifamily Neighborhood	$31	$195	$368	$22	$180	$348	$22	$174	$341
LR-3: Transitional Neighborhood	($24)	$106	$242	($32)	$94	$226	($32)	$89	$221
NC40 (old NC30)									
NC40: Multifamily Neighborhood	($190)	($2)	$208	($199)	($17)	$188	($199)	($23)	$182
NC40: Transitional Neighborhood	($212)	($26)	$187	($221)	($40)	$168	($221)	($46)	$162
NC55 (old NC40)									
NC55: Multifamily Neighborhood	($122)	$109	$368	($134)	$90	$343	($134)	$83	$335
NC55: Transitional Neighborhood	($188)	$42	$303	($200)	$24	$278	($200)	$16	$270
NC75 (old NC65)									
NC75: Typical Site	($264)	$63	$448	($280)	$36	$414	($281)	$26	$402
NC75: Large Site	($151)	$174	$561	($168)	$147	$525	($169)	$137	$514
NC95 (old NC85)									
NC95: 9 Story Highrise	($219)	$237	$779	($244)	$198	$729	($245)	$183	$712
NC95: 8 Story 5 over 3	($100)	$356	$898	($125)	$317	$848	($126)	$302	$831
Midrise									
MR: Large Site	($43)	$229	$515	($58)	$204	$483	($58)	$194	$472
MR: Infill Site	$36	$338	$655	$18	$310	$618	$18	$299	$606