SOUTHERN NEVADA WORKFORCE HOUSING STUDY

November, 2005

Prepared for:

Prepared by:

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November 25, 2005

Mr. Douglas Bell, Manager
Clark County Community Resources Management
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RE: Affordable/Attainable Workforce Housing Study

Dear Mr. Bell:

The Consultant Team of Restrepo Consulting Group LLC, GMAC Commercial Mortgage, Residential Resources and Home Builders Research is pleased to present the referenced study to Clark County Community Resources Management and the Southern Nevada Regional Planning Coalition.

This study is the culmination of several weeks of work and research on affordable and attainable housing trends and needs in Clark County. The projection period covered in our report extends from 2006 to 2015 and is based on historical and current housing and socio-economic trends. The results of our work are segmented into four principle areas of study - a demand analysis, a supply analysis, an affordable/attainable housing gap analysis and construction cost analysis.

Our report is intended solely for the use of Clark County Community Resources Management and the Southern Nevada Regional Planning Coalition. It may be distributed to the press, to various interest groups and to governmental representatives. Publication of this report or any information contained therein in any manner should explicitly indicate that it was prepared by the Consultant Team.

Regards,

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Section I

EXECUTIVE SUMMARY

I. EXECUTIVE SUMMARY

A. INTRODUCTION

In some of the costliest areas in the nation, political jurisdictions and employers are beginning to identify a link between high housing costs, employee recruitment, productivity and retention, as well as their own bottom lines. As workforce housing initiatives spring up in communities around the country, and as a small but growing number of employers offer housing benefits to their employees, the question arises: Are high housing costs undermining the type of competitive business environment that is essential to strong, vibrant communities? Should the increasing cost of housing therefore be added to the list of traditional business concerns? These are some of the major questions facing Southern Nevada and are the focus of this report.

Those who hold workforce jobs are often the essential, frontline workers in the economy. They may be single persons with or without children, or married persons, one or both with a workforce job. Examples of workforce jobs in Southern Nevada include construction workers, police officers, teachers, nurses, retail salespersons, restaurant servers and resort-industry workers. The importance of the workforce sector to our local economy cannot be overstated. Employees earning workforce wages fill the majority of jobs in nearly every sector of our economy.

The SNRPC Regional Growth Summit Report indicated that "A range of affordable housing choices was seen as an important dimension to attracting new jobs to the region, whether these jobs relate to the gaming industry's growth or to new non-gaming employers."

As such, Clark County Community Resources Management Division ("Community Resources") retained Restrepo Consulting Group et. al. ("the Consultant Team") to complete a study that identifies and explores the relationship between the demand for and supply of "workforce" housing in Clark County ("the County") and the Las Vegas Valley ("the Valley"). This study presents a summary of projected 10-year (through 2015) housing demand and supply for the County and the Valley, based on an analysis of historical and projected residential market data and economic/demographic trends. It also analyzes the approximate shortfall of workforce

housing in Clark County, by price/rent and affordability ranges, and estimates the cost to build workforce housing in 2005.

B. STUDY OBJECTIVES & FINDINGS

The primary study objectives and findings of the research conducted herein are presented below:

1. Prepare an Affordable and Attainable Housing Demand Analysis for Clark County.

- In 2005, there were an estimated 684,142 households in the County.

- Approximately 134,800 households, or 19.7 percent of the County's 2005 households earn between 80 percent and 120 percent of the annual Area Median Income ("AMI") of $56,550, defined as the U.S. Department of Housing and Urban Development Median Family Income ("MFI").

  - The 80 percent to 120 percent range equals $45,240 to $67,860 per year.

  - Approximately 136,800 or 20 percent of Clark County households earn from 53 percent up to 80 percent ($30,000 - $45,000 per year) of the AMI.

  - Approximately 93,500, or 13.7 percent of Clark County households, earn from 35 percent up to 53 percent ($20,000 - $30,000 per year) of the AMI.

  - Approximately 117,000, or 17.1 percent of Clark County households, earn less than 35 percent ($20,000 per year) of the AMI.

2. Prepare an Affordable and Attainable Housing Supply Analysis for Clark County.

- An analysis was conducted of the historical relationships between (1) population and housing inventory growth and (2) household income and median home prices (both existing and new). An analysis was also performed of the 2005 housing stock by type and tenure.

- The Clark County housing stock has historically grown at a pace consistent with that of population growth (an average annual growth of 5.7 percent between 1980 and 2005).

- It is estimated that 705, 460 total residential units were in Clark County as of July, 2005. These dwelling units are segmented as follows:

  - 404,998 single family homes
  - 169,845 apartments
  - 50,509 condos
  - 33,357 townhome
  - 27,145 mobile homes
  - 19,384 multiplex units

- Las Vegas Perspective data indicates that as of the end of 2004, approximately 64 percent of Valley dwelling units were owner-occupied, while the remaining 36 percent was renter-occupied.

- Clark County Assessor's data indicates that as of July, 2005, approximately 48 percent of Clark County dwelling units were owner-occupied. An additional 45 percent were renter occupied, while the remainder were designated "low-income rentals".[1]

  - The Assessor's data also indicates that a disproportionate share of homes built in 2004 and 2005 are a part of the rental pool, which appears to be highlighting the impact of recent real estate investment and speculation. This may also

[1] "Low-income rentals" is an assessor's designation for property tax purposes and is not the same as HUD's definition of "affordable" subsidized housing.

substantially explain the difference between the two methodological results. Difference in geography may also explain some of the variation.

- Affordability Ratio:

  - The "New Home Affordability Index", a ratio of home prices to annual household income, has increased from a 1995 to 1999 average of 3.37 to 6.66 as of Q2, 2005, indicating declining housing affordability in the County's urbanized area.

  - The "Existing Home Affordability Index" has grown from 2.79 in 2000 to 5.18 in 2005.

  - As a general rule, an "Affordability Index" value of 3.33 represents the "affordability" threshold for mortgage payments. This assumes that any more than approximately 30 percent of income going toward mortgage payments is "unaffordable". This ratio, however, does not account for variations in mortgage rates, down payments or other factors impacting monthly mortgage payments. Still, the sharp increase in these ratios since 2000 are reason for concern.

- Rental Market

  - Of the 705,460 residential units counted in the July, 2005 Assessor's residential extract database, 317,492, or 45 percent of the total stock of residential units in the County were identified as "rentals".

  - Based on the Assessor's data, non-apartment rentals represent a substantial addition (168,600 units) to the total rental inventory. The data indicate that apartment units in complexes make up less than 47 percent of the total rental pool, whereas single family units account for another 36.5 percent and condos account for 8.5 percent. Townhomes, mobile homes and multiplexes account for the remaining eight percent.

- Both empirical and anecdotal data indicate that individuals that own rental properties have some flexibility in how much rent they charge, making these units competitive with similar sized apartments. That is, believing that price appreciation will make up the difference, some individual owners are charging rents comparable to apartment units and sometimes even less than their mortgages when renting units to family members, friends and acquaintances. To the extent that these "shadow" rentals are competitively priced with apartments, their existence adds to the pool of affordable housing to those households at the lower spectrum of the income range, mitigating to some degree the impact of apartment losses to condo conversions, demolitions, etc.

3. Project the Affordable and Attainable Housing Gap in Clark County through 2015.

- Households earning less than 150 percent of AMI ($84,825 per year) cannot afford a 2005 median priced existing for-sale home.

  - For households earning 80-140 percent of AMI ($45,240 – $79,170 per year), subsidies of approximately $16,000 to $129,000 would be required to bridge the affordability gap for the 2005 median priced existing home.

  - Subsidies of approximately $148,000 to $261,000 would be required to make this existing single family home affordable to families earning 10-70 percent ($5,655 - $39,585 per year) of AMI.

- Households earning less than 160 percent of the AMI ($90,480 per year) cannot afford a 2005 median priced new for-sale home.

  - For households earning between 80-150 percent of AMI ($45,240 – $84,825 per year), subsidies of approximately $7,000 to $139,000 would be required to bridge the affordability gap for the 2005 median priced new home.

- Subsidies of approximately $158,000 to $271,000 would be required to make the 2005 median priced new single family home affordable to families earning between 10-70 percent ($5,655 - $39,585 per year) of AMI.

- The two methodologies used to project a workforce housing supply gap between 2005 and 2016 suggest "best case" and "worst case" estimates with the likely outcome somewhere between the two.

- Method One: Assume that median home prices and household income grow at the same rate.

- Approximately 169,000 new workforce households are projected to be added to the County during the 2006 to 2015 study period. Our research suggests that 80 to 82 percent of these new workforce households (135,400 – 138,800 households) will not be able to afford a median priced, existing, for-sale home or new home.

  - Households earning less than 120 percent of the AMI ($67,860 per year) are projected to account for the 70 percent of new households added to the economy each year. This compares to 24 percent of all home sales (existing and new) within their range of affordability over the one year period from November, 2004 through October, 2005.

  - Households earning less than 80 percent of the AMI ($45,240 per year) are projected to account for the 51 percent of new households added to the economy each year. This compares to 8.2 percent of all home sales (existing and new) within their range of affordability over the one year period from November, 2004 through October, 2005.

  - This assumes that the household income distribution of new worker households will mirror that of existing households and that the ratio of median household income to median home price stays constant over time.

- Note that this does NOT take into account so called "lifestyle" renters, which would reduce the housing supply gap, somewhat.

- Method Two: Project the Homeownership Affordability Indexes over time.

  - A projection of the home affordability indexes indicates that home prices could grow to 6.9 and 9.2 for existing and new home indexes, respectively by 2010, and up to 9.5 and 13.2 for exiting and new home affordability indexes, respectively by 2015.

  - This analysis, however, does not take into account market dynamics that are likely to mitigate the divergence between home prices and household income suggesting that this is an extreme worst case scenario.

- The Supply and Demand Analyses conducted herein indicate that apartment rents as a share of renter household income has been relatively stable during the past 15 years. In 2005, studio rental units are affordable to households earning at least 40 percent of AMI. All rental unit types are affordable to households earning 80 percent or more of AMI. However, a historically low vacancy rate (5.1 percent, Q2, 2005), decreased production of new apartments and rapidly increasing home prices indicate that rents are due to rise, potentially dramatically. This will impact apartments as an affordable/attainable housing option.

- Monthly rent, as a share of monthly income, ranges from about 30 percent to more than 50 percent, depending on the data source.

  – Rent data from the Las Vegas Perspective and renter household income data from the U.S. Bureau of the Census American Community Survey indicate that the average rent has remained between 25 and 35 percent of median renter income between 1989 and 2005

  – These data, however, do not reveal the impacts to "cost burdened" renters. According to 2000 HUD data 65 percent of all renter households in Clark County earning less

than 30 percent of AMI (about $17,000) pay more than 50 percent of their monthly income to rent.

- Based on 2004 renter household income and rental rate distributions, research indicates a deficit of approximately 80 percent of affordable units available to renter households earning less than 27 percent of AMI ($15,000).

- The same research indicates a surplus of units available to those renter households earning between from 27 percent up to 62 percent of AMI ($15,000 up to $$40,000)

- However, this does not account for estimated reductions in the overall stock of apartments for 2005.

- The lack of apartments at the highest end of the rental price range virtually wipes out the surplus of units available to renter households earning between from 27 percent up to 62 percent of AMI.

  – This deficit of rental units at the highest end of the rental price range suggests an apartment development opportunity. Taking advantage of this seeming unmet demand would likely lessen some of the demand-supply imbalance of lower-priced rental units.

- An informal survey conducted as part of this study indicates that businesses are only beginning to feel the impact of workforce housing-related issues. However, most of those who responded (10 out of 11), indicated that "affordable housing is scarce and becoming a problem." Four out of five, who offered additional comments, said that declining housing affordability is likely to put upward pressure on the wages of their workers.

4. Prepare a Construction Cost Analysis.

- 300-unit garden style development estimated subsidy requirements:

  - Based on 2005 construction costs and excluding land costs, it is estimated that a per-unit subsidy ranging from $0 (under conventional financing) approximately $39,000 (four percent LIHTC / TEB financing) would be required by a developer to build a 300-unit apartment complex. This equates to $0 to $11.7 million for a hypothetical 300-unit apartment complex.

  - Including 2005 land costs, subsidy requirements are estimated to be between approximately $20,000 (under conventional financing) to $62,000 per unit (four percent LIHTC / TEB financing). This equates to $6 million to $20.2 million per 300-unit project.

- 100-unit SRO development estimated subsidy requirements

  - Based on 2005 construction costs and excluding land costs, it is estimated that a subsidy requirement of $770 (conventional financing) to $11,900 per unit (GNMA nine percent credit financing). This equates to $231,000 to $3.6 million for a 100-unit development.

  - Including 2005 land costs, subsidy requirements are estimated to be between approximately $1,900 (conventional financing) to $13,000 per unit (GNMA nine percent credit financing). This equates to $571,000 to $3.9 million per 100-unit development.

- 1,300-square-foot "affordable" single family residence

  - It is estimated that a hypothetical "affordable", no frills 1,300-square-foot single family home could be built at 2005 construction costs for approximately $110 per square foot or $143,000 (excluding land costs and developer profit). Including 2005 land costs, such a home could be built for approximately $145 per square foot, or $189,500.

- Developers in Clark County are currently averaging between eight and 12 percent profit. Assuming an average minimal required profit of 10 percent, this translates into a $207,350 sales price for the hypothetical home modeled above.

- At $207,350, this home would not be affordable to households earning less than 110 percent of AMI.

    - For households earning between 80 percent and 100 percent of AMI ($45,240 – $56,550 per year) subsidies of approximately $19,000 to $56,000 would be required to bridge the affordability gap.

    - Subsidies of approximately $75,000 to $189,000 would be required to make this hypothetical single family home affordable to families earning 10 percent to 70 percent ($5,655 - $39,585 per year) of AMI.

C. BARRIERS & SOLUTIONS

A number of "barriers" and potential "solutions" relative to the development of affordable and attainable workforce housing were identified. These barriers and solutions are based on the study team's long term involvement in Southern Nevada, extensive in-house information and research for this project. The issues pertinent to development of affordable housing are listed below. Complete summary of identified barriers and solutions are discussed in Section VII., "Conclusions & Recommendations".

- ***Site-Related Issues***
- ***Financing-Related Issues***
- ***Regulatory Issues***
- ***Design and Production Issues***

Section II

INTRODUCTION

II. INTRODUCTION

A. ACKNOWLEDGMENTS

The Consultant Team would like to acknowledge Kristin Cooper, Michael Pawlak and Douglas Bell of Clark County Community Resources, Lesa Coder of the Clark County Redevelopment Agency, Bengte Evenson of the UNLV Center for Business and Economic Research, Lon DeWeese of the State of Nevada Housing Division, Robert Clark of the Clark County Assessor's Office, Allen Scott of the State of Nevada Manufactured Housing Division, Patrick Sweeney of CB Richard Ellis, Dennis Smith of Home Builders Research, Linda Menk of GMAC Commercial Mortgage, Frank Nason of Residential Resources, Inc. and everyone who participated in the Affordable / Attainable Workforce Housing Questionnaire. Without the valuable input from these individuals, this study would not be as comprehensive as it is.

B. STUDY PURPOSE

Restrepo Consulting Group LLC, GMAC Commercial Mortgage, Residential Resources, Inc. and Home Builders Research ("the Consultant Team") were retained by the Clark County Community Resources Management Division ("Community Resources") to complete a study that identifies and explores the relationship between the demand for and supply of "workforce" housing in the County and the Valley. This study presents a summary of projected 10-year (through 2015) housing demand and supply for the County and the Valley, based on an analysis of historical and projected residential market data and economic/demographic trends. It also estimates the approximate shortfall of workforce housing in the County, by price/rent and affordability range, and estimates the cost to build workforce housing.

C. DEFINITIONS

The approximate geographic boundaries of the Valley are illustrated in Map IV-1. This area is comprised of the following jurisdictions: the urban portion of unincorporated Clark County as well as the Cities of Las Vegas, North Las Vegas and Henderson.

Those who hold ***workforce jobs*** are often the essential, frontline servers in the economy. They may be single persons with or without children, or married persons, one (or occasionally, both) with a workforce job. Examples of workforce jobs in the County include construction workers, police officers, teachers, nurses, retail salespersons and resort industry employees. The importance of the workforce sector to the County's economy cannot be overstated. Employees earning workforce wages fill the majority of jobs in nearly every sector of our economy, especially services and retail trade, some of the primary employment sectors in the Valley.

In this report, we define ***workforce households*** as those households whose members collectively earn between 80 up to 120 percent of the annual Area Median Income ("AMI") as used by defined by the U.S. Department of Housing and Urban Development's ("HUD") Median Family Income ("MFI"). The 2005 AMI HUD MFI is $56,550. Thus, all households earning between $45,240 and $67,860 are defined as workforce households for the purposes of this study.

According to the Clark County Growth Task Force Final Report, housing is defined as ***attainable*** when a household earning 80 percent up to 120 percent of AMI pays no more than 30 percent of its income for housing. Housing is defined as ***affordable*** when a household earning less than 80 percent of AMI pays no more than 30 percent of its income for housing.[2]

Mobile homes are defined herein as "manufactured mobile home units." The housing units that have been counted as mobile homes are made up of three categories (1) mobile homes in mobile home parks. While the lots that these units reside on are considered real property, the units themselves are considered personal property; (2) mobile homes in mobile home estates. Both the units and the lots are owned by an individual, although they may not be owner-

[2] Clark County Growth Task Force Final Report, April 2005, page 90.

occupied; and (3) private mobile homes are mobile homes that reside on private property. Again, these units may be owner-occupied or renter-occupied.

D. SCOPE OF RESEARCH

1. *Demand Analysis*

This study first presents an overview of the County's demographics and housing demand with a focus on the Valley. County and Valley housing demand trends were analyzed, beginning with a graphical depiction of historical population and employment estimates, as well as projections of these variables through 2015. Estimates of housing affordability were then evaluated, by income range, when compared to mid-2005 median home prices and rents. Next, income characteristics of Clark County families and households are assessed, by race / ethnicity and age group. Detailed tables are also presented describing population and labor force projections (overall and by sector), as well as the number and distribution of new households, by income range.

Finally, the study results of an informal affordable/attainable workforce housing questionnaire sent to 41 representatives of a variety of local businesses, unions and government agencies are summarized.

2. *Supply Analysis*

Section IV is a summary of current and historical market conditions as well as workforce housing development and supply issues.

Also presented is an analysis of the inventory of the County's current (2005) housing stock, by type and tenure. This is followed by an analysis of the apartment and mobile home markets, two of the most affordable housing options available to residents of the County.

The relationship between home prices to household income between 1995 and 2005 is also presented. These data provide the first indication that home prices have been appreciating at a much faster rate than household incomes, especially since 2000.

3. *Gap Analysis*

Previous sections summarize the current state of affordable housing demand and supply in the County. Based on historical population and household trends, as well as the Clark County Consensus Long-Range Population Forecast developed by UNLV, the Consultant Team developed a forecast of demand for workforce housing in the County during the 10- year period from 2006 through 2015.

The analysis used two methodologies to quantify the affordable housing supply gap in the County, specifically the Valley. The first method estimated the number of new households likely to be in the market for home ownership through 2015, but who might not be able to afford to purchase either an existing (resale) or new home. Next, the Consultant Team compared household income projections to home price projections under two different scenarios to project a set of future affordability indices, assuming historical growth trends in home prices and household incomes.

4. *Development Cost Analysis*

Through the resources of GMAC Commercial Mortgage and Residential Resources, Inc's extensive knowledge of the Nevada homebuilding industry, the Consultant Team prepared cost analyses for the following hypothetical projects/unit types:

1) 1,300-square-foot single family residential ("SFR") unit
2) 300-unit garden-style apartment complex
3) 100-unit single room occupancy ("SRO")

After estimating the development costs for these projects, both with and without land costs, the Consultant Team then estimated the per-project and per-unit direct subsidies necessary to make the construction of these projects/units financially feasible.

5. *Recommendations/Conclusions*

Conclusions were then developed about the nature and state of the current workforce housing gap in the County and the Valley. This was followed by projections of the number of new workforce households that could potentially be "priced out of the market" between 2006 and 2015. Finally, local barriers to providing sufficient workforce housing, as well as possible solutions used locally and by other communities for increasing the workforce housing supply in the County and the Valley are identified.

E. RESEARCH METHODOLOGY & DATA SOURCES

1. *Literature & Data Sources*

Several data sources and reports were used in this study, especially in the sections that analyze the economic aspects of workforce housing development and housing demand in the County and the Valley. Though not a comprehensive list of the information that was reviewed and analyzed, some of the primary data and information sources were:

1. Nevada Housing Division ("NHD") Quarterly Apartment Housing Facts
2. Clark County Community Growth Task Force Final Report
3. Various SNRPC documents
4. Various "Affordable Housing" studies including, but not limited to:
    a. "Middle Income Housing Analysis" prepared for the City of Davis, California
    b. "Employers Housing Survey" prepared for the county of Santa Cruz, California
    c. "Workforce Housing Report" prepared for Central City Portland, Oregon
    d. "Strengthening Our Workforce and Our Communities Through Housing Solutions" prepared by Center For Workforce Preparation, U.S. Chamber Of Commerce
5. Various local and regional newspaper articles

6. The Southern Nevada Public Land Management Act ("SNPLMA") of 1998 and Bureau of Land Management ("BLM") Interim guidelines for Use of BLM Land for Affordable Housing
7. U.S. Census Bureau 2000 data for the County
8. The American Community Survey ("ACS") 2003 estimates of census demographics for the County
9. U.S. Bureau of Labor Statistics ("BLS") for the County
10. U.S. Department of Housing and Urban Development ("HUD")
11. The Nevada Department of Employment, Training and Rehabilitation ("DETR")
12. The Clark County Long-Range population forecast prepared by the Center for Business and Economic Research ("CBER") at UNLV,
13. The Southern Nevada Factbook and Las Vegas Perspective survey data, prepared by CBER
14. The Clark County Assessor's Residential Extract files, FY 2003 – 2005.

A complete bibliography of literature and data sources used in the research and preparation of this report is at the end of this study.

2. *Housing Affordability*

Following the guidelines established by HUD, the following assumptions were used: a monthly mortgage payment of no more than 30 percent of household income, a 6.5 percent FHA 30-year mortgage rate accounting for principal, interest, taxes, and insurance, a three-percent down payment, three percent in closing costs, no debt and good credit.

The Consultant Team used the 2005 Clark County Consensus Long-Range Population Forecasts and the BLS Western Urban Consumer Price Index ("CPI") to extrapolate 2005 household incomes, as well as family and household estimates, by income range, from the 2003 ACS summary demographic tables, the latest complete set of summary data tables currently available. It was assumed that the distribution of families and households by percent of AMI remains constant through 2015.

3. *Housing Pipeline Estimates*

Residential pipeline estimates used herein were based on data provided by Hanley Wood Market Intelligence ("HWMI"). HWMI tracks variables related to location, pricing, unit size, units sold and subdivision size (number of units).

To estimate pricing and unit size information for planned subdivisions, the Consultant Team used the relationship in active subdivisions and projects between pricing and lot size for planned subdivisions and projects. To further refine these estimates, the Consultant Team adjusted the estimates by taking into account differing housing products and prices by geographic submarket.

4. *Workforce Housing Projections*

Each year, the Regional Transportation Commission of Southern Nevada, the Southern Nevada Water Authority, the Clark County Department of Comprehensive Planning and CBER work together to create a long-term forecast of economic and demographic variables for the County. These variables are used in the construction of a general equilibrium demographic and economic model developed by Regional Economic Models, Inc. ("REMI") for the County. This model is recalibrated each year to reflect the most current information available about the local economy. The Consulting Team employed this model in developing the housing-related demographic and economic projections for the County used herein.

Population and labor force projections through 2015 (overall and by labor sector) come from the 2005 Clark County Consensus Long-Range Population Forecast. The REMI model forecasts used in this report were combined with information from other sources (ACS, DETR, BLS) to develop a set of reasonable long term socio-economic projections for the County and the Valley, including:

- 2.68 persons per household. This represents the average household size for the last 10 years as recorded by the Las Vegas Perspective, an annual report of Valley statistics.
- Dividing the projected population of the County by the 2.68 yielded the estimated number of households (occupied housing units).

- Annual salary growth projections to 2015 were estimated by applying REMI model wage growth, by sector, to 2005 DETR hourly wage rates, by sector. Hourly wages were multiplied by 2,080 hours[3] to derive annual salaries, by sector.
- Total new workers and worker households were estimated, based on full-time equivalents ("FTE's"). However, the REMI model annual wages, by sector, are the average of full-time and part-time workers. The Consultant Team calculated FTE workers by using REMI model average annual wages and total number of workers, and hourly wage rates from DETR.
- *New* worker households, or the number of additional new dwelling units potentially needed per year to accommodate increases in the workforce population, were estimated by dividing the new FTE workers added per year by the average number of FTE workers per household. For example: For 2006 and based on REMI data, we estimated an average of approximately 1.22 workers per household and 18,550 new FTE workers. Dividing new workers by average workers per household yielded approximately 15,240 new dwelling units needed in 2006 in order to accommodate increases in workforce population (18,550 / 1.22 = 15,240 after adjusting for rounding).
    - The average number of FTE workers per household was calculated by dividing the projected number of *total* FTE workers in the County by the *total* number of households in the County per year. For example: the REMI model projects that in 2006 the population of the County will be approximately 1.908 million persons . Using the historical 10 year (1994 – 2004) average of 2.68 people per household, this yielded approximately 712,000 households in 2006. Based on it data, the Consultant Teams projected 867,000 full time equivalent workers in 2006. Dividing the estimated number of FTE workers by the estimated number of households yielded an estimate of approximately 1.22 workers per household for 2006 (867,000 / 712,000 = 1.22, after adjusting for rounding error). This value was used in the previous example in order to calculate the number of households required to meet the needs of increases in the workforce in 2006.

Additional detail about the methodology used in this study is presented throughout this study.

[3] 40 hours per week times 50 weeks per year yields 2,080 hours in a standard full-time equivalency ("FTE") work-year.

Section III

WORKFORCE HOUSING DEMAND ANALYSIS

III. WORKFORCE HOUSING DEMAND ANALYSIS

A. INTRODUCTION

In this section, the Consultant Team discusses County and Valley housing demand trends, beginning with a graphical depiction of historical population and employment estimates, as well as projections of these variables through 2015. We then present estimates of housing affordability by income range compared to mid-2005 median home prices and rents. Next, the Consultant Team describes the income characteristics of County families and households by race and age group. Detailed tables are also presented describing population and labor force projections (overall and by sector), as well as the number and distribution of new households by income range.

As noted, the results of an informal affordable/attainable workforce housing questionnaire sent to 41 representatives of a variety of local businesses, unions and government agencies are described.

All exhibits referred to herein are located at the end of this section.

B. LAS VEGAS VALLEY HOUSING DEMAND

In most areas of the Country, housing demand is closely related to employment growth. In other words, as business and employment growth continues, housing demand follows. As a result, Clark County has developed a reputation for offering a high quality of life and as a popular place to live. The Valley, in particular, is also nationally recognized for its vibrancy, restaurants, shopping and entertainment opportunities.

For the purposes of this study, the Consultant Team analyzed historical population and household growth trends as well as historical household income data for the County and the Valley. Data used in this section were derived from the U.S. Bureau of the Census, the U.S. Department of Housing and Urban Development ("HUD") and the long-range "Clark County Consensus" population and wage forecasts from the Center for Business and Economic Research at the University of Nevada-Las Vegas. These data were used to develop estimates of household

affordability as of mid-2005, based on race and age, and to develop projections of the number of affordable housing units that will be required through 2015.

Figure III-1 shows historical population and employment estimates, as well as projections of these variables through 2015. Table III-1 illustrates projected population, workforce and household growth.

Figure III-1 and Table III-1 show a 10-year (2015) population projection of nearly 854,000 additional persons in the County, an increase of nearly 47 percent. Using the average of 2.68 persons per household during the past 10 years, this equates to a demand for an additional 318,700 housing units by 2015.

The growth of the workforce is not anticipated to be as dramatic as population. Employment is projected to grow nearly 24 percent from 2006 to 2015. A large projected increase in the share of the population of persons less than 15 years of age and those over 65 is likely to reduce the reduction in the future labor participation rate for Clark County.

Affordable / Attainable "Workforce" Housing Defined

Workforce households are the essential, frontline workers in the economy. They may be single persons with or without children, or married persons, one (or occasionally, both) with a workforce job. The importance of the workforce sector to the full economy cannot be overstated. Employees earning workforce wages fill the majority of jobs in nearly every sector of the Southern Nevada economy, especially the leisure and hospitality service industry, the primary driver of the Valley. "Workforce" income is defined herein as that household income that is from 80 percent up to 120 percent of Area Median Income ("AMI")[1]. According to HUD, the 2005

[1] The terms "MFI" (Median Family Income) and "AMI" (Area Median Income) are used interchangeably in this study, since the HUD MFI is used to define the AMI for a number of local and regional housing financial assistance programs.

Clark County Median Family Income ("MFI") is $56,550. Thus, families who make between $45,200 and $67,899 per year are classified as workforce households.[2]

Table III-2 illustrates various income ranges in the County, based on annual, monthly, weekly and hourly wages. The income range that defines a workforce housing income is bordered. To the right of the "income" columns is a column indicating the maximum affordable monthly mortgage payment, defined as less than or equal 30 percent of gross income. Based on "typical" mortgage parameters, this implies the maximum home that a family/household can purchase at various income levels.[3]

As this table indicates, the 2005 median-priced existing home, as well as the 2005 median-priced new home (with and without condo conversions) is beyond the range of affordability/attainability to the typical workforce household in the County if that household were in the market today as a first time buyer.

In fact, an annual income of at least 150 percent of AMI in 2005, or $84,825, would be need to purchase this median-priced resale home ($280,000). Likewise, the median-priced new home including condo conversions ($290,000) is affordable only to those households earning at least 160 percent of AMI, or $90,480. The median-priced new home excluding condo conversions ($318,000) is affordable only to those households earning at least 170 percent of AMI, or $96,135. [4]

By contrast, as shown in Table III-3, the average monthly studio apartment rent in the Valley is $561, or $6,732 per year[5], requiring an annual family income of $22,620. Such a unit is currently still affordable to all households earning 40 percent or more, of AMI. However, overcrowding can become an issue with two or more family members living in a studio.

[2] A "family" is defined as any household made up of two or more individuals, at least two of which are related by blood or marriage. This definition excludes unrelated households who conventionally have lower incomes; namely single person households and households made up of roommates (e.g., college students).
[3] Mortgage rate is based on 6.5-percent FHA 30-year mortgage accounting for principal, interest, taxes and insurance. A three percent down payment, three percent closing costs, no debt and good credit are assumed.
[4] Home Builders Research, July, 2005 median existing new home sales price (with and without condo conversions are $200,000, $290,000 and $318,000, respectively.
[5] Las Vegas Housing Market Conditions, 2nd Quarter 2005. UNLV Center for Business and Economic Research.

The average three-bedroom apartment rents for $997 per month, or $11,964 a year[6], and would require a family income of $45,240 to meet housing affordability criteria of no more than 30 percent of household income going toward rent payments. Thus, all apartments are currently affordable and attainable to those with the workforce housing annual income of $45,240 to $67,860. However, as will be shown in Section IV, "Supply Analysis", current market conditions are such that this housing option is also becoming increasingly unaffordable/unattainable to a growing share of Valley households.

While these "median" percentages provide a general picture in the current housing situation in the County, they do not reflect the whole picture. For example, 2000 HUD data indicate that 65 percent of renter households in the "under 30 percent of AMI" group pay more than 50 percent of their monthly income to rent. According to the same data, 61 percent of owned households earning less than 30 percent of AMI are similarly "cost burdened". Given the increasing gap between household income and home prices[7], the number and percentage of cost burdened households is likely much higher today.

Family & Household Populations

Table III-4, details the number and distribution of families and households in the County by income range.[8] The 2005 HUD MFI (AMI), the 2005 estimate of household median income, as well as estimates of the number of families and households earning a workforce income are indicated at the bottom of the table. Figure III-2 further illustrates the distribution of families and households by income range. Income ranges and median incomes in Table III-4 are for all County households.

As median family income can vary by racial/ethnic composition, Tables III-5 through III-9 and Figures III-3 through III-7 replicate the analysis of Table III-4, with families and households broken out by the race/ethnicity of the householder (head of household).

[6] Ibid.
[7] Median home prices have increases from about three times median household income in 2000 to about six times median household income as of mid-2005. This will be discussed in greater detail in Section IV.
[8] These income ranges are in $5,000 and $10,000 increments, and do not necessarily match income ranges by AMI deciles. The bolded ranges from $45,000 to $74,999 are the closest approximation of the workforce household income range, from 80 percent up to 132 percent of AMI.

These tables and figures present the most detailed information about family and household income by race in the County. The figures below the tables also show that within each race/ethnicity group, family and household population ratios, by income range, are similar. This suggests that household income is a reasonably accurate proxy for family income (even though the HUD MFI averages 17 percent to 21 percent more than household income.) Because of this, the Consultant Team used household data throughout the rest of this report, when family data was not available

Figures III-8 through III-9 summarize the difference between the income distributions of family and households by range and race/ethnicity. The values that drive these charts are presented in Table III-10.

Table III-10 summarizes the distribution of families and households within each income range for the County, and by each race/ethnicity cohort. This is a synopsis of the pie charts associated with the preceding detailed tables in this section.

As noted above, family and household distributions, by income range, are almost identical. A comparison of Figures III-8 and III-9 supports this observation. However, the household category is larger and more inclusive than the family subset. As such, household data were used in place of families for the remainder of this report.

Families and households in the County earning from 80 percent up to 120 percent of AMI account for fully 20 percent of all households. Adding families and households earning from 53 percent up to 80 percent of AMI, this combined group represents approximately 40 percent of County families and households. Considering that workers in the County represent a substantial share of the potential market for housing, this is clear evidence of strong demand for workforce housing.

The “Compared to All” columns show the proportion of families and households within each income range, by race/ethnicity compared to the overall average for the County. This facilitates seeing the difference between households by race/ethnicity and the County as a whole.

Thus, for example, families and households with a "Black or African American Householder" have 24.7 percent and 26.8 percent of families and households, respectively, at or below 35 percent of AMI. This is a much larger share of families and households at the lower income ranges than any other group (see Figures III-8 and III-9). At 186.7 percent and 156.3 percent, the "Compared to 'All'" columns in Table III-10 quantify this proportion, indicating that the share of families and households with a "Black or African American Householder" that earn less than 35 percent of AMI is 86 percent and 56 percent, respectively, greater than the County as a whole.

As another example, households with a "Hispanic/Latino" householder are shown to have a 14 percent greater share of households in the 80 percent up to 120 percent income range than the County as a whole. Although this may seem counterintuitive, this is due to the fact that Hispanic households tend to be larger than the overall median. (Statistics on the median number workers per household by race of householder are not available. However, as a proxy, the average Hispanic family size in the County is 4.05 persons, 27 percent higher than the 3.17 person average family size for the County, overall.)

Finally, as represented by the householder, these tables illustrate that all groups except "White, not Hispanic" households fall below the overall County AMI. "White, not Hispanic" households have the highest annual median family income at $61,325, followed by "White" households with a median family income at $55,599 and "Asian" households who have a median family income at $52,864. There is quite a disparity between these three groups and Hispanic and Black headed households. "Hispanic/Latino" households have a median family income of $39,299 and "Black/African American" households have the lowest median family income of $36,657.

Table III-11 and Figure III-10 depict the number and distribution of County households by the age of the householder. The last two columns of Table III-11 and the first chart in Figure III-10, "Householder under 65" are summations of the three age ranges householder (1) under 25 years old, (2) 25 – 44 years old and (3) 45 – 64 years old.

As with previous tables, the income ranges of $45,000 - $74,999 are highlighted to indicate those ranges that most closely approximate the 80 percent up to 120 percent of AMI. An estimate of the number and share of households in the 80 percent up to 120 percent of AMI is presented at the bottom of this table.

Median household income also varies greatly, based on the age of the householder. For households in which the householder is under 25 years of age, the median household income was $34,833. For households in which the householder was between 25 and 44 years of age, median household income was $55,211. For households in which the householder was between the ages of 45 and 64, median household income was $54,972 (97% of AMI).

Table III-11 and Figure III-10 also illustrate that households with a householder between the ages of 25 and 44 have a larger share earning a workforce income than the other age groups. Overall, 122,194 households, or 21.6 percent of households with a householder under the age of 65 have incomes from 80 percent up to 120 percent of AMI. This accounts for just less than 18 percent of the County's 684,142 households in 2005.

Finally, Table III-12 presents income by age range data in a way that allows a comparison of the relative income distributions of each age group and to the County, overall. This table again illustrates the importance of the workforce household.

Thus, looking at the "Total Number of Households" row for "% of Households, Householders under 65" and the "Compared to All Households" column in Table III-12, indicate that households with the householder under 65 account for approximately 83 percent of all households. Making similar comparisons to other age groups, households with a householder from ages 45 to 64 make up over a third of all households, and households with a householder between the ages of 25 and 44 account for over 42 percent of all households in the County.

Using this table to compare distributions of households, by income range, shows that households with a householder between 45 and 64 are generally better off than the County overall, or any of the other age groups. Conversely, households with the youngest householders,

have a lower median income and a greater share of households at the lower income ranges than the County as a whole, or households with a householder under the age of 65.

C. AFFORDABLE / ATTAINABLE WORKFORCE HOUSING QUESTIONNAIRE RESULTS

As noted previously, as part of our research, the Consultant Team developed a questionnaire to measure the extent to which workforce housing availability issues are perceived to be impacting the business community. This questionnaire was sent out to 41 representatives of major Valley businesses, unions and government agencies.

In Appendix A, a blank "Affordable/ Attainable Workforce Housing Questionnaire" used is included, as well as the cover letter signed by Commissioner Rory Reid introducing the purpose of this survey. The questionnaire was designed by the Consultant Team and Community Resources Management Division of Clark County.

Eleven individuals returned completed questionnaires, a response rate of almost 27 percent. These respondents represent a mix of business leaders from both the public and private sectors.

Table C.1, below, details the employment sectors that were sampled as well as the number of employees they represent. The number of employees was used to weigh survey responses.

TABLE C.1: SURVEY RESPONDENTS BY BUSINESS SECTOR & NUMBER OF EMPLOYEES REPRESENTED

Business Sector Surveyed	Number of Survey Respondents	Number of Employees Represented*
Gaming/ Hotel & Casino Workers	3	3000 or more
Union Representatives	3	2011 or more
Government Representatives	3	2051 or more
Other Business Leaders	2	51
Total Number of Surveys	**11**	**7,000 + employees**

* Self Reported Employee Range.

The first half of the questionnaire, questions 1-5, is more quantitative in nature. In this section of the questionnaire, respondents were asked about income ranges of their employees as well as recruiting and retention problems they may be facing (See Table C.3). Also within this section,

employers were asked about the average commuting times for their employees as well as what they believe to be reasonable commuting times (Table C.4).

The income ranges in Table C.2 are correlated to the AMI ranges discussed throughout this section. Thus, 23.6 percent of the employees represented by survey respondents earn wages of 30 percent up to 50 percent of AMI. Another 33 percent earn wages from 50 percent up to 80 percent of AMI, while 22.2 percent earn wages from 80 percent up to 120 percent of AMI. Compared to the overall distribution of income outlined in Figure III-2, the 80 percent up to 120 percent income group is proportionally represented in the survey responses, while both the 50 percent up to 80 percent, and 30 percent up to 50 percent income groups appear to be over represented in the responses.

Table C.3 summarizes the results of the recruitment and retention questions. Respondents were asked to rate the level of the problem from 1, "not a problem" to 5 "significant problem". Weighted average responses for each sector are indicated, as well as an overall weighted average response for recruitment and retention. These results indicate that entry level/direct service and skilled trades pose the greatest recruitment problem, whereas the retention of skilled trades is slightly more than a moderate problem for the respondents.

Table C.4 summarizes response to estimates of the average commute time for the employees that they represent. The table also summarizes what they perceive to be a "reasonable/unreasonable" commute time. The reason for asking the respondents this second question was twofold. First, it is an indication of the gap between the estimated actual commute times and what is perceived to be reasonable. Second, so that the questionnaire would not influence the respondents by suggesting any numbers for commute times.

These results indicate that about 40 percent of the represented employees had a commute time greater than the average "reasonable" commute time. However, no more than 17 percent had a commute time that is considered "unreasonable", on average.

The second half of the questionnaire was more qualitative and open ended in nature. Employers are asked their opinions about employee commuting times, how the availability of affordable

workforce housing impacts the commuting distance of their employees and how this disruption affects their business.

Of most interest was that 10 out of 11 respondents indicated that affordable/attainable housing was scarce, becoming a problem to their business/represented work force.

As a follow up question, and to isolate housing as a recruitment/retention issue, we asked if housing was affecting their recruitment and retention of employees. Seven respondents indicated that housing is an issue that impacts recruitment and retention.
Although affordable housing appeared to be an issue, long commute times do not, as indicated by the respondent's answers, although one additional respondent indicated that they may eventually be required to offer a housing subsidy.

Finally, four respondents who offered additional comments indicated that in order to recruit and retain employees, they will eventually need to offset employee housing costs by increasing wages.

There were no responses to any of the other open ended questions asked in the questionnaire, such as question 6 which asked, "What is your opinion about the availability of suitable housing within a 'reasonable' commute that your employees/represented workforce can afford?"

TABLE C.2: QUESTIONNAIRE REPORTED PERCENTAGE OF WORKFORCE WITHIN SELECTED INCOME RANGE - QUESTION 2

Annual Income Range of Workforce Wages*	Percentage of Workforce**
Less That $16,999	5.8%
$17,000 - $28,299	23.6%
$28,300 - $45,199	33.0%
$45,200 - $67,899	22.2%
More Than $67,900	15.3%
Total	**100%**

* Numerical Ranges Corespond to MFI Housing Affordability Range.

** Weighted by reported number of employees represented.

TABLE C.3: QUESTIONNAIRE RESPONDENT LEVEL OF RECRUITMENT & RETENTION PROBLEMS FOR VARIOUS OCCUPATIONS - QUESTION 3.A

Recruitment of Qualified Workers	Level of Problem*	Retention of Qualified Workers	Level of Problem*
Entry Level or Direct Service	3.3	Entry Level or Direct Service	2.8
Skilled Trades or Technical	3.7	Skilled Trades or Technical	3.3
Sales	1.6	Sales	1.6
IT or Data Processing	3.0	IT or Data Processing	2.4
Managerial / Professional	2.7	Managerial / Professional	2.1
Other	1.4	Other	1.4
Weighted Average**	**2.6**	**Weighted Average****	**2.3**

*Listed on a self-reported scale of 1-5 with 1 not being a problem and 5 being a significant problem.

** Weighted by number of reported employees.

TABLE C.4: ESTIMATED COMMUTE TIMES FOR EMPLOYEES AND "REASONABLE" & "UNREASONABLE" COMMUTING TIMES. - QUESTION 4 – 5

Estimated Workforce Commuting Times	Survey Reported Percentage of Employees
Less than 30 Minutes	57.3%
30-45 Minutes	30.0%
More than 45 Minutes	12.7%
Total	**100.0%**

Commute Times	Respondent Average
Reasonable Commute Time	27 Minutes
Unreasonable Commute Time	48 Minutes

TABLE C.5: RESULTS OF QUALITATIVE QUESTIONS - QUESTIONS 6 TO 12

What is your opinion about the availability of suitable housing within a "reasonable" commute that your employees/ represented workforce can afford?	Number of Survey Respondents
Housing is Scarce and Becoming a Problem	10
Housing in not a Problem	1

Does lack of affordable housing within a "reasonable" commute cause any problems for your business/ represented business sector to be able to hire and retain employees of the best quality?	Number of Survey Respondents
Yes	7
No	2
Unsure	3

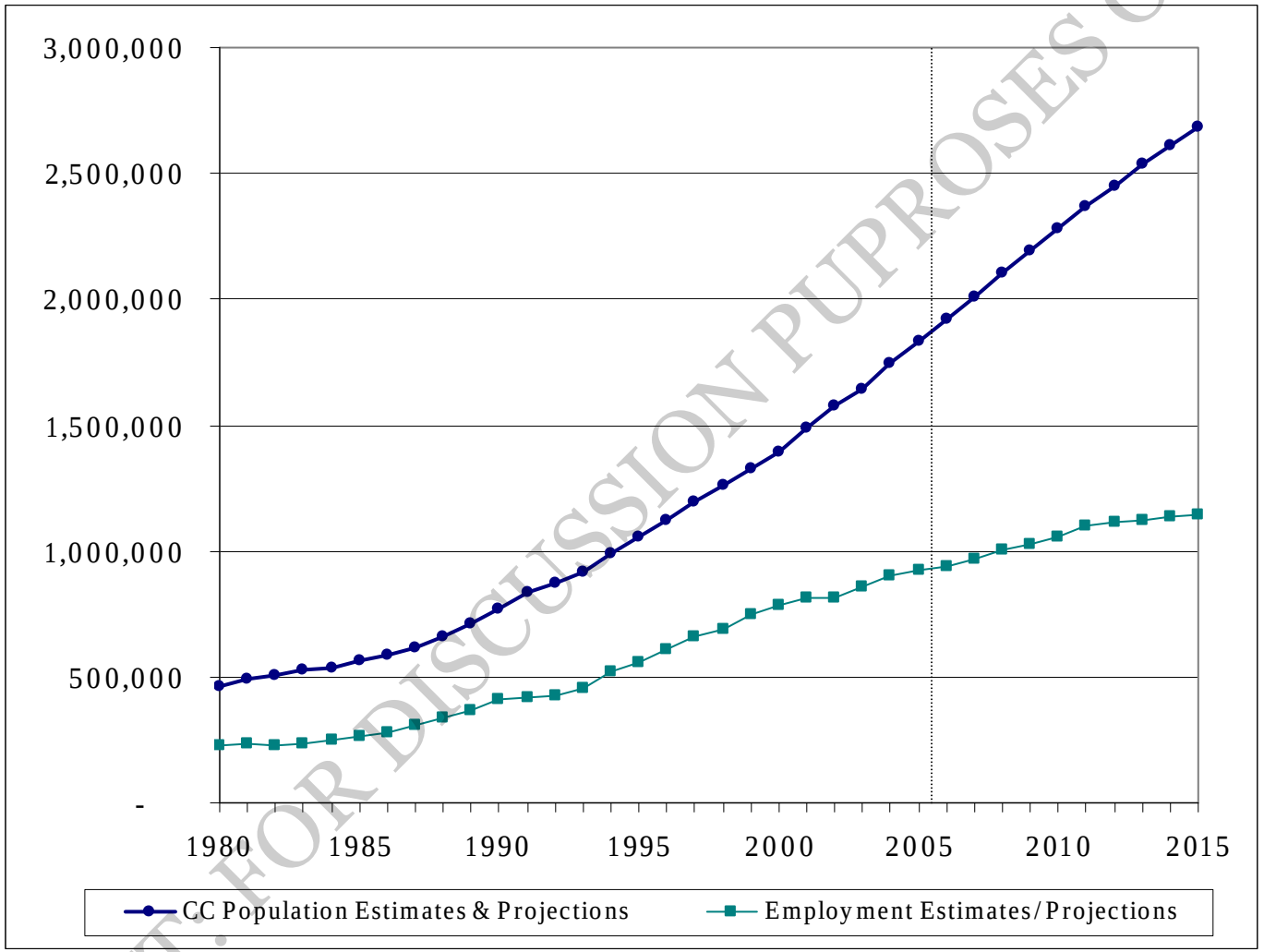
Do you find that employees who would prefer to live within a "reasonable" commute actually live in other locations in order to secure affordable housing?	Number of Survey Respondents
Yes	5
No	4
Unsure	2

Do you feel that an "unreasonable" commuting time causes your business/ represented business sector any problems with operations?	Number of Survey Respondents
Yes	4
No	7

Does your business/ represented business sector provide any housing subsidies for their employees?	Number of Survey Respondents
Yes	2
No	9

Any additional comments about workforce housing issues facing your business/ represented business sector?	Number of Survey Respondents
Affordable housing issues will cause an increase in the wages of workers	4
Affordable housing issues will cause our business to offer a Housing Subsidy	1
No Answer	6

FIGURE III-1: POPULATION & EMPLOYMENT ESTIMATIONS & FORECAST
CLARK COUNTY, 1980-2015



Source: UNLV Center for Business and Economic Research, Long – Range Consensus Population Forecast, 2005.

TABLE III-1: ESTIMATED POPULATION, WORKFORCE AND HOUSEHOLD GROWTH (IN THOUSANDS), 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimated Population	1,909.58	1,998.37	2,089.43	2,178.61	2,267.50	2,354.11	2,438.98	2,520.85	2,598.82	2,673.21
Estimated Labor Force (FT & PT)	941.74	967.29	1002.05	1024.55	1053.66	1077.19	1099.97	1111.77	1122.85	1133.56
Estimated Number of New Workers (FT & PT)	18.79	25.55	34.76	22.50	29.11	23.54	22.77	11.81	11.07	10.71
Estimated Number of New Worker Households*	14.22	19.70	27.04	17.85	23.37	19.19	18.84	9.99	9.56	9.42
Estimated Labor Force FTE**	797.34	814.45	837.28	869.22	888.87	915.06	935.63	955.55	965.77	975.36
Estimated Number of New FTE** Workers	17.11	22.83	31.94	19.65	26.19	20.56	19.92	10.22	9.59	9.31
Estimated number of New FTE** Households*	14.97	20.33	28.65	17.97	24.22	19.31	18.97	9.95	9.53	9.43

* Based on a historic average of 2.68 persons/ household reported for the last 10 years, ACS 2005.
**Part-Time workers are aggregated to form full time equivalent ("FTE") employees based on a 40-hour workweek for 2005.
Source: UNLV Center for Business and Economic Research 2005, ACS 2005, RCG.

TABLE III-2: HOME OWNERSHIP AFFORDABILITY
CLARK COUNTY, FISCAL YEAR 2005

Clark County FY 2005 HUD Median Family Income ("MFI") = $56,550 [1]										
Percent of AMI	Annual Wage [1]	Monthly Wage	Weekly Wage	Hourly Wage	Maximum Affordable Monthly Mortgage Payment [2]	Maximum Total Mortgage [3]	Maximum Affordable Sales Price	Can Afford Median Metro Las Vegas Existing Home? $280,000 [4]	Can Afford Median Metro Las Vegas New Home? $290,000 (includes condo conversions) [4]	Can Afford Median Metro Las Vegas New Home? $318,000 (excludes condo conversions) [4]
10%	$ 5,655	$ 471	$ 109	$ 2.72	$ 141	$ 17,745	$ 18,877	No	No	No
20%	$ 11,310	$ 943	$ 218	$ 5.44	$ 283	$ 35,488	$ 37,754	No	No	No
30%	$ 16,965	$ 1,414	$ 326	$ 8.16	$ 424	$ 53,233	$ 56,631	No	No	No
40%	$ 22,620	$ 1,885	$ 435	$ 10.88	$ 566	$ 70,977	$ 75,507	No	No	No
50%	$ 28,275	$ 2,356	$ 544	$ 13.59	$ 707	$ 88,722	$ 94,385	No	No	No
60%	$ 33,930	$ 2,828	$ 653	$ 16.31	$ 848	$ 106,465	$ 113,261	No	No	No
70%	$ 39,585	$ 3,299	$ 761	$ 19.03	$ 990	$ 124,210	$ 132,138	No	No	No
80%	$ 45,240	$ 3,770	$ 870	$ 21.75	$ 1,131	$ 141,953	$ 151,014	No	No	No
90%	$ 50,895	$ 4,241	$ 979	$ 24.47	$ 1,272	$ 159,698	$ 169,892	No	No	No
100%	**$ 56,550**	**$ 4,713**	**$ 1,088**	**$ 27.19**	**$ 1,414**	**$ 177,442**	**$ 188,768**	**No**	**No**	**No**
110%	$ 62,205	$ 5,184	$ 1,196	$ 29.91	$ 1,555	$ 195,187	$ 207,645	No	No	No
120%	$ 67,860	$ 5,655	$ 1,305	$ 32.63	$ 1,697	$ 212,930	$ 226,521	No	No	No
130%	$ 73,515	$ 6,126	$ 1,414	$ 35.34	$ 1,838	$ 230,675	$ 245,399	No	No	No
137%	$ 77,474	$ 6,456	$ 1,490	$ 37.25	$ 1,937	$ 243,096	$ 258,612	No	No	No
140%	$ 79,170	$ 6,598	$ 1,523	$ 38.06	$ 1,979	$ 248,419	$ 264,275	No	No	No
150%	$ 84,825	$ 7,069	$ 1,631	$ 40.78	$ 2,121	$ 266,163	$ 283,153	Yes	No	No
153%	$ 86,522	$ 7,210	$ 1,607	$ 40.17	$ 2,163	$ 271,486	$ 288,815	Yes	No	No
160%	$ 90,480	$ 7,540	$ 1,740	$ 43.50	$ 2,262	$ 283,907	$ 302,029	Yes	Yes	No
170%	$ 96,135	$ 8,011	$ 1,849	$ 46.22	$ 2,403	$ 301,652	$ 320,906	Yes	Yes	Yes

Source & Notes:
1. Clark County Median Family Income ("MFI") for 2005 based upon HUD income levels.
2. Assumes "Maximum Mortgage Payment" may not exceed 30 percent of income.
3. Mortgage rate is based on 6.5 percent FHA 30-year mortgage accounting for principal, interest, taxes and insurance; Assumes 3 percent down payment, 3 percent closing cost, no debt, and good credit.
Note: Monthly tax payments are calculated taking the sales price x .35 = assessed value x tax rate (.033002) / 12.Monthly homeowners insurance was calculated using Sales Price x .0025 / 12.Monthly mortgage insurance was calculated using Total Mortgage x .005 /12.
4. Home Builders Research, July, 2005 Median and New Home Sales Price.

TABLE III-3: FOR-RENT HOUSING AFFORDABILITY
CLARK COUNTY, FISCAL YEAR 2005

Clark County FY 2005 HUD Median Family Income ("MFI") = $56,550 [1]										
Percent of MFI	Annual Wage [1]	Monthly Wage	Weekly Wage	Hourly Wage	30% of Gross Monthly Income (affordable rent)	Can Afford Studio? Metro Las Vegas Mean Rental Rate = $561 [2]	Can Afford One-Bedroom Unit? Metro Las Vegas Mean Rental Rate = $696 [2]	Can Afford Two-Bedroom/ One Bath Unit? Metro Las Vegas Mean Rental Rate = $711 [2]	Can Afford Two-Bedroom/ Two Bath Unit? Metro Las Vegas Mean Rental Rate = $849 [2]	Can Afford Three-Bedroom Unit? Metro Las Vegas Mean Rental Rate = $997 [2]
10%	$ 5,655	$ 471	$ 109	$ 2.72	$ 141	No	No	No	No	No
20%	$ 11,310	$ 943	$ 218	$ 5.44	$ 283	No	No	No	No	No
30%	$ 16,965	$ 1,414	$ 326	$ 8.16	$ 424	No	No	No	No	No
40%	$ 22,620	$ 1,885	$ 435	$ 10.88	$ 566	Yes	No	No	No	No
50%	$ 28,275	$ 2,356	$ 544	$ 13.59	$ 707	Yes	Yes	Yes	No	No
60%	$ 33,930	$ 2,828	$ 653	$ 16.31	$ 848	Yes	Yes	Yes	Yes	No
70%	$ 39,585	$ 3,299	$ 761	$ 19.03	$ 990	Yes	Yes	Yes	Yes	No
80%	$ 45,240	$ 3,770	$ 870	$ 21.75	$ 1,131	Yes	Yes	Yes	Yes	Yes
90%	$ 50,895	$ 4,241	$ 979	$ 24.47	$ 1,272	Yes	Yes	Yes	Yes	Yes
100%	**$ 56,550**	**$ 4,713**	**$ 1,088**	**$ 27.19**	**$ 1,414**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
110%	$ 62,205	$ 5,184	$ 1,196	$ 29.91	$ 1,555	Yes	Yes	Yes	Yes	Yes
120%	$ 67,860	$ 5,655	$ 1,305	$ 32.63	$ 1,697	Yes	Yes	Yes	Yes	Yes
130%	$ 73,515	$ 6,126	$ 1,414	$ 35.34	$ 1,838	Yes	Yes	Yes	Yes	Yes
137%	$ 77,474	$ 6,456	$ 1,490	$ 37.25	$ 1,937	Yes	Yes	Yes	Yes	Yes
140%	$ 79,170	$ 6,598	$ 1,523	$ 38.06	$ 1,979	Yes	Yes	Yes	Yes	Yes
150%	$ 84,825	$ 7,069	$ 1,631	$ 40.78	$ 2,121	Yes	Yes	Yes	Yes	Yes
153%	$ 86,522	$ 7,210	$ 1,607	$ 40.17	$ 2,163	Yes	Yes	Yes	Yes	Yes
160%	$ 90,480	$ 7,540	$ 1,740	$ 43.50	$ 2,262	Yes	Yes	Yes	Yes	Yes
170%	$ 96,135	$ 8,011	$ 1,849	$ 46.22	$ 2,403	Yes	Yes	Yes	Yes	Yes

Source & Notes:
1. Clark County Median Family Income ("MFI") for 2005 based upon HUD income levels.
2. Las Vegas Housing Market Conditions, 2nd Quarter, 2005, UNLV Center for Business and Economic Research.
All rental rates are for unfurnished apartments.

TABLE III-4: TOTAL FAMILY & HOUSEHOLD POPULATIONS BY ANNUAL HOUSEHOLD INCOME - LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

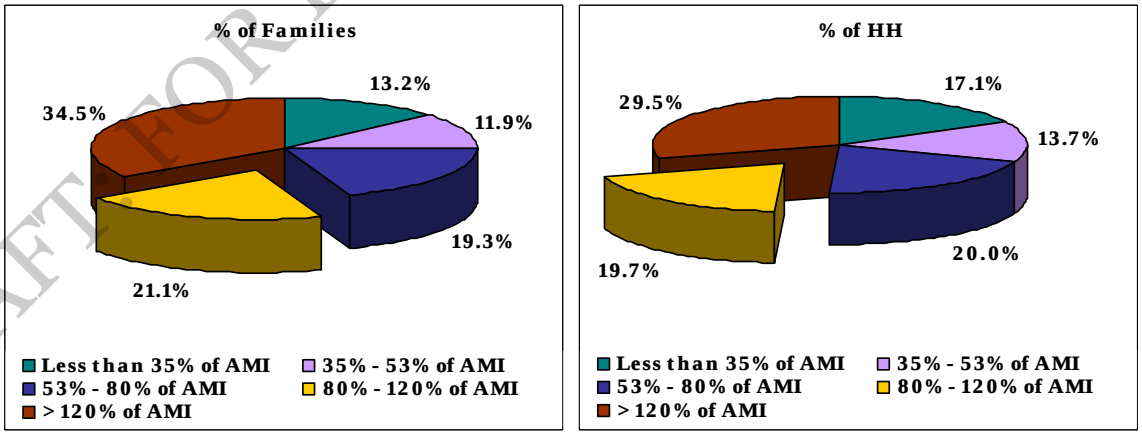
("Workforce" Income Ranges Bolded and Italicized)

Income Range All Families & Households	# of Families	% of Total	# of Households	% of Total
	436,713	**100%**	**684,142**	**100%**
Less than $10,000 (< 17.9% of AMI)	25,004	5.7%	48,070	7.0%
$10,000 to $14,999 (from 18% up to 27% of AMI)	9,792	2.2%	29,740	4.3%
$15,000 to $19,999 (from 27% up to 35% of AMI)	22,963	5.3%	39,422	5.8%
$20,000 to $24,999 (from 35% up to 44% of AMI)	22,994	5.3%	46,619	6.8%
$25,000 to $29,999 (from 44% up to 52.9% of AMI)	28,894	6.6%	46,848	6.8%
$30,000 to $34,999 (from 53% up to 62% of AMI)	22,505	5.2%	42,532	6.2%
$35,000 to $39,999 (from 62% up to 71% of AMI)	29,824	6.8%	47,354	6.9%
$40,000 to $44,999 (from 71% up to 80% of AMI)	31,934	7.3%	46,894	6.9%
$45,000 to $49,999 (from 80% up to 88% of AMI)	***22,095***	***5.1%***	***36,003***	***5.3%***
$50,000 to $59,999 (from 88% up to 106% of AMI)	***45,591***	***10.4%***	***63,820***	***9.3%***
$60,000 to $74,999 (from 106% up to 133% of AMI)	***46,476***	***10.6%***	***66,424***	***9.7%***
$75,000 to $99,999 (from 133% up to 177% of AMI)	54,936	12.6%	77,906	11.4%
$100,000 to $124,999 (from 177% up to 221% of AMI)	32,962	7.5%	42,400	6.2%
$125,000 to $149,999 (from 221% up to 265% of AMI)	15,452	3.5%	18,047	2.6%
$150,000 to $199,999 (from 265% up to 354% of AMI)	13,567	3.1%	17,106	2.5%
$200,000 or more (> 354% of AMI)	11,724	2.7%	14,956	2.2%
Median Income	**$56,550**		**$47,741**	
Families from 80% up to 120% of AMI*	***92,162***	***21.1%***	***134,804***	***19.7%***

*Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.
Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-2: SHARE OF TOTAL FAMILIES & HOUSEHOLDS BY % OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.

TABLE III-5: "WHITE HOUSEHOLDER" FAMILY & HOUSEHOLD POPULATIONS BY ANNUAL HOUSEHOLD INCOME IN CLARK COUNTY- LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

("Workforce" Income ranges bolded and italicized)

Income Range "White Householder"***	# of Families	% of Total	# of Households	% of Total
	337,894	**100%**	**530,837**	**100%**
Less than $10,000 (< 17.9% of AMI)	16,213	4.8%	35,552	6.7%
$10,000 to $14,999 (from 18% up to 27% of AMI)	8,260	2.4%	30,977	5.8%
$15,000 to $19,999 (from 27% up to 35% of AMI)	14,515	4.3%	25,826	4.9%
$20,000 to $24,999 (from 35% up to 44% of AMI)	20,384	6.0%	37,659	7.1%
$25,000 to $29,999 (from 44% up to 52.9% of AMI)	20,914	6.2%	35,428	6.7%
$30,000 to $34,999 (from 53% up to 62% of AMI)	21,275	6.3%	32,943	6.2%
$35,000 to $39,999 (from 62% up to 71% of AMI)	20,507	6.1%	27,577	5.2%
$40,000 to $44,999 (from 71% up to 80% of AMI)	16,214	4.8%	27,158	5.1%
$45,000 to $49,999 (from 80% up to 88% of AMI)	***17,710***	***5.2%***	***27,152***	***5.1%***
$50,000 to $59,999 (from 88% up to 106% of AMI)	***31,332***	***9.3%***	***48,900***	***9.2%***
$60,000 to $74,999 (from 106% up to 133% of AMI)	***40,555***	***12.0%***	***58,826***	***11.1%***
$75,000 to $99,999 (from 133% up to 177% of AMI)	49,241	14.6%	65,085	12.3%
$100,000 to $124,999 (from 177% up to 221% of AMI)	27,937	8.3%	36,302	6.8%
$125,000 to $149,999 (from 221% up to 265% of AMI)	14,204	4.2%	18,423	3.5%
$150,000 to $199,999 (from 265% up to 354% of AMI)	9,238	2.7%	11,532	2.2%
$200,000 or more (> 354% of AMI)	9,393	2.8%	11,497	2.2%
Median Income	**$55,599**		**$46,143**	
Households from 80% up to 120% of AMI*	***70,400***	***20.8%***	***107,032***	***20.2%***

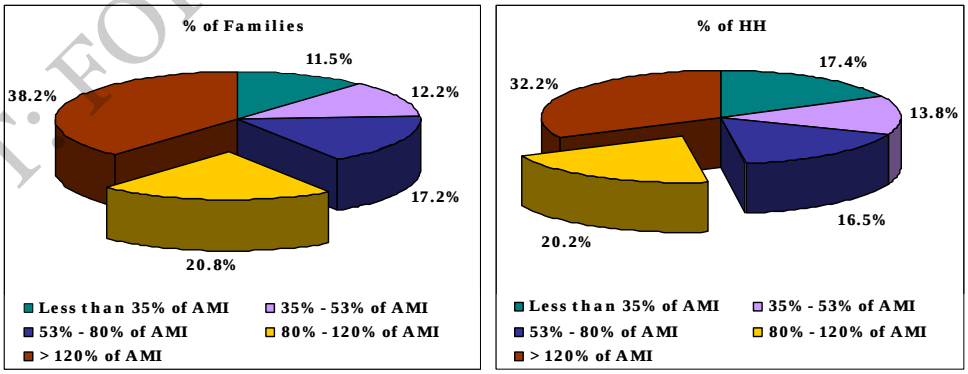
*Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.

***Includes White Hispanics.

Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-3: SHARE OF FAMILIES & HOUSEHOLDS WITH "WHITE HOUSEHOLDER" BY % OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.

TABLE III-6: "BLACK HOUSEHOLDER" FAMILY & HOUSEHOLD POPULATIONS BY ANNUAL HOUSEHOLD INCOME - LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

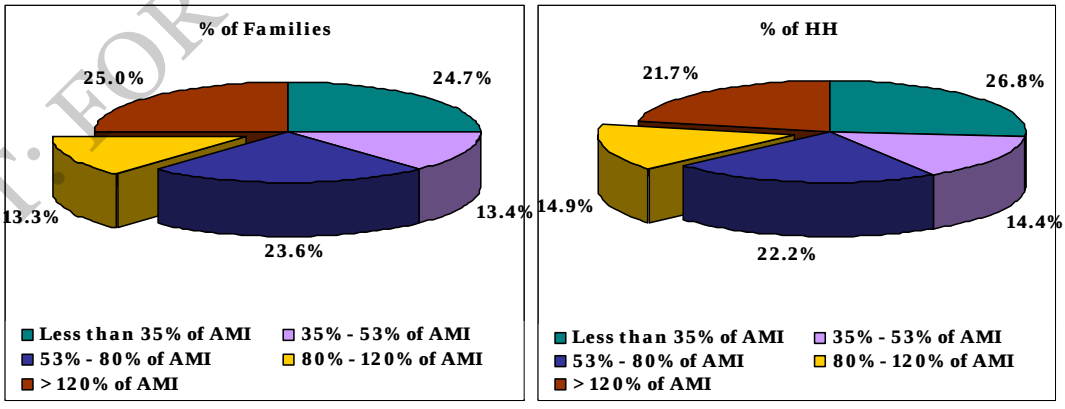
("Workforce" Income ranges bolded and italicized)

Income Range "Black or African American Householder"	# of Families	% of Total	# of Households	% of Total
	36,957	**100%**	**59,073**	**100%**
Less than $10,000 (< 17.9% of AMI)	4,859	13.1%	6,973	11.8%
$10,000 to $14,999 (from 18% up to 27% of AMI)	1,126	3.0%	3,849	6.5%
$15,000 to $19,999 (from 27% up to 35% of AMI)	3,142	8.5%	4,996	8.5%
$20,000 to $24,999 (from 35% up to 44% of AMI)	3,080	8.3%	4,671	7.9%
$25,000 to $29,999 (from 44% up to 52.9% of AMI)	1,860	5.0%	3,830	6.5%
$30,000 to $34,999 (from 53% up to 62% of AMI)	4,136	11.2%	6,057	10.3%
$35,000 to $39,999 (from 62% up to 71% of AMI)	1,776	4.8%	4,421	7.5%
$40,000 to $44,999 (from 71% up to 80% of AMI)	2,813	7.6%	2,647	4.5%
$45,000 to $49,999 (from 80% up to 88% of AMI)	***1,089***	***2.9%***	***1,089***	***1.8%***
$50,000 to $59,999 (from 88% up to 106% of AMI)	***2,295***	***6.2%***	***4,788***	***8.1%***
$60,000 to $74,999 (from 106% up to 133% of AMI)	***2,933***	***7.9%***	***5,529***	***9.4%***
$75,000 to $99,999 (from 133% up to 177% of AMI)	3,297	8.9%	4,008	6.8%
$100,000 to $124,999 (from 177% up to 221% of AMI)	3,253	8.8%	3,729	6.3%
$125,000 to $149,999 (from 221% up to 265% of AMI)	977	2.6%	1,785	3.0%
$150,000 to $199,999 (from 265% up to 354% of AMI)	182	0.5%	564	1.0%
$200,000 or more (> 354% of AMI)	138	0.4%	138	0.2%
Median Income	**$36,657**		**$33,407**	
Households from 80% up to 120% of AMI*	***4,928***	***13.3%***	***8,788***	***14.9%***

*Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.
Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-4: SHARE OF FAMILIES & HOUSEHOLDS WITH "BLACK HOUSEHOLDER" BY % OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.

TABLE III-7: "ASIAN HOUSEHOLDER" FAMILY & HOUSEHOLD POPULATIONS BY ANNUAL HOUSEHOLD INCOME - LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

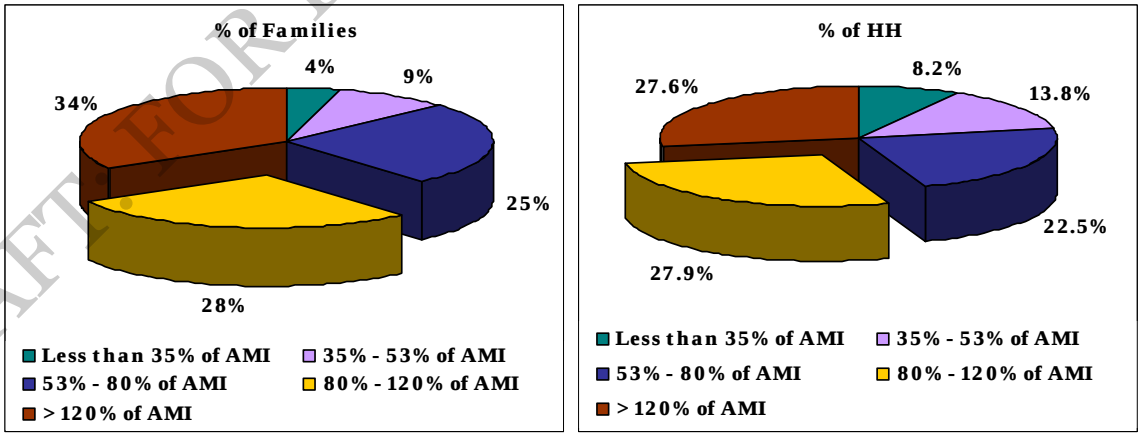
("Workforce" Income ranges bolded and italicized)

Income Range "Asian Householder"	# of Families	% of Total	# of Households	% of Total
	25,671	**100%**	**35,377**	**100%**
Less than $10,000 (< 17.9% of AMI)	416	1.6%	1,349	3.8%
$10,000 to $14,999 (from 18% up to 27% of AMI)	509	2.0%	708	2.0%
$15,000 to $19,999 (from 27% up to 35% of AMI)	140	0.5%	856	2.4%
$20,000 to $24,999 (from 35% up to 44% of AMI)	1,016	4.0%	1,934	5.5%
$25,000 to $29,999 (from 44% up to 52.9% of AMI)	1,320	5.1%	2,938	8.3%
$30,000 to $34,999 (from 53% up to 62% of AMI)	2,416	9.4%	3,387	9.6%
$35,000 to $39,999 (from 62% up to 71% of AMI)	1,769	6.9%	2,679	7.6%
$40,000 to $44,999 (from 71% up to 80% of AMI)	2,333	9.1%	1,906	5.4%
$45,000 to $49,999 (from 80% up to 88% of AMI)	***2,237***	***8.7%***	***3,226***	***9.1%***
$50,000 to $59,999 (from 88% up to 106% of AMI)	***3,770***	***14.7%***	***4,775***	***13.5%***
$60,000 to $74,999 (from 106% up to 133% of AMI)	***2,184***	***8.5%***	***3,528***	***10.0%***
$75,000 to $99,999 (from 133% up to 177% of AMI)	3,511	13.7%	4,040	11.4%
$100,000 to $124,999 (from 177% up to 221% of AMI)	1,353	5.3%	1,353	3.8%
$125,000 to $149,999 (from 221% up to 265% of AMI)	1,166	4.5%	1,166	3.3%
$150,000 to $199,999 (from 265% up to 354% of AMI)	785	3.1%	785	2.2%
$200,000 or more (> 354% of AMI)	746	2.9%	746	2.1%
Median Income	**$52,864**		**$47,710**	
Households from 80% up to 120% of AMI*	***7,157***	***27.9%***	***9,859***	***27.9%***

*Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.
Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-5: SHARE OF FAMILIES & HOUSEHOLDS WITH "ASIAN HOUSEHOLDER" BY % OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.

TABLE III-8: "HISPANIC OR LATINO HOUSEHOLDER" FAMILY & HOUSEHOLD POPULATIONS BY ANNUAL HOUSEHOLD INCOME - LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

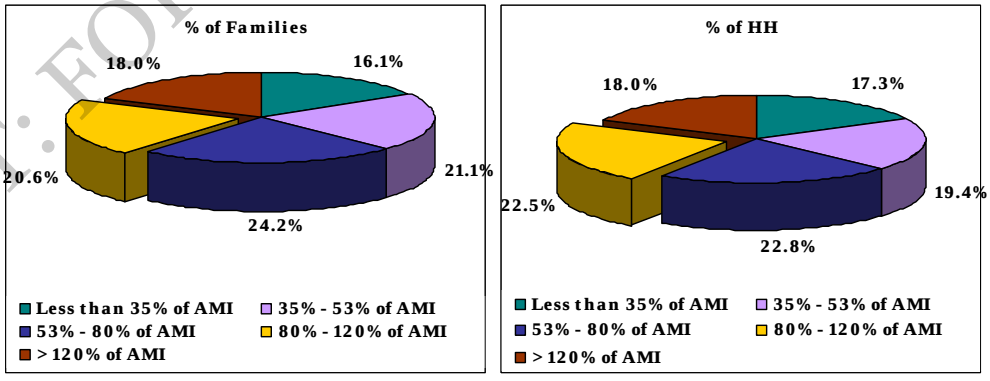
("Workforce" Income ranges bolded and italicized)

Income Range "Hispanic or Latino Householder"	# of Families	% of Total	# of Households	% of Total
	90,876	**100%**	**116,860**	**100%**
Less than $10,000 (< 17.9% of AMI)	4,348	4.8%	7,718	6.6%
$10,000 to $14,999 (from 18% up to 27% of AMI)	3,206	3.5%	5,254	4.5%
$15,000 to $19,999 (from 27% up to 35% of AMI)	7,094	7.8%	7,199	6.2%
$20,000 to $24,999 (from 35% up to 44% of AMI)	9,995	11.0%	12,774	10.9%
$25,000 to $29,999 (from 44% up to 52.9% of AMI)	9,152	10.1%	9,869	8.4%
$30,000 to $34,999 (from 53% up to 62% of AMI)	7,271	8.0%	7,455	6.4%
$35,000 to $39,999 (from 62% up to 71% of AMI)	7,062	7.8%	8,424	7.2%
$40,000 to $44,999 (from 71% up to 80% of AMI)	7,697	8.5%	10,787	9.2%
$45,000 to $49,999 (from 80% up to 88% of AMI)	***6,022***	***6.6%***	***8,299***	***7.1%***
$50,000 to $59,999 (from 88% up to 106% of AMI)	***7,344***	***8.1%***	***10,744***	***9.2%***
$60,000 to $74,999 (from 106% up to 133% of AMI)	***10,148***	***11.2%***	***13,756***	***11.8%***
$75,000 to $99,999 (from 133% up to 177% of AMI)	6,608	7.3%	9,213	7.9%
$100,000 to $124,999 (from 177% up to 221% of AMI)	3,325	3.7%	3,765	3.2%
$125,000 to $149,999 (from 221% up to 265% of AMI)	551	0.6%	551	0.5%
$150,000 to $199,999 (from 265% up to 354% of AMI)	851	0.9%	851	0.7%
$200,000 or more (> 354% of AMI)	200	0.2%	200	0.2%
Median Income	**$39,299**		**$39,224**	
Households from 80% up to 120% of AMI*	***18,711***	***20.6%***	***26,287***	***22.5%***

* Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.
Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-6: SHARE OF FAMILIES & HOUSEHOLDS WITH "HISPANIC OR LATINO HOUSEHOLDER" BY % OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.

TABLE III-9: "WHITE ALONE, NOT HISPANIC HOUSEHOLDER" FAMILY & HOUSEHOLD POPULATIONS BY ANNUAL HOUSEHOLD INCOME - LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

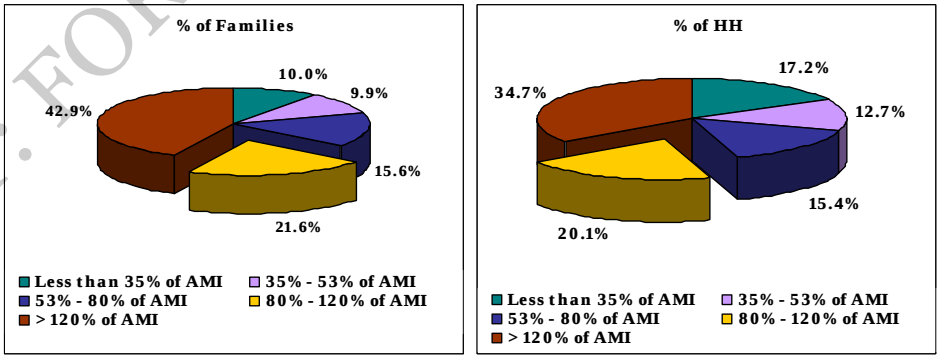
("Workforce" Income ranges bolded and italicized)

Income Range "White Alone, Not Hispanic or Latino Householder"	# of Families	% of Total	# of Households	% of Total
	274,920	**100%**	**449,475**	**100%**
Less than $10,000 (< 17.9% of AMI)	13,128	4.8%	29,661	6.6%
$10,000 to $14,999 (from 18% up to 27% of AMI)	6,156	2.2%	27,140	6.0%
$15,000 to $19,999 (from 27% up to 35% of AMI)	8,242	3.0%	20,517	4.6%
$20,000 to $24,999 (from 35% up to 44% of AMI)	11,927	4.3%	27,463	6.1%
$25,000 to $29,999 (from 44% up to 52.9% of AMI)	15,284	5.6%	29,618	6.6%
$30,000 to $34,999 (from 53% up to 62% of AMI)	15,956	5.8%	27,137	6.0%
$35,000 to $39,999 (from 62% up to 71% of AMI)	16,159	5.9%	22,298	5.0%
$40,000 to $44,999 (from 71% up to 80% of AMI)	10,727	3.9%	19,601	4.4%
$45,000 to $49,999 (from 80% up to 88% of AMI)	***14,377***	***5.2%***	***21,891***	***4.9%***
$50,000 to $59,999 (from 88% up to 106% of AMI)	***27,396***	***10.0%***	***42,446***	***9.4%***
$60,000 to $74,999 (from 106% up to 133% of AMI)	***33,467***	***12.2%***	***49,028***	***10.9%***
$75,000 to $99,999 (from 133% up to 177% of AMI)	44,610	16.2%	58,421	13.0%
$100,000 to $124,999 (from 177% up to 221% of AMI)	25,624	9.3%	33,770	7.5%
$125,000 to $149,999 (from 221% up to 265% of AMI)	13,653	5.0%	17,872	4.0%
$150,000 to $199,999 (from 265% up to 354% of AMI)	9,021	3.3%	11,316	2.5%
$200,000 or more (> 354% of AMI)	9,194	3.3%	11,297	2.5%
Median Income	**$61,325**		**$49,101**	
Households from 80% up to 120% of AMI*	***59,398***	***21.6%***	***90,157***	***20.1%***

* Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

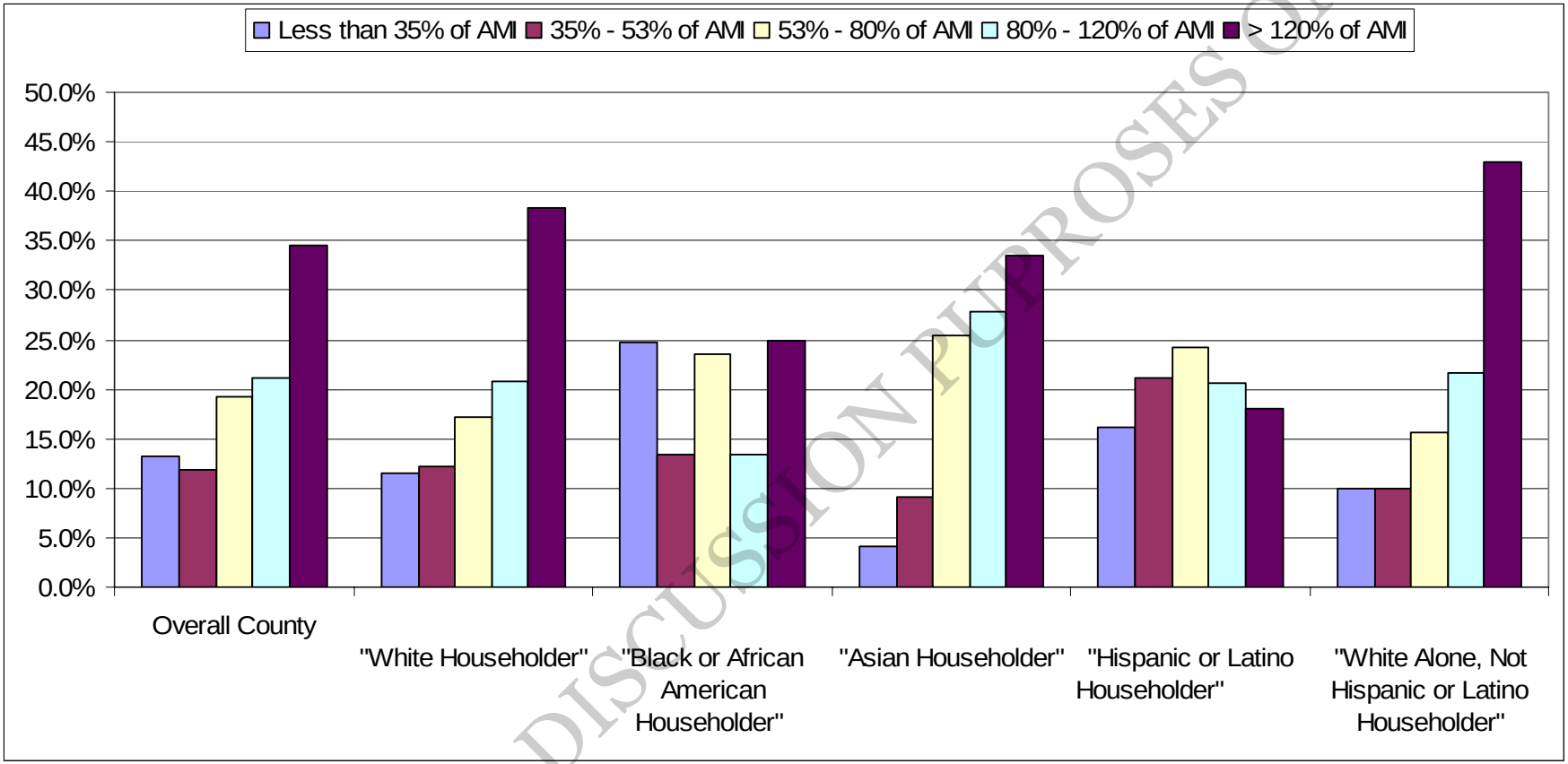
**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.
Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURES III-7: SHARE OF FAMILIES & HOUSEHOLDS WITH "WHITE ALONE, NOT HISPANIC HOUSEHOLDER" HH BY % OF AMI: 2005



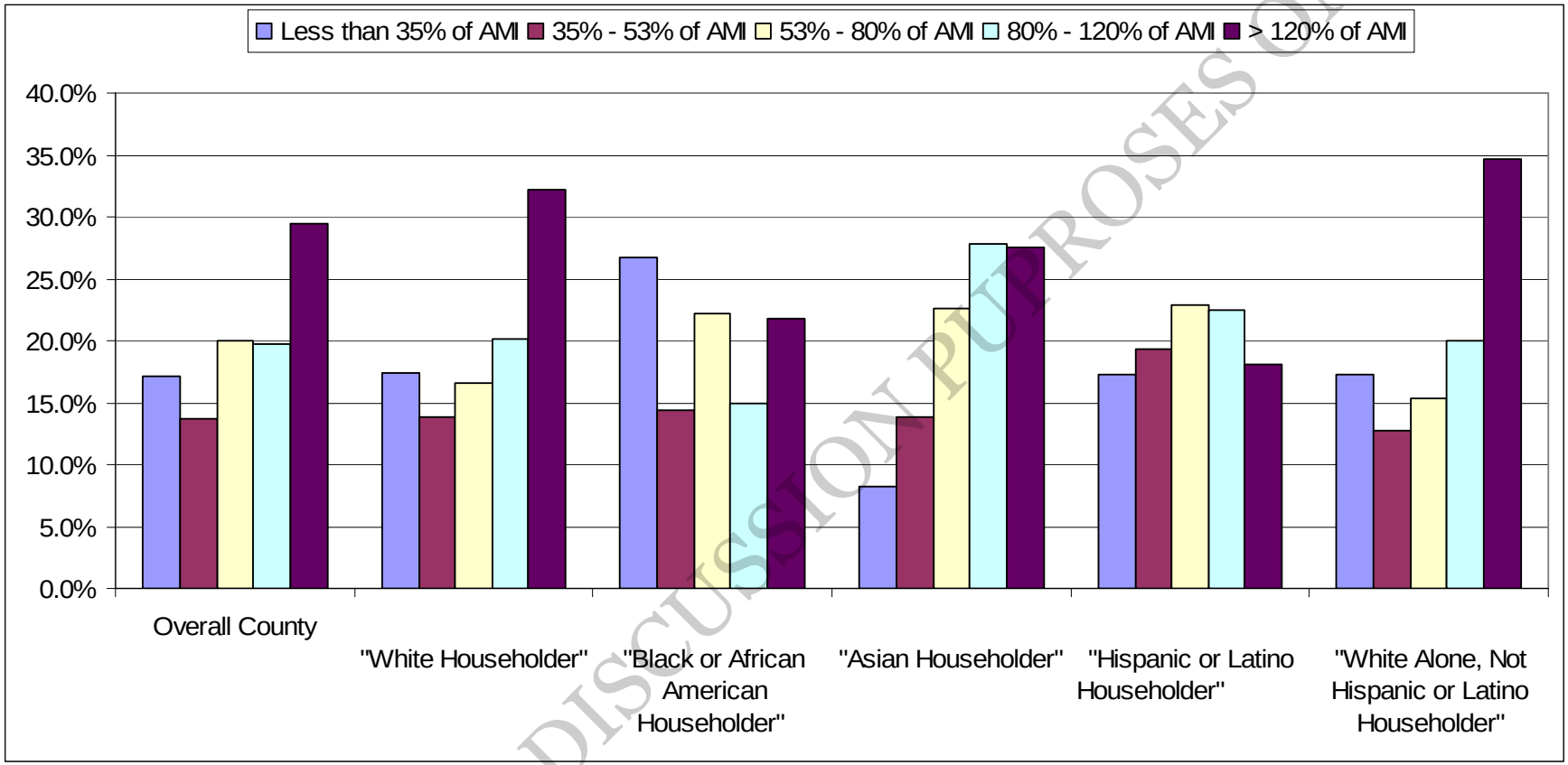
Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-8: SYNOPSIS OF DISTRIBUTION OF FAMILIES BY PERCENT OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.
AMI = $56,550.

FIGURE III-9: SYNOPSIS OF DISTRIBUTION OF HOUSEHOLDS BY PERCENT OF AMI: 2005



Source: American Community Survey, U.S. Bureau of Labor Statistics.
AMI = $56,550.

TABLE III-10: SYNOPSIS OF DISTRIBUTION OF FAMILIES & TOTAL HOUSEHOLDS BY INCOME RANGE: 2005

Income Range All Families & Households	% of Family HH	Compared to "All Families"	% of HH	Compared to "All HH"
Less than 35% of AMI	13.2%	100.0%	17.1%	100.0%
35% - 53% of AMI	11.9%	100.0%	13.7%	100.0%
53% - 80% of AMI	19.3%	100.0%	20.0%	100.0%
80% - 120% of AMI	**21.1%**	100.0%	19.7%	100.0%
> 120% of AMI	34.5%	100.0%	29.5%	100.0%
Total Number of Households	436,713	100.0%	684,142	100.0%
Median Income	$56,550	100.0%	$47,741	100.0%

Income Range "White Householder"	% of Family HH	Compared to "All Families"	% of HH	Compared to "All HH"
Less than 35% of AMI	11.5%	87.2%	17.4%	101.5%
35% - 53% of AMI	12.2%	102.9%	13.8%	100.8%
53% - 80% of AMI	17.2%	89.0%	16.5%	82.6%
80% - 120% of AMI	**20.8%**	98.7%	20.2%	102.3%
> 120% of AMI	38.2%	110.9%	32.2%	109.0%
Total Number of Households	337,894	77.4%	530,837	77.6%
Median Income	$55,599	98.3%	$46,143	96.7%

Income Range "Black or African American Householder"	% of Family HH	Compared to "All Families"	% of HH	Compared to "All HH"
Less than 35% of AMI	**24.7%**	186.7%	26.8%	156.3%
35% - 53% of AMI	13.4%	112.5%	14.4%	105.3%
53% - 80% of AMI	23.6%	122.3%	22.2%	111.1%
80% - 120% of AMI	13.3%	63.2%	14.9%	75.5%
> 120% of AMI	25.0%	72.5%	21.7%	73.7%
Total Number of Households	36,957	8.5%	59,073	8.6%
Median Income	$36,657	64.8%	$33,407	70.0%

Income Range "Asian Householder"	% of Family HH	Compared to "All Families"	% of HH	Compared to "All HH"
Less than 35% of AMI	4.1%	31.4%	8.2%	48.1%
35% - 53% of AMI	9.1%	76.6%	13.8%	100.8%
53% - 80% of AMI	25.4%	131.6%	22.5%	112.7%
80% - 120% of AMI	**27.9%**	132.1%	27.9%	141.4%
> 120% of AMI	33.5%	97.1%	27.6%	93.5%
Total Number of Households	25,671	5.9%	35,377	5.2%
Median Income	$52,864	93.5%	$47,710	99.9%

Income Range "Hispanic or Latino Householder"	% of Family HH	Compared to "All Families"	% of HH	Compared to "All HH"
Less than 35% of AMI	16.1%	121.9%	17.3%	100.7%
35% - 53% of AMI	21.1%	177.3%	19.4%	141.8%
53% - 80% of AMI	**24.2%**	125.6%	22.8%	114.1%
80% - 120% of AMI	20.6%	97.6%	22.5%	114.2%
> 120% of AMI	18.0%	52.1%	18.0%	61.2%
Total Number of Households	90,876	20.8%	116,860	17.1%
Median Income	$39,299	69.5%	$39,224	82.2%

Income Range "White Alone, Not Hispanic or Latino Householder"	% of Family HH	Compared to "All Families"	% of HH	Compared to "All HH"
Less than 35% of AMI	10.0%	75.7%	17.2%	100.4%
35% - 53% of AMI	9.9%	83.3%	12.7%	93.0%
53% - 80% of AMI	15.6%	80.8%	15.4%	76.8%
80% - 120% of AMI	**21.6%**	102.4%	20.1%	101.8%
> 120% of AMI	42.9%	124.4%	34.7%	117.5%
Total Number of Households	274,920	63.0%	449,475	65.7%
Median Income	$61,325	108.4%	$49,101	102.8%

Source: American Community Survey, U.S. Bureau of Labor Statistics.

TABLE III-11: HOUSEHOLD POPULATIONS BY AGE OF HOUSEHOLDER AND ANNUAL HOUSEHOLD INCOME - LAST 12 MONTHS, IN 2005 (CURRENT) DOLLARS*

("Workforce" Income ranges bolded and italicized)

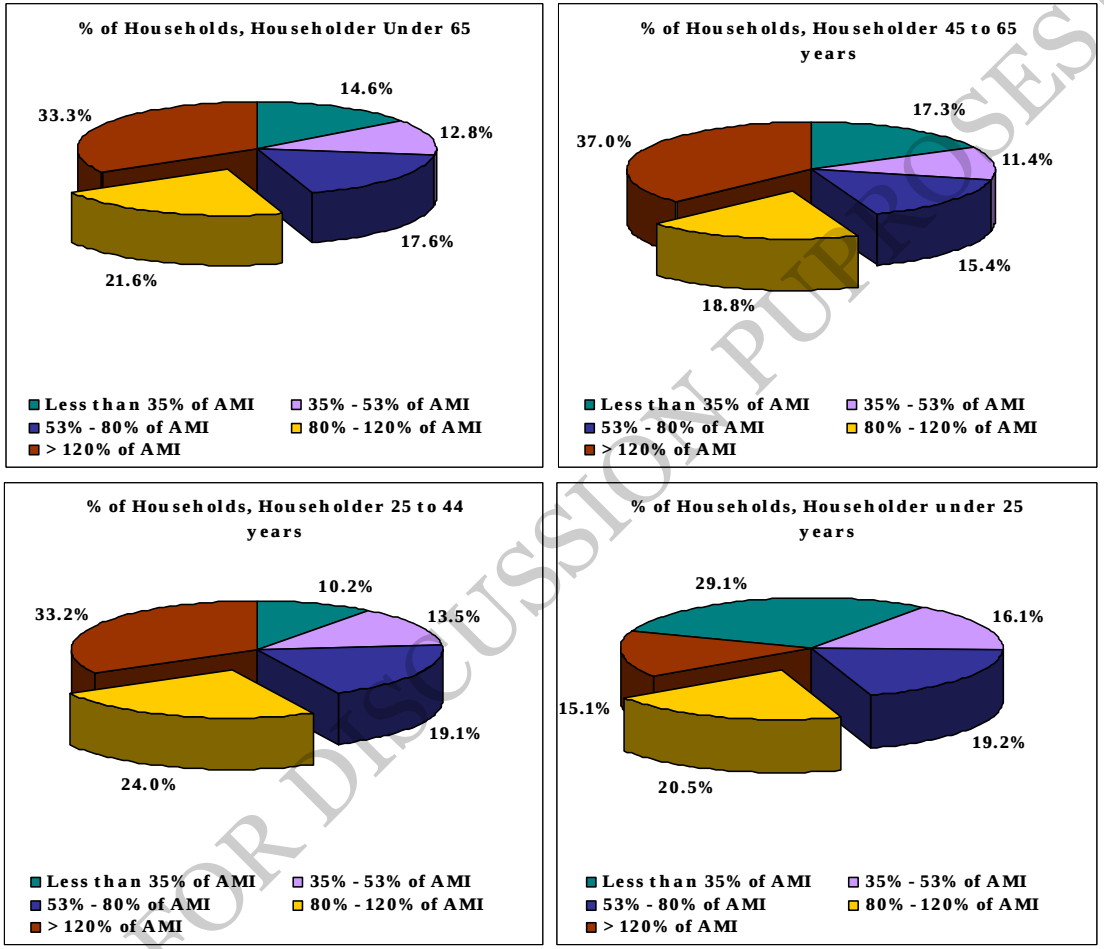
Income Range of Households	# of Households, Householder under 65	% of Total	# of Households, Householder 45 to 64 years	% of Total	# of Households, Householder 25 to 44 years	% of Total	# of Households, Householder under 25 years	% of Total
	565,695	**100%**	**234,053**	**41.4%**	**287,133**	**50.8%**	**44,509**	**7.9%**
Less than $10,000	35,718	6.3%	16,827	7.2%	12,129	4.2%	6,762	15.2%
$10,000 to $14,999	23,506	4.2%	13,250	5.7%	7,356	2.6%	2,900	6.5%
$15,000 to $19,999	23,637	4.2%	10,449	4.5%	9,900	3.4%	3,288	7.4%
$20,000 to $24,999	34,553	6.1%	11,427	4.9%	20,565	7.2%	2,562	5.8%
$25,000 to $29,999	37,966	6.7%	15,248	6.5%	18,110	6.3%	4,608	10.4%
$30,000 to $34,999	36,121	6.4%	11,505	4.9%	21,501	7.5%	3,114	7.0%
$35,000 to $39,999	30,884	5.5%	12,038	5.1%	16,396	5.7%	2,450	5.5%
$40,000 to $44,999	32,466	5.7%	12,491	5.3%	16,985	5.9%	2,990	6.7%
$45,000 to $49,999	***29,463***	***5.2%***	***10,054***	***4.3%***	***17,116***	***6.0%***	***2,294***	***5.2%***
$50,000 to $59,999	***57,164***	***10.1%***	***21,438***	***9.2%***	***31,276***	***10.9%***	***4,449***	***10.0%***
$60,000 to $74,999	***67,543***	***11.9%***	***23,973***	***10.2%***	***39,070***	***13.6%***	***4,499***	***10.1%***
$75,000 to $99,999	72,825	12.9%	33,403	14.3%	36,712	12.8%	2,710	6.1%
$100,000 to $124,999	41,867	7.4%	17,383	7.4%	23,707	8.3%	777	1.7%
$125,000 to $149,999	19,935	3.5%	12,731	5.4%	6,302	2.2%	902	2.0%
$150,000 to $199,999	12,690	2.2%	6,634	2.8%	5,854	2.0%	203	0.5%
$200,000 or more	9,356	1.7%	5,203	2.2%	4,153	1.4%	0	0.0%
Median Income	**$53,509**		**$54,972**		**$55,211**		**$34,833**	
Families between 80% - 120% of AMI*	***122,194***	***21.6%***	***44,116***	***18.8%***	***68,967***	***24.0%***	***9,112***	***20.5%***

* Except for the AMI (equals 2005 HUD MFI), 2005 values are estimated based on 2003 American Community Survey ("ACS") values for the County. The complete 2004 ACS summary table series was not available in time for use in this study.

**80 percent up to 120 percent of AMI ranges from $45,200 to $67,899. The 120th percentile is interpolated, assuming a uniform distribution of families/households in the $60,000 - $75,000 income range.

Source: American Community Survey, U.S. Bureau of Labor Statistics.

FIGURE III-10: DISTRIBUTION OF HOUSEHOLDS BY AGE OF HOUSEHOLDER AND % OF AMI* CLARK COUNTY, 2005



Source: American Community Survey, Bureau of Labor Statistics.

AMI = $56,550.

TABLE III-12: SYNOPSIS OF DISTRIBUTION OF HOUSEHOLDS BY ANNUAL INCOME RANGE & AGE

	% of All Households	Compared to All Households	Compared to Householders under 65
Less than 35% of AMI	17.1%	100.0%	117.0%
35% - 53% of AMI	13.7%	100.0%	106.6%
53% - 80% of AMI	20.0%	100.0%	113.7%
80% - 120% of AMI	19.7%	100.0%	91.2%
> 120% of AMI	29.5%	100.0%	88.5%
Total Number of Households	684,142	100.00%	120.94%
Median Income	$47,741	100.00%	89.22%

	% of Households, householders under 65	Compared to All Households	Compared to Householders under 65
Less than 35% of AMI	14.6%	85.5%	100.0%
35% - 53% of AMI	12.8%	93.8%	100.0%
53% - 80% of AMI	17.6%	88.0%	100.0%
80% - 120% of AMI	21.6%	**109.6%**	100.0%
> 120% of AMI	33.3%	113.0%	100.0%
Total Number of Households	565,695	82.7%	100.0%
Median Income	$53,509	112.1%	100.0%

	% of Households, householder 45 to 65 years	Compared to All Households	Compared to Householders under 65
Less than 35% of AMI	17.3%	101.0%	118.2%
35% - 53% of AMI	11.4%	83.4%	88.9%
53% - 80% of AMI	15.4%	77.0%	87.6%
80% - 120% of AMI	18.8%	**95.7%**	87.3%
> 120% of AMI	37.0%	125.5%	111.1%
Total Number of Households	234,053	34.2%	41.4%
Median Income	$54,972	115.1%	102.7%

	% of Households, householder 25 to 44	Compared to All Households	Compared to Householders under 65
Less than 35% of AMI	10.2%	59.7%	69.9%
35% - 53% of AMI	13.5%	98.6%	105.1%
53% - 80% of AMI	19.1%	95.6%	108.7%
80% - 120% of AMI	24.0%	**121.9%**	111.2%
> 120% of AMI	33.2%	112.4%	99.4%
Total Number of Households	287,133	42.0%	50.8%
Median Income	$55,211	115.6%	103.2%

	% of Households, householder under 25	Compared to All Households	Compared to Householders under 65
Less than 35% of AMI	29.1%	**169.8%**	198.6%
35% - 53% of AMI	16.1%	117.9%	125.7%
53% - 80% of AMI	19.2%	96.1%	109.3%
80% - 120% of AMI	20.5%	103.9%	94.8%
> 120% of AMI	15.1%	51.2%	45.3%
Total Number of Households	44,509	6.51%	7.87%
Median Income	$34,833	73.0%	65.1%

Source: American Community Survey, U.S. Bureau of Labor Statistics.

Section IV

WORKFORCE HOUSING SUPPLY ANALYSIS

IV. WORKFORCE HOUSING SUPPLY ANALYSIS

A. INTRODUCTION

In this section, a summary of current and historical market conditions as well as workforce housing development and supply issues is presented, based on the Consultant Team's research. This includes a listing of workforce housing development opportunities and constraints. This section begins by looking at the relationship between home prices to household income over time. The analysis shows quite dramatically the level to which home ownership is becoming increasingly less attainable to County residents. To begin the analysis, Figure IV-1 plots historical population and housing units. This figure indicates that the stock of housing units in the County has grown at a rate relatively consistent with population growth. Although, as will be shown later, household incomes have not kept pace with home price increases.

Also presented herein is an analysis of the inventory of the current (2005) housing stock, by type and tenure. This is followed by an analysis of the apartment and mobile home markets, two of the most affordable housing options available to residents of the County.[1] Both have been in the news recently, because of losses due to condo conversions, apartment demolitions and mobile home park closures to make way for other types of residential and commercial development.

In addition to "painting a picture" of the current and historical residential market from the supply side, this section allows a comparison of both sides of the market and an estimate of the extent (if any) of a workforce housing "gap" in the County. That analysis is the subject of Section 5.

All exhibits referred to herein are located at the end of this section.

[1] For the purposes of this study, we define "mobile homes" as "manufactured mobile homes units." While the lots that these units reside on are considered real property, the units themselves are considered personal property.

[3] See Section III, the Workforce Housing Demand Analysis, for detailed analysis of Clark County housing demand by income, race and age groups.

B. CLARK COUNTY & LAS VEGAS VALLEY HOUSING SUPPLY BACKGROUND

The County has seen rapid growth in its housing market during the past 10 years with the lion's share of development occurring in the Valley. Employment across the County has been quite healthy and the unemployment rate has been consistently below the national rate. A strong economy, the healthiest in the nation by some accounts, has driven up demand for housing across all income segments in recent years.[3]

It has also become clear that recent and expected housing trends and costs are resulting in a declining number of housing opportunities for the Valley's workforce households. For-sale home prices have grown at a rate far outstripping that of household income. The result is a market that is effectively "pricing out" a growing share of our residents from home ownership. Additionally, high housing prices create greater demand for apartments as those squeezed out of home ownership are forced to rent or to extend their time renting until they can afford to own a home. This increased apartment demand is putting additional upward pressure on rents in an already supply-constrained market.

The initial phase of the Consultant Team's research included a tour of a number of the Valley's neighborhoods and housing communities and a review of various reports, studies, planning documents, demographic and economic data. Key documents reviewed included, but were not limited to, the recently completed Southern Nevada Regional Planning Coalition ("SNRPC") Growth Management Task Force study, The Nevada Housing Division ("NHD") annual Apartment Housing Facts reports, additional SNRPC literature, as well as our proprietary residential databases.[4]

1. Household Income & Home Prices

To further an understanding of the housing price and income relationship for workforce households, this analysis begins where it left off earlier in the Demand Analysis, namely, looking at household income. Figure IV-2 shows current and inflation adjusted median household income trends in the County since 1989. This figure indicates that, while current income rose

[4] See the Bibliography for a complete list of sources reviewed and used in the preparation of this report.

real household income generally remained flat (and even decreased, somewhat) between 1989 and 2005.

Figures IV-3 and IV-4 show that median housing prices (both new and existing) have increased dramatically across the board, especially since 2000. Nominal (current, unadjusted for inflation) income was plotted against nominal median new home prices in these figures. It should be noted that household income looks relatively flat when compared to home prices because of the difference in scale.

To address this, a "housing affordability index" is presented in Figure IV-5, which depicts the ratio of median new and resale home prices to household income over time. In 1995, the median new home was priced at approximately 3.4 times annual median household income.

By 2005, the median new home was priced at over 6.6 times annual median household income. A similar increase in the resale home affordability index is also noted. Both indexes indicate decreased home affordability in the County, even with historically low interest rates.

Another way to view this is in terms of real (inflation adjusted) price changes relative to changes in real income. While real incomes remained relatively flat between 1995 and 2005, new home prices increased at a real rate of 8.8 percent per year during the same period. Since 2000, new home prices increased at a real annual rate of 11.9 percent, or 72 percent between 2000 and 2005. Clearly, with real incomes remaining essentially unchanged, such a large increase over such a short period has impacted workforce households in the County, especially the Valley, even with historically low mortgage rates that have to some degree mitigated home price increases.

The index combined with income and house price trends illustrate that affordability is a potentially significant problem issue at least as it relates to the for-sale market, especially if prices continue to increase faster than incomes.

2. The Apartment Market

Apartments are one of the most affordable residential options in the County, representing approximately 39 percent of the County's housing stock.[5] Because of this, and because all residential units are to some degree substitutable, an understanding of the supply and demand dynamics of the apartment market is essential to understanding the County's housing market.

There are several issues that make the apartment sector integral to the story of the County's rental market, as well as the housing market in general. The exhibits at the end of this section are meant to delineate those factors that influence the supply, demand and rental rates of apartment units.

To begin with, the Consultant Team assessed historical apartment rents as a percentage of the median renter income. The Consultant Team also tracked historical vacancy rates. Figure IV-6 shows that over time, the rent-to-income ratio has remained relatively stable, staying between 25 percent and 35 percent of income (because rents and income have grown at about the same pace).[6]

It should also be noted that the last period of very low vacancy rates (1994 – 1997) was followed by higher rent-to-income ratios. Given that current vacancy rates are at their lowest in at least the last 15 years, these supply and demand factors are strong indicators that apartment rents will rise, possibly sharply, in the near future.

Current and real apartment rental rates are presented in Figure IV-7. This chart illustrates that real rental rates have not appreciated over time. As previously noted about the dramatic increase in home prices, it is clear why new apartment development has slowed dramatically (Figure IV-8). It is because, as an investment opportunity, it is not as attractive as building for-sale housing, where prices have increased rapidly (and where returns on investment ("ROI") have done better keeping up with land and development costs).

[5] Our research has resulted in lower and upper estimates of housing stock by type. This research suggests that apartments account for somewhere between 30 and 47 percent of total housing stock. 39 percent is the average of the two.

[6] That real prices have remained relatively constant is an indication that supply and demand have been in balance, at least up to this time.

While "median" percentages are a good tool for evaluating general trends, they may be hiding the situation for the "under 30 percent of AMI" households. For example, 2000 HUD data indicates that 35.3 percent of renter households earning less than 50 percent of AMI pay more than 50 percent of their monthly income to rent. Fully 65 percent of renters earning 30 percent and below AMI pay more than 50 percent of their monthly income to rent.

So while rents have thus far been affordable to "workforce" households, rents are an issue for those renter households earning less than 50 percent of AMI. As of 2000, this accounted for about 30 percent of renter households. As will be discussed next, the consultant team expects current market conditions to put substantial upward pressure on rental rates in the near future, further aggravating housing affordability for this demographic group.

The supply of apartment units relative to demand directly impacts vacancy rates and ultimately rental rates. Figure IV-8 shows the number of new apartment units brought onto the market since 1980-81. This chart shows that from the 1996-97 to the present, there has been a dramatic decline in new apartment units constructed. Figure IV-9 shows that apartment inventory had been growing, albeit at a much slower pace from 1998 to 2004. Additionally, it is growing at a much slower pace than is the population. The 2005 apartment stock was calculated based on the 2004 stock, estimates of units planned and units lost to demolition and condo conversion and estimates of condo conversion returned to the rental pool. This would bring apartment stock back to pre-2004 levels.

The decline in new apartment development and apartment stock means that replacement units and new units are not being constructed to handle the Valley's population that need short and longer term rental units. This supply challenge is expected to continue for the foreseeable future.

Land prices also affect development patterns. Again, all things being equal, an increase in land costs reduces a developer's ROI, resulting in less investment in certain types of real estate. As a proxy for land price trends, Figure IV-10 illustrates average land prices paid per acre at Bureau of Land Management ("BLM") Southern Nevada Public Land Management Act ("SNPLMA")

auctions since November, 1999 in the Valley. While the average price per acre paid at the November, 2005 land auction ($265,359) dropped from the June, 2004 high of $279,620, the average price per acre has still increased by almost 200 percent in the five years since the inception of these land auctions.

Thus, whereas to the consumer, rental housing has remained relatively affordable, to the developer apartment development has lost its attractiveness as an investment as (1) land and construction costs have increased and (2) apartment income has remained flat at the same time investment returns for development alternatives have increased.

3. Mobile Homes[7]

Mobile homes are one of the most affordable residential alternatives available to County residents. The closure of mobile home parks and the loss of mobile home units has been a recent issue in the news. Figure IV-11 shows the Valley's stock of mobile homes from 1993 to the estimated stock at the beginning of 2006. These are beginning-of-year numbers. It should be noted that the loss of mobile homes in 2005 was especially dramatic. No new mobile home parks were added since 2000 and there are no indications of new mobile home park development in the Valley for the foreseeable future. As this residential alternative disappears, this too will put upward pressure on the prices of other types of housing units, especially apartment units. In many cases, apartments are the next most affordable alternative to mobile home renters.

4. Tenure

Housing tenure describes the share of the housing stock that is owner-occupied versus renter-occupied. Knowledge of housing tenure helps with an understanding of how the housing market is segmented and knowledge of tenure helps in analyzing the impact of condo conversions. Condo conversions on the one hand deplete the pool of apartment rentals, but housing experts estimate that between 33 percent and 50 percent of these conversions are returned back to the rental pool. Additionally, the consultant team's research indicates that approximately 54 percent

[7] For purposes of this report, we define "mobile homes" as "manufactured mobile homes units." While the lots that these units reside on are considered real property, the units themselves are considered personal property.

of the total condo inventory are rentals. Although rentals of other unit types are generally more expensive than apartments, their addition to the rental pool must also be taken into consideration. The following exhibits use two data sources to put upper and lower bounds on housing tenure by type.

Using survey data from the Las Vegas Perspective, Figure IV-12 shows overall housing tenure in the Valley between 1994 and 2004. It is clear from the data that home ownership has been relatively stable over time. This is because single family units and apartments dominate owner and renter-occupied inventories, respectively. Specifically, since the percentage of owner-occupied units represented by single family homes has remained relatively constant (and since apartments are always 100 percent rentals by definition), overall tenure has not changed dramatically over time. Single family ownership percentages have varied over time between 88 percent and 95 percent. However, an increase in the ownership share took place from 1999 through 2003. This corresponds largely to decreases in mortgage rates, which made ownership more affordable. As ownership increased, this meant a drop in demand for rental units, partially explaining why real rental rates have remained relatively flat during the period even while new supply has been diminishing (Figures IV-7 through IV-9).

Also from Las Vegas Perspective survey data, Figure IV-13 shows housing ownership, by unit type, in the Valley between 1994 and 2004. Ownership of all other unit types tended to fluctuate quite dramatically. Condo-townhome ownership varied between 43 and 86 percent, manufactured housing ownership varied between 72 and 100 percent and duplex ownership varied between nine and 77 percent.

These large fluctuations are at least partially due to survey sample variability.[8] As such, for all unit types other than single family and apartments, these data are not deemed an entirely reliable source of information on residential tenure. Therefore, the Consultant Team also approached the question of tenure, by type, by looking at the Clark County Assessor's Residential Extract file. This analysis is the subject of the next few exhibits.

[8] Year-to-year comparisons of Las Vegas Perspective survey data are subject to sampling variability. 2004 Las Vegas Perspective, "Methodology", page 103. This sampling variability is likely exacerbated for groups that usually respond less frequently, such as renters.

A note about the tenure tables and figures using the Clark County Assessor's Residential Extract: Recently the Nevada State Legislature passed a property tax abatement law that treats owner-occupied residential properties differently from all other types of properties. Essentially, owner-occupied residential property tax growth is capped at three percent, annually, whereas all other property tax growth is capped at eight percent per year. This difference permitted the Consultant Team to estimate the number and share of single family detached homes, condos, townhomes, multiplexes and mobile homes that are potentially rentals. These estimates are based on the assumption that residential properties taxed at the eight percent abatement rate are potentially affordable to rent and all those taxed at the three percent abatement rate are owner-occupied.

Based on discussions with the Assessor's Office and inspection of the data, this assumption appears to be generally correct, but it does have limitations that require careful interpretation. Generally, the results generated from this Assessor's data produce potential rental unit shares of total units (both overall and by type) greater than that indicated by the Las Vegas Perspective data. At this time, we are unclear as to why this is the case. Indications are that potential misidentifications of owner-occupied and rental units will, to some degree, cancel each other out. Furthermore, it was expected that the share of dwelling units that are owner-occupied was likely to be over-represented compared to rental units.[9]

At this time, it seems reasonable to conclude that these two methodologies result in "outer bound" estimates of residential tenure, with the answer lying somewhere between the two approaches.

A small percentage of residential units are also identified as "low-income rentals" by the Assessor. However, property owners having second homes for investment purposes, and that are occupied by family members that pay little or no rent, are also counted as "low income rentals" for tax abatement purposes. These properties cannot readily be differentiated from other properties identified as "low income rentals" by the Assessor.

[9] The three percent tax growth cap applies only to a primary residence in Nevada. A number of scenarios involving out of state residents and/or multiple properties owned by the same entity can result in over/under counting owner-occupied and rental units. As the Valley has seen significant growth in median home prices, in Nevada, it is even more likely that owners of multiple properties will list (one of) their properties as a their primary residence in order to minimize their tax liability. While the penalty for misrepresenting a property as a primary residence is three times the tax savings, there is no system in place to monitor this.

Table IV-1 illustrates housing stock by both unit type and tenure for the County from the Assessor's database as of June 2005. The data indicate that approximately 29 percent (115,727 dwellings) of all single family housing units are rentals, 54 percent (27,054 dwellings) of condos are rentals, 31 percent (10,376 dwellings) of townhomes are rentals, 18 percent (4,836 dwellings) of mobile homes are rentals and 55 percent of plexes (10,710 dwellings) are rentals. Overall, the Assessor's data suggests that 48 percent (340,354 dwellings) of the County's housing stock is owner-occupied, and 45 percent (317,492 dwellings) are available as rentals. The remaining seven percent (47,614 dwellings) are identified as "low-income rental units." As previously indicated, these numbers probably over-estimate the actual number of "low-income" rental units.

Table IV-2 depicts the shares of the housing stock, by type, representing owner-occupied units, rental units and "low income" rental units. Based on the Assessor's data, this table shows that apartment units make up less than half (47 percent), single family residences add another 36.5 percent and condo rentals add 8.5 percent to the inventory of potential rental units. By this measure, "shadow" rentals, or non-apartment rentals, are a potentially large addition to the rental inventory in the County.

There is another variation between what the Las Vegas Perspective reports and the Assessor's database. An analysis of the Assessor's Residential Extract (based on the eight percent tax rate) indicates that a greater percentage of single family units built since 2004 are in the rental pool than those built prior to 2004. The data indicate that only 25 percent of single family residences built prior to 2004 are potential rentals, while 34 percent of homes built in 2004 are likely rentals**.** Of the homes built in 2005, 77 percent were identified as potential rentals. A part of the difference could be geographic coverage. The Las Vegas Perspective considers the Valley, only, while the Assessor's database covers all of Clark County. Based on our research, investor-owned rentals are much more likely to be new homes. While, estimates on the numbers of these types of investors vary widely, this likely accounts for much of the difference between the Assessor's tables and Las Vegas Perspective data.

Figure IV-14 illustrates housing tenure, by unit type, based on the assumptions made about the Assessor's database. While these distributions differ significantly from those in Figure IV-13, the shares representing owner-occupied units, by type, are relatively similar.

Figure IV-15 shows the pool of owner-occupied units, rental units and "low-income units", by type. As already indicated, the single family units, condos and townhomes, etc. paying the eight percent tax rate add significantly to the pool of rental units.

5. Geographic Distribution of Income and Households by Type

Map IV-1 illustrates the median annual household income and household units by Census Tract for the Valley as of June, 2004. Additionally, unit types are differentiated by color, with every dot representing one hundred housing units. These dots are randomly distributed within a Census Tract and therefore are not a precise depiction of the geographic distribution of housing within the tracts.

Nevertheless, the map illustrates that: 1) the densest populations generally correlate to the poorest Census Tracts, 2) these tracts also have the highest density of apartment units and 3) that these Census Tracts are generally located in the Valley's core. Additionally, this map indicates that: (1) the more affluent Census Tracts generally lie at the outer bound of the Valley, 2) housing in these tracts are primarily single family detached units and 3) these tracts generally have the lowest housing density in the Valley. The population and income distributions that this map represents make it a potentially useful tool in identifying geographically appropriate housing options.

C. CONCLUSIONS

1. Apartment Market Analysis

Based on the information presented above, some general statements can be made about the supply and demand of affordable/attainable housing in the County.

Apartment rents have remained at about the same share of income at least between 1989 and 2005. During this period, rents were stable in real (inflation adjusted) dollars. This implies that the apartment market's supply and demand were historically in balance.

However, recent events on both the demand and supply-side are upsetting this balance. It is apparent that apartment rents have not kept pace with increases in land and development costs. This resulted in fewer new apartment projects being built and even a loss of apartments near the strip and downtown due to condo conversions, redevelopment/demolition of former workforce rental apartments for other commercial, industrial and retail developments

At the same time, even though for-sale home price growth is expected to slow, it is still likely to outstrip growth in household incomes. That long-term mortgage rates are finally beginning to creep up from their recent historic lows will also reduce the amount of mortgage a family can afford, making owner-occupied housing less attainable.[10] These dynamics will undoubtedly have more and more families turning to rentals for short-term and long-term housing, as an alternative, further increasing rental demand.

Increased demand in an already tight apartment market coupled with a lack of apartment construction and continuing condo conversions are likely to lead to rapidly rising rents[11] for the foreseeable future. It is likely that these trends will also put upward pressure on the rents of "shadow" rental units that are individually owned single family homes, condos, townhouses and mobile homes.

We anticipate that the market will, to some extent, respond to higher rents with more apartment development.[12] However, as indicated when comparing Figures IV-6 and IV-7, there is a lag of two to three years between declining vacancy rates and the market response to actual construction of additional supply. Given these factors, it is likely that rent growth will outpace inventory additions and household income growth for the next several years.

[10] It must be noted that at least some of the price appreciation over the last 24 months is the result of lower interest rates. All things being equal, it is possible that monthly mortgages resulting from higher rates will put downward pressure on purchase prices.
[11] According to the Center for Business and Economic Research, median apartment rents increased from $779 to $806 from Q1, 2005 to Q3, 2005, or by seven percent, annualized.
[12] "Apartments Luring Investors. Tight Valley Market Boost Sales Prices." In Business Las Vegas, September 9, 2005.

2. Condo Conversions

As indicated by the NHD Q2, 2005 Apartment Facts report, condo conversions have, over the past fiscal year, depleted the stock of apartment units by about eight percent. However, given the return of conversions to the rental market plus the addition of individually owned single-family homes, condos, townhomes and other types of units to the rental pool, it becomes clear that conversions are not depleting the rental pool by as large amount as many originally thought. As previously noted development experts estimate that between 33 percent and 50 percent of conversions are returned back to the rental pool. According to the Las Vegas Perspective, between 13 percent and 57 percent of condos and townhomes are rentals. The consultant team's research, based on the Assessor's records, indicates that approximately 54 percent of all condos are rentals. Additionally, condo and townhome rentals account for 8.5 percent and 3.3 percent of the County's total rental pool, respectively.

This is not to suggest that the slow-down in apartment construction and the loss of apartments due to condo conversions can be ignored. These factors still deplete the available rental pool, and apartments tend to be the most affordable types of rentals. At current apartment vacancy rates, existing supply and demand dynamics will put upward pressure on rents, even with these additional "shadow" condo and townhouse rentals.

Finally, as this analysis indicates, a large portion of renter households are being eliminated from the for-sale market, because of rapid appreciation of home prices during the last two years. Condo conversions have been one market response to provide for-sale housing to families with workforce incomes. These units tend to be the least expensive of the "new" home market, and are in many cases the only ownership option available to many families. In essence, the loss of rentals to conversions must be weighed against the demand for an affordable ownership options.

Although market forces do not always operate as quickly as desired, they are still considered the most effective and efficient way to balance the needs of all consumers. Governments can and should take a role in the process by helping to facilitate the markets through proper and appropriate zoning and land use regulations and incentives. Although it is no silver bullet,

freeing up more federal land through governmental purchase and sale / transfer to the private sector through the SNPLMA is one avenue to be encouraged as a means of reducing land costs and its part of the overall development budget. Additional ways to approach addressing these problems are outlined in "Section VII" under "Barriers and Solutions".

3. Single Family Units

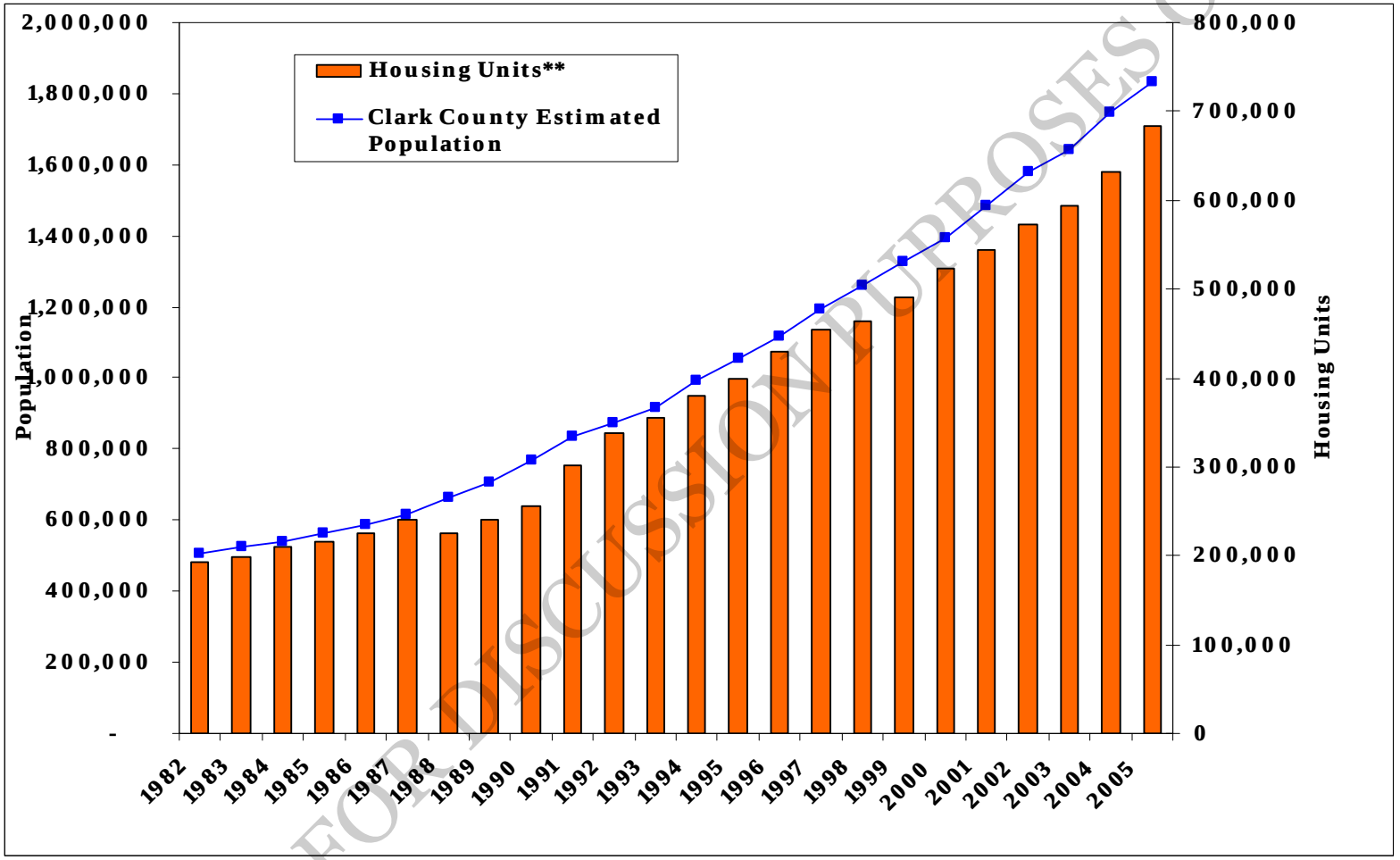
The weak growth rates in household incomes in recent years, combined with the large increases in prices for new and resale single family homes (Figure IV-2), is removing this type of dwelling as an option for many County households.

Still, the demand for single family housing combined with low mortgage rates during the last two to three years has helped maintain healthy ROIs for single family projects relative to apartments.[13] As this analysis has shown, this partially explains the slowdown in apartment inventory growth. As a result, workforce households have been caught between these pressure points – a loss of housing options and rapidly increasing home prices.

These trends have consequences beyond the direct costs for for-sale housing. As households search for more affordable options, many may have to travel ever further from their place of work. Developers are currently looking at a number of outlying communities, such as Indian Springs, Overton, Logandale, Mesquite, Pahrump and Coyote Springs, and even across the State line in White Hills and the Kingman areas in Arizona to provide "affordable" for-sale single family housing. What this will ultimately do to transportation and other infrastructure costs and sprawl in Southern Nevada is uncertain, but logic tells us that it will generate a variety of impacts, both positive and negative. On the positive side, these outlying communities relieve some of the pressures causing the affordable housing concerns. On the negative side, though, are longer commutes and all the associated very real social and private costs, as well as the higher infrastructure and public service costs of serving disbursed populations in satellite communities.

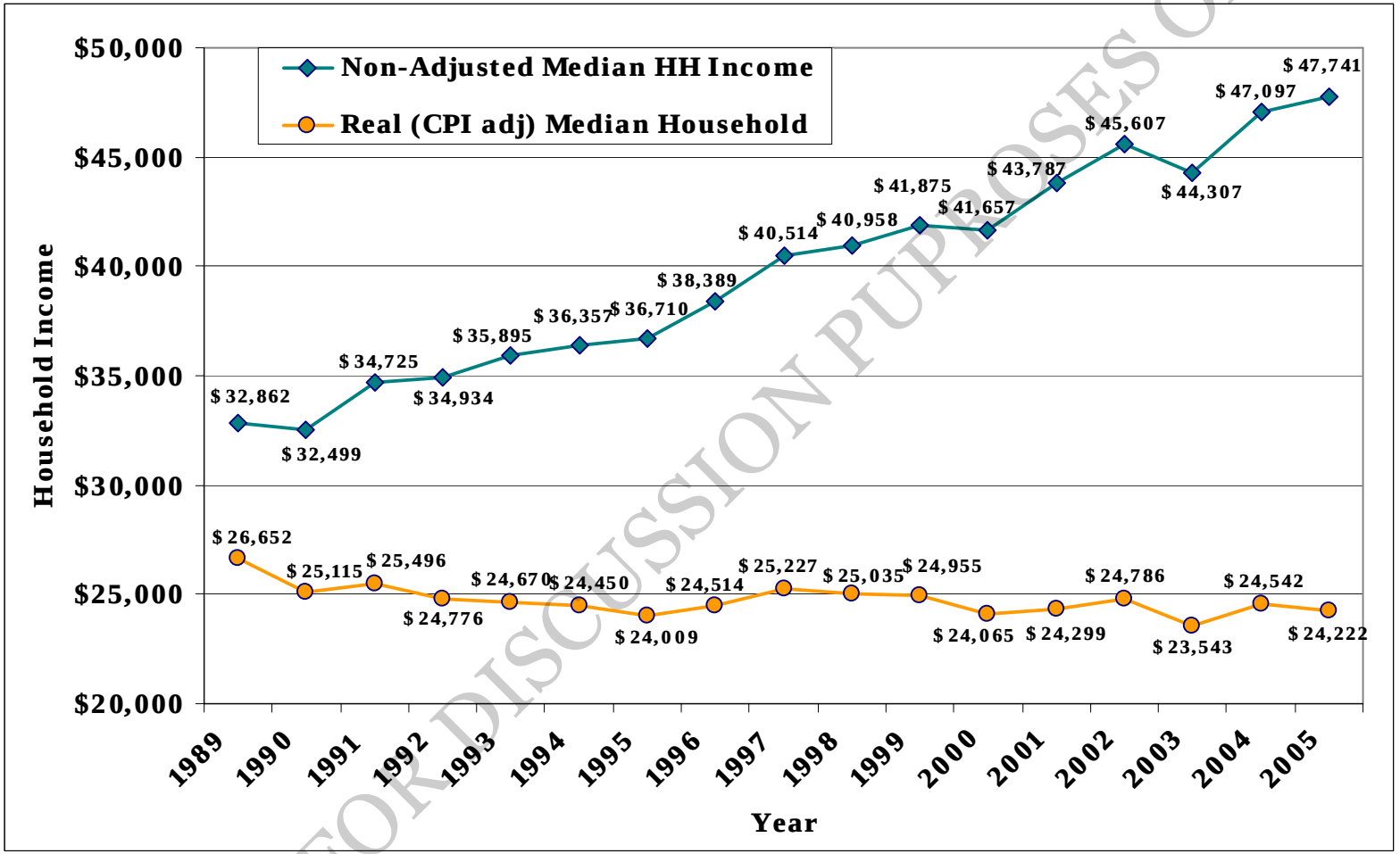
[13] Condos and luxury units are also enjoying high ROIs, relative to apartment development, as well.

FIGURE IV-1: POPULATION AND HOUSING GROWTH, CLARK COUNTY, 1982 – 2005*



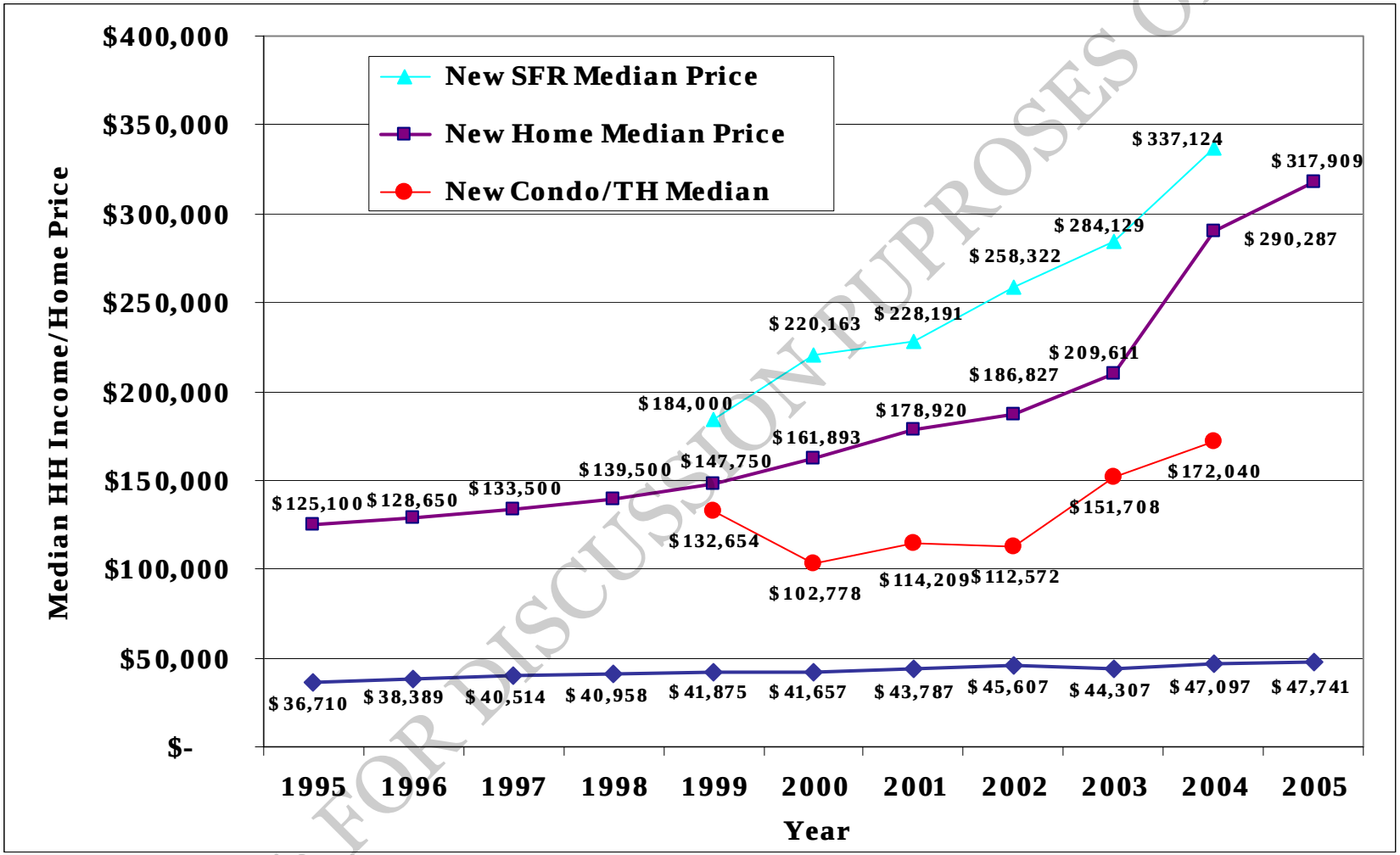
Source: U.S. Census Bureau, Las Vegas Perspective, 1989 – 2005.
*2005 is estimated.
**These are occupied housing units. Does not include vacant housing units.

FIGURE IV-2: NON-ADJUSTED & INFLATION ADJUSTED* ANNUAL MEDIAN HOUSEHOLD INCOME, CLARK COUNTY, 1989 – 2005**



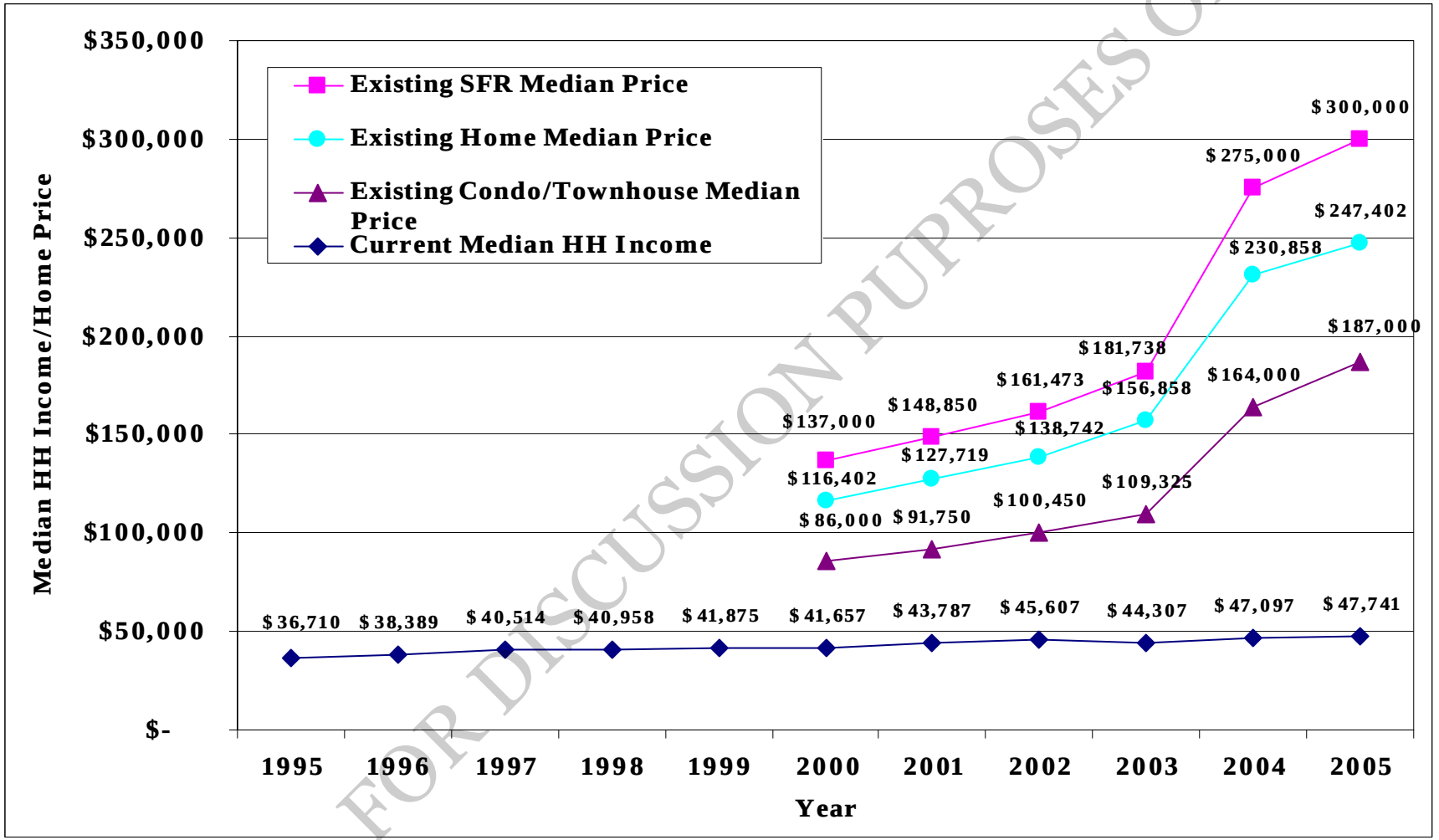
Bureau of Labor Statistics, Las Vegas Perspective, 1989 – 2005.
Non-Inflation Adjusted income deflated based on Western Urban CPI for All Items. Base Period: 1982-1984=100.
**Year 2005 inflation adjusted annual household income is based on an estimate of 2005 current household income and the CPI value for the first six months of 2005 (not seasonally adjusted).

FIGURE IV-3: NEW SINGLE FAMILY RESIDENTIAL, CONDO/TOWNHOUSES, OVERALL MEDIAN HOME PRICES AND CURRENT MEDIAN HOUSEHOLD INCOME, LAS VEGAS VALLEY, 1995 – 2005*



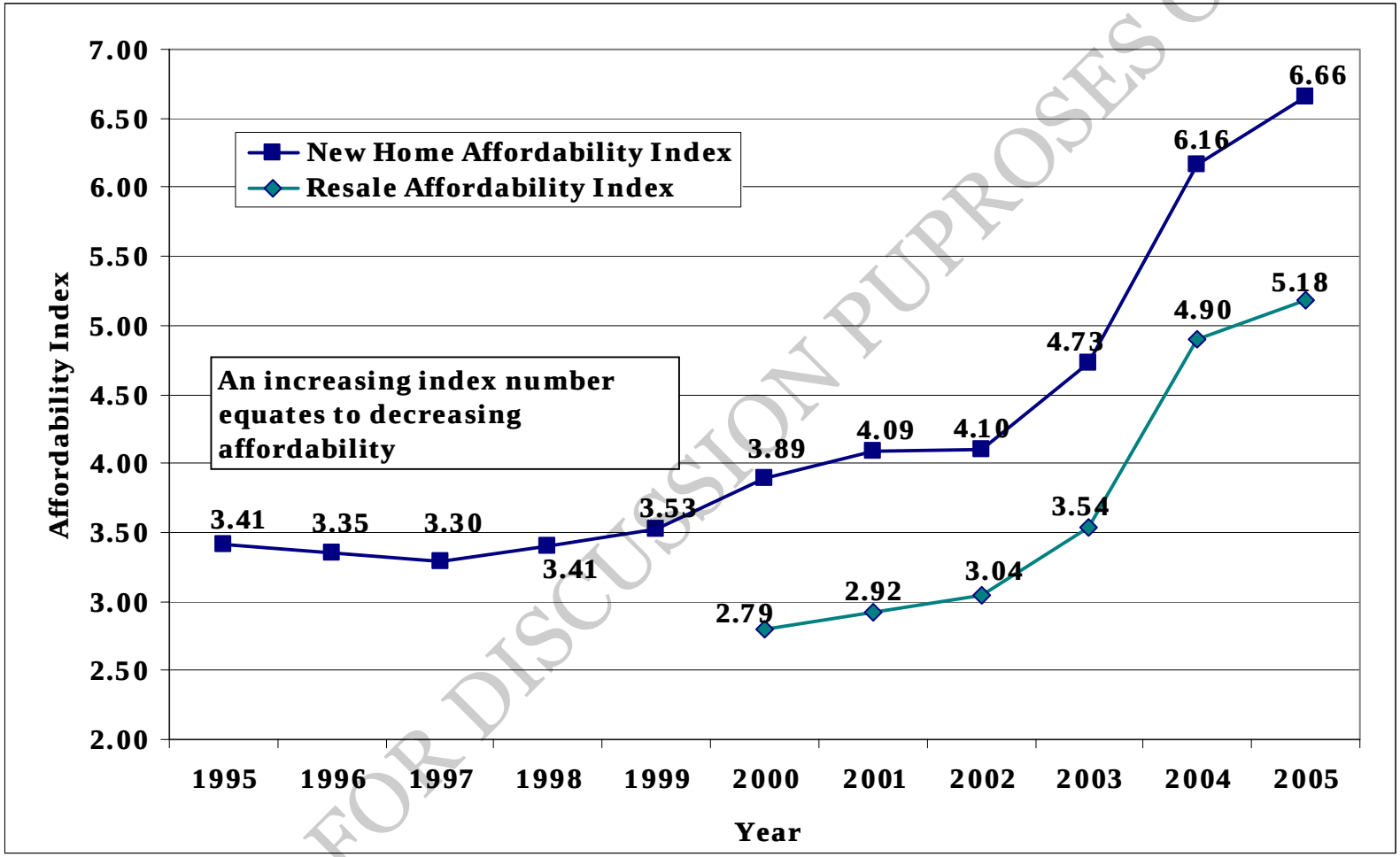
Source: Las Vegas Perspective, Greater Las Vegas Association of Realtors, Home Builders Research, 1995 – 2005, Restrepo Consulting Group.
*Year 2005 Current annual household income estimated. Year 2005 sales prices are as of July, 2005.

FIGURE IV-4: EXISTING SINGLE FAMILY RESIDENTIAL, CONDO/TOWNHOUSES, OVERALL MEDIAN HOME PRICES AND CURRENT MEDIAN HOUSEHOLD INCOME, LAS VEGAS VALLEY, 1995 – 2005*



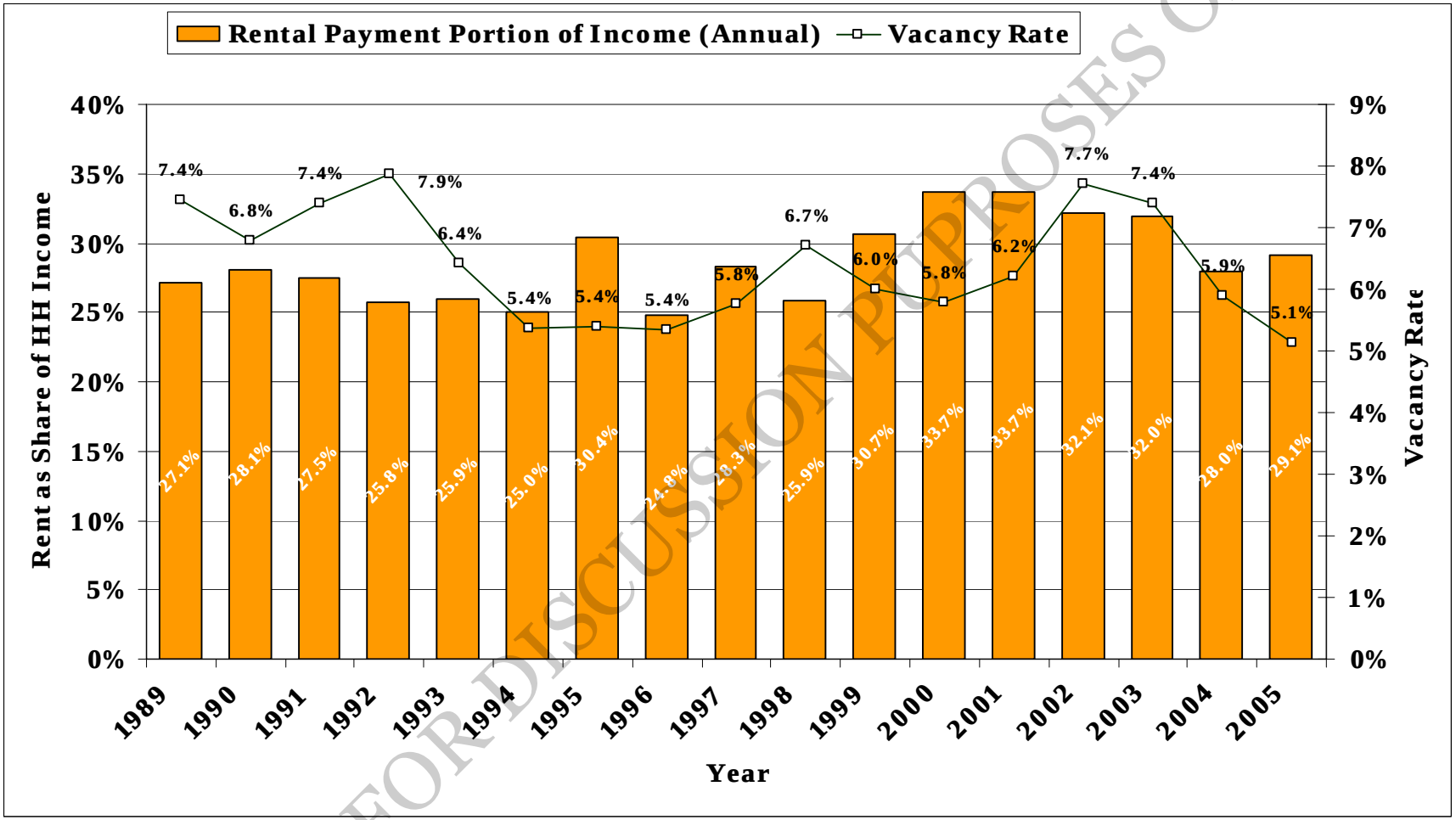
Source: Las Vegas Perspective, Greater Las Vegas Association of Realtors, Home Builders Research, 1995 – 2005.
*Year 2005 Current annual household income estimated. Year 2005 sales prices are as of July, 2005.

FIGURE IV-5: NEW & RESALE HOME AFFORDABILITY INDEXES,*
LAS VEGAS VALLEY, 1995 – 2005**



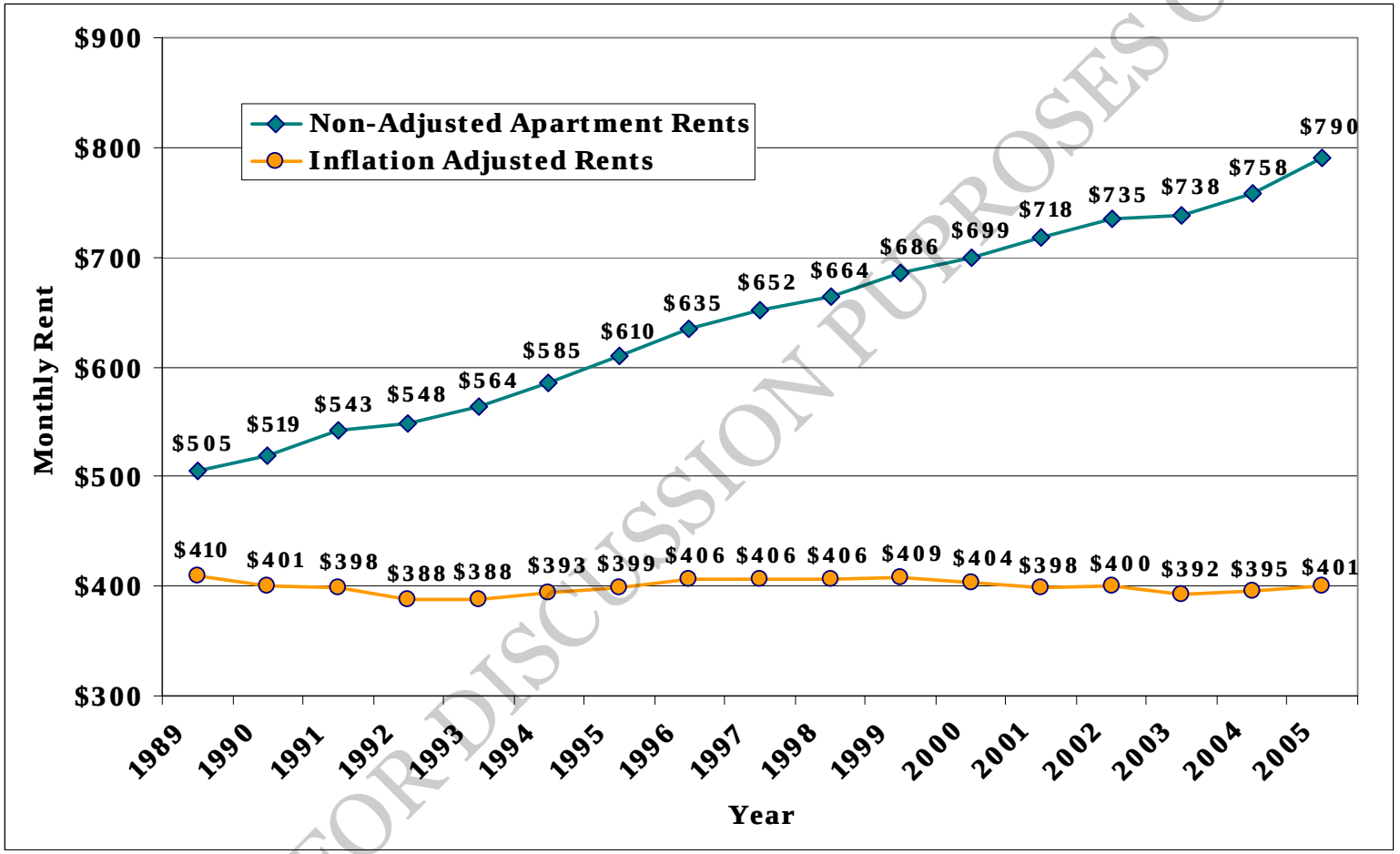
Source: Las Vegas Perspective, Greater Las Vegas Association of Realtors, Home Builders Research, 1995 – 2005 and Restrepo Consulting Group.
*Current median home sales price divided by current median household income.
**Year 2005 current income estimated. Year 2005 sales prices are as of July, 2005.

FIGURE IV-6: CURRENT MONTHLY RENTS AS A PERCENT OF MEDIAN "RENTER" MONTHLY HOUSEHOLD INCOME, LAS VEGAS VALLEY, 1989 – 2005*



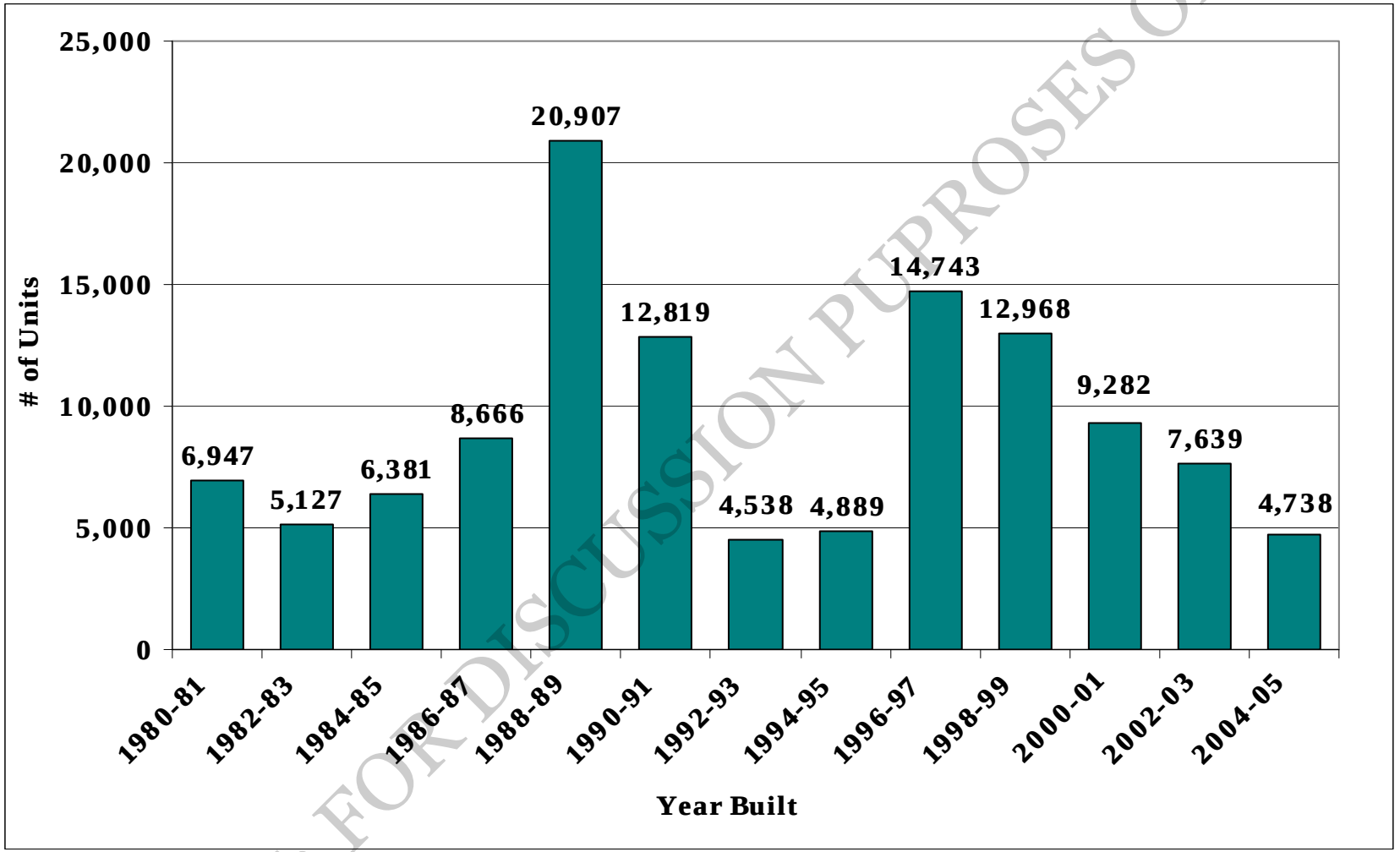
Source: Las Vegas Perspective, UNLV Center for Business and Economic Research, Bureau of Labor Statistics, Restrepo Consulting Group, 1989 – 2005.
*2005 rent is as of end of Q2, 2005.

FIGURE IV-7: NON-ADJUSTED VS. INFLATION ADJUSTED* AVERAGE MONTHLY APARTMENT RENTS, LAS VEGAS VALLEY, 1989 – 2005**



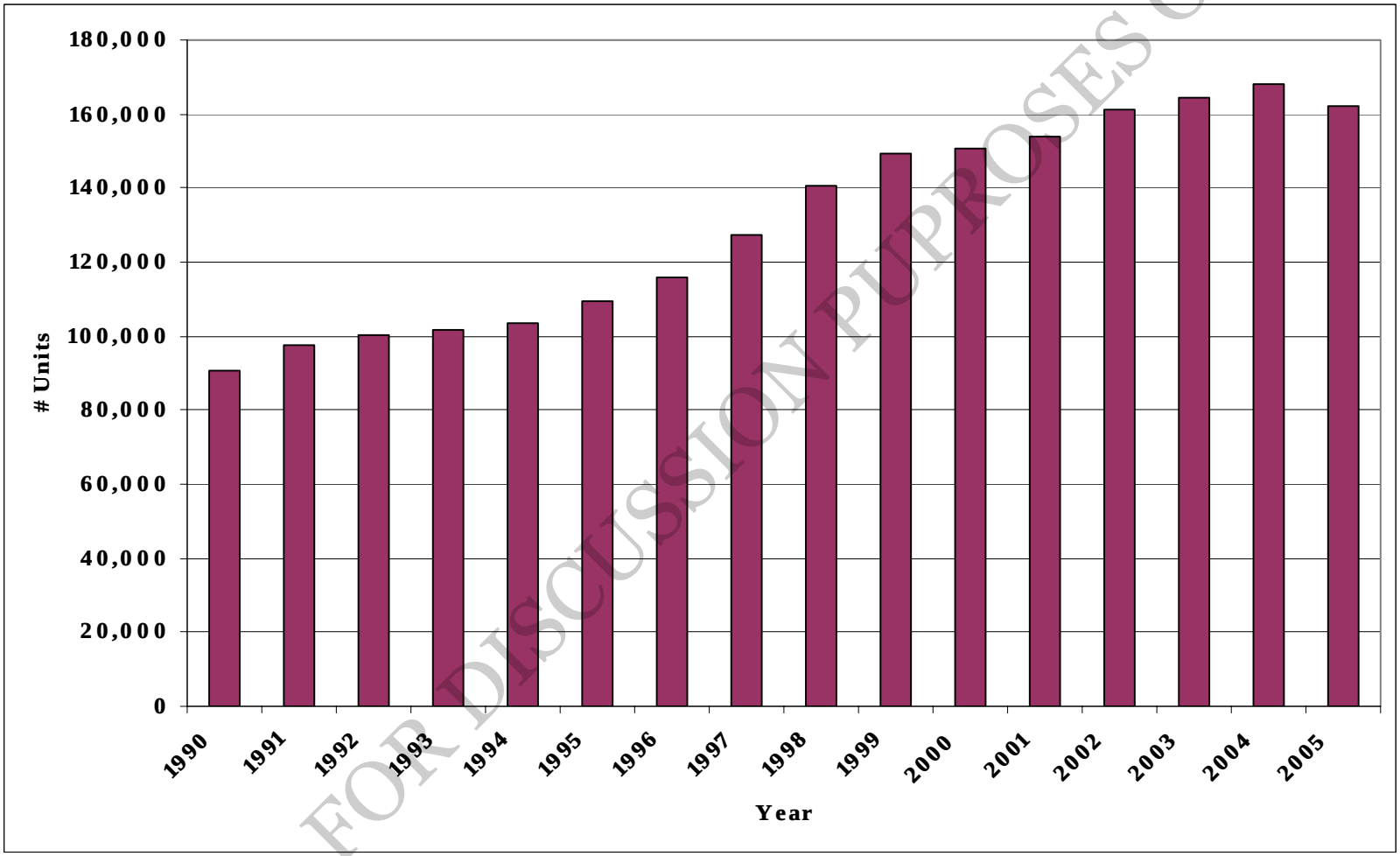
Source: Las Vegas Perspective, Center for Business and Economic Research, Bureau of Labor Statistics, 1989 - 2005.
*2005 rents deflated based on Bureau of Labor Statistics' "Western Urban CPI for All Items". Base period: 1982-1984=100.
**2005 rent is as of end of Q2, 2005.

FIGURE IV-8: APARTMENT UNITS BUILT BY YEAR, LAS VEGAS VALLEY, 1980 – 2005



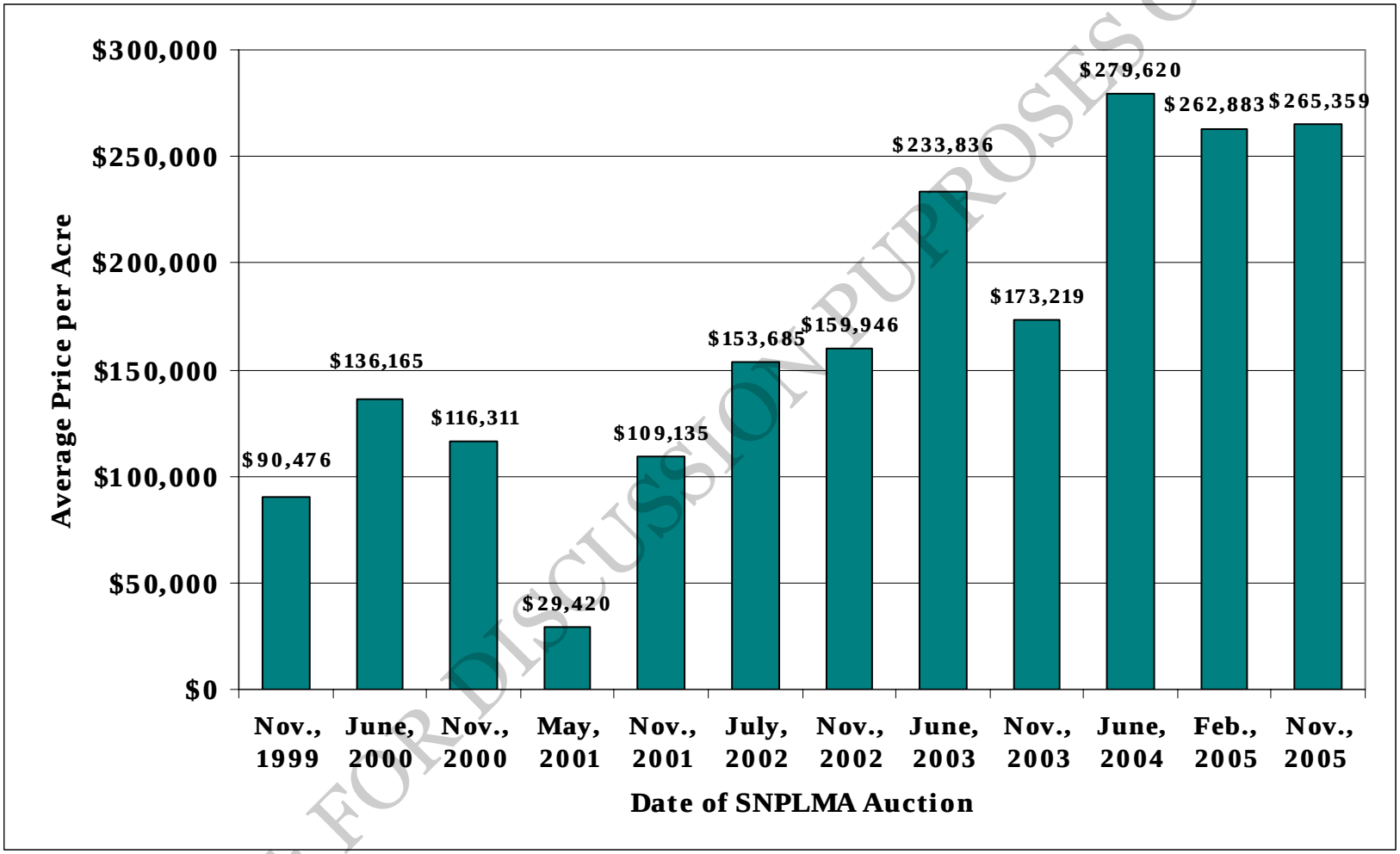
Source: "NHD Apartment Facts, Q2, 2005", Nevada Housing Division.

FIGURE IV-9: APARTMENT STOCK BY YEAR, LAS VEGAS VALLEY, 1990 – 2005*



Sources: UNLV Center for Business and Economic Research, NHD Apartment Facts, Q2, 2005.
*2005 estimated.

FIGURE IV-10: BLM AUCTIONS UNDER SNPLMA, LAS VEGAS VALLEY, 1999 – 2005

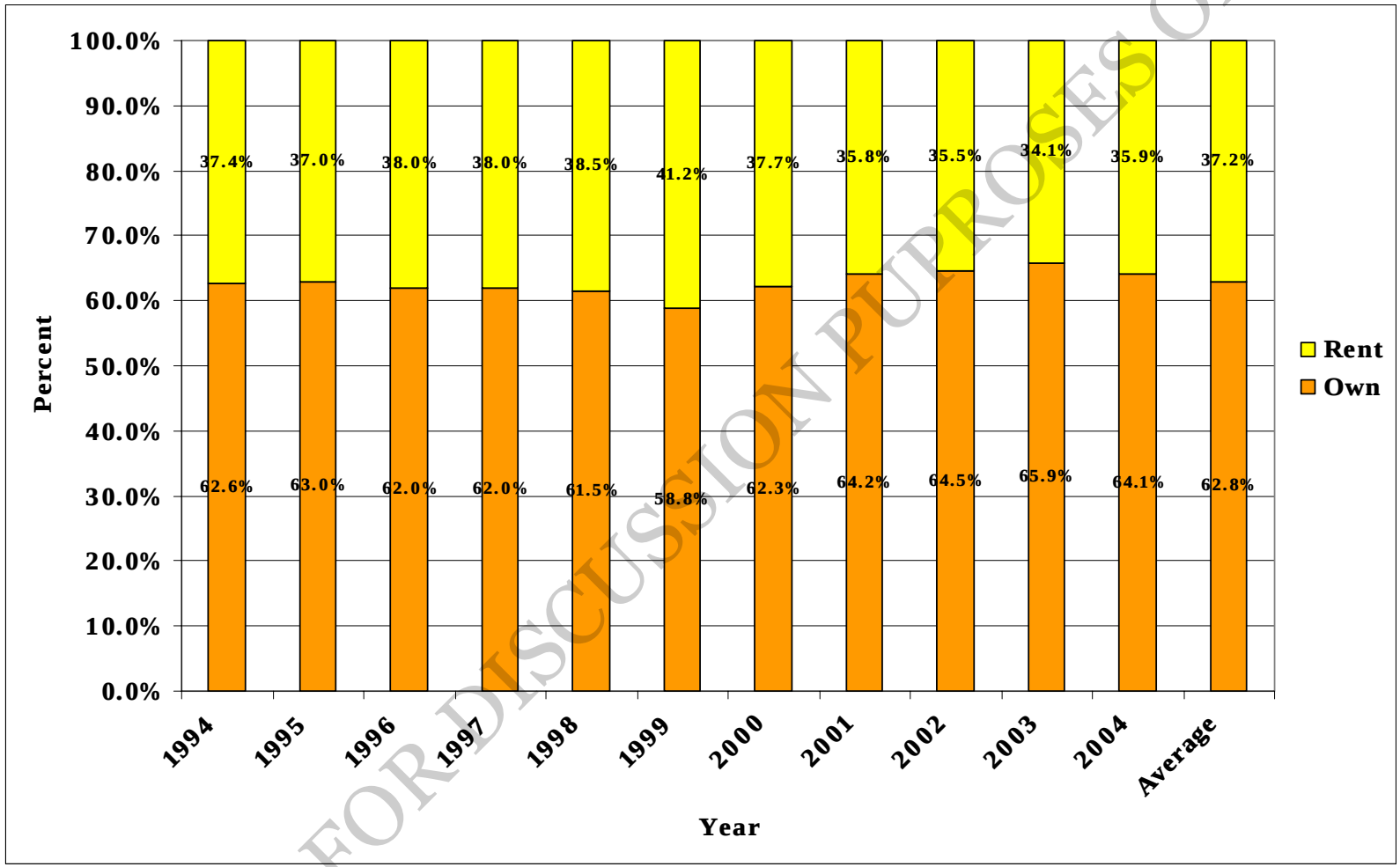


Source: Bureau of Land Management.

FIGURE IV-11: MOBILE HOME PARK UNITS, LAS VEGAS VALLEY, 1993 – 2006*

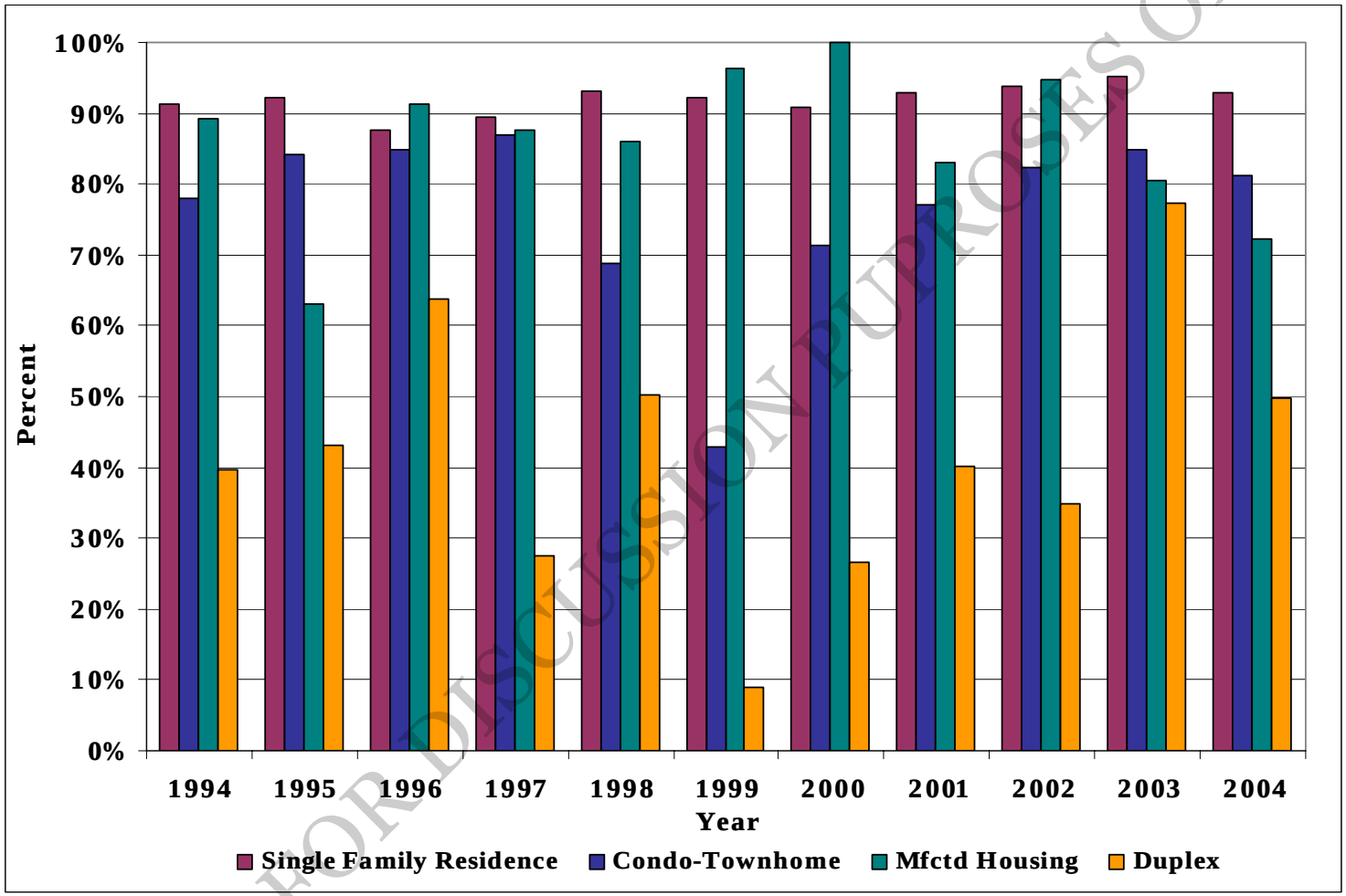
Source: Nevada Manufactured Housing Division.
* Mobile home parks are defined as manufactured home units that are individually owned on lots that are leased or rented. Values are as of the beginning of the year.
**Year 2006 number of units based on 2005 starting units minus total expected units lost in 2005.

FIGURE IV-12: OVERALL HOUSING TENURE, LAS VEGAS VALLEY, 1994 – 2004



Source: Las Vegas Perspective, 1994 – 2005.

FIGURE IV-13: HOUSING TENURE BY TYPE, LAS VEGAS VALLEY, 1994 – 2004



Source: Las Vegas Perspective, 1994 - 2005.

TABLE IV-1 RESIDENTIAL HOUSING STOCK UNITS BY TYPE & TENURE, CLARK COUNTY, JUNE 2005

Housing Type	Units / Percent	Tenure			Total Units by Type
		Owner Occupied	Rental	Low Income Rental	
Single Family	Units	277,941	115,727	11,330	**404,998**
	Percent	68.6%	28.6%	2.8%	**100%**
Apartment	Units	22	148,789	21,034	**169,845**
	Percent	0.0%	87.6%	12.4%	**100%**
Condo	Units	20,112	27,054	3,343	**50,509**
	Percent	39.8%	53.6%	6.6%	**100%**
Townhouse	Units	21,156	10,376	2,047	**33,579**
	Percent	63.0%	30.9%	6.1%	**100%**
Manufactured Home	Units	21,074	4,836	1,235	**27,145**
	Percent	77.6%	17.8%	4.5%	**100%**
Plex	Units	49	10,710	8,625	**19,384**
	Percent	0.3%	55.3%	44.5%	**100%**
Total Units by Tenure		**340,354**	**317,492**	**47,614**	**705,460**
		48.2%	**45.0%**	**6.7%**	**100%**

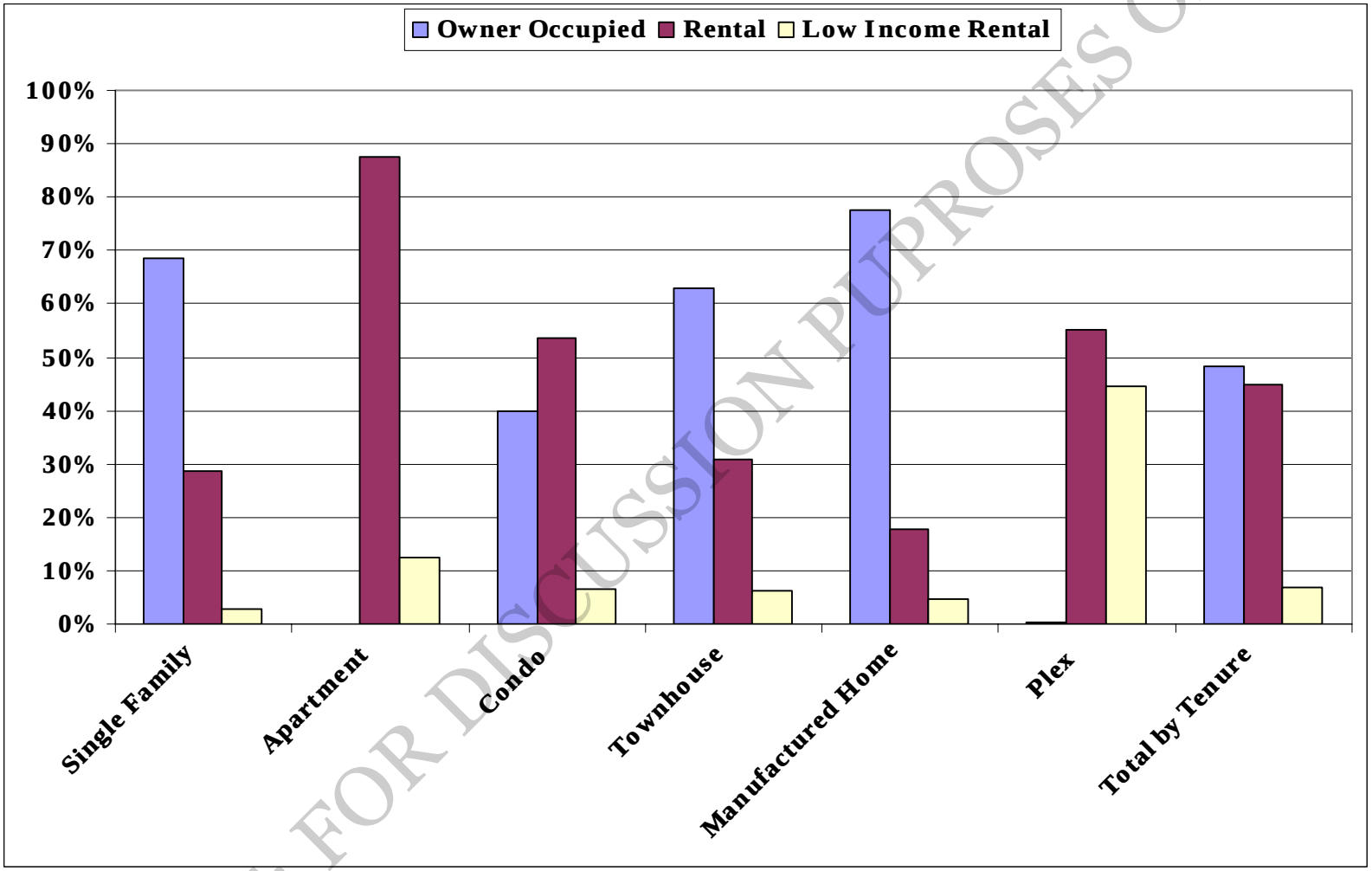
Source: Clark County Assessor's Office, Nevada Manufactured Housing Division, Restrepo Consulting Group.
Assumptions: All residential property whose property tax growth is capped at three percent is owner-occupied. All residential property whose property tax growth is capped at eight percent is a "Rental".
See text for limitations to assumptions.

TABLE IV-2 RESIDENTIAL HOUSING STOCK % BY TENURE, CLARK COUNTY, JUNE 2005

Housing Type	Tenure			Total
	Owner Occupied	Rental	Low Income Rental	
Single Family	81.7%	36.5%	23.8%	**57%**
Apartment	0.0%	46.9%	44.2%	**24%**
Condo	5.9%	8.5%	7.0%	**7%**
Townhouse	6.2%	3.3%	4.3%	**5%**
Mobile Home	6.2%	1.5%	2.6%	**4%**
Plex	0.0%	3.4%	18.1%	**3%**
Total by Tenure	**100.0%**	**100.0%**	**100.0%**	**100%**

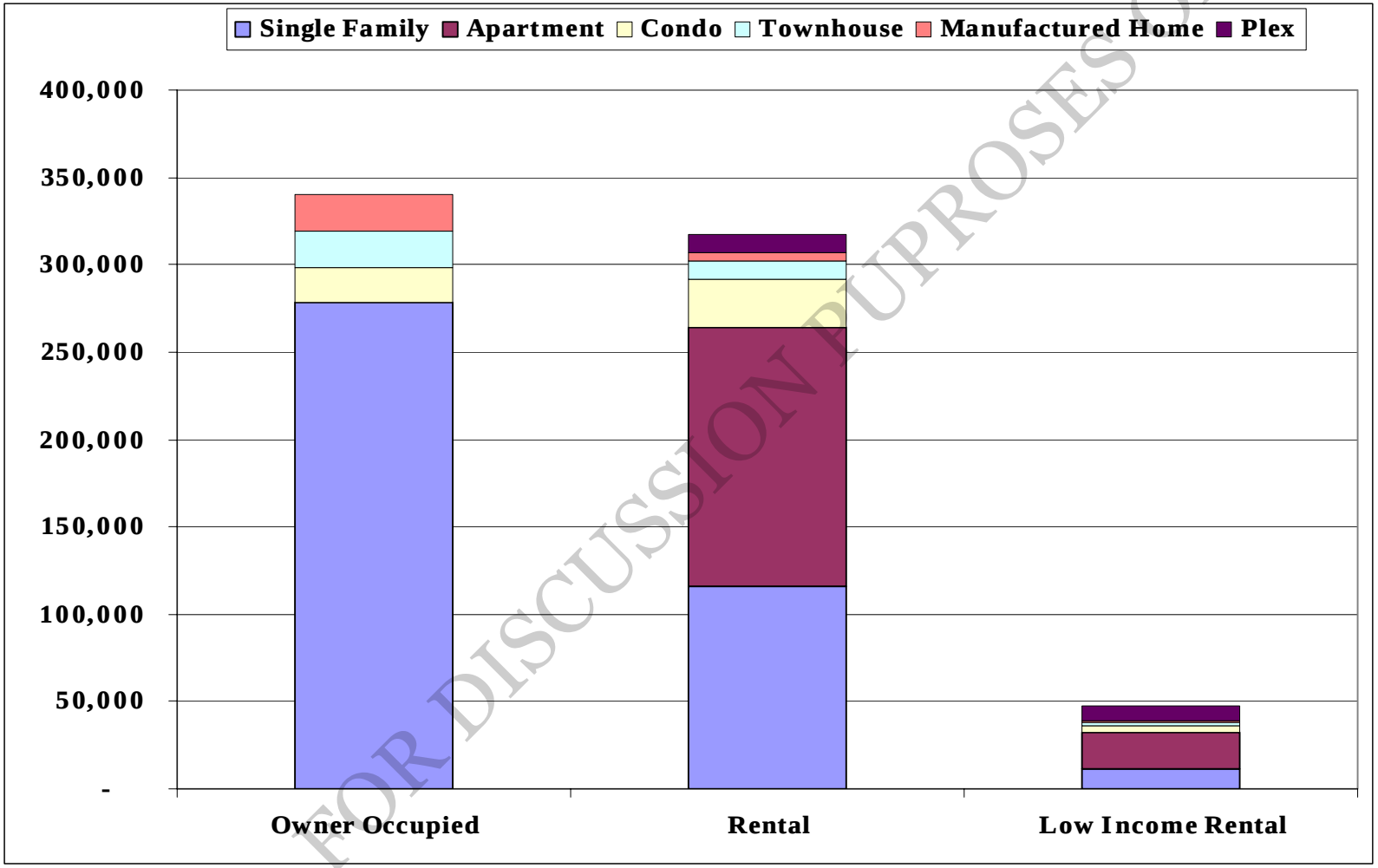
Source: Clark County Assessor's Office, Nevada Manufactured Housing Division, Restrepo Consulting Group.
Assumptions: The same assumptions and caveats described above apply to this table, as well.

FIGURE IV-14: HOUSING TENURE BY TYPE, LAS VEGAS VALLEY, 2005



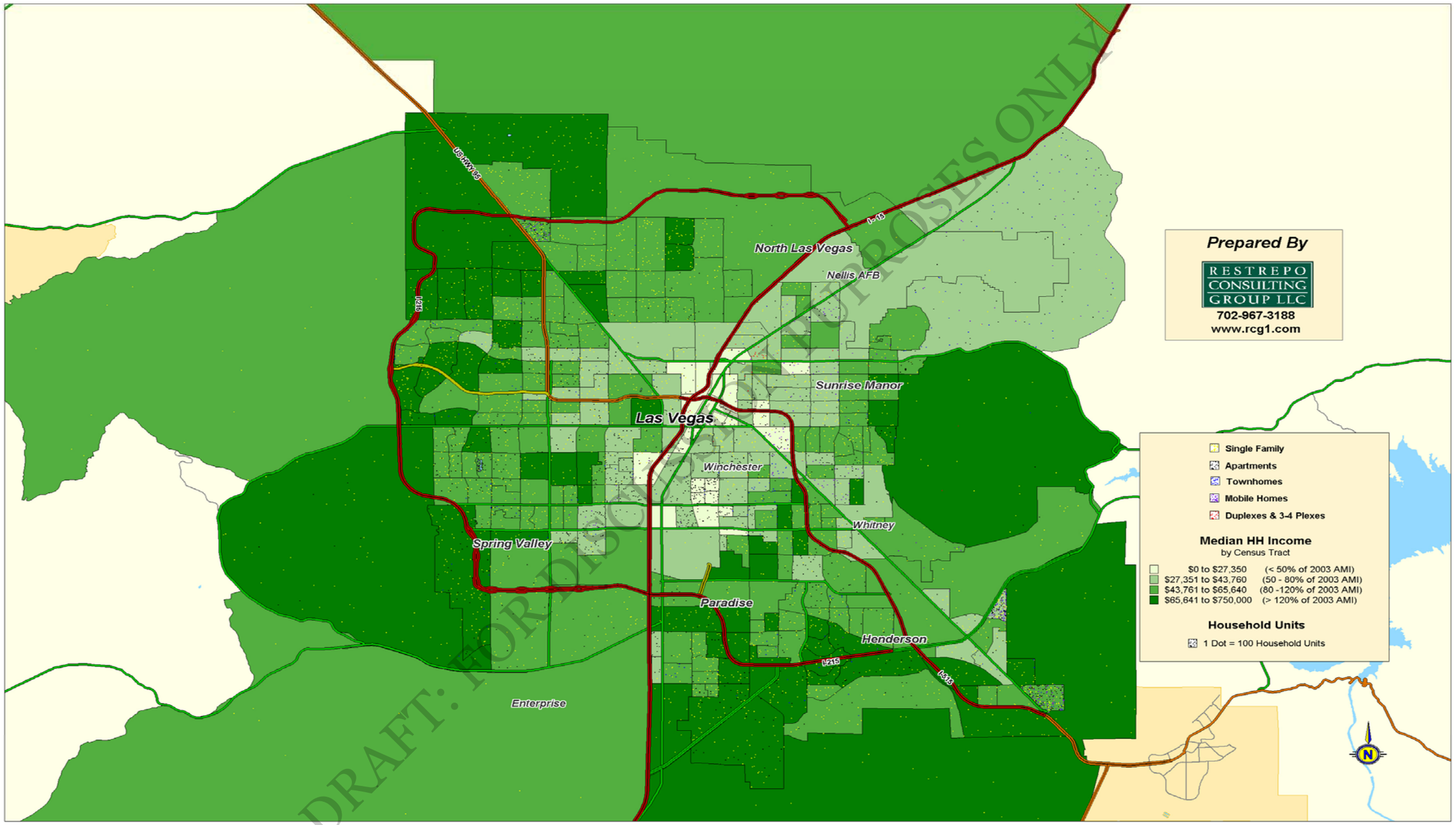
Source: Clark County Assessor's Office, Restrepo Consulting Group. NV State Department of Manufactured Housing.
Assumptions: The same assumptions and caveats described above apply to this figure, as well.

FIGURE IV-15: HOME OWNERSHIP BY DWELLING UNIT TYPE, LAS VEGAS VALLEY, 1994 – 2004



Source: Las Vegas Perspective, 1994 - 2004.
Assumptions: See Assumptions, Tables 4.1 & 4.2, above.

MAP IV-1: MEDIAN ANNUAL HOUSEHOLD INCOME & HOUSEHOLD UNITS BY CENSUS TRACT, LAS VEGAS VALLEY, JUNE, 2004



Source: Clark County Assessor's Office, American Community Survey, Restrepo Consulting Group

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Section V

WORKFORCE HOUSING GAP ANALYSIS

V. WORKFORCE HOUSING GAP ANALYSIS

A. INTRODUCTION

In previous sections, the Consultant Team developed the necessary models to define workforce housing demand and supply. In the Demand section, our research established limits on affordable/attainable home mortgages by household income and indicated the income (as a percent of AMI) needed to afford new and existing (resale) homes in the Clark County. Additionally, the analysis presented in Section III described in detail the County's family and household populations by income range, race/ethnicity and age group. For the purposes of conducting this gap analysis, the Consultant Team assumed that current allocations are representative of future Clark County family and household income distributions, by percent of AMI.

On the supply side, the analysis presented in Section IV (Supply Analysis) discussed housing stock by type, tenure and geography. This analysis also depicted housing stock growth relative to population growth and household income relative to median home prices.

These two analyses provided the groundwork necessary to quantify any existing gap (if any) in the supply of and demand for workforce housing in Clark County and to project such a supply gap into the future.

The Supply and Demand Analyses show quite conclusively that there is an imbalance between income growth and home price appreciation, especially for households earning less than 120 percent of AMI. A general "rule of thumb" is that no more than 30 percent of household income should be allocated to mortgage payments. Anything beyond this creates stresses on household finances. This rule of thumb implies that the home price-to-household income ratio, or the "affordability index", should not exceed 3.3. To recap, Figure IV-5 illustrates that from 1995 to 2000, the median priced new for-sale home was "affordable" - albeit at the upper end of the affordability range - to households earning a median annual income. However, from 2000 t0 2005, the new home affordability index nearly doubled to 6.66, a strong indication that new home prices are beyond the reach of a many Clark County households, in trying to buy a home today.

Figure IV-5 tells a similar story relative to existing for-sale homes. Although the existing median priced home was well within the "affordability" range from 2000 to 2003, that changed in 2004. Existing home prices followed a price trajectory similar to new homes in 2004 and 2005, the existing home affordability index rose to 4.9 and 5.18, respectively, indicating declining affordability for homes being resold in Clark County.

B. CLARK COUNTY DEMOGRAPHIC AND HOUSING FORECASTS.

Tables V-1 through V-5 depict the Consultant Team's demographic projections from 2006 through 2015. Table V-1 starts with the Clark County Consensus Long-Range Forecast for population and estimated labor force (both part-time and full-time). Based on these data, the Consultant Team generated estimates of the full-time equivalency ("FTE") labor force, new FTE workers and new worker households.

Figure V-1 illustrates the first two line-items of Table V-1. The long-range forecast estimates a 10-year population growth of nearly 854,000 persons, or an increase of nearly 47 percent.

At the same time, total labor force growth is projected to increase by only 24 percent. A substantial projected increase in the share of the populations under 15 years of age and over 65 years of age equates to reduced labor participation rates, in the future.

The first set of numbers in Table V-2 replicates 2005 household data from Table III-4. Table V-2 then projects the number of households in Clark County, by income range, for 2010 and 2015. This projection is based on population and income growth projections. To calculate the number of future households by income range, we assumed 2.68 persons per household, the average over the last 10 years. We also assumed that income growth in each category will be proportional to overall income growth. Thus, "Less than $10,000" in 2005 becomes "Less than $11,500 in 2010", and so forth. This table shows that the median annual household income is projected to increase to $61,395 by 2015, with 80 percent up to 133 percent of estimated AMI being between $57,750 and $96,500.

From these population and employment projections, Table V-3 breaks down the number of new worker households by income range. The "bump" in the number of new households projected in 2008 is a function of a similar bump to population and employment projections for that year and is probably the result of expected growth due to new hotels and other large employment centers coming online.

Table V-4 comes directly from the Clark County Consensus Long-Range Population Forecast model. It illustrates projected total employment, by labor sector from 2005 to 2015. The "total Projected Employment" at the bottom of the chart matches the "Estimated Labor Force (FT & PT) line item in Table V-1. That is, Table V-4 data represent both part time and full time labor. The last column of this table indicates the projected total growth in each of the labor sectors. The five labor sectors with the greatest projected growth between 2005 and 2015 are bolded. Note that four out of these five of these sectors (Health Care-Social Asst., Educational Services, Admin.-Waste Services, Construction) are traditional "workforce"-type jobs.

Table V-5 indicates projected annual FTE salaries, by income sector, from 2005 through 2015. Median salaries are indicated on the bottom row. The last column of this table shows salary growth by labor sector over the 2005 – 2015 periods.

The five sectors with the greatest projected salary growth between 2005 and 2015 are bolded. Interestingly, none of the sectors identified in Table V-5 showing the greatest growth during this period are among the top five labor sectors, by salary growth.

C. DISTRIBUTION OF EXISTING HOUSING DEMAND AND SUPPLY.

Previous analysis has compared demand to supply at the median. This tells only part of the story, and may be misleading without a description of the distribution of housing by price range. Table V-6 illustrates the number and distribution of sales of existing and new homes over the twelve month period from November, 2004 through October, 2005. The existing home sales are represented by single family, multifamily and mobile home sales, whereas the new home sales are single family residences, only. This table plainly shows that very few existing homes sold were affordable to households earning less than 62 percent of AMI. No new homes were sold in

this price range. The number and distribution gets progressively better as the price range increases, both for existing and new homes.

The distribution of existing homes affordable to households earning a workforce income (80 percent to 120 percent of AMI) closely approximates the distribution of households in that income range (19.7 percent of households in 2005 were estimated to earn workforce incomes, Table III-4). However, a direct comparison of either the number of households to the number of sales or of the distributions is misleading. A comparison of the projection of new worker households (Table V-III) to the existing and new home sales on Table V-6 indicate that new households make up approximately only 20 percent of the overall market for existing and new home sales. Additional information is needed to indicate what portion of new and existing homes are purchased by new worker households at each price range versus the rest of the market.

Table V-7 presents a direct comparison of rental units (includes all types) by rental rate range when compared to the distribution of renter households by income range for 2004, the last year for which complete data is available. This shows a supply gap of almost 80 percent between the demand for and supply of affordable rental units for those renter households earning $15,000 annually, or less. "Affordable" is defined as no more than 30 percent of monthly household income going towards rent payment.

Although this table shows and improvement at income ranges greater than $15,000, several more things need to be considered to achieve a grasp the overall picture. First, this does not account for utility payments. Including utility payments increases the supply gap for the first range from 78.6 percent to 85.7 percent. Similarly, the 22.5 percent "surplus" of units with rental rates between $375 and $500, when compared to renter households earning between $15,000 and $20,000 turns into a 36.2 percent deficit. The inclusion of utilities also reduces the number of affordable units to renter households in the $20,000 to $25,000 annual income range. For households in higher income brackets, the addition of utilities actually has the affect of increasing the number of units available to them. This is because of the number of lower-priced rental units that have "moved up" to higher priced ranges.

This implies the second matter to consider. Because overall there are the same number of renter households as there are rental units, the large deficits in the number of rental units "affordable" to households in the higher income brackets is really an indication that many of them are renting units in the lower price ranges. This suggests a "trickle down effect" in rentals. That is, a large portion of higher income renters are renting units categorized as available to mid-income renters. This has the effect of wiping out the surplus of rental units available to renter households earning between $20,000 and $35,000 as the last line of Table V-7 indicates. This creates greater demand for the lowest-priced units, further limiting the availability of rental units to renter households earning less than $20,000, annually.

Finally, given that apartment rentals likely make up the bulk of rental units at the lower end of the rental rate spectrum and given the estimated reduction in total rental unit stock from 2004 to 2005, this suggests that the deficit of units available to lower-income renters is likely greater today than it was in 2004.

One final point needs to be made. Our previous analysis indicated that one reason for the lack of new apartment development is that rents are not keeping pace with development costs. However, the supply deficit of rental units priced above $875 indicated in this table implies that there is an unmet demand for higher-priced rentals. Assuming that these higher rents make development of rental units in this price range more economically more feasible, development of such rentals would alleviate some of the supply-demand imbalance that this analysis has revealed.

Part of forward supply is the units remaining in active subdivisions. Table V-8 and Table V-9 summarize subdivisions, remaining units (and unit share), by submarket and affordability[1]. Also depicted are median price, median unit size, median price per square foot and remaining units, by affordability range and submarket.

Where Table V-8 shows the total number of units remaining, by submarket and affordability range, Table V-9 depicts the same information as a share of the total. Thus, we see that the

[1] See Maps V-1 through V-6 for submarket locations.

overwhelming majority of new homes (88.7 percent) are not affordable to families and households earning a "workforce" income.

Tables V-10 and V-11 depict the same information for planned subdivisions. These subdivisions are expected to begin sales within the next six to 18 months.

These Tables indicate a slightly better outlook for affordable/attainable housing among planned developments. While only 11 percent of new homes in actively selling communities are within the affordable/attainable range, 19 percent of new homes in planned communities are in this range. Thus, it appears that the market is beginning to respond to affordability issues in the Valley. However, it should be noted that these housing prices have not been adjusted to account for potential price increases.

Map V-1 shows the location of active and planned subdivisions in the Valley, by unit type. Maps V-2 through V-6 illustrate active and planned development within five submarkets, individually. The submarkets on this map correspond to those in Tables V-8 through V-11, above.

These maps show that active and planned single family detached subdivisions essentially form a ring along the perimeter of the Valley (with relatively less activity in the East Las Vegas submarket). Active and planned condo projects form a second ring inside the "single family detached ring".

The few active multiplex developments are mostly concentrated along major traffic corridors. A very few planned multiplex developments are shown in the North Las Vegas submarket. The few active and planned townhome developments are interspersed throughout the Valley

These maps also show that there is not much development activity in the "center" of the Valley, except along the Strip and near downtown, most of which represent high-rise luxury condos, largely due to a lack of developable land.

Table V-12A used a count of residential demolition permits to estimate determine the number of losses due to demolitions during the last two fiscal years, and by jurisdiction. Table V-12B uses

Nevada Housing Development data and shows, by Zip Code, the number of apartments demolished from Q2, 2004 to Q2, 2005 and scheduled for demolition over the rest of 2005. Although the NHD data represents an almost 10-fold difference from the demolition counts, these 2,414 demolitions still account for less than 1.5 percent of total apartment stock.[2] It is not known what percentage of these units were "condemned" and therefore not habitable, and what percentage were demolished or scheduled for demolition to make way for new development. Given this, it does not appear that apartment demolitions are substantially depleting the apartment stock.

Map V-7 shows the apartment development pipeline through Q4, 2006. Table V-13 is its accompanying legend. This TABLE indicates that approximately 2,395 apartments were expected to be completed by the end of 2005. This represents a 49 percent reduction from apartment units added in 2004 and about half as many again as in 2003[3]. However, there are currently 2,085 apartment units planned for completion in 2006 and another 4,819 apartment units planned to begin construction in 2006.

Map V-8 shows the location and unit count of condo conversions currently being sold or planned for conversion. Table V-14 is this map's accompanying legend. According to this data source, as of October, 2005 there were 35 condo conversions currently selling, representing 12,376 dwelling units. An additional 13 apartment complexes are planned for condo conversions. This represents an additional 3,958 units slated for conversion. To get a perspective of the size of the conversion trend in apartment supply, these 16,334 units "lost" are greater than new apartment construction for the past four years, from 2002 through 2005 (See Figure IV-8).

D. METHODOLOGY FOR ESTIMATING A WORKFORCE HOUSING GAP

In order to quantify the extent of a housing affordability gap in Clark County, the Consultant Team used two distinct approaches. First, we estimated the number of new households that cannot afford to purchase either an existing or new median price home, assuming they were in

[2] Still, demolition losses to the 89109 Zip code account for approximately 18 percent of the apartment stock of that Zip code, suggesting that this is an area of concern.
[3] (Table IV-8. 4,738 apartment units were completed in 2004. 7,639 apartments were added in 2003.)

the market today. We used a combination of the previous housing affordability and household population, by income, analyses to derive these estimates.

Next, the Consultant Team compared household income projections to home price projections under two different scenarios to project future affordability indexes, assuming historical growth trends in home prices and household income. In both scenarios, we used the Clark County long-range consensus forecasts of income growth to derive household income projections. For home prices, we projected both a low and a high-growth rate, based on historical price growth from 1995 to 2005, and the growth rate in home prices from 2000 to 2005, respectively.

E. METHOD 1: A CONSTANT RATIO BETWEEN HOME PRICES AND HOUSEHOLD INCOME OVER TIME

Table III-2 illustrated the limits on affordable home mortgages by household income and indicated the income (and as a percentage of AMI) needed to afford the median priced new and existing for-sale homes in Clark County as of 2005. This table showed that a household income of approximately 150 percent of AMI was required to purchase the median priced existing home in Clark County. A household income of approximately 170 percent of AMI was needed to afford a median priced new home (excluding condo conversions).

Table III-4 delineated the number of families and households, by income range, in 2005, and showed that approximately 20 percent of Clark County households earned from 80 percent up to 120 percent of AMI. An additional 51 percent of households earned below 80 percent of AMI. In total, approximately 482,000 households, or 80 percent of all households, earned an income below 150 percent of AMI, the income threshold needed to afford an existing median priced home in 2005. Approximately 82 percent, (561,000) of Clark County households earned less than 160 percent of AMI, the threshold required to afford the median priced new home (including condo conversions).

For the purposes of this study, the Consultant Team made the conservative assumptions that the distribution of future workforce households, by income, will approximate the existing

distribution described above, and that the home price-to-income ratios will stay constant.[4] If this is the case, then approximately 80 percent to 82 percent of new households will not be able to afford either a re-sale existing or new median priced home in the future.

Between 2006 and 2015, the Consultant Team projects approximately 169,200 new workforce households will be added to Clark County. This is based on the projected number of new workers as well as estimates of workers per house. Of this total, it is estimated that approximately 135,400 households, will not earn enough to afford a median priced existing home, based on income alone. Similarly, we estimate that approximately 138,700 new workforce households will not be able to afford a median priced new home. The estimated yearly supply gap from 2006 through 2015, as well as the total projected supply gap over this period, is shown in Table V-15.

Note that this analysis does not take into account "lifestyle" renters. That is, some portion of the 63 percent of households who rent [5] could afford to purchase either an existing or new home, but still choose to rent. There could be several reasons for this, one of the main reasons being the transient nature of the local, county, and even state employment-base. Some portion of that labor force may find it more economical to rent rather than own, as they do not intend to be employed here long enough to make home ownership feasible. Additionally, workers without families may similarly find renting more feasible and convenient than home ownership. Our research has not uncovered any data source that would allow us to identify or quantify this labor cohort. However, accounting for this group would qualitatively have the effect of reducing the affordability gap outlined in this analysis. The additional information provided by Figure V-2 below suggests that, even if able to account for these lifestyle renters, an affordability gap for new workforce households would likely still exist, and is likely to continue for the foreseeable future.

[4] This is a conservative estimate, because (1) new worker households are largely made up of younger households, as well as families migrating to Clark County. In both cases, the median household income of these groups has historically been below that of the overall median. (2) The home price-to-income ratio is likely to continue to increase, even if at slower rate than recent historical trends. (3) Mortgage rates are likely to increase from their currently near-historically low levels which will also affect home affordability.

[5] Data in Figure IV-12 showed the average renter tenure over the past ten years to be approximately 63 percent.

Figure V-2 charts the National Home Builders ("NAHB") Homeowner Opportunity Index ("HOI") from Q1, 1991 through Q3, 2005. The HOI is defined as the share of homes sold in an area that would have been affordable to a household earning the median income. Therefore, a decreasing HOI is an indication of decreased affordability. Figure V-2 shows that for most of the 1990's and through Q4, 2003, the HOI stayed between 55 percent and 75 percent. Since Q2, 2004 however, it has been below 50 percent. Starting in Q4, 2004 the HOI has been lower than at any other time over the past 15 years. This is a clear indication that housing has become decreasingly affordable. The downward trend in the HOI is also a strong indication that the share of homes affordable to households earning a median income will remain below average of this study period for some time.

Next, the Consultant Team estimated the housing affordability gap in the Valley, based on projected household income growth relative to projected increases in home prices.

F. METHOD 2: HOMEOWNERSHIP AFFORDABILITY INDEX OVER TIME

In Section IV, the Consultant Team described the supply of housing in terms of pricing trends relative to income trends and the makeup of the housing market in terms of the distribution of unit types that make up the housing supply. This section also summarized housing tenure, by unit type. Specific to the analysis in Section IV, the Consultant Team used the Clark County consensus forecast of income and population growth to derive a projection of household income growth. The results of this modeling were previously discussed, and are presented in Tables V-1 – V-3 at the end of this section.

Household income projections were then compared to projections of median new and existing home price appreciation, based on the rate of growth in new home prices from 1995 to 2005, and the appreciation rate of existing home median sale prices from 2000 to 2005. The results of this analysis are shown in Figure V-3.

Figure V-I replicates the 1995 – 2005 new home and existing home affordability indices of Figure IV-1. Affordability index values for 2006 through 2015 are based on the projections described above. The top trend line in the figure suggests that, if future new home prices were to

grow at the same rate recorded between 1995 and 2005, the median priced new home would sell for approximately 9.2 times annual median household income in 2010 and approximately 13.2 times median household income by 2015.

Using a similar methodology to project existing home prices, Figure V-I suggests that the median price of an existing home will grow to approximately 9.5 times annual median household income by 2015.

However, such high rates of growth in the affordability indexes are not likely to happen. If home prices were to continue to grow at a rate so far in excess of household income, all but a few residents would effectively be priced out of the market. As previously noted, an affordability index in excess of 3.3 creates financial stresses on household incomes at the median, causing changes in market behavior suggesting that an affordability index far in excess of 3.3 will be difficult to sustain over the long-term. Thus, it is much more likely that consumers and homebuilders will adjust their behavior in such a way that the rise in the affordability indices will eventually stabilize, and even decrease.

For example, home builders need to sell homes. In order to provide homes that consumers can afford, they will continue to look for ways to reduce their costs and offer housing products that meet the demands of buyers. Consumers will similarly adjust their behavior. The fact that the average lot size of a single family home have decreased dramatically in the past 20 years has been one response by home builders and homebuyers to increasing costs and changing demographics.

As previously mentioned, home builders and consumers are looking to outlying "bedroom communities", such as Indian Springs, Overton, Logandale, Mesquite, Pahrump, and the Coyote Springs development, and even across the State line to White Hills, Kingman and Bullhead City, Arizona, as "affordable" for-sale housing areas. These communities provide a "relief valve" of sorts for the current housing price pressures in the Valley (but with collateral costs to government budgets to develop and maintain the required new infrastructure). Without the housing that these outlying communities will potentially provide, the future housing situation in the Valley would look much more like that shown in Figure V-3. Thus, all of the Southern

Nevada and to some extent, the Northern Arizona, housing markets are increasingly interconnected. That is, when addressing housing issues in the Valley, it should be approached in a holistic, integrated and regional fashion.

Additionally, condo conversions, as well as the growth in the number of new condo developments suggests that homeowners are willing to trade size and detached living for the convenience of being close to work and the amenities of an urban setting. Our research also indicates that changing demographics portend a fundamental shift in the demand for housing. More households of empty nesters, singles, young professionals and otherwise non-family residents all fuel growth in urban populations seeking smaller homes in locations with a greater mix of amenities. All told, living in and commuting from outlying areas, a desire for denser urbanized living by a large and growing portion of the population, as well as continued home builder innovations suggest that long-term affordability indices are not likely to follow a growth trajectory based solely on historical patterns. Still, Figure V-3 indicates that in terms of for sale housing affordability, things are likely to get worse before they get better.

G. CONCLUSIONS

Using a number of analytical tools, this section has shown that a gap exists between affordable housing demand and supply.

Table IV-5 of Section IV, "New & Resale Home Affordability Indexes" showed an imbalance between growth in median home prices and median income.

Tables V-4 and V-5 show projected labor and salary growth, by income sector. These two tables show that (1) the five labor sectors with the greatest growth from 2005 to 2015 represent a large part of the Clark County workforce; and (2) salary growth in these same job sectors in anticipated to grow less than the median.

The two methodologies used to forecast future affordable housing gaps both indicate a growing supply gap in Clark County, first in terms of absolute numbers, then in terms of percentages.

The first method held constant the ratio of housing prices to income. This suggested that between 80 percent and 82 percent (135,400 to 138,800) of new worker households will not be able to afford an existing or new median priced home, in the future. This does not take into account "lifestyle" renters. Still, both the NAHB Housing Opportunity Index as well as a comparison of new worker housing demand and housing supply, by affordability ranges, suggests that "income constrained" renters make up a large share of all renters.

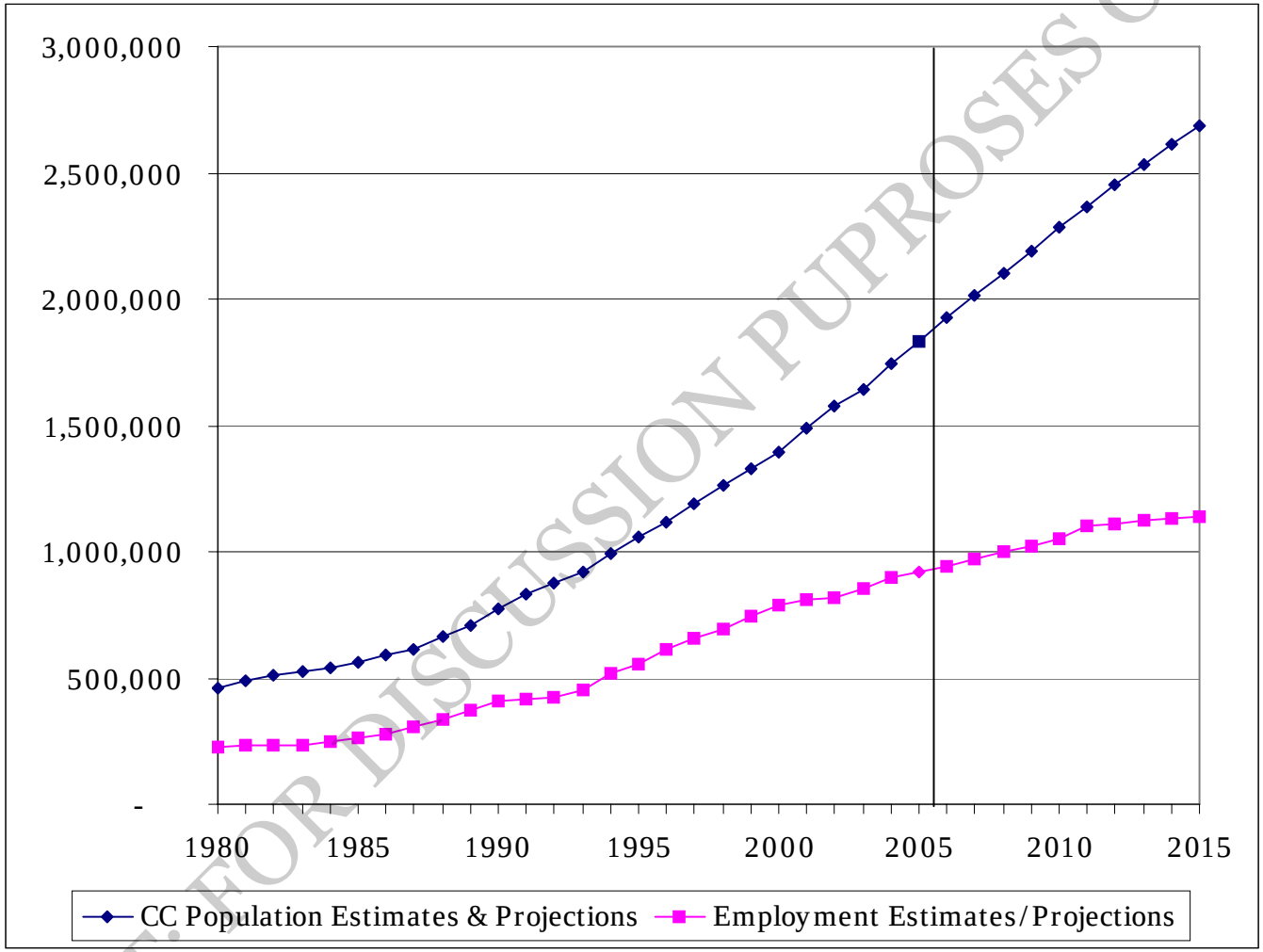
The second method assumed that home prices and household income would continue to grow at the same rates as they did historically. The resulting projected affordability indexes for new and existing homes indicate that if the current relationship between home price and household income continues, very few households will be able to afford to purchase a home in Clark County between 2006 and 2015.

TABLE V-1: PROJECTED POPULATION, WORKFORCE & HOUSEHOLD GROWTH (IN THOUSANDS) CLARK COUNTY, 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimated Population	1,909.58	1,998.37	2,089.43	2,178.61	2,267.50	2,354.11	2,438.98	2,520.85	2,598.82	2,673.21
Estimated Labor Force (FT & PT)	941.74	967.29	1002.05	1024.55	1053.66	1077.19	1099.97	1111.77	1122.85	1133.56
Estimated Number of New Workers (FT & PT)	18.79	25.55	34.76	22.50	29.11	23.54	22.77	11.81	11.07	10.71
Estimated Number of New Worker Households*	14.22	19.70	27.04	17.85	23.37	19.19	18.84	9.99	9.56	9.42
Estimated Labor Force FTE**	797.34	814.45	837.28	869.22	888.87	915.06	935.63	955.55	965.77	975.36
Estimated Number of New FTE** Workers	17.11	22.83	31.94	19.65	26.19	20.56	19.92	10.22	9.59	9.31

* Based on a historical average of 2.68 persons/ household reported for the last 10 years, ACS 2005.
**Part-Time workers are aggregated to form full time equivalent ("FTE") employees based on a 40-hour work week for 2005.
Source: UNLV Center for Business and Economic Research 2005, ACS 2005, RCG.

FIGURE V-1: POPULATION & EMPLOYMENT ESTIMATIONS & FORECAST
CLARK COUNTY, 1980-2015



Source: UNLV Center for Business and Economic Research 2005.

TABLE V-2: ESTIMATED & PROJECTED FAMILIES & HOUSEHOLDS BY INCOME RANGE CLARK COUNTY, 2005-2015

AMI Ranges	Income range of Households, 2005	# of Households, 2005	% of Total	Income range of Households, 2010*	# of Households, 2010**	% of Total	Income range of Households, 2015*	# of Households, 2015**	% of Total
		684,142	**100%**		**846,081**	**100%**		**997,468**	**100%**
Less than 17.9% of AMI	Less than $10,000	48,070	7.0%	Less than $11,500	58,934	7.0%	Less than $12,750	69,112	7.0%
18% - 26.9% of AMI	$10,000 to $14,999	29,740	4.3%	$11,500 to $17,250	36,462	4.3%	$12,750 to $19,250	42,759	4.3%
27% - 34.9% of AMI	$15,000 to $19,999	39,422	5.8%	$17,250 to $23,000	48,332	5.8%	$19,250 to $25,750	56,679	5.8%
35% - 43.9% of AMI	$20,000 to $24,999	46,619	6.8%	$23,000 to $28,750	57,156	6.8%	$25,750 to $32,000	67,026	6.8%
44% - 52.9% of AMI	$25,000 to $29,999	46,848	6.8%	$28,750 to $34,500	57,437	6.8%	$32,000 to $38,500	67,356	6.8%
53% - 61.9% of AMI	$30,000 to $34,999	42,532	6.2%	$34,500 to $40,250	52,145	6.2%	$38,500 to $45,000	61,150	6.2%
62% - 70.9% of AMI	$35,000 to $39,999	47,354	6.9%	$40,250 to $46,000	58,057	6.9%	$45,000 to $51,500	68,084	6.9%
71% - 79.9% of AMI	$40,000 to $44,999	46,894	6.9%	$46,000 to $52,000	57,492	6.9%	$51,500 to $57,750	67,421	6.9%
80% - 87.9% of AMI	***$45,000 to $49,999***	***36,003***	5.3%	***$52,000 to $57,500***	***44,141***	5.3%	***$57,750 to $64,250***	***51,764***	5.3%
88% - 105.9% of AMI	***$50,000 to $59,999***	***63,820***	9.3%	***$57,500 to $69,000***	***78,244***	9.3%	***$64,250 to $77,000***	***91,757***	9.3%
106% - 132.9% of AMI	***$60,000 to $74,999***	***66,424***	9.7%	***$69,000 to $86,000***	***81,436***	9.7%	***$77,000 to $96,500***	***95,500***	9.7%
133% - 176.9% of AMI	$75,000 to $99,999	77,906	11.4%	$86,000 to $115,000	95,514	11.4%	$96,500 to $128,500	112,010	11.4%
177% - 220.9% of AMI	$100,000 to $124,999	42,400	6.2%	$115,000 to $144,000	51,984	6.2%	$128,500 to $160,750	60,961	6.2%
221% - 264.9% of AMI	$125,000 to $149,999	18,047	2.6%	$144,000 to $172,750	22,126	2.6%	$160,750 to $193,000	25,947	2.6%
265% - 353.9% of AMI	$150,000 to $199,999	17,106	2.5%	$172,750 to $230,250	20,972	2.5%	$193,000 to $257,250	24,594	2.5%
> 354% of AMI	$200,000 or more	14,956	2.2%	$230,250 or more	18,336	2.2%	$257,250 or more	21,503	2.2%
	Median Income	**$47,741**		**Median Income**	**$54,969**		**Median Income**	**$61,395**	
	Families between 80% - 120% of 2005 AMI***	***134,802***	***19.7%***	***Families between 80% - 120% of 2010 AMI*****	***165,269***	***19.7%***	***Families between 80% - 120% of 2015AMI*****	***193,811***	***19.7%***

* Based on projected personal income growth for selected years.
** Based on projected population growth for selected years.
*** The 120th percentile is interpolated, assuming a uniform distribution of families/ households.
Source: UNLV Center for Business and Economic Research 2005, ACS 2005, RCG.

TABLE V-3: PROJECTED NEW HOUSEHOLDS, BY INCOME RANGE, CLARK COUNTY, 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Less than 35% of AMI*	2,436	3,375	4,634	3,060	4,005	3,289	3,229	1,712	1,639	1,615
35% - 53% of AMI	1,942	2,691	3,694	2,439	3,193	2,622	2,574	1,365	1,306	1,288
53% - 80% of AMI	2,843	3,938	5,406	3,570	4,673	3,837	3,767	1,997	1,912	1,884
80% - 120% of AMI	2,848	3,945	5,416	3,576	4,681	3,844	3,774	2,001	1,915	1,887
> 120% of AMI	4,149	5,748	7,891	5,210	6,821	5,601	5,499	2,915	2,790	2,750
Total	14,218	19,696	27,041	17,855	23,373	19,193	18,843	9,988	9,562	9,424

* Divisions consistent with the distributions, by income range, ACS 2004.
Source: Clark County Consensus Forecast, ACS, RCG.

TABLE V-4: PROJECTED EMPLOYMENT, BY LABOR SECTOR*, CLARK COUNTY, 2005-2015

	2005	2006	2007	2008	2009	2010
Forestry, Fishing, Other	0.21	0.21	0.21	0.21	0.21	0.21
Mining	1.26	1.29	1.29	1.30	1.31	1.33
Utilities	3.38	3.36	3.37	3.38	3.39	3.40
Construction	103.85	105.73	108.70	111.78	115.17	118.36
Manufacturing	25.97	26.63	27.04	27.42	27.77	28.07
Wholesale Trade	24.46	24.83	25.10	25.33	25.52	25.66
Retail Trade	108.21	111.05	113.47	115.93	118.29	120.62
Transp, Warehousing	31.14	31.79	32.52	33.24	33.94	34.65
Information	12.39	12.60	12.83	13.06	13.30	13.54
Finance, Insurance	50.50	51.21	52.32	53.50	54.69	55.95
Real Estate, Rental, Leasing	51.43	52.34	53.69	55.08	56.52	57.98
Profess, Tech Services	51.68	52.93	54.35	55.80	57.29	58.75
Mngmt of Co, Enter	7.96	8.07	8.16	8.25	8.34	8.42
Admin, Waste Services	70.69	72.25	74.25	76.33	78.47	80.68
Educational Services	3.75	3.84	3.99	4.14	4.29	4.46
Health Care, Social Asst	60.06	62.01	64.67	67.50	70.40	73.43
Arts, Enter, Rec	31.58	32.07	32.81	33.59	34.39	35.22
Accom, Food Services	249.40	253.97	262.08	278.80	282.90	293.54
Other Services (excl Gov)	35.04	35.57	36.46	37.41	38.37	39.38
Total Projected Employment	**922.95**	**941.74**	**967.29**	**1,002.05**	**1,024.55**	**1,053.66**

Source: Clark County Long-Range Population Forecast, UNLV Center for Business and Economic Research.
*Includes part time and full time employment.

TABLE V-4 CONT.:

	2011	2012	2013	2014	2015	2005-2015 % Chng
Forestry, Fishing, Other	0.22	0.22	0.22	0.22	0.22	6.8%
Mining	1.34	1.36	1.37	1.37	1.38	9.3%
Utilities	3.42	3.42	3.41	3.39	3.37	-0.4%
Construction	121.59	124.65	126.52	127.98	129.16	**24.4%**
Manufacturing	28.36	28.56	29.02	29.46	29.89	15.1%
Wholesale Trade	25.76	25.78	25.75	25.70	25.63	4.8%
Retail Trade	122.83	124.82	125.52	126.06	126.52	16.9%
Transp, Warehousing	35.35	36.00	36.61	37.23	37.86	21.6%
Information	13.79	14.02	14.00	13.98	13.96	12.7%
Finance, Insurance	57.32	58.68	59.20	59.68	60.15	19.1%
Real Estate, Rental, Leasing	59.48	60.94	61.80	62.61	63.37	23.2%
Profess, Tech Services	60.27	61.68	62.73	63.76	64.78	**25.4%**
Mngmt of Co, Enter	8.49	8.55	8.55	8.55	8.55	7.3%
Admin, Waste Services	82.98	85.25	86.35	87.43	88.49	**25.2%**
Educational Services	4.63	4.80	4.93	5.05	5.17	**37.8%**
Health Care, Social Asst	76.60	79.83	83.07	86.35	89.68	**49.3%**
Arts, Enter, Rec	36.08	36.94	37.27	37.58	37.89	20.0%
Accom, Food Services	298.31	303.04	303.52	304.03	304.61	22.1%
Other Services (excl Gov)	40.41	41.43	41.95	42.43	42.90	22.4%
Total Projected Employment	**1,077.19**	**1,099.97**	**1,111.77**	**1,122.85**	**1,133.56**	**22.8%**

Source: UNLV Center for Business and Economic Research.
*Includes Part Time and Full Time Employment.

TABLE V-5: PROJECTED ANNUAL WAGES, BY LABOR SECTOR
CLARK COUNTY, 2005 - 2015

	2005	2006	2007	2008	2009	2010
Forestry, Fishing, Other	$31,242	$32,516	$33,676	$34,903	$36,160	$37,463
Mining	$38,376	$40,672	$43,157	$45,730	$48,374	$51,080
Utilities	$37,773	$39,312	$40,714	$42,197	$43,718	$45,295
Construction	$42,723	$44,465	$46,049	$47,727	$49,448	$51,231
Manufacturing	$38,230	$39,864	$41,352	$42,933	$44,562	$46,258
Wholesale Trade	$40,227	$41,866	$43,359	$44,939	$46,559	$48,238
Retail Trade	$27,560	$28,683	$29,706	$30,788	$31,898	$33,049
Transp, Warehousing	$31,990	$33,284	$34,458	$35,701	$36,975	$38,295
Information	$42,744	$44,361	$45,849	$47,423	$49,037	$50,700
Finance, Insurance	$42,474	$44,210	$45,800	$47,477	$49,198	$50,979
Real Estate, Rental, Leasing	$34,694	$36,126	$37,414	$38,786	$40,193	$41,659
Profess, Tech Services	$53,352	$55,527	$57,506	$59,601	$61,750	$63,977
Mngmt of Co, Enter	$54,621	$56,846	$58,874	$61,019	$63,218	$65,498
Admin, Waste Services	$29,328	$30,500	$31,586	$32,750	$33,951	$35,208
Educational Services	$44,907	$46,738	$48,405	$50,168	$51,977	$53,851
Health Care, Social Asst	$45,656	$47,511	$49,189	$50,956	$52,766	$54,635
Arts, Enter, Rec	$27,914	$29,088	$30,178	$31,331	$32,519	$33,754
Accom, Food Services	$24,107	$25,060	$25,920	$26,826	$27,750	$28,707
Other Services (excl Gov)	$30,306	$31,604	$32,792	$34,049	$35,348	$36,696
Median	**$38,230**	**$39,864**	**$41,352**	**$42,933**	**$44,562**	**$46,258**

Source: UNLV Center for Business and Economic Research, Department of Employment, Training and Rehabilitation, American Community Survey, Restrepo Consulting Group.

TABLE V-5 CONT.: PROJECTED WAGES, BY LABOR SECTOR
CLARK COUNTY, 2005 – 2015

	2011	2012	2013	2014	2015	2005-2015 % Chng
Forestry, Fishing, Other	$38,829	$40,253	$41,475	$42,725	$44,025	40.9%
Mining	$53,879	$56,738	$59,479	$62,326	$65,312	**70.2%**
Utilities	$46,944	$48,665	$50,143	$51,656	$53,224	40.9%
Construction	$53,096	$55,043	$56,715	$58,426	$60,199	*40.9%*
Manufacturing	$48,039	$49,908	$51,476	$53,091	$54,768	**43.3%**
Wholesale Trade	$49,993	$51,827	$53,401	$55,013	$56,682	40.9%
Retail Trade	$34,251	$35,508	$36,585	$37,690	$38,833	40.9%
Transp, Warehousing	$39,676	$41,119	$42,325	$43,560	$44,837	40.2%
Information	$52,437	$54,245	$55,886	$57,575	$59,326	38.8%
Finance, Insurance	$52,829	$54,759	$56,562	$58,417	$60,341	**42.1%**
Real Estate, Rental, Leasing	$43,195	$44,803	$46,171	$47,580	$49,048	41.4%
Profess, Tech Services	$66,305	$68,737	$70,825	$72,962	$75,176	40.9%
Mngmt of Co, Enter	$67,882	$70,372	$72,508	$74,697	$76,963	40.9%
Admin, Waste Services	$36,537	$37,938	$39,059	$40,203	$41,387	*41.1%*
Educational Services	$55,811	$57,858	$59,615	$61,415	$63,278	*40.9%*
Health Care, Social Asst	$56,590	$58,629	$60,631	$62,689	$64,815	*42.0%*
Arts, Enter, Rec	$35,047	$36,402	$37,471	$38,562	$39,694	**42.2%**
Accom, Food Services	$29,701	$30,734	$31,622	$32,534	$33,480	38.9%
Other Services (excl Gov)	$38,113	$39,600	$40,761	$41,953	$43,186	**42.5%**
Median	**$48,039**	**$49,908**	**$51,476**	**$53,091**	**$54,768**	**43.3%**

Notes: The five job sectors showing the most wage growth over the 2005-2015 period are **bolded**. The five job sectors from table V-4 showing the greatest growth are *italicized*.
Source: UNLV Center for Business and Economic Research, Department of Employment, Training and Rehabilitation, American Community Survey RCG.

TABLE V-6: EXISTING & NEW HOME CLOSINGS BY PRICE RANGE
CLARK COUNTY, NOVEMBER, 2004 – OCTOBER, 2005

Clark County FY 2005 Area Median Income ("AMI") = $56,550 [1]									
Household Income Range	**Percent of AMI Range**	**Affordable Home Price Range [2,3]**	**Existing Home Closings November, 2004 - October, 2005 [4]**	**%**	**New Home Closings November, 2004 - October, 2005 [5]**	**%**	**Sum of Existing and New Home Closings**	**%**	**Cumulative %**
Less than $15,000	Less than 27%	Less than $50,071	58	0.2%	-	0.0%	58	0.1%	0.1%
$15,000 - $19,999	27% up to 35%	$50,071 up to $66,761	113	0.3%	-	0.0%	113	0.2%	0.2%
$20,000 - $24,999	35% up to 44%	$66,761 up to $83,452	145	0.4%	-	0.0%	145	0.2%	0.4%
$25,000 - $34,999	44% up to 62%	$83,452 up to $116,832	591	1.5%	-	0.0%	591	0.8%	1.2%
$35,000 - $49,999	62% up to 88%	$116,832 up to $166,904	2,872	7.5%	4,126	11.4%	6,998	9.4%	10.6%
$50,000 - $74,999	88% up to 133%	$166,904 up to $250,355	10,266	26.9%	6,815	18.8%	17,081	22.9%	33.6%
$75,000 - $99,999	133% up to 177%	$250,355 up to $333,807	11,887	31.1%	10,932	30.2%	22,819	30.6%	64.2%
$100,000 and over	177% and over	$333,807 and over	12,269	32.1%	14,379	39.7%	26,648	35.8%	100.0%
Total			**38,201**	**100.0%**	**36,252**	**100.0%**	**74,453**	**100.0%**	**100.0%**
Workforce Household AMI Range									
$45,241 - $67,860	***80% up to 120%***	***$151,014 up to $226,588***	***7,290***	***19.1%***	***4,484***	***12.4%***	**11,774**	**15.8%**	***8.2%***
Less than $67,860	***Less than 120%***	***Less than $226,521***	***7,903***	***20.7%***	***9,906***	***27.3%***	***17,809***	***n/a***	***23.9%***

Source & Notes:
1. Clark County Median Family Income ("MFI") for 2005 based upon HUD income levels.
2. Assumes "Maximum Mortgage Payment" may not exceed 30 percent of income.
3. Mortgage rate is based on 6.5 percent FHA 30-year mortgage accounting for principal, interest, taxes and insurance; Assumes 3 percent down payment, 3 percent closing cost, no debt, and good credit.
Note: Monthly tax payments are calculated taking the sales price x .35 = assessed value x tax rate (.033002) / 12.Monthly homeowners insurance was calculated using Sales Price x .0025 / 12.Monthly mortgage insurance was calculated using Total Mortgage x .005 /12.
4. Greater Las Vegas Association of Realtors
5. Home Builders Research

TABLE V-7: COMPARISON OF RENTER HOUSEHOLDS BY INCOME RANGE TO APARTMENTS BY RENTAL RATE CLARK COUNTY, 2004

Clark County FY 2005 Area Median Income ("AMI") = $56,550 [1]								
Household Income Range	**Percentage of AMI Range [1]**	**Number of Renter Households by Income Range**	**Percentage of Renter Households**	**Affordable Monthly Rental Rate Range [2]**	**Number of Rentals by Affordability Price Range by Contract Rent**	**%**	**Difference**	**% Difference**
Less than $15,000	Less than 27%	45,817	18.9%	Less than $375	9,792	4.0%	(36,025)	-78.6%
$15,000 - $19,999	27% up to 35%	20,452	8.4%	$375 up to $500	25,051	10.3%	4,599	22.5%
$20,000 - $24,999	35% up to 44%	24,613	10.1%	$500 up to $625	49,673	20.5%	25,060	101.8%
$25,000 - $34,999	44% up to 62%	40,642	16.7%	$625 up to $875	100,074	41.2%	59,432	146.2%
$35,000 - $49,999	62% up to 88%	51,388	21.2%	$875 up to $1,250	45,610	18.8%	(5,778)	-11.2%
$50,000 - $74,999	88% up to 133%	32,461	13.4%	$1,250 up to $1,875	11,183	4.6%	(21,277)	-65.5%
$75,000 and over	133% and over	27,367	11.3%	$1875 and over	1,358	0.6%	(26,010)	-95.0%
Total		**242,741**	**100.0%**		**242,741**	**100.0%**	**-**	**0.0%**
Selected Cumulative Groupings								
Under $20,000	***Less than 35%***	***66,270***	***27.3%***	***Less than $500***	***34,843***	***14.4%***	***(31,427)***	***-47.4%***
Under $25,000	***Less than 44%***	***90,883***	***37.4%***	***Less than $625***	***84,516***	***34.8%***	***(6,367)***	***-7.0%***
$25,000 and over	***44% and over***	***179,225***	***73.8%***	***$625 and over***	***161,749***	***66.7%***	***(17,476)***	***-9.8%***

Source: 2004 American Community Survey, RCG.
Notes:
1. Based upon HUD 2005 Median Family Income ("MFI") for Clark County.
2. Assumes contracted rental rate (excluding utilities) may not exceed 30% of monthly income.

TABLE V-8: ACTIVE SUBDIVISIONS, REMAINING UNITS, BY SUBMARKET & AFFORDABILITY, LAS VEGAS VALLEY, JULY, 2005

Submarket	Median $	Median S.F.	Median $ / S.F.	% of Las Vegas Valley Median	Data	MFI Range that can Afford			Grand Total
						50% - 80%	80% - 120%	>120%	
North Central	$306,146	2,234	$150	83.1%	Sum of Remaining Inventory	0	1,178	11,339	**12,517**
Northeast	$328,620	1,735	$212	117.6%	Sum of Remaining Inventory	152	518	4,038	**4,708**
Northwest	$333,240	2,099	$174	96.6%	Sum of Remaining Inventory	631	1,200	4,153	**5,984**
South	$347,684	2,050	$196	108.8%	Sum of Remaining Inventory	0	288	9,447	**9,735**
West	$298,402	2,010	$176	97.7%	Sum of Remaining Inventory	256	2,139	13,051	**15,446**
Unknown	$410,000	2,405	$209	116.1%	Sum of Remaining Inventory	0	148	9,050	**9,198**
Las Vegas Valley Median New Home Price & Total Sum of Remaining Inventory	**$317,718**	**2,128**	**$180**	**100.0%**		**1,039**	**5,471**	**51,078**	**57,588**

Source: Hanley Wood Market Intelligence, RCG.

TABLE V-9: ACTIVE SUBDIVISIONS, REMAINING UNIT SHARES, BY SUBMARKET & AFFORDABILITY, LAS VEGAS VALLEY, JULY, 2005

Submarket	Data	MFI Range that can Afford			Grand Total
		50% - 80%	80% - 120%	>120%	
North Central	% of Remaining Inventory	-	9.41%	90.59%	**100%**
Northeast	% of Remaining Inventory	3.23%	11.00%	85.77%	**100%**
Northwest	% of Remaining Inventory	10.54%	20.05%	69.40%	**100%**
South	% of Remaining Inventory	-	2.96%	97.04%	**100%**
West	% of Remaining Inventory	1.66%	13.85%	84.49%	**100%**
Unknown	% of Remaining Inventory	-	1.61%	98.39%	**100%**
Total % of Remaining Inventory		**1.80%**	**9.50%**	**88.70%**	**100%**

Source: Hanley Wood Market Intelligence, RCG.

TABLE V-10: PLANNED SUBDIVISIONS, ESTIMATED UNITS, BY SUBMARKET & AFFORDABILITY, LAS VEGAS VALLEY, JULY, 2005

Submarket	Data	MFI Range that can Afford			Grand Total
		50% - 80%	80% - 120%	>120%	
North Central	Sum of Units Planned	170	3,378	18,251	**21,798**
Northeast	Sum of Units Planned	828	2,021	8,362	**11,211**
Northwest	Sum of Units Planned	981	2,001	6,759	**9,741**
South	Sum of Units Planned	863	3,099	23,088	**27,050**
West	Sum of Units Planned	1,273	5,834	21,043	**28,150**
Unknown	Sum of Units Planned	1,352	6,730	89,869	**97,950**
Total Sum of Units Planned		**7,430**	**30,206**	**158,264**	**195,900**

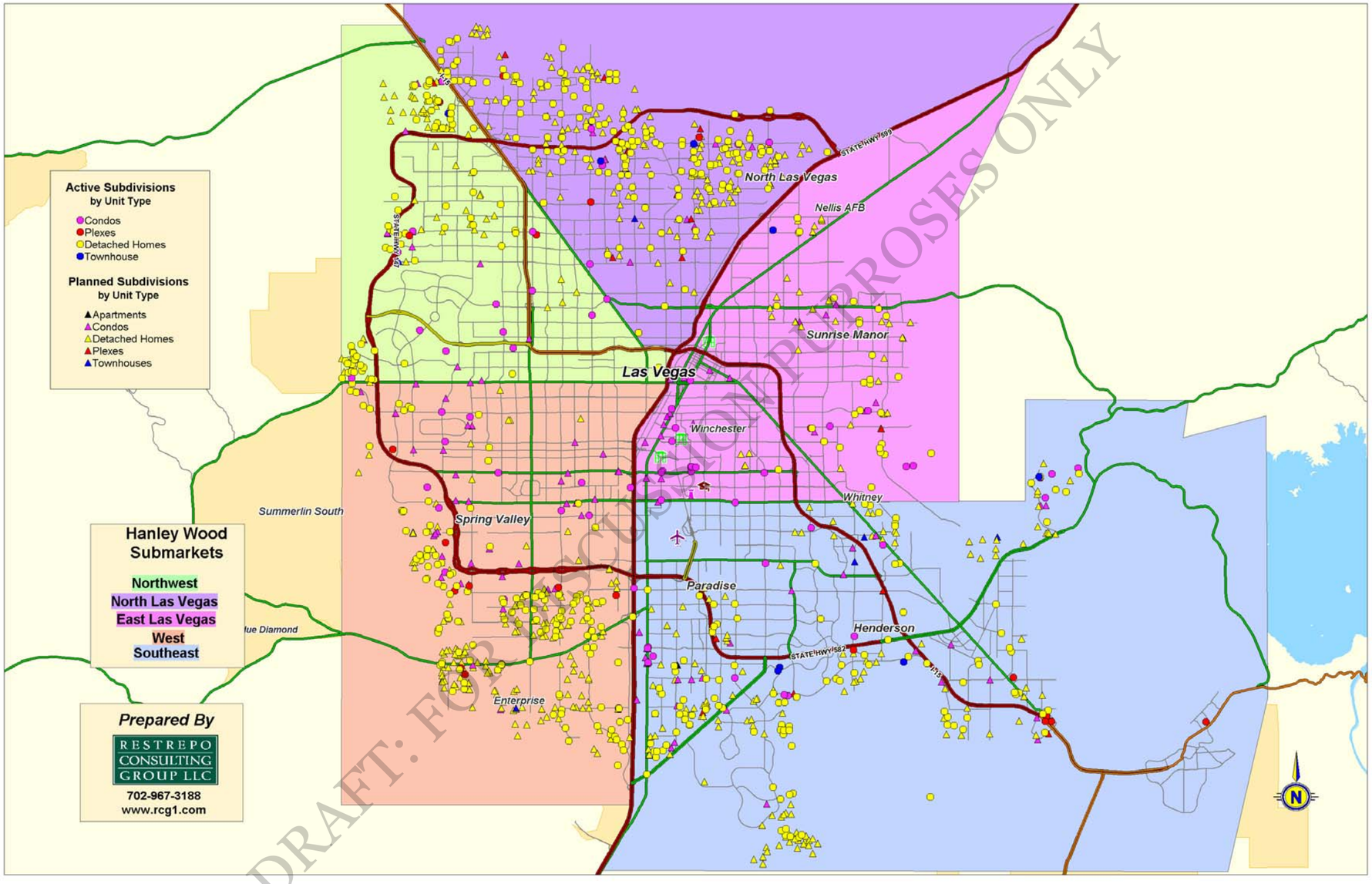
Source: Hanley Wood Market Intelligence, RCG.

TABLE V-11: PLANNED SUBDIVISIONS, ESTIMATED UNIT SHARES, BY SUBMARKET & AFFORDABILITY, LAS VEGAS VALLEY, JULY, 2005

Submarket	Data	MFI Range that can Afford			Grand Total
		50% - 80%	80% - 120%	>120%	
North Central	% of Units Planned	0.78%	15.49%	83.73%	**100%**
Northeast	% of Units Planned	7.38%	18.03%	74.59%	**100%**
Northwest	% of Units Planned	10.08%	20.54%	69.38%	**100%**
South	% of Units Planned	3.19%	11.46%	85.35%	**100%**
West	% of Units Planned	4.52%	20.72%	74.75%	**100%**
Unknown	% of Units Planned	1.38%	6.87%	91.75%	**100%**
Total % of Units Planned		**3.79%**	**15.42%**	**80.79%**	**100%**

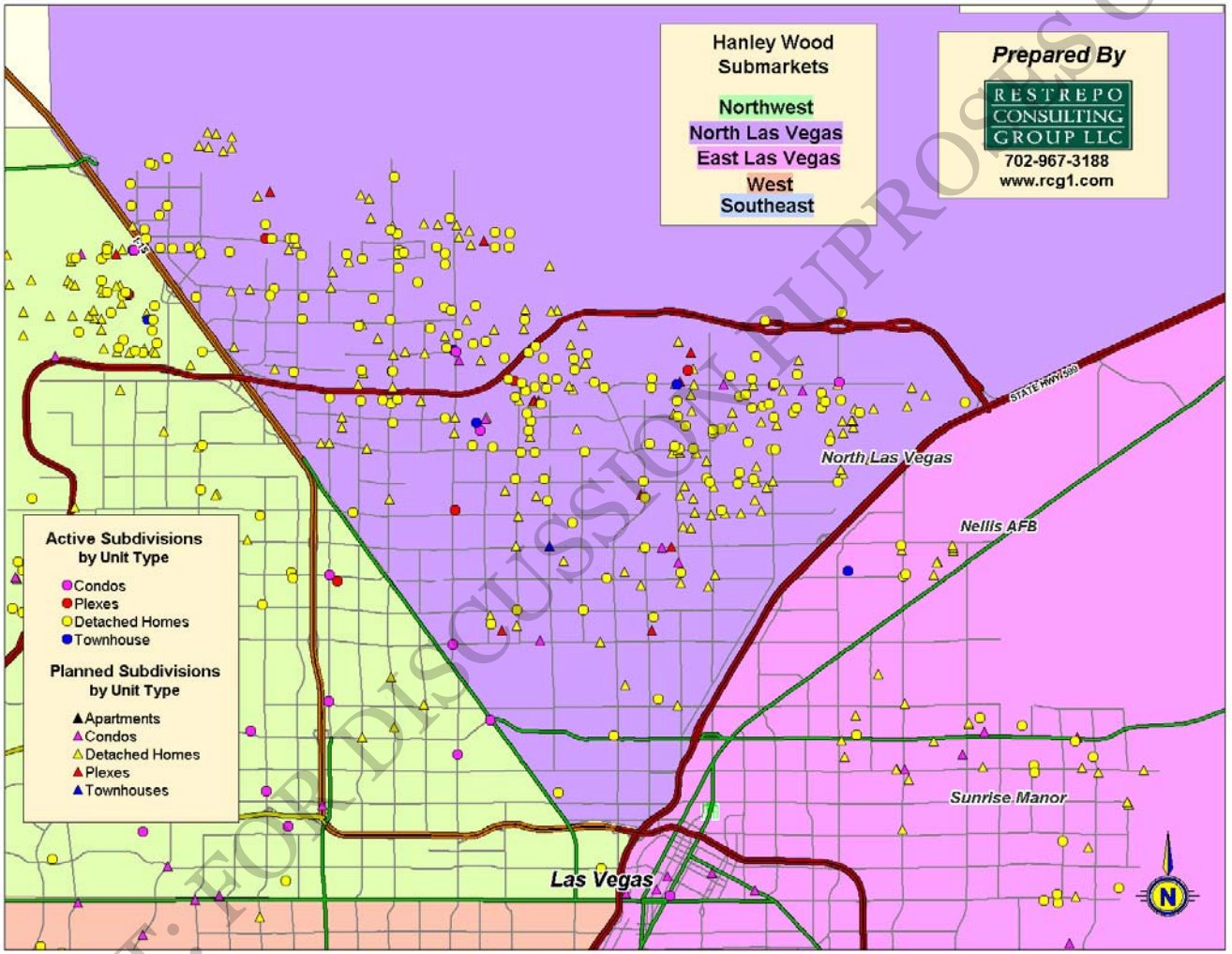
Source: Hanley Wood Market Intelligence, RCG.

MAP V-1: FOR-SALE ACTIVE & PLANNED SUBDIVISIONS - LAS VEGAS VALLEY
JULY, 2005



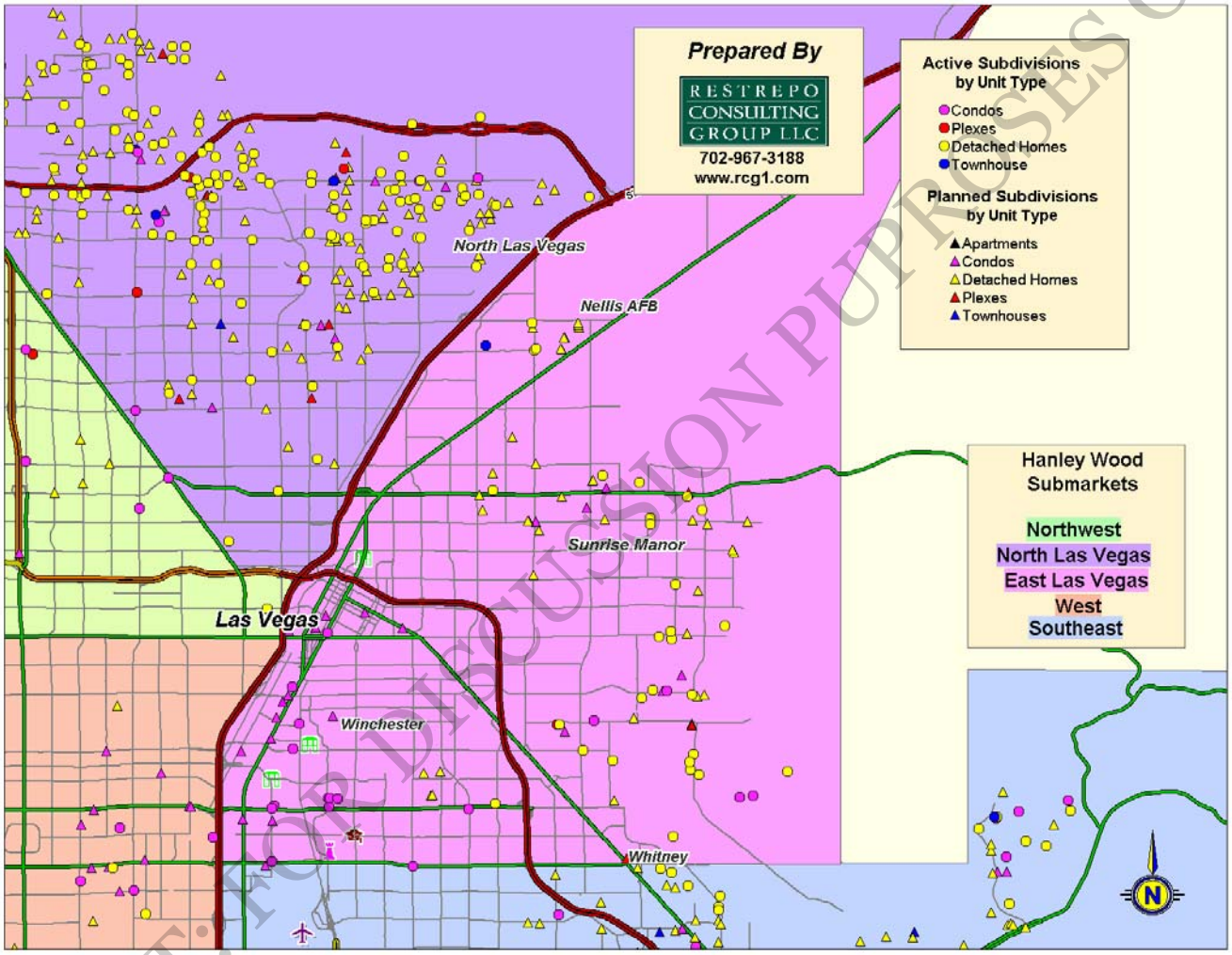
Source: Sites USA, Hanley Wood Market Intelligence.

MAP V-2: FOR-SALE ACTIVE & PLANNED SUBDIVISIONS - NORTH LAS VEGAS SUBMARKET JULY, 2005



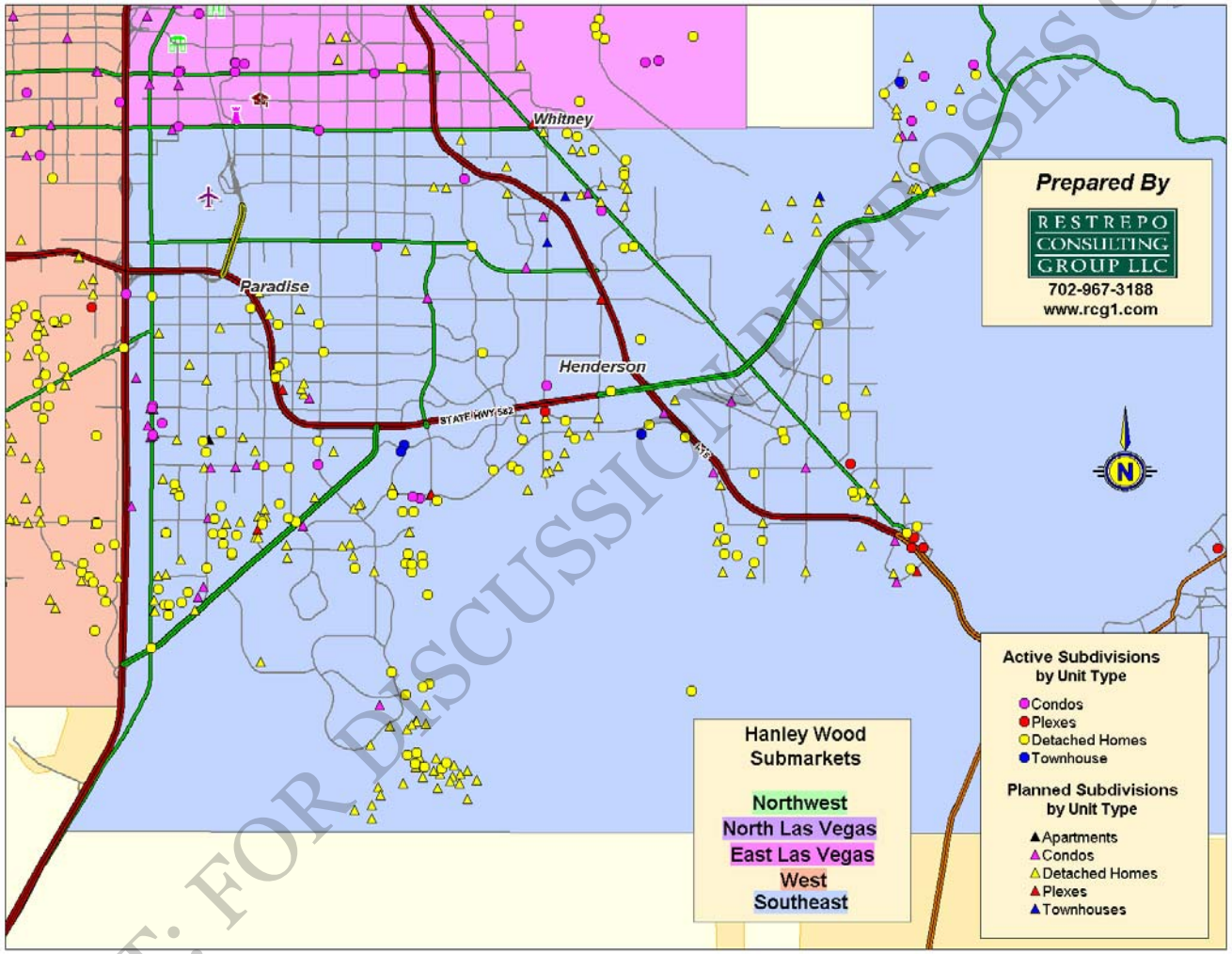
Source: Sites USA, Hanley Wood Market Intelligence.

MAP V-3: FOR-SALE ACTIVE AND PLANNED SUBDIVISIONS - EAST VALLEY SUBMARKET JULY, 2005



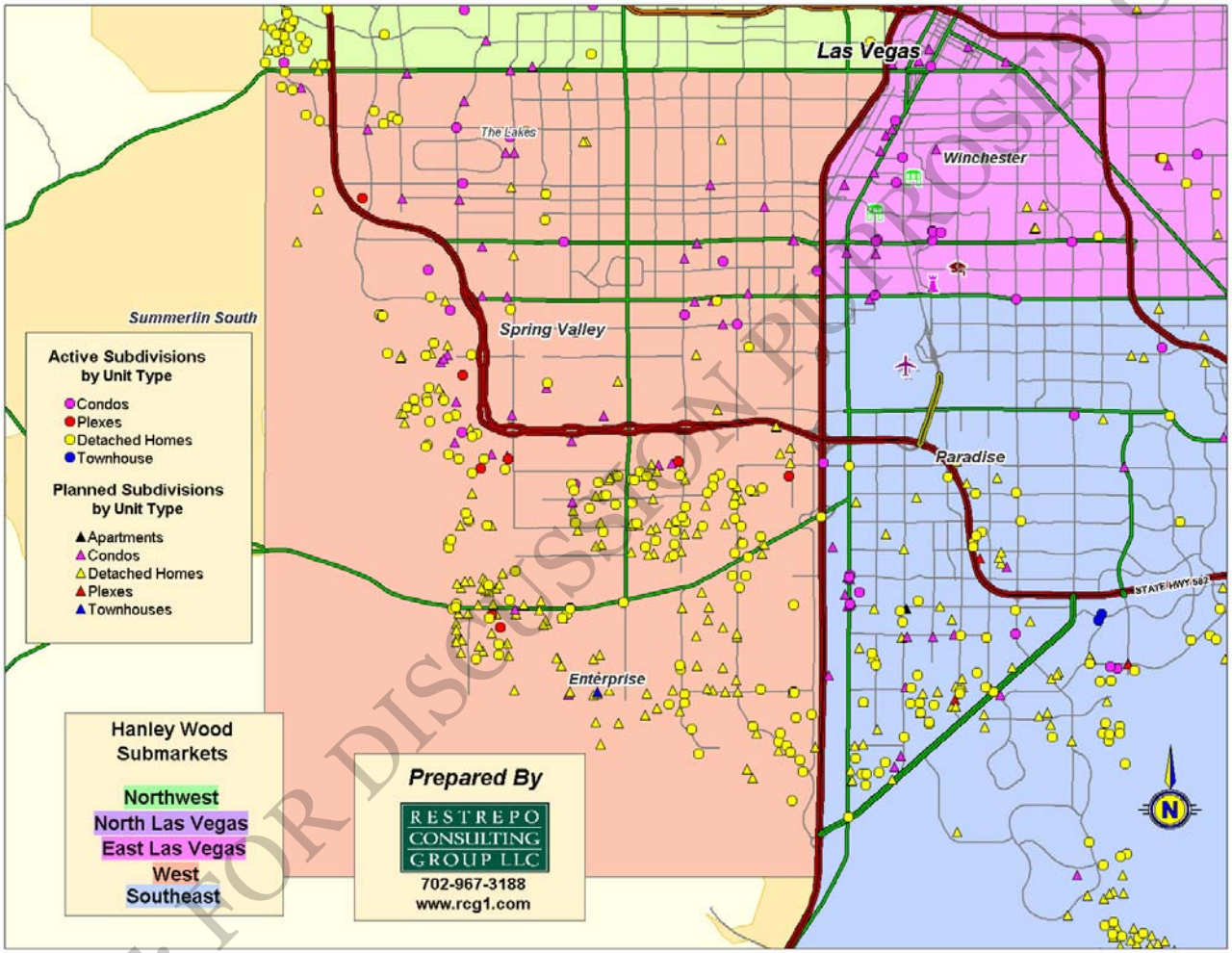
Source: Sites USA, Hanley Wood Market Intelligence.

MAP V-4: FOR-SALE ACTIVE & PLANNED SUBDIVISIONS - SOUTHEAST VALLEY SUBMARKET JULY, 2005



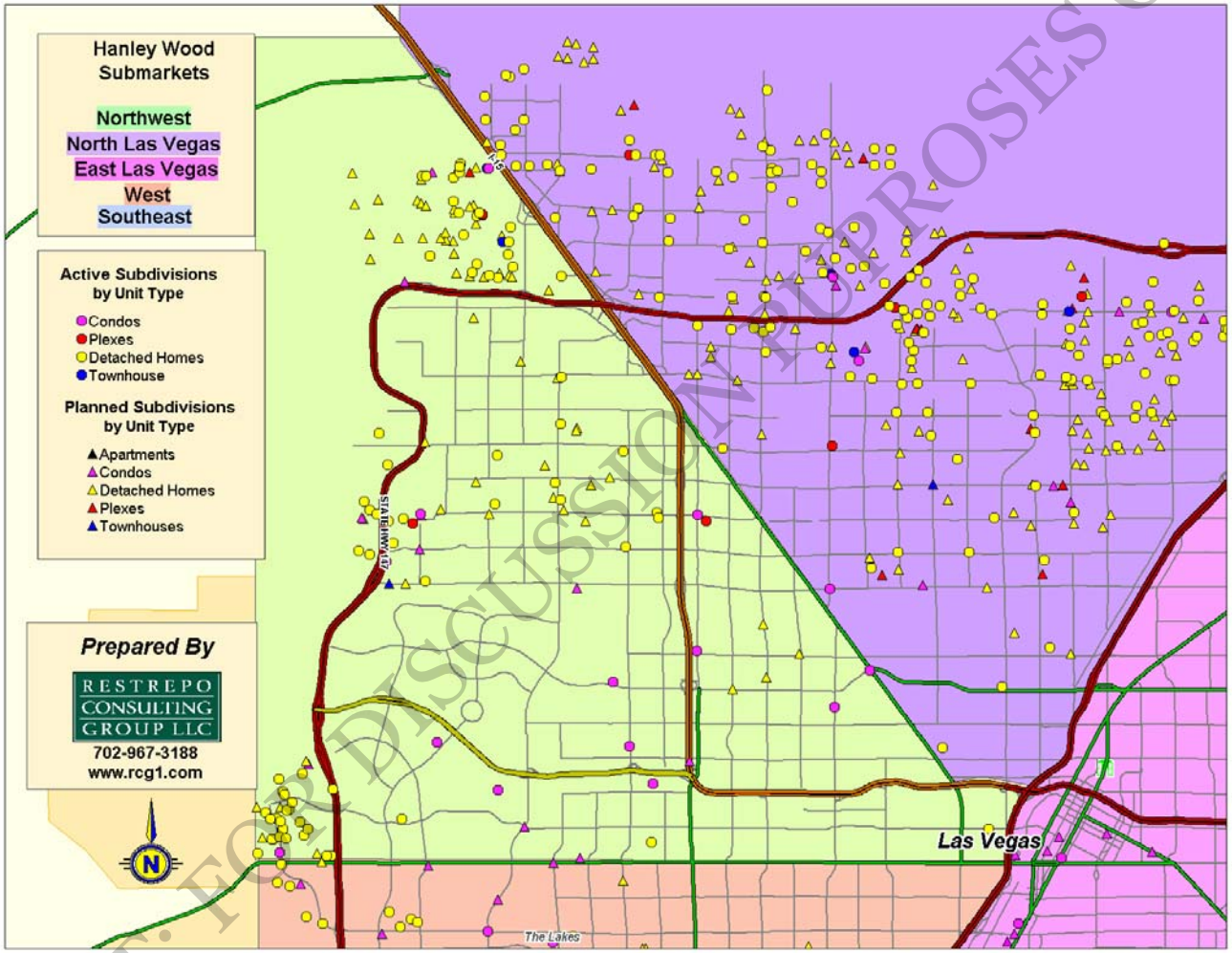
Source: Sites USA, Hanley Wood Market Intelligence.

MAP V-5: FOR-SALE ACTIVE & PLANNED SUBDIVISIONS - WEST VALLEY SUBMARKET
JULY, 2005



Source: Sites USA, Hanley Wood Market Intelligence.

MAP V-6: FOR-SALE ACTIVE & PLANNED SUBDIVISIONS - NORTHWEST VALLEY SUBMARKET
JULY, 2005



Source: Sites USA, Hanley Wood Market Intelligence.

TABLE V-12A: LOSS OF HOUSING STOCK THROUGH DEMOLITIONS - CLARK COUNTY
JULY, 2003 – JUNE, 2005

Data Range	Location				Grand Total
	Henderson	North Las Vegas	City of Las Vegas	Clark County	
July '03 - June '04	11	19	27	48	**105**
July '04 - June '05	10	16	63	51	**140**

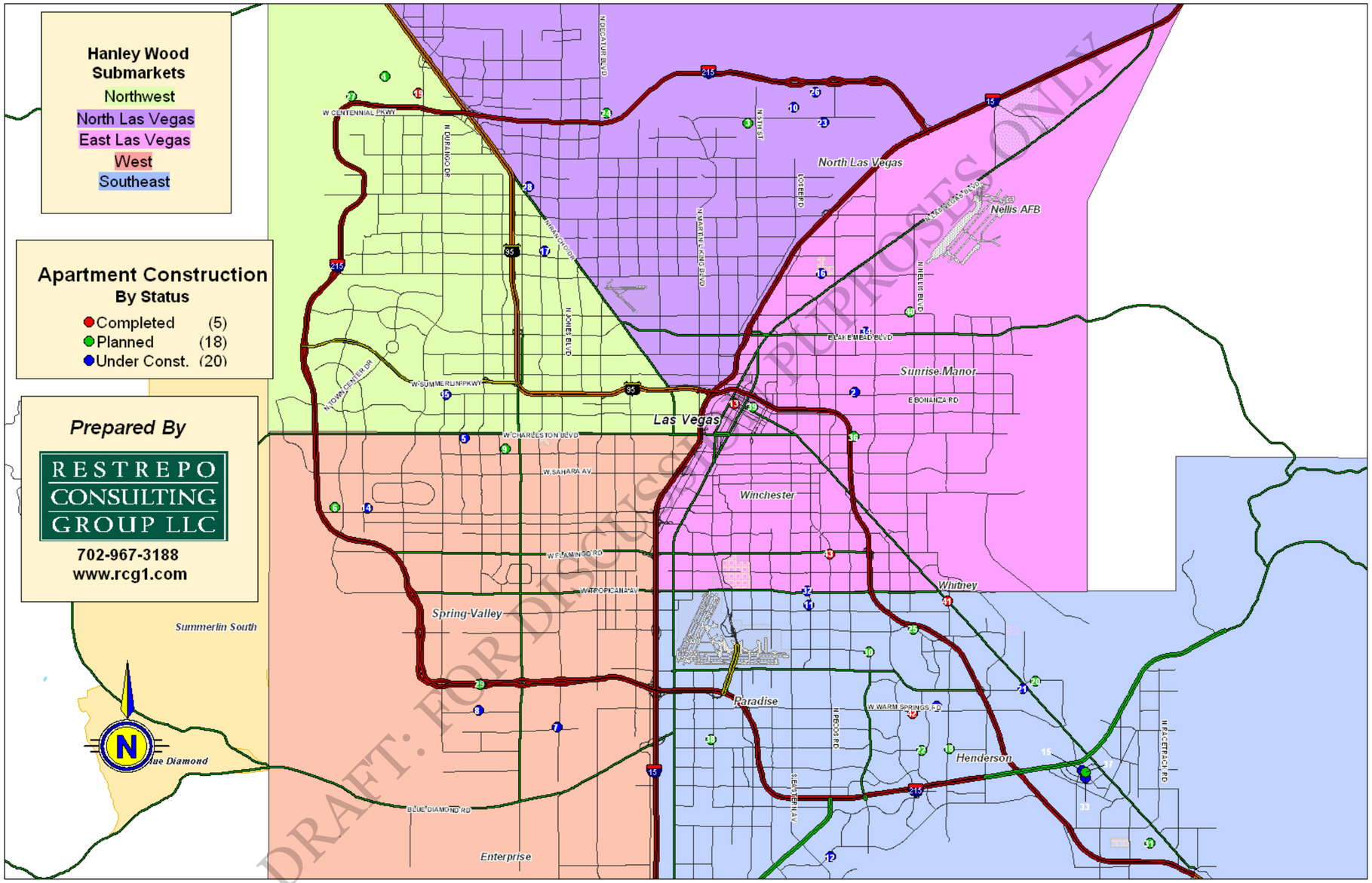
Source: Construction Notebook, Clark County Assessor's Office.

TABLE V-12B: LOSS OF HOUSING STOCK THROUGH DEMOLITIONS - CLARK COUNTY
Q2, 2004 – Q2, 2005

ZIP	STATUS	UNITS
89101	Scheduled	7
89109	Demolished	835
89109	Scheduled	1,572
Total		**2,414**

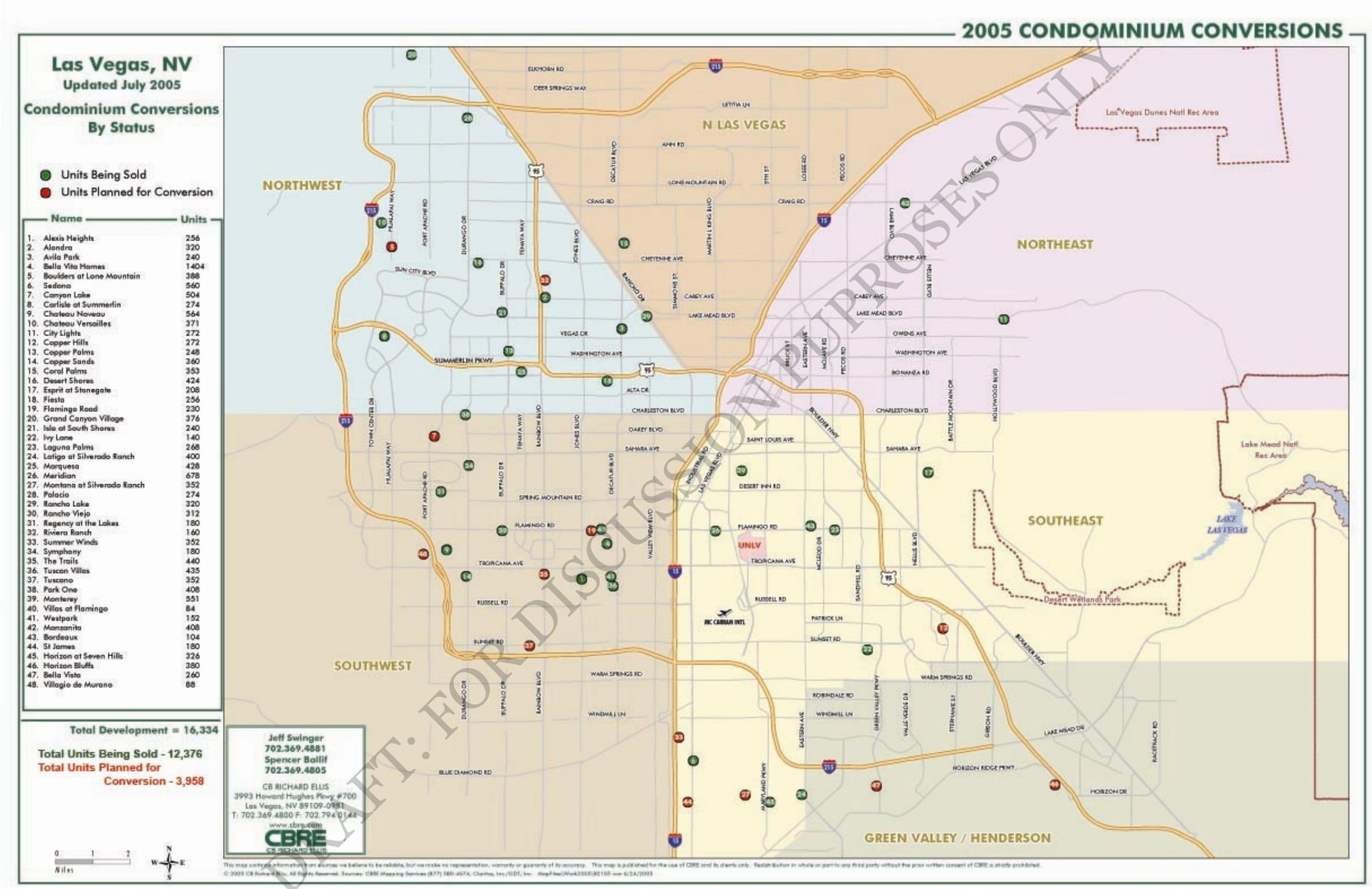
Note: 89109 is in the Township of Paradise and borders the City of Las Vegas
Source: Nevada Housing Division

MAP V-7: APARTMENT PIPELINE MAP - LAS VEGAS VALLEY
2005-2006



Source: CB Richard Ellis, Clark County.

MAP V-8: CONDOMINIUM CONVERSIONS - LAS VEGAS VALLEY
JULY 2005



Source: CB Richard Ellis.

TABLE V-13: APARTMENT PIPELINE LEGEND
LAS VEGAS VALLEY, 2005 & 2006

ID	Type	Project	Address	Units	Status
13	*	L'Octaine	Gas/Las Vegas Blvd.	51	Completed
19		The Willows at Town Center	Ft. Apache/Bath	188	Completed
1	***	Annabelle Pines I	Warm Springs/Annabelle	106	Under Const.
2	*	Bonanza Pines III	Bonanza/Sandhill	62	Under Const.
5		Buffalo Highlands II	Charleston/Cimarron	50	Under Const.
7		Coronado Bay Club	Jones/Robindale	346	Under Const.
8		Coronado Palms	Buffalo/Badurn	384	Under Const.
10	*	Glenbrook Terrace	McCarran/Centennial	272	Under Const.
11	*	Harrison Pines I & II	Harrison/Reno	110	Under Const.
12		Horizon Ridge Villas	Horizon/Valley Vista	340	Under Const.
14		Morning Star	Desert Inn/Hualapai	196	Under Const.
41	****	Dina Titus Estates	Missouri/Boulder Hwy	19	Completed
42	**	Annabelle Pines I & II	Warm Springs/Annabelle	156	Completed
43	**	Rochelle Pines	Hildebrande/Rochelle	115	Completed
Completed or scheduled for completion in 2005				**2,395**	
15	*	Pacific Pines II	Pacific Ave/Texas	51	Under Const.
17		Sonoma Palms	Cheyenne/Jones	238	Under Const.
21		Turtle Creek	Boulder Highway/Gibson	400	Under Const.
23			Centennial/McCarran	340	Under Const.
26			Losee/Deer Springs	455	Under Const.
28			Lone Mountain/Rainbow	416	Under Const.
32	**	Harrison Pines III	Harrison/Tropicana	20	Under Const.
33	**	Pacific Pines II	Pacific/Wyoming	51	Under Const.
34	****	John Chambers Apartments	Camel/Lake Mead	24	Under Const.
35	**	Silver Sky Assisted Living	Durango/Westcliff	90	Under Const.
Other "Under Construction" Subtotal				**2,085**	
3		Broadstone High Desert	Centennial/North 5th	312	Planned
4		Broadstone Montecito	Grand Canyon/Grand Teton	336	Planned
6	**	Carefree Senior Living at Desert Inn	Desert Inn/Town Center	304	Planned
9		Desert Shadows	Charleston/Jones	192	Planned
18		The Quest	Stephanie/American Pac. Dr.	293	Planned
20		Thunder Road	Boulder Highway/Gibson	275	Planned
22			American Pac./Arroyo Grande	164	Planned
24			Rome/Decatur	585	Planned
25			Russell/I-95	390	Planned
27			Deer Springs/Hualapai	516	Planned
29			Buffalo/I-215	252	Planned
30			Green Valley/Patrick	185	Planned
31			Nevada State Dr/U Pacific RR	800	Planned
36	*	Honolulu Street	Honolulu/Charleston	60	Planned
37	**	Pacific Pines III	Pacific/Wyoming	51	Planned
38	****	Greater Las Vegas Supportive Housing	Shelbourne/Maryland Parkway	22	Planned
39	**	Stewart Pines III	Stewart/13th	57	Planned
40	****	Las Vegas Metro Supportive Housing	Bledsoe/Carey	25	Planned
"Planned" Subtotal				**4,819**	
Total				**9,299**	

* Affordable Housing.
** Age Restricted.
*** Affordable & Age Restricted.
Source: CB Richard Ellis, Clark County.

TABLE V-14: CONDOMINIUM CONVERSIONS
Las Vegas Valley, July 2005

ID	Projects	Status	Units
Condominium Conversions Selling			
1	Alexis Heights	Selling	256
2	Alondra	Selling	320
3	Avila Park	Selling	240
4	Bella Vita Homes	Selling	1,404
6	Sedona	Selling	560
8	Carlisle at Summerlin	Selling	274
9	Chateau Noveau	Selling	564
10	Chateau Versailles	Selling	371
11	City Lights	Selling	272
13	Copper Palms	Selling	248
14	Copper Sands	Selling	360
15	Coral Palms	Selling	353
16	Desert Shores	Selling	424
17	Esprit at Stonegate	Selling	208
18	Fiesta	Selling	256
20	Grand Canyon Village	Selling	376
21	Isla at South Shores	Selling	240
22	Ivy Lane	Selling	140
23	Laguna Palms	Selling	268
24	Latigo at Silverado Ranch	Selling	400
25	Marquesa	Selling	428
26	Meridian	Selling	678
28	Palacio	Selling	274
29	Rancho Lake	Selling	320
30	Rancho Viejo	Selling	312
31	Regency at the Lakes	Selling	180
34	Symphony	Selling	180
36	Tuscan Villas	Selling	435
38	Park One	Selling	408
39	Monterey	Selling	551
40	Villas at Flamingo	Selling	84
41	Westpark	Selling	152
42	Manzanita	Selling	408
43	Bordeaux	Selling	104
45	Horizon at Seven Hills	Selling	328
		Total Selling	**12,376**
Condominium Conversions Planned			
5	Boulders at Lone Mountain	Planned	388
7	Canyon Lake	Planned	504
12	Copper Hills	Planned	272
19	Flamingo Road	Planned	230
27	Montana at Silverado Ranch	Planned	352
32	Riviera Ranch	Planned	160
33	Summer Winds	Planned	352
35	The Trails	Planned	440
37	Tuscano	Planned	352
44	St. James	Planned	180
46	Horizon Bluffs	Planned	380
47	Bella Vista	Planned	260
48	Villagio de Murano	Planned	88
		Total Planned	**3,958**
Grand Total			**16,334**

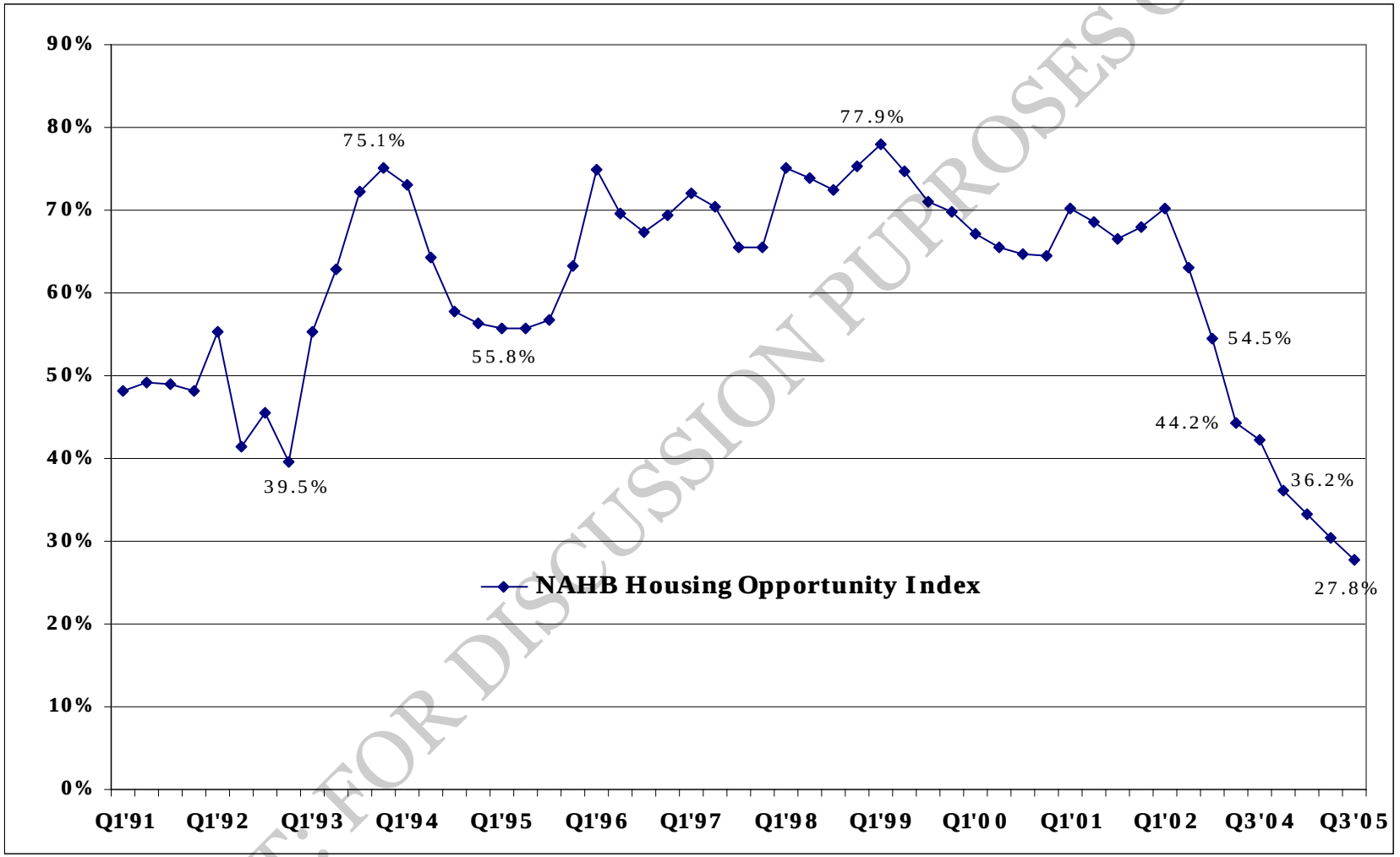
Source: CB Richard Ellis.

TABLE V-15: ESTIMATED WORKFORCE HOUSING SUPPLY GAP FOR MEDIAN PRICED EXISTING & NEW HOMES, CLARK COUNTY, 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total	Percentage of Total
Projected New Workforce Households	14,218	19,696	27,041	17,855	23,373	19,193	18,843	9,988	9,562	9,424	169,194	100%
New Households that cannot afford to buy a median priced existing home	11,375	15,757	21,633	14,284	18,698	15,355	15,074	7,991	7,650	7,539	135,355	80%
New Households that cannot afford to buy a median priced new home	11,659	16,151	22,174	14,641	19,166	15,739	15,451	8,191	7,841	7,728	138,739	82%

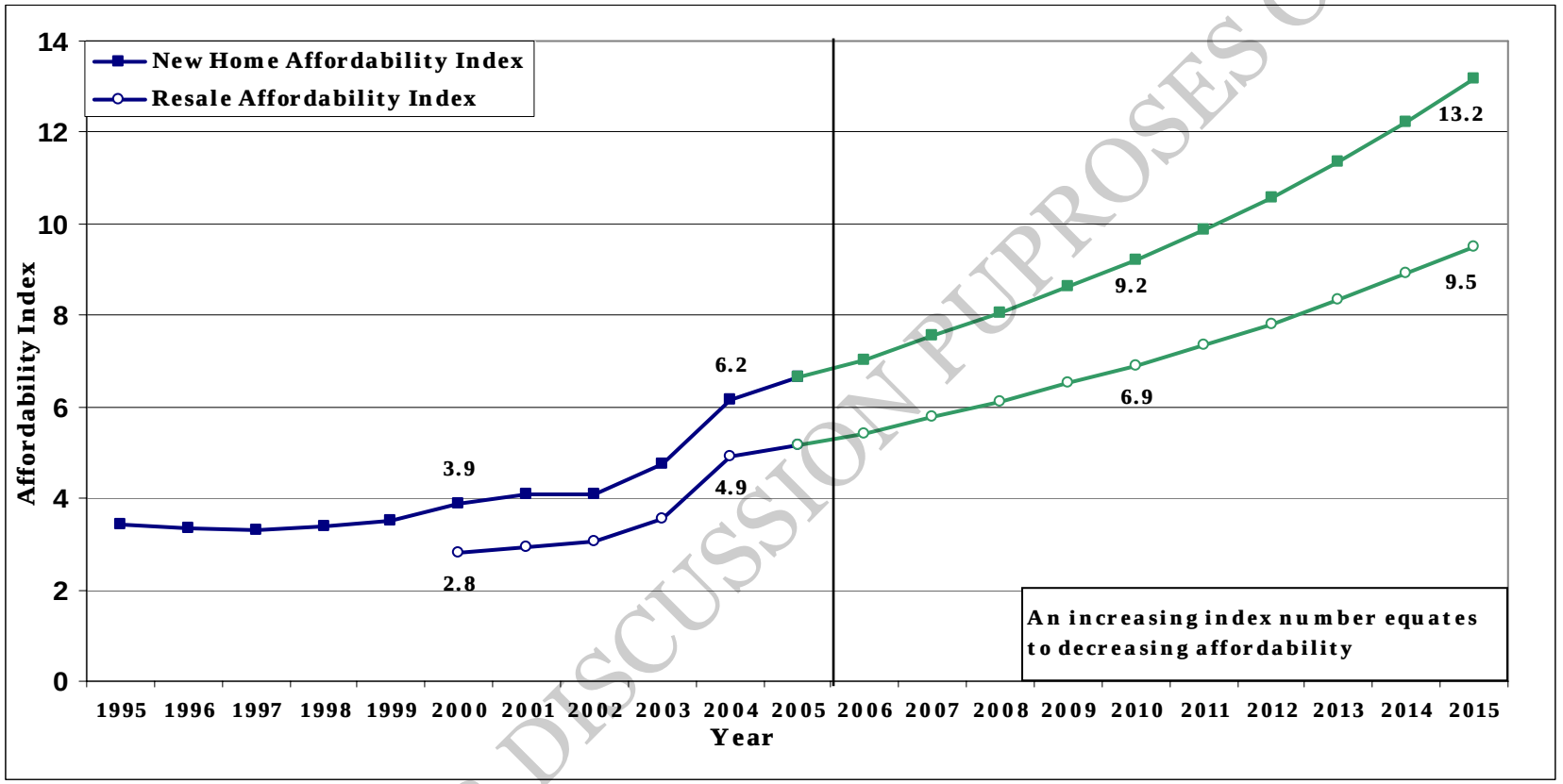
Source. Clark County Consensus Forecast, RCG.

FIGURE V-2: NATIONAL ASSOCIATION OF HOME BUILDERS HOMEOWNER OPPORTUNITY INDEX
CLARK COUNTY, Q1, 1991 – Q3, 2005



Source: National Association of Home Builders.

FIGURE V-3: CONDOMINIUM CONVERSIONS
LAS VEGAS VALLEY, JULY 2005



Source: Las Vegas Perspective, Greater Las Vegas Association of Realtors, Home Builders Research, Clark Count Consensus Forecast, RCG.

Section VI

DEVELOPMENT COST & SUBSIDY ANALYSIS

VI. DEVELOPMENT COST & SUBSIDY ANALYSIS

A. INTRODUCTION

In the previous two sections, the C0nsultant Team described in detail County and Valley housing supply and demand trends. In this section, the Consultant Team prepared a series of development cost models for workforce housing in the Valley for a:

1) 1,300-square-foot single family residential ("SFR") unit
2) 300-unit garden-style apartment complex
3) 100-unit single room occupancy ("SRO")

First, the SFR development model results and methodology are presented. This is followed by the modeling of the multifamily projects.

B. 1,300-SQUARE-FOOT SINGLE FAMILY HOME

Residential Resources, Inc. ("RRI") was engaged to complete one component of the Affordable and Attainable Housing Study consisting of a Construction Cost Analysis of building a 1,300-square-foot detached home both with and without current land costs. The results of this analysis are shown in Table VI-1.[1]

1. Assumptions/Methodology

RRI has developed a network of general contractors, subcontractors and consultants to the construction and development industry during nearly 25 years of business in Southern Nevada. As a part of RRI's services to home builder clients, the firm also maintains a current database of "hard" construction costs from which to estimate various line-items contained in Table VI-1.

[1] It must be noted that these figures were being assembled immediately following Hurricanes Katrina and Rita. The ultimate impact that these two events will have on material costs cannot be determined at this time and is beyond the scope of this report.

The building specifications level was determined by analyzing entry-level home products, such as that built by KB Homes, Astoria Homes and Richmond American Homes, and modifying the level of amenities that is acceptable to a 'typical' home buyer looking for affordable detached housing as an alternative to for-sale condominiums and town homes or for-rent housing.

A hypothetical floor plan was developed by RRI and "put to bid" to a number of subcontractors (for the largest dollar line items, e.g. framing, concrete, etc.) and reviewed by RRI, as well as a general contractor for both reasonableness and accuracy.

Building permit and other governmental fees and costs associated with on- and off-site development were obtained from the respective governmental agencies (e.g. Clark County Building Department, Las Vegas Valley Water District, etc.). Architectural fees and certain other fees are estimated, based on a project consisting of a minimum number of homes; in this case forty-two. These total indirect costs were reviewed by a large home builder's land acquisition department for relevance.

Hypothetical land costs were estimated through a review of comparable land sales that have recorded between June 1 and September 30, 2005, as well as several transactions in escrow at the time of this reporting for parcels similar in size used in the hypothetical model.[2]

Finally, this analysis assumes 8.5 percent conventional fixed financing. Additional details and assumptions are outlined in Appendix I.

2. Findings

Excluding land costs, the research indicates that an "affordable" 1,300-square-foot detached home could be constructed for approximately $110 per square foot at 2005 construction costs (excluding land costs). Including land costs, a 1,300-square-foot home could be built for $189,000, or $145 per square foot.

[2] The current market value for land outside master planned communities where developers can achieve 12 units per acre is approximately $550,000 per acre.

This hypothetical project assumes the use of smaller infill lots for the provision of attainable/affordable housing typically provided by large production builders. This has some inherent problems, the primary one being land acquisition. With the same search costs, overhead, model home amortization, production builders typically need to have a minimum of 60 homes in order for a project to be feasible, with a lot size typically much larger than the 3.5 acres assumed in this model. Thus, this analysis spreads these fixed costs over fewer units, increasing the price per square foot. Even so, the use of smaller infill lots results in less expensive development costs than in master planned communities where, at the time of this analysis, prices were ranging from $600,000 to $700,000 per acre.

3. Required Subsidies

For the purposes of this study, the required subsidy for this 1,300-square-foot home is defined as the difference between development costs plus a reasonable rate of return and amount of home that is affordable.

Developers are currently averaging between eight and 12 percent profit. Assuming an average minimal required profit of 10 percent, this translates into a $207,350 sales price for the hypothetical home modeled above.

Table VI-2 replicates Table III-2, "Home Ownership Affordability, Clark County, 2005." with two additions. First, rather than simply indicating whether or not a home is affordable at each income level, this table indicates the amount of subsidy required. Second, this table adds a column for the hypothetical 1,300-square-foot home example. At $207,350, this home would not be affordable to households earning less than 110 percent ($62,200) of 2005 AMI ($56,550). Subsidies of approximately $18,000 to $188,000 would be required to make this home affordable to all income ranges below 110 percent of AMI.

C. 300-UNIT APARTMENT COMMUNITY & 100-UNIT SRO DEVELOPMENT

GMAC Commercial Mortgage ("GMACCM") was engaged to complete a Construction Cost Analysis of a 300-unit apartment community, as well as a 100-unit SRO development. The models developed present an analysis of per-development and per-unit costs. Development costs were modeled both with and without land costs. These costs were then compared to the estimated supportable mortgage to show the potential need for gap financing to support the development.

In addition to performing this analysis using conventional financing, GMACCM was asked to perform this analysis using Low-Income Housing Tax Credit / Tax Exempt Bonds ("LIHTC / TEB") for the 300-unit apartment community and nine percent credit with Government National Mortgage Association ("GNMA") for the 100-unit SRO development. [3] The results of this analysis are summarized in Tables VI-2 and VI-3 at the end of this section. Additional tables, detailing yearly construction costs are displayed in Appendix II.

1. Assumptions/Methodology

The Debt-to- Service Coverage Ratios ("DSCR") that were used to calculate the estimated mortgage amounts ranged from 1.11 percent to 1.15 percent. Net Operating Income ("NOI") plays an important role in the estimated loan amount calculations used in this analysis. For the purposes of this study, 100 percent of the units were assumed to be rented at market rates when conventional financing was used. Under the two affordable financing scenarios, 100 percent of the units were assumed to be rented at submarket-specific affordable rents not to exceed rates set by HUD's annually adjusted fair market rents.

The construction cost estimates were derived from a 10-year weighted average, based on historical construction costs from 1994 through early-2005. The weighted average for this collective 10-year period reflected an annual 3.58 percent increase in construction costs. This weighted average methodology was utilized for all product types.

[3] The 300-unit apartment community was analyzed using GNMA financing, as well. However, as this type of financing is not feasible due to the lack of funding sources, this analysis is not presented here.

The 300-apartment project scenario assumes the following:

- A 20-acre site with zoning density sufficient to support 15 units per acre,
- Blend of one-bedroom/one-bath, two-bedroom/two-bath, and three-bedroom/two bath units,
- Standard two and three story garden style walk-up buildings,
- Slab on grade foundations,
- Exterior components of stucco/stone/brick,
- No elevators,
- Market competitive interior components and amenities,
- Las Vegas desert-style landscaping and
- No unusual site conditions requiring above normal site preparation.

The 100-unit SRO project scenario assumes the following:

- A one-acre site with zoning sufficient to support a four to seven-story low rise residential building,
- 100 studio style units comprised of both 375 and 450-square-foot configurations with one bathroom per unit,
- Elevator structure,
- Both slab on grade for non-residential areas and a basement component for residential areas,
- Market competitive interior components and amenities,
- Las Vegas desert-style landscaping,
- No unusual site conditions requiring above normal site preparation and
- No amenities, e.g. swimming pools, parking, garages, fitness center, etc.

The estimated loan amounts are calculated as the LESSER of (1) value or replacement cost and (2) DSCR (debt service coverage ratio). To the extent that Net Operating Income ("NOI") calculations factor into estimated loan amounts, market rental rates are assumed when using conventional financing and "affordable" rental rates relative to 60 percent of the AMI are used for the LIHTC / TEB and nine percent GNMA financing scenarios. See Appendix II for more detail.

The subsidy requirements represent the estimated shortfall between the total development cost and the mortgage amount.

In the case of the public financing scenarios, the subsidy can be provided by various sources including:

1) Developer equity,
2) Equity from the sale of tax credits @ either four percent or nine percent
3) HOME funds,
4) Various Federal and State housing supplement programs, and

5) The allowance by the FHA 221(d)4 program to allow for the market value of the site to be utilized to assist with meeting cash requirements.

The subsidy requirement distributions are very deal specific for both the 4% Low Income Housing Tax Credit communities and the nine percent Credit with GNMA financing communities. For example, the sale of the tax credits is based upon the total eligible basis including a blend of many factors which together to form a total picture of the actual value from the proceeds driven by the cash flow from a project. Additionally, the subsidy programs that dictate the calculation requirements are subject to both Federal and State requirements which are subject to change.

As such, any attempt to estimate the tax credits available under the public financing scenarios to mitigate (some portion of) the subsidy requirements is subject to a great deal of variability. The Consultant Team therefore recommends that a firm specializing in tax credits and bonds be contracted to submit a report describing the range of tax credit scenarios associated with this type of public financing.

Our subsidy estimates include the following components, based on the estimated construction costs and interest rates over the course of the next 10-years:

1. Construction hard costs,
2. Construction soft costs including municipality fees,
3. Legal, organizational, accounting and third party report fees,
4. Transaction fees including financing and placement,
5. Reserve escrows for an initial operating deficit and working capital.

Weighted average increases were taken into consideration for construction cost components 2 and 3 from above, ranging from two percent to three percent per year. Components 4 and 5 were predicated on the mortgage amount calculations covered by the construction cost and interest rate increase estimates.

The subsidy estimate required a further projection of interest rates over the next 10 years. As interest rates affect the calculation of any mortgage transaction, any forecast of future interest rates will affect the estimate of the total subsidy needed to bring a project to completion. Based on historical trends, business cycles, professional judgment and experience, we assumed the following estimates relative to interest rates:

	Conventional/FHA Insured & GNMA Financed with 9% Credits	LIHTC / TEB Projects
2005	6.00%	5.50%
2010	7.50%	7.00%
2015	9.00%	8.50%

Additional details and assumptions are outlined in Appendix II.

2. 300-Unit Apartment Community Development

Table VI-3 at the end of this section summarizes the development costs for a 300-unit apartment community under three financing scenarios, with and without land costs. For both multi-family development cost models, a land price of $350,000 per acre was used, based on information for comparable transactions available at the time of this analysis. The $550,000 price per acre used in the SFR model was deemed infeasible in the multi-family analysis, because developers would not be able to recoup such a land cost, given the relatively flat rental rates during the last several years, as described in previous sections. Were a land cost of $550,000 per acre to be used, it is obvious that subsidy requirements would be much greater than even those laid out in these models. Estimated loan amounts covered are also indicated, as well as the subsidy required to make the development feasible.[4]

As Table VI-3 illustrates, the required subsidy varies considerably by type of financing, as well as time. Only in the "300-unit apartment, 2005, without land costs" scenario is no subsidy required to gap between development costs and the estimated mortgage amount. For the 300-unit apartment complex, with land costs included, subsidies vary from approximately $6 million to $18.5 million, depending on financing (or $20,129 to $61,760 per unit). This analysis also indicates that required project subsidies increase between $10 million to $12 million (in inflated dollars), regardless of financing used, in each five-year increment, both in the "with" and "without" land cost scenarios.

[4] Detailed hard-cost estimates for 2005 through 2015 are presented in Appendix II. These costs are linked directly to the cost summary presented in Table VI-3.

3. 100-Unit SRO Development

Table VI-4 at the end of this section summarizes the development costs with and without land costs for a 100-unit SRO development. Estimated loan amounts covered are also indicated, as well as the subsidy required to make the development feasible.[5] This analysis also indicates that required project subsidies increase between $1.5 million to $2.5 million (in inflated dollars), regardless of financing used, in each five-year increment, both in the "with" and "without" land cost scenarios.

Table VI-4 also shows that with land costs, the required subsidies increase dramatically. In 2005, subsidies range from about $571,063 to $3.9 million for the 100-unit projects (or $1,904 to $13,033 per unit) depending on the financing used.

As with the 300-unit apartment complex, the amount of gap financing required to support workforce housing varies dramatically by the financing method used and over the term. However, on a per-unit basis, the amount of subsidy required for each of the 100-unit SRO scenarios is generally much less than that required for the 300-unit apartment complex. For example, 2005 SRO per unit subsidies with land are estimated at $1,904 and $13,033 for conventional and nine-percent credit with GNMA financing, respectively. 2005 apartment per unit subsidies with land costs are estimated at $20,129 and $61,760 for conventional and LIHTC / TEB financing, respectively.

[5] Ibid.

TABLE VI-1: 1,300-SQUARE-FEET SINGLE FAMILY HOME COST & SUBSIDY ANALYSIS SYNOPSIS, 2005

Construction Component	$ Per S.F.	Component Costs	% of Total
DIRECT CONSTRUCTION COSTS			
Alarm System/HTI/Central Vac			
Appliances	$0.92	$1,200	1.3%
Cabinets	$2.38	$3,100	3.5%
Carpeting	$1.46	$1,900	2.1%
Laminates	$2.46	$3,203	3.6%
Drywall	$3.50	$4,550	5.1%
Electrical	$3.05	$3,970	4.5%
Final Grading	$0.22	$288	0.3%
Fireplace Surround	$0.00		0.0%
Fireplaces	$0.00		0.0%
Flatwork	$1.00	$1,300	1.5%
Flooring - Vinyl	$2.69	$3,500	3.9%
Framing - Labor	$6.31	$8,200	9.2%
Framing - Lumber	$8.85	$11,500	12.9%
Framing - Trusses	$4.34	$5,639	6.3%
Garage Door	$0.43	$558	0.6%
Gates	$0.00		0.0%
Grading	$0.35	$460	0.5%
Granite	$0.00		0.0%
HVAC	$3.15	$4,100	4.6%
Insulation	$1.15	$1,500	1.7%
Finish Carpentry & Hardware	$1.77	$2,302	2.6%
Landscaping	$1.33	$1,726	1.9%
Light Fixtures	$0.44	$575	0.6%
Mirrors / Shower Doors	$0.35	$452	0.5%
Paint	$1.77	$2,302	2.6%
Perimeter Walls	$0.89	$1,151	1.3%
Plumbing	$4.00	$5,200	5.8%
Roofing	$1.11	$1,439	1.6%
Rough & Final Cleaning	$0.20	$259	0.3%
Water & Sewer System	$1.20	$1,554	1.7%
Slab	$6.64	$8,631	9.7%
Stucco	$3.62	$4,700	5.3%
Temp Power	$0.19	$250	0.3%
Regulatory compliance	$0.58	$750	0.8%
Utility Service Lines	$0.44	$575	0.6%
Windows / Patio Doors	$1.77	$2,302	2.6%
Window Treatments			
Subtotal	**$68.57**	**$89,135**	**100.0%**

TABLE VI-1: 1,300-SQUARE-FEET SINGLE FAMILY HOME COST & SUBSIDY ANALYSIS SYNOPSIS, 2005 (CONTINUED)

Construction Component	$ Per S.F.	Component Costs	% of Total
INDIRECT CONSTRUCTION COSTS			
Construction Utilities	$0.08	$100	0.2%
Building Permit & fees	$1.31	$1,700	3.3%
Architectural & Engineering	$4.89	$6,360	12.2%
Blueprints	$0.15	$200	0.4%
Builders Risk Insurance	$0.23	$300	0.6%
Lot Improvement	$28.85	$37,500	72.0%
Warranty	$0.38	$500	1.0%
Water connection fees (5/8"/3/4" meter)	$4.16	$5,405	10.4%
Subtotal	**$40.05**	**$52,065**	**100.0%**
FINANCING / COMMISSIONS			
Loan Points			
Interest Carry	$0.62	$800	44.4%
Closing Costs Construction Loans			
Escrow & Closing Costs	$0.77	$1,000	55.6%
Sub Total	**$1.38**	**$1,800**	**100.0%**
Total Direct	$68.57	$89,135	62.3%
Total Indirect	$40.05	$52,065	36.4%
Total Financing / Other	$1.38	$1,800	1.3%
GRAND TOTAL without LAND	**$110.00**	**$143,000**	**100.0%**

Construction Component	Values	Unit Costs	% of Total
LAND			
Acreage	3.5		
Density Allowance (per acre)	12.0		
Market Value per acre	$550,000		
Land Costs	$1,925,000	$45,833	24.3%
TOTAL HARD COSTS with LAND	**$145.26**	**$188,833**	**100.0%**

Source: Residential Resources, Inc.

TABLE VI-2: HOME OWNERSHIP AFFORDABILITY & SUBSIDY REQUIREMENTS CLARK COUNTY, 2005

Clark County FY 2005 HUD Median Family Income ("MFI") = $56,550 [1]												
Percent of AMI	Annual Wage [1]	Monthly Wage	Weekly Wage	Hourly Wage	Maximum Affordable Monthly Mortgage Payment [2]	Maximum Total Mortgage [3]	Maximum Affordable Sales Price	Subsidy Required for Hypothetical 1,300 s.f. "affordable" ($207,350) SFR	Subsidy Required for Median Priced Existing Home ($280,000) [4]	Subsidy Required for Median Priced New Home ($290,000. Includes condo conversions) [4]	Subsidy Required for median priced New Home ($318,000. Excludes condo conversions) [4]
10%	$ 5,655	$ 471	$ 109	$ 2.72	$ 141	$ 17,745	$ 18,877	$ 188,473	$ 261,123	$ 271,123	$ 299,123
20%	$ 11,310	$ 943	$ 218	$ 5.44	$ 283	$ 35,488	$ 37,754	$ 169,596	$ 242,246	$ 252,246	$ 280,246
30%	$ 16,965	$ 1,414	$ 326	$ 8.16	$ 424	$ 53,233	$ 56,631	$ 150,719	$ 223,369	$ 233,369	$ 261,369
40%	$ 22,620	$ 1,885	$ 435	$ 10.88	$ 566	$ 70,977	$ 75,507	$ 131,843	$ 204,493	$ 214,493	$ 242,493
50%	$ 28,275	$ 2,356	$ 544	$ 13.59	$ 707	$ 88,722	$ 94,385	$ 112,965	$ 185,615	$ 195,615	$ 223,615
60%	$ 33,930	$ 2,828	$ 653	$ 16.31	$ 848	$ 106,465	$ 113,261	$ 94,089	$ 166,739	$ 176,739	$ 204,739
70%	$ 39,585	$ 3,299	$ 761	$ 19.03	$ 990	$ 124,210	$ 132,138	$ 75,212	$ 147,862	$ 157,862	$ 185,862
80%	$ 45,240	$ 3,770	$ 870	$ 21.75	$ 1,131	$ 141,953	$ 151,014	$ 56,336	$ 128,986	$ 138,986	$ 166,986
90%	$ 50,895	$ 4,241	$ 979	$ 24.47	$ 1,272	$ 159,698	$ 169,892	$ 37,458	$ 110,108	$ 120,108	$ 148,108
100%	**$ 56,550**	**$ 4,713**	**$ 1,088**	**$ 27.19**	**$ 1,414**	**$ 177,442**	**$ 188,768**	**$ 18,582**	**$ 91,232**	**$ 101,232**	**$ 129,232**
110%	$ 62,205	$ 5,184	$ 1,196	$ 29.91	$ 1,555	$ 195,187	$ 207,645	n/a	$ 72,355	$ 82,355	$ 110,355
120%	$ 67,860	$ 5,655	$ 1,305	$ 32.63	$ 1,697	$ 212,930	$ 226,521	n/a	$ 53,479	$ 63,479	$ 91,479
130%	$ 73,515	$ 6,126	$ 1,414	$ 35.34	$ 1,838	$ 230,675	$ 245,399	n/a	$ 34,601	$ 44,601	$ 72,601
137%	$ 77,474	$ 6,456	$ 1,490	$ 37.25	$ 1,937	$ 243,096	$ 258,612	n/a	$ 21,388	$ 31,388	$ 59,388
140%	$ 79,170	$ 6,598	$ 1,523	$ 38.06	$ 1,979	$ 248,419	$ 264,275	n/a	$ 15,725	$ 25,725	$ 53,725
150%	$ 84,825	$ 7,069	$ 1,631	$ 40.78	$ 2,121	$ 266,163	$ 283,153	n/a	n/a	$ 6,847	$ 34,847
153%	$ 86,522	$ 7,210	$ 1,607	$ 40.17	$ 2,163	$ 271,486	$ 288,815	n/a	n/a	$ 1,185	$ 29,185
160%	$ 90,480	$ 7,540	$ 1,740	$ 43.50	$ 2,262	$ 283,907	$ 302,029	n/a	n/a	n/a	$ 15,971
170%	$ 96,135	$ 8,011	$ 1,849	$ 46.22	$ 2,403	$ 301,652	$ 320,906	n/a	n/a	n/a	n/a

Source & Notes:

1. HUD Income levels based upon County Median Family Income ("MFI") for 2005.
2. Assumes "Maximum Mortgage Payment" may not exceed 30 percent of income.
3. Mortgage rate is based on 6.5 percent FHA 30-year mortgage accounting for principal, interest, taxes and insurance; Assumes 3 percent down payment, 3 percent closing cost, no debt, and good credit.

Note: Monthly tax payments are calculated taking the sales price x .35 = assessed value x tax rate (.033002) / 12.
Monthly homeowners insurance was calculated using Sales Price x .0025 / 12.
Monthly mortgage insurance was calculated using Total Mortgage x .005 /12.

4. Home Builders Research, July, 2005 Median and New Home Sales Price.

TABLE VI-3: 300-UNIT APARTMENT COMMUNITY DEVELOPMENT COST & SUBSIDY ANALYSIS SYNOPSIS 2005, 2010 & 2015

WITHOUT LAND COST	Conventional			4% LIHTC's / TEB's		
	Projection Date			Projection Date		
	2005	2010	2015	2005	2010	2015
	Interest Rates			Interest Rates		
	6.00%	7.50%	9.00%	5.50%	7.00%	8.50%
Development Hard Costs	$21,886,307	$26,097,514	$31,119,012	$20,083,277	$23,947,558	$28,555,377
Development Soft Costs	$3,690,240	$4,605,996	$5,404,512	$2,671,786	$3,090,226	$3,569,263
Transaction Costs (declining due to mortgage amount)	$3,108,808	$3,080,475	$2,881,165	$8,676,331	$9,454,145	$10,226,529
Reserve Escrows (declining due to mortgage amount)	$1,147,101	$1,075,392	$878,156	$1,181,696	$1,078,759	$993,748
Total Development Costs	$29,832,456	$34,859,377	$40,282,845	$32,613,090	$37,570,688	$43,344,917
Estimated Loan Amount	$30,593,700	$23,623,500	$19,211,210	$20,885,000	$16,100,000	$12,470,000
Subsidy Requirements	-$761,244	$11,235,877	$21,071,635	$11,728,090	$21,470,688	$30,874,917
per unit subsidy requirements	n/a	$37,453	$70,239	$39,094	$71,569	$102,916

WITH LAND COST	Conventional			4% LIHTC's / TEB's		
	Projected Development Date			Projected Development Date		
	2005	2010	2015	2005	2010	2015
	Interest Rates			Interest Rates		
	6.00%	7.50%	9.00%	5.50%	7.00%	9.50%
Development Hard Costs	$21,886,307	$26,097,514	$31,119,012	$20,083,277	$23,947,558	$28,555,377
Development Soft Costs	$3,690,240	$4,605,996	$5,404,512	$2,671,786	$3,090,226	$3,569,263
Land Acquisition Cost	$6,800,000	$7,575,751	$8,309,981	$6,800,000	$7,507,760	$8,309,980
Transaction Costs (declining due to mortgage amount)	$3,108,808	$3,080,475	$2,881,165	$8,676,331	$9,454,145	$10,226,529
Reserve Escrows (declining due to mortgage amount)	$1,147,101	$1,075,392	$878,156	$1,181,696	$1,078,759	$993,748
Total Development Costs	$36,632,456	$42,435,128	$48,592,826	$39,413,090	$45,078,448	$51,654,897
Estimated Loan Amount	$30,593,700	$23,623,500	$19,211,210	$20,885,000	$16,100,000	$12,470,000
Subsidy Requirements	$6,038,756	$18,811,628	$29,381,616	$18,528,090	$28,978,448	$39,184,897
per unit subsidy requirements	$20,129	$62,705	$97,939	$61,760	$96,595	$130,616

Note that the subsidy requirements under the LIHTC scenarios do not take into consideration any available tax credits.
Source: GMAC Commercial Mortgage.

TABLE VI-4: 100-UNIT SRO DEVELOPMENT COST & SUBSIDY ANALYSIS SYNOPSIS 2005, 2010 & 2015

WITHOUT LAND COST	Conventional			GNMA's with 9% Credits		
	Projection Date			Projection Date		
	2005	2010	2015	2005	2010	2015
	Interest Rates			Interest Rates		
	6.00%	7.50%	9.00%	6.00%	7.50%	9.00%
Development Hard Costs	$6,024,500	$7,183,691	$8,565,926	$6,024,500	$7,183,691	$8,565,926
Development Soft Costs	$1,333,878	$1,539,707	$1,774,555	$1,136,378	$1,322,456	$1,537,555
Transaction Costs (declining due to mortgage amount)	$816,743	$902,903	$934,403	$2,178,500	$2,416,958	$2,717,268
Reserve Escrows (declining due to mortgage amount)	$455,242	$449,567	$410,646	$330,620	$292,680	$266,935
Total Development Costs	$8,630,363	$10,075,868	$11,685,530	$9,669,998	$11,215,785	$13,087,684
Estimated Loan Amount (FHA insured)	$8,399,300	$8,294,600	$7,576,500	$6,100,000	$5,400,000	$4,925,000
Subsidy Requirements	$231,063	$1,781,268	$4,109,030	$3,569,998	$5,815,785	$8,162,684
per unit subsidy requirements	$770	$5,938	$13,697	$11,900	$19,386	$27,209

WITH LAND COST	Conventional			GNMA's with 9% Credits		
	Projected Development Date			Projected Development Date		
	2005	2010	2015	2005	2010	2015
	Interest Rates			Interest Rates		
	6.00%	7.50%	9.00%	6.00%	7.50%	9.00%
Development Hard Costs	$6,024,500	$7,183,691	$8,565,926	$6,024,500	$7,183,691	$8,565,926
Development Soft Costs	$1,333,878	$1,539,707	$1,774,555	$1,136,378	$1,322,456	$1,537,555
Land Acquisition Cost	$340,000	$375,300	$415,500	$340,000	$375,300	$415,500
Transaction Costs (declining due to mortgage amount)	$816,743	$902,903	$934,403	$2,178,500	$2,416,958	$2,717,268
Reserve Escrows (declining due to mortgage amount)	$455,242	$449,567	$410,646	$330,620	$292,680	$266,935
Total Development Costs	$8,970,363	$10,451,168	$12,101,030	$10,009,998	$11,591,085	$13,503,184
Estimated Loan Amount	$8,399,300	$8,294,600	$7,576,500	$6,100,000	$5,400,000	$4,925,000
Subsidy Requirements	$571,063	$2,156,568	$4,524,530	$3,909,998	$6,191,085	$8,578,184
per unit subsidy requirements	$1,904	$7,189	$15,082	$13,033	$20,637	$28,594

Note that the subsidy requirements under the GNMA scenarios do not take into consideration any available tax credits.
Source: GMAC Commercial Mortgage.

Section VII

CONCLUSIONS & RECOMMENDATIONS

VII. CONCLUSIONS & RECOMMENDATIONS

A. INTRODUCTION

The SNRPC Regional Growth Summit Report indicated that "A range of affordable housing choices was seen as an important dimension to attracting new jobs to the region, whether these jobs relate to the gaming industry's growth or to new non-gaming employers."

In some of the costliest areas in the nation, political jurisdictions and employers are beginning to identify a link between high housing costs, employee recruitment, productivity and retention, as well as their own bottom lines. As workforce housing initiatives spring up in communities around the country, and as a small but growing number of employers offer housing benefits to their employees, the question arises: Are high housing costs undermining the type of competitive business environment that is essential to strong, vibrant communities? Should the increasing cost of housing therefore be added to the list of traditional business concerns? These are some of the major questions facing Southern Nevada and are the focus of this report.

Those who hold workforce jobs are often the essential, frontline workers in the economy. They may be single persons with or without children, or couples, one (or often, both) with a workforce job. Examples of workforce jobs in Southern Nevada include the construction worker, police officer, teacher, nurse, retail salesperson, restaurant server and the resort-industry worker. The importance of the workforce sector to our local economy cannot be overstated. In effect, employees earning workforce wages fill the majority of jobs in nearly every sector of our economy.

B. FINDINGS

The primary study objectives and findings of the research conducted herein are presented below:

1. Prepare an Affordable and Attainable Housing Demand Analysis for Clark County.

- In 2005, there were an estimated 684,142 households in the County.

- Approximately 134,800 households, or 19.7 percent of the County's 2005 households earn between 80 percent and 120 percent of the annual Area Median Income ("AMI") of $56,550, defined as the U.S. Department of Housing and Urban Development Median Family Income ("MFI").

  - The 80 percent to 120 percent range equals $45,240 to $67,860 per year.

  - Approximately 136,800 or 20 percent of Clark County households earn from 53 percent up to 80 percent ($30,000 - $45,000 per year) of the AMI.

  - Approximately 93,500, or 13.7 percent of Clark County households, earn from 35 percent up to 53 percent ($20,000 - $30,000 per year) of the AMI.

  - Approximately 117,000, or 17.1 percent of Clark County households, earn less than 35 percent ($20,000 per year) of the AMI.

2. Prepare an Affordable and Attainable Housing Supply Analysis for Clark County.

- An analysis was conducted of the historical relationships between (1) population and housing inventory growth and (2) household income and median home prices (both existing and new). An analysis was also performed of the 2005 housing stock by type and tenure.

- The Clark County housing stock has historically grown at a pace consistent with that of population growth (an average annual growth of 5.7 percent between 1980 and 2005).

- It is estimated that 705, 460 total residential units were in Clark County as of July, 2005. These dwelling units are segmented as follows:

  - 404,998 single family homes
  - 169,845 apartments
  - 50,509 condos
  - 33,357 townhome
  - 27,145 mobile homes
  - 19,384 multiplex units

- Las Vegas Perspective data indicates that as of the end of 2004, approximately 64 percent of Valley dwelling units were owner-occupied, while the remaining 36 percent was renter-occupied.

- Clark County Assessor's data indicates that as of July, 2005, approximately 48 percent of Clark County dwelling units were owner-occupied. An additional 45 percent were renter occupied, while the remainder were designated "low-income rentals".[6]

  - The Assessor's data also indicates that a disproportionate share of homes built in 2004 and 2005 are a part of the rental pool, which appears to be highlighting the impact of recent real estate investment and speculation. This may also substantially explain the difference between the two methodological results. Difference in geography may also explain some of the variation.

- Affordability Ratio:

  - The "New Home Affordability Index", a ratio of home prices to annual household income, has increased from a 1995 to 1999 average of 3.37 to 6.66 as of Q2, 2005, indicating declining housing affordability in the County's urbanized area.

[6] "Low-income rentals" is an assessor's designation for property tax purposes and is not the same as HUD's definition of "affordable" subsidized housing.

- The "Existing Home Affordability Index" has grown from 2.79 in 2000 to 5.18 in 2005.

- As a general rule, an "Affordability Index" value of 3.33 represents the "affordability" threshold for mortgage payments. This assumes that any more than approximately 30 percent of income going toward mortgage payments is "unaffordable". This ratio, however, does not account for variations in mortgage rates, down payments or other factors impacting monthly mortgage payments. Still, the sharp increase in these ratios since 2000 are reason for concern.

- Rental Market

  - Of the 705,460 residential units counted in the July, 2005 Assessor's residential extract database, 317,492, or 45 percent of the total stock of residential units in the County were identified as "rentals".

  - Based on the Assessor's data, non-apartment rentals represent a substantial addition (168,600 units) to the total rental inventory. The data indicate that apartment units in complexes make up less than 47 percent of the total rental pool, whereas single family units account for another 36.5 percent and condos account for 8.5 percent. Townhomes, mobile homes and multiplexes account for the remaining eight percent.

  - Both empirical and anecdotal data indicate that individuals that own rental properties have some flexibility in how much rent they charge, making these units competitive with similar sized apartments. That is, believing that price appreciation will make up the difference, some individual owners are charging rents comparable to apartment units and sometimes even less than their mortgages when renting units to family members, friends and acquaintances. To the extent that these "shadow" rentals are competitively priced with apartments, their existence adds to the pool of affordable housing to those households at the lower spectrum of the income range,

mitigating to some degree the impact of apartment losses to condo conversions, demolitions, etc.

3. Project the Affordable and Attainable Housing Gap in Clark County through 2015.

- Households earning less than 150 percent of AMI ($84,825 per year) cannot afford a 2005 median priced existing for-sale home.

  - For households earning 80-140 percent of AMI ($45,240 – $79,170 per year), subsidies of approximately $16,000 to $129,000 would be required to bridge the affordability gap for the 2005 median priced existing home.

  - Subsidies of approximately $148,000 to $261,000 would be required to make this existing single family home affordable to families earning 10-70 percent ($5,655 - $39,585 per year) of AMI.

- Households earning less than 160 percent of the AMI ($90,480 per year) cannot afford a 2005 median priced new for-sale home.

  - For households earning between 80-150 percent of AMI ($45,240 – $84,825 per year), subsidies of approximately $7,000 to $139,000 would be required to bridge the affordability gap for the 2005 median priced new home.

  - Subsidies of approximately $158,000 to $271,000 would be required to make the 2005 median priced new single family home affordable to families earning between 10-70 percent ($5,655 - $39,585 per year) of AMI.

- The two methodologies used to project a workforce housing supply gap between 2005 and 2016 suggest “best case” and “worst case” estimates with the likely outcome somewhere between the two.

- Method One: Assume that median home prices and household income grow at the same rate.

- Approximately 169,000 new workforce households are projected to be added to the County during the 2006 to 2015 study period. Our research suggests that 80 to 82 percent of these new workforce households (135,400 – 138,800 households) will not be able to afford a median priced, existing, for-sale home or new home.

  - Households earning less than 120 percent of the AMI ($67,860 per year) are projected to account for the 70 percent of new households added to the economy each year. This compares to 24 percent of all home sales (existing and new) within their range of affordability over the one year period from November, 2004 through October, 2005.

  - Households earning less than 80 percent of the AMI ($45,240 per year) are projected to account for the 51 percent of new households added to the economy each year. This compares to 8.2 percent of all home sales (existing and new) within their range of affordability over the one year period from November, 2004 through October, 2005.

  - This assumes that the household income distribution of new worker households will mirror that of existing households and that the ratio of median household income to median home price stays constant over time.

  - Note that this does NOT take into account so called "lifestyle" renters, which would reduce the housing supply gap, somewhat.

- Method Two: Project the Homeownership Affordability Indexes over time.

  - A projection of the home affordability indexes indicates that home prices could grow to 6.9 and 9.2 for existing and new home indexes, respectively by 2010, and up to 9.5 and 13.2 for exiting and new home affordability indexes, respectively by 2015.

- This analysis, however, does not take into account market dynamics that are likely to mitigate the divergence between home prices and household income suggesting that this is an extreme worst case scenario.

- The Supply and Demand Analyses conducted herein indicate that apartment rents as a share of renter household income has been relatively stable during the past 15 years. In 2005, studio rental units are affordable to households earning at least 40 percent of AMI. All rental unit types are affordable to households earning 80 percent or more of AMI. However, a historically low vacancy rate (5.1 percent, Q2, 2005), decreased production of new apartments and rapidly increasing home prices indicate that rents are due to rise, potentially dramatically. This will impact apartments as an affordable/attainable housing option.

- Monthly rent, as a share of monthly income, ranges from about 30 percent to more than 50 percent, depending on the data source.

  – Rent data from the Las Vegas Perspective and renter household income data from the U.S. Bureau of the Census American Community Survey indicate that the average rent has remained between 25 and 35 percent of median renter income between 1989 and 2005

  – These data, however, do not reveal the impacts to "cost burdened" renters. According to 2000 HUD data 65 percent of all renter households in Clark County earning less than 30 percent of AMI (about $17,000) pay more than 50 percent of their monthly income to rent.

- Based on 2004 renter household income and rental rate distributions, research indicates a deficit of approximately 80 percent of affordable units available to renter households earning less than 27 percent of AMI ($15,000).

- The same research indicates a surplus of units available to those renter households earning between from 27 percent up to 62 percent of AMI ($15,000 up to $$40,000)

- However, this does not account for estimated reductions in the overall stock of apartments for 2005.

- The lack of apartments at the highest end of the rental price range virtually wipes out the surplus of units available to renter households earning between from 27 percent up to 62 percent of AMI.

  – This deficit of rental units at the highest end of the rental price range suggests an apartment development opportunity. Taking advantage of this seeming unmet demand would likely lessen some of the demand-supply imbalance of lower-priced rental units.

- An informal survey conducted as part of this study indicates that businesses are only beginning to feel the impact of workforce housing-related issues. However, most of those who responded (10 out of 11), indicated that "affordable housing is scarce and becoming a problem." Four out of five, who offered additional comments, said that declining housing affordability is likely to put upward pressure on the wages of their workers.

4. Prepare a Construction Cost Analysis.

- 300-unit garden style development estimated subsidy requirements:

  – Based on 2005 construction costs and excluding land costs, it is estimated that a per-unit subsidy ranging from $0 (under conventional financing) approximately $39,000 (four percent LIHTC / TEB financing) would be required by a developer to build a 300-unit apartment complex. This equates to $0 to $11.7 million for a hypothetical 300-unit apartment complex.

  - Including 2005 land costs, subsidy requirements are estimated to be between approximately $20,000 (under conventional financing) to $62,000 per unit (four percent LIHTC / TEB financing). This equates to $6 million to $20.2 million per 300-unit project.

- 100-unit SRO development estimated subsidy requirements

  - Based on 2005 construction costs and excluding land costs, it is estimated that a subsidy requirement of $770 (conventional financing) to $11,900 per unit (GNMA nine percent credit financing). This equates to $231,000 to $3.6 million for a 100-unit development.

  - Including 2005 land costs, subsidy requirements are estimated to be between approximately $1,900 (conventional financing) to $13,000 per unit (GNMA nine percent credit financing). This equates to $571,000 to $3.9 million per 100-unit development.

- 1,300-square-foot "affordable" single family residence

  - It is estimated that a hypothetical "affordable", no frills 1,300-square-foot single family home could be built at 2005 construction costs for approximately $110 per square foot or $143,000 (excluding land costs and developer profit). Including 2005 land costs, such a home could be built for approximately $145 per square foot, or $189,500.

  - Developers in Clark County are currently averaging between eight and 12 percent profit. Assuming an average minimal required profit of 10 percent, this translates into a $207,350 sales price for the hypothetical home modeled above.

  - At $207,350, this home would not be affordable to households earning less than 110 percent of AMI.

- For households earning between 80 percent and 100 percent of AMI ($45,240 – $56,550 per year) subsidies of approximately $19,000 to $56,000 would be required to bridge the affordability gap.

- Subsidies of approximately $75,000 to $189,000 would be required to make this hypothetical single family home affordable to families earning 10 percent to 70 percent ($5,655 - $39,585 per year) of AMI.

C. BARRIERS & SOLUTIONS

The Consultant Team has identified a number of barriers to the development of affordable and attainable workforce housing in Clark County. The "barriers" are followed by a set of "solutions" that the Consultant Team has identified from its long time involvement in Southern Nevada, its extensive research library and its research conducted as part of this study.

1. Site-Related Issues

a. Barriers

High land costs. High land costs in Clark County, especially the Valley, is the largest single site-related barrier to the construction of workforce housing.

Inadequate infrastructure. Infrastructure in many of the Valley's older, established areas is in need of repair, enlargement or replacement. The costs to repair such infrastructure add to overall project costs in these locations and can make the production of workforce housing financially infeasible without subsidization.

Environmental challenges. The Valley's urban development and redevelopment sites are more likely to be contaminated than virgin greenfield suburban sites. They also pose staging and access challenges during the construction process.

Lack of information about available sites. Information about available infill sites for workforce housing varies depending upon the jurisdiction. While this may not be an issue in

municipalities with significant unsatisfied demand, because the profit motive will lead developers to find sites, it is a concern in low-demand site locations. Government assistance may be helpful to market and develop those sites.

Mismatch between available sites and where people want to live. Some of Clark County's jurisdictions contain under-utilized sites, but they are typically located in problematic areas. Many sites are in older neighborhoods with poor infrastructure, high crime rates, less desirable schools, etc. As well, these sites may have neighborhood resistance to changes in housing patterns resulting in increased density and higher building elevations. These types of projects may also require significant infill locations.

Lack of understanding about workforce households' location preferences. Do workers want to live near their workplaces, or do other factors—such as schools and crime rates—drive their location decisions? The answer to this question is often unclear. Understanding these locational issues are crucial to delivering the housing that workers desire.

Construction costs. For a variety of reasons—including the physical difficulty of working in a rapidly changing and urbanizing area like the Valley's core, as well as infrastructure capacity issues, contaminated sites and site security issues—building in our more urbanized areas can be more expensive than building in suburban or exurban areas where developers work with a "clean palette".

b. Solutions

Assemble and provide land in low-value/low-demand areas. Local redevelopment agencies could evaluate the potential of assembling land and selling it for workforce housing development. Title and ownership problems often makes the land assembly process time consuming and risky for developers. Land assembly by the jurisdictions removes some of the risk to developers. However, this shifts the risk of development to the government, which needs to be weighed against the potential social and economic benefits to be accrued. This solution is not recommended for high-value areas, where the value of the land would justify the developer assuming the risk and cost of land assembly.

Utilize the BLM land disposal process for the purpose of developing affordable housing for the workforce population and lower income citizens. On April 8, 2004, the BLM Nevada State Director established Interim Guidelines on the policy, provisions, and required information for the implementation of Section 7(b) of the Southern Nevada Public Lands Management Act of 1998 ("SNPLMA"). These guidelines provide for a discount of 75 percent up to 95 percent of fair market value ("FMV"), for land designated for the use of affordable housing (defined as families earning less than 80 percent of the AMI). In addition to taking full advantage of these guidelines for the provision of housing to low-income families, State and local entities should encourage the BLM to allow for the discounted sale and use of land to be used for workforce housing purposes to serve those earning above 80 percent AMI.

Make targeted development and redevelopment areas more attractive by improving physical infrastructure, safety, schools, supportive retail and mixed uses, and parks and open space. Local governments often offer infrastructure improvements as an incentive to attract commercial development. We recommend that jurisdictions offer similar types of incentives to attract workforce housing projects. Target areas could be defined as those areas adequately served by transit and retail services.

Inventory existing sites—including information on assets, liens, ownership and contamination—and market these sites for development. The County and the cities could promote the development of workforce housing by inventorying existing sites and listing any potential development problems, such as title problems, land contamination problems, etc. By quantifying these properties' existing conditions and problems, our local governments could reduce the risk to developers, and facilitate development and/or redevelopment at these sites.

Prepare market studies on workforce housing demand. Assessing the demand for workforce housing in targeted urban areas will provide a statistical basis for public policy, while also demonstrating demand to the development and finance sectors. "Pioneering" projects often find it difficult to attract financing because of a lack of information. Market studies could be used to evaluate demand and make it easier for developers to acquire financing for innovative

projects in less traditional areas, including residential and mixed-use and mixed-income developments.

Leverage excess public lands. Our local governments, regional agencies, school district and public utilities could donate their excess lands or sell them at reduced prices with the stipulation that some workforce housing be produced on the land.

2. Financing-Related Issues

a. Barriers

High development costs. In Southern Nevada's urban areas, developers cannot profitably produce workforce housing. As previously noted, high land costs are usually cited as one of many factors that make such development financially infeasible. Another major factor impeding the building of workforce housing is rapidly rising construction costs.

Limited government funding. The issue of workforce housing has yet to gain traction as a federal political issue in comparison to competing priorities, such as reducing the national deficit, fighting terrorism, etc. Therefore, as a low priority item, it is expected that already limited federal efforts to fund workforce housing programs will decline even further to help reduce the national deficit. Although the issue has gained more attention at the state and local levels, very little state or local money has been allocated to address the problem. There may be a reluctance to raise taxes and impose the additional fees to provide the necessary subsidies. Low-income housing tax credit programs and other federal, state and local programs address the housing needs of low-income households but few of these programs extend their income restrictions to include moderate-income households above 80 percent AMI.

Down payment requirements. Although many of Clark County's moderate-income workers make enough money to qualify for a home mortgage, few have been able to save enough for the down payment required to secure a loan. Many potential moderate-income homebuyers therefore are forced to remain in the rental market, as rapidly rising home prices exceed their ability to secure an affordable mortgage.

Restrictive underwriting criteria. Some of Southern Nevada's lenders assume potential homebuyers will have one car per bedroom and require developers to address this parking issue by providing additional parking. Local zoning requirements for parking often are less stringent than those of underwriters.

No Community Reinvestment Act (CRA) tie to moderate-income housing. The CRA requires lenders to invest a certain amount of their money in low income areas but not in moderate-income, working class neighborhoods.

b. Solutions

Some of the ideas mentioned below are typically targeted to low income households but could be adapted to include moderate-income households.

Change State law to allow the following:

Use tax increment financing ("TIF") for infrastructure improvements and other site improvements. TIF could direct the additional revenue that will be generated by new development in an area directly to that development, rather than back into a jurisdiction's general revenue stream. It could provide an excellent method of financing needed infrastructure improvements. Redevelopment boundaries may, however, need to be increased to take full advantage of this financing tool.

Increase or dedicate transfer taxes/recording fees to pay for a housing trust fund. Property taxes or recording fees could be earmarked to pay for a housing trust fund dedicated to financing the construction of moderate income housing. (Note: housing trust funds normally dedicate their funds to the production of low-income housing.) Options could include a housing trust fund that made money available for the production of housing for those earning up to 80 percent of AMI. An additional option could be to establish commercial/retail/industrial linkage fees to expand the trust fund to help subsidize housing for those above the 80 percent AMI.

Expand tax credits for first-time homebuyers and offer loans to cover down payments. The local jurisdictions could work with the State of Nevada to offer tax credits to first-time homebuyers who purchase units in targeted areas.

Offer property tax abatements for the construction of new workforce housing. Offering to abate the property taxes of a new development for a specified period of time, with the stipulation that a certain percentage of any new housing be designated for workforce housing, could be an effective way to make such housing financially feasible.

Offer loans to cover down payments. The local jurisdictions could offer down payment assistance to first-time homebuyers who purchase units in targeted areas.

Expand employer-assisted housing programs. Some employers around the country provide financial and other assistance to their low- and moderate-income workers in an effort to improve employee retention and productivity. These programs have been implemented by a variety of public and private employers around the country.

Change federal and state law to provide more flexibility in government housing programs to address a broader range of incomes. Many government programs are structured to support the production of low-income housing. These programs could be altered to support mixed-income projects that include moderate-income housing, possibly in mixed-use settings.

Build into the entitlement process incentives to reward developers for providing workforce housing. This broad solution seeks to offer a variety of financial incentives tied to the condition that a certain percentage of the housing be designated for moderate-income households. Positive incentives are to be encouraged over mandatory requirements that arbitrarily impose such conditions as an element of zoning/design approval.

Investigate the effectiveness of location-efficient mortgages. Location-efficient mortgages allow homebuyers to take on a higher debt ratio if the home they purchase is located within a certain radius of public transportation, since a household that relies on public transportation will spend less money on a car and therefore will have more money available for housing.

3. Regulatory Barriers

a. Barriers

Zoning requirements. Some of our local zoning regulations do not allow for affordable or higher-density housing. Some of our local zoning codes can have a bias toward lower density housing and against affordable or higher density housing.

The building permit process. This process tends to be increasingly lengthy and expensive, adding time and costs to the development process, making it harder for developers to produce affordable housing. Local developers and builders often complain about the building permit processes of the jurisdictions. Homebuilders who are trying to develop affordable housing are even more impacted by permitting process delays and expenses, because their projects have a smaller profit margin and often encounter more public opposition from the NIMBY (not-in-my-backyard) groups.

The rezoning or variance process. This can be a difficult, painful and risky process that works against the production of affordable housing and creative development solutions. While many development projects could be improved or made more affordable through rezoning or the variance process, the development community is hesitant to pursue a variance or a rezoning request, because of the difficulty of the process. Public opposition may make it difficult to effect positive change.

Building codes, such as life safety codes. Some of our existing local building code provisions add time and expense but may not necessarily improve the quality or safety of construction but may be undertaken for other longer-term social benefits.

Lack of regulatory and program coordination. It often appears that there is a lack of coordination among our regulatory agencies charged with issuing development approvals. In addition, while a number of tools are available at the local level to support affordable housing production, there seems to be a lack of knowledge on the part of some developers as to what is available. This exacerbates the resistance by some home builders to building different types of housing products outside their "comfort zone."

Community opposition. The opposition of existing community residents can make receiving approvals for new development projects difficult and time consuming, thus increasing a prospective developer's time and costs over more standard and traditional housing types.

No organized advocacy groups. While low-income households are supported by various housing advocacy groups, moderate-income households lack such support. Developments for low income and moderate income housing often times lack strong public advocates beyond the developer seeking the immediate zoning approval, even from the end users, while at the same time facing opposition from existing property owners.

b. Solutions

Adopt inclusionary zoning regulations. Inclusionary zoning regulations often specify that a certain number of the units in a new housing development be affordable. Many of these regulations offer incentives—like density bonuses and accelerated permitting—to provide affordable housing. Adopting such requirements would create a level playing field for workforce housing development. Exceptions could be allowed by having builders pay into a housing trust fund, providing funds to build such units elsewhere.

Improve coordination between the jurisdictions and regional agencies. Different programs can have different requirements, which may be redundant and/or conflict with each other. To improve the efficiency and predictability of the permitting process, we recommend that the requirements of various programs and permits be reviewed and coordinated to avoid conflicts or redundancies, where necessary.

Shorten the public approval process. Obtaining public approval for land development in Clark County is often a polarizing, emotionally charged process that does not effectively clarify the wants and needs of either developers or the community. An earlier engagement of the community in this process and an emphasis on what both parties have in common—and on protecting the value of both the existing community and new development proposals—are the hallmarks of a constructive and effective public approval process.

Provide incentives for the development of workforce housing. Incentives, such as shared parking opportunities, density bonuses, tax abatements, mixed-use zoning, flexible zoning and fee waivers would help make the development of workforce housing in Clark County more economically feasible for homebuilders.

Require comprehensive plans to address housing/jobs linkages and balance. Our local comprehensive plans are good at planning for the construction of sewers, roads and parks—and for creating residential and commercial areas. However, they should also focus on the balance between jobs and housing, and the links between jobs and the type of housing in which these workers will live. This also includes the transportation elements needed to get workers from their homes to their places of employment. The linkage between density and transportation needs to be emphasized to avoid future gridlock. Zoning codes should be designed to reflect this desired balance and linkage. As a community, we need to assess if we are encouraging segregation of uses and a reliance on tradition single family detached housing that can lead to sprawl, economically segregated communities, affordable housing problems and traffic congestion.

Incorporate a workforce housing component in redevelopment plans. Incorporating a workforce housing component in the mission statement of local redevelopment agencies would elevate the issue and make it priority in redevelopment planning at both the public official and staff levels, especially in encouraging transit orientated developments.

Use rezoning powers. Our local jurisdictions could use these powers to create opportunities for the construction of workforce housing. Approval of land rezoning requests could be tied to requirements to provide or fund future workforce housing.

Use green building principles. Using green building principles in the construction of workforce housing may help affordable housing developers begin to build a diverse coalition of support for proposed affordable housing projects those wishing to preserve our natural resources and those wishing to reduce our dependency on external energy suppliers. This could prove particularly beneficial at public meetings, where those opposing new development often show up but those who support it typically do not.

Tie workforce housing to public projects. Our local governments and regional agencies could evaluate the feasibility of constructing workforce housing as part of the request for proposals (RFP) process for major public development or redevelopment projects. Examples of such opportunities include the expansion of mass transit (including transfer stations), the use of excess road rights-of-way, or when rehabilitating our older public schools.

Address community concerns to dispel myths about workforce housing. Our local governments and/or development trade groups could conduct education programs to demonstrate the value of workforce housing for the Southern Nevada economy. Such programs should address the concerns of low-income housing advocates and how workforce housing affects these issues. Community groups and our public officials should be brought into the discussion. Developers and the jurisdictions should continue to provide some form of public amenity for existing residents, such as a new trail system, park or a new service.

Build a coalition of the business, governmental and citizen communities. Creating an organized advocacy group that will proactively support workforce housing and will search for creative answers is crucial. Groups that logically should be included in this coalition include labor unions, business associations, environmental organizations, faith-based nonprofits, seniors and disabled housing advocates. At the local level, our local ULI District Council, the Southern Nevada Home Builders Association, National Association of Industrial and Office Properties, the Nevada Development Authority, the Nevada Commission on Economic

Development, the various chambers of commerce and other civic leaders are potential champions. A focused education campaign could begin to build support for development proposals that include workforce housing.

Conduct an economic impact analysis to show the benefits of building workforce housing. Whether utilizing subsidies, or any of the other recommendations to address workforce housing issues, these things will be a much easier "sell" if it can be shown that the economic benefits exceed the economic costs. Private and public benefits that can be quantified and compared to the cost of providing them include, but are not limited to:

- Quality of life issues
- Economic and demographic diversity
- Reduced infrastructure costs
- Reduced traffic congestion and pollution costs
- Reduced reliance on region-wide commuting
- Increased employment recruitment and retention, and lower wage inflation.

An economic impact analysis, measuring both the direct and indirect costs and benefits of providing workforce housing would quantify the net impacts of pursuing any of the options suggested above, or the impacts of doing nothing.

Assess the possibility of establishing a Regional Housing Commission. Research should be conducted into the feasibility of establishing a Regional Housing Commission modeled like some of our other regional agencies, such as the Regional Transportation Commission of Southern Nevada and the Southern Nevada Water Authority, to serve as the central authority for the administration of a housing trust fund, federal grants and Section 8 housing assistance.

4. Design and Production Issues

a. Barriers

House sizes. The National Association of Home Builders reports that the average size of a single-family house has risen dramatically in the last few decades, from 1, 500 square feet to 2,200 square feet. The group cited both the desire for larger houses and the existing inventory of larger houses as barriers to workforce housing.

Consumer expectations. Today's consumers expect homes to include certain luxury features. Many homebuyers view these features as necessities rather than "extras." These consumers also view a large single-family detached house with many luxury items as the ideal home. This can act as a barrier to the construction of affordable housing, which typically consists of small and/or multifamily units.

Design and zoning regulations. According to many homebuilders, a good portion of a house's sales price in Clark County results from governmental regulations that drive the sales price out of the reach of moderate-income buyers.

Community opposition. Our existing residents often view proposed affordable housing projects as a threat to their property values, and therefore actively oppose them. As mentioned earlier, in the past, such community opposition often was justified by these projects' poor architectural and planning qualities. However, the design of today's affordable and workforce housing developments has improved to the point that these impressions are no longer justified. With the construction of conventional public housing essentially stopped, development of these new projects resides with private and non-profit developers and not the government.

Few housing remodeling and rehabilitation contractors. Renovating the existing housing stock could provide one solution to the workforce housing problem. The current lack of a significant and cohesive renovation industry (especially for affordable housing) is a barrier to the production of workforce housing. This is because remodeling is much more difficult than new construction. Financing these costs may be more difficult as the financial community's

requirements may exceed the technical understanding of lower income households. This would then require more extensive government agency and non-profit institutional involvement to conduct inspections, and manage construction and rehabilitation work.

b. Solutions

Support the development of "single family" looking multifamily housing. Given the strong market support and preference for single-family detached homes, multifamily housing developed to look like single-family houses offers a good opportunity to engender community support, while also providing workforce housing. Local design regulations could be adjusted to support this housing type. Architectural firms and multifamily developers could adopt this building type into their respective portfolios.

Investigate the effectiveness of modular housing. This housing type could play a role in solving our workforce housing problem. Its time savings, production ease and reduced construction financing costs could enable the production of more workforce housing. In the Consultant Team's opinion, the full capabilities of the efficiencies created by this housing type have not yet been realized locally.

Allow accessory units in all residential areas. Adjusting zoning regulations to permit apartment units on all residentially zoned land could be an effective way to integrate workforce housing into existing communities, creating true mixed-income neighborhoods rather than segregating low- and middle-income households.

Educate homebuyers about the virtues of smaller, more compact housing. To counteract the prevailing belief that large, luxurious homes are the ideal, we recommend an educational campaign to support smaller, more modestly appointed homes, as well as higher-density and urban living in connection with transit-oriented improvements.

As can be clearly seen, the solution to the issue of workforce housing in Southern Nevada will require multiple actions at all phases of the development process. There is no single "magic bullet." The full solution will require that we pursue multi-faceted strategies with defined

performance goals. Like so many of our other growth-related issues, effectively addressing our workforce housing issues will require the cooperation of the business community, local, regional and state governments and our citizens acting in collaboration and for the positive good of the entire community.

Appendix I

AFFORDABLE/ATTAINABLE WORKFORCE HOUSING QUESTIONNAIRE

FIGURE A-I.1: AFFORDABLE/ATTAINABLE WORKFORCE HOUSING QUESTIONNAIRE COVER

RESTREPO CONSULTING GROUP LLC

October 10, 2005

Dear Survey Recipient:

On behalf of Clark County and the Southern Nevada Regional Planning Coalition ("SNRPC"), Restrepo Consulting Group LLC ("RCG") is conducting this Affordable/Attainable Workforce Housing Questionnaire. The purpose of this survey is to gain some insight about the extent (if any) to which workforce housing issues are affecting the business community. As a representative of a major Las Vegas Valley business employer or business association, you have been requested to participate in this survey.

We know that your time is very valuable. We ask that you answer the survey questions to the best of your ability. However we do not anticipate that you will be able to allocate more than 15-20 minutes to completing it. As such, estimations based on your professional knowledge of your business/represented business sector are satisfactory if the requested information is not readily available to you. **If for any reason you cannot participate in this survey, we request that you forward it to an "appropriate" substitute.**

The sample size of this survey is small making your response extremely important to our overall understanding of how these issues are perceived. To ensure that your input is incorporated into our results, **we ask for you to submit your completed survey by Friday, October 7, 2005.**

Confidentiality
So that you may answer frankly, your confidentiality will be respected. No one other than RCG will have access to these results. Survey respondents will be identified collectively as "representatives of major Valley employers, employee unions and business associations". No response that could identify an individual, business entity or association will be quoted. However, to help us identify trends within certain sectors of the workforce, and so that we may follow up with you, if necessary, we do ask for your name and phone number.

Filling out the Survey
Use the tab key to move from question to question. To answer the open-ended questions, use the tab key to move from line to line.

When you are finished, you can send the completed form back to us using the "Submit by email" button at the bottom of the survey form. Choose the "Send data file" option.

If you have any question, please contact John Restrepo or Martin Boyett at 967-3188.

3960 Howard Hughes Parkway, Suite 130 Las Vegas, Nevada 89109
Telephone: (702) 967-3188 • Fax: (702) 967-3196
www.rcg1.com

LETTER

Figure A-I.2: Affordable/Attainable Workforce Housing Questionnaire
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Sector/business represented: _____

Name of Contact: _____

Phone number of Contact: _____

1. How many people are currently employed by your business/represented business sector, both full-time and part-time? Please mark one.

- 1 -10 ○
- 11 - 50 ○
- 51 - 100 ○
- 101 - 500 ○
- 501 - 1000 ○
- More than 1000 ○

2. What percentage of your business/represented business sector workforce wages are within the following annual income ranges:

Less than $16,999	_____ %
$17,000 - $28,299	_____ %
$28,300 - $45,199	_____ %
$45,200 - $67,899	_____ %
More than $67,900	_____ %
	100 %

3a. Recruitment. For each of the following types of employees, please indicate whether your business/represented business sector is having a significant problem in RECRUITING qualified workers. Mark all that apply.

	Significant Problem		Moderate		Not a Problem
Entry level or direct service	5 ○	4 ○	3 ○	2 ○	1 ○
Skilled trades or technical	5 ○	4 ○	3 ○	2 ○	1 ○
Sales	5 ○	4 ○	3 ○	2 ○	1 ○
IT or data processing	5 ○	4 ○	3 ○	2 ○	1 ○
Managerial / professional	5 ○	4 ○	3 ○	2 ○	1 ○
Other	5 ○	4 ○	3 ○	2 ○	1 ○

b. Retention. For each of the following types of employees, please indicate whether your business/represented business sector is having a significant problem in RETAINING qualified workers. Mark all that apply.

	Significant Problem		Moderate		Not a Problem
Entry level or direct service	5 ○	4 ○	3 ○	2 ○	1 ○
Skilled trades or technical	5 ○	4 ○	3 ○	2 ○	1 ○
Sales	5 ○	4 ○	3 ○	2 ○	1 ○
IT or data processing	5 ○	4 ○	3 ○	2 ○	1 ○
Managerial / professional	5 ○	4 ○	3 ○	2 ○	1 ○
Other	5 ○	4 ○	3 ○	2 ○	1 ○

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Figure A-1.3 Affordable/Attainable Workforce Housing Questionnaire
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4. Please estimate the percentage of your business/represented business sector workforce living within the commute times indicated, below.

Less than 30	_____	%
30 - 45 minutes	_____	%
More than 45 minutes	_____	%
	100	%

Please use the space provided to answer the following questions:

5a. What do you consider a REASONABLE commute time? _____ Minutes

5b. What do you consider an UNREASONABLE commute time time? _____ Minutes

6. What is your opinion about the availability of suitable housing within a "reasonable" commute that your employees/represented workforce can afford?

_____
_____
_____

7. Does lack of affordable housing within a "reasonable" commute cause any problems for your business/represented business sector to be able to hire and retain employees of the best quality?

_____
_____
_____

8. Do you find that employees who would prefer to live within a "reasonable" commute actually live in other locations in order to secure more affordable housing? If yes, where do they live?

_____
_____
_____

9. Do you feel that an "unreasonable" commuting time causes your business/represented business sector any problems with operations? If so, please describe.

_____
_____
_____

10. Does your business/represented business sector provide any housing subsidies for their employees? If yes, to manager, supervisors, or line staff?

_____
_____
_____

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Figure A-1.4 Affordable/Attainable Workforce Housing Questionnaire
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11a. Does your business/represented business sector have any "callback" issues with key people? If so, please explain.

11b. If "yes"to 11a, does your business/represented business sector pay for any portion of those travel costs?

12. Please use the space below for any additional comments about workforce housing issues facing your business/represented business sector.

Submit by Email

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Appendix II

DEVELOPMENT COST DETAIL & METHODOLOGY

AII. DEVELOPMENT COST DETAIL & METHODOLOGY

A. METHODOLOGY

1. 300-Unit Apartment Community & 100-Unit SRO Construction Costs & Subsidy Requirements

a. Forecasting Assumptions & Methodology

In order to prepare an estimated forecast for construction costs and subsidy requirements from present date through 2015, I was fortunate to have several reputable sources of information to use as a basis for the forecast offered within this report. The sources utilized were:

- The U.S. Department of Housing and Urban Development,
- R.S. Means – Reed Construction Data, and
- The State of Nevada Department of Business and Industry's Housing Division and the 2005 Qualified Allocation Plan for LIHTC's.

The construction cost portion of the forecast estimates were derived from a 10-year weighted average based upon historical construction costs from 1994 through early 2005. The weighted average for this collective 10-year period reflected an annual 3.58% increase in construction cost. The weighted average methodology was utilized for all product types.

The 300-apartment community forecast scenarios assumes the following:

- a 20-acre site with zoning density sufficient to support 15 units per acre,
- a blend of 1 bedroom/1 bath, 2 bedroom/2 bath, and 3 bedroom/2 bath units,
- standard 2 and 3 story garden style walk-up buildings,
- slab on grade foundations,
- exterior components of stucco/stone/brick,
- no elevators,
- market competitive interior components and amenities,
- Las Vegas style landscaping, and
- no unusual site conditions requiring above normal site preparation.

The 100-unit Single Room Occupancy forecast scenario assumes the following:

- a 1-acre site with zoning sufficient to support a 4-7 story low rise residential building,
- 100 studio style units comprised of both 375 and 450 square foot configurations with 1 bathroom per unit,

- elevator structure,
- both slab on grade for non-residential areas and a basement component for residential areas,
- market competitive interior components and amenities,
- Las Vegas style minimal landscaping,
- no amenities, i.e. swimming pools, parking, garages, fitness center, and
- no unusual site conditions requiring above normal site preparation.

The subsidy estimate forecast required a further estimate of interest rates over the course of the next 10-years. As interest rates affect the calculation of any mortgage transaction, naturally this estimate will affect the estimation of the total subsidy needed to bring a project to completion. For forecasting, we've assumed the following estimates relative to interest rates:

	Conventional/FHA Insured & GNMA Financed with 9% Credits	**LIHTC Projects**
2005	6.00%	5.50%
2010	7.50%	7.00%
2015	9.00%	8.50%

b. Construction, Financing & Subsidy Methodology

The financing approach taken in order to determine the total costs of construction and financing for the multifamily projects assumes that the loan secured to finance the 300-unit community is a GNMA mortgage security insured with FHA's 221(d)4 mortgage insurance. Loans of this nature are whole loans secured by GNMA mortgage backed securities. The FHA insurance component allows for the loan to carry a 40-year term, permanent placement with a fixed rate, fully assumable option, and government insured non-recourse debt.

Three other significant components that FHA will allow for the loan underwriting are:

1) the market value of the land – not the purchase price – used for underwriting purposes,
2) BSPRA, "Builder Sponsor Profit Risk Allowance", which, in laymen's terms, will allow the mortgage to be inflated by roughly 10% in lieu of the General Contractor accepting a role within the ownership of the asset, and
3) one (1) closing for both the construction and permanent loans resulting in the elimination of exposure to interest rate hikes to the Developer of the

asset in that the rate is locked with the closing of the construction loan and the permanent loan moves into place upon construction completion and approval by FHA and the Lender.

The subsidy estimates include the following components based upon the estimated construction costs and interest rates over the course of the next 10-years:

1) Construction hard costs,
2) Construction soft costs including municipality fees,
3) Legal, organizational, accounting and 3rd party report fees,
4) Transaction fees including financing and placement,
5) Reserve escrows for an initial operating deficit and working capital.

Weighted average increases were taken into consideration for construction cost components 2 and 3 above ranging from 2% to 3% per year. Components 4 and 5 are predicated upon the mortgage amount calculation covered by the construction cost and interest rate increase estimates.

The subsidy requirement distributions are very deal specific for both the 4% Low Income Housing Tax Credit communities and the 9% Credit with GNMA financing communities. The subsidy programs that dictate the calculation requirements are subject to both Federal and state requirements which are subject to change.

The subsidy requirements represent the estimated shortfall between the total development cost and the mortgage amount. The mortgage amount has been predicated based upon the LESSER of the following criteria:

#1: The **value or replacement cost** of the project *(typically ranging from 70% to 90% depending upon the financing program utilized with the aforementioned FHA insured program allowing up to 90%)* and in some cases higher), including the land and its improvements, market cap rates, and both hard and soft costs once the project is completed. An independent third party appraiser who meets the qualifications for the Lender determines the value of the land and its improvements.

#2: The **DSCR (debt service coverage ratio)** *(typically ranging from 80% to 90% depending upon the financing program utilized with the aforementioned FHA insured program allowing 90%)* utilized to adequately cover the payments of the mortgage which is predicated upon the Net Operating Income (NOI) determined by the estimated income,

expenses, occupancy levels and current market interest rates. The calculation of determining the NOI is:

+ The amount of rental income generated by the asset
+ The amount of ancillary income generated by the asset
- Operating Expenses, including replacement reserves
- Vacancy loss
- The DSC to pay the note
= Net Operating Income (NOI)

I've assumed a minimum DSCR of 1.11% would be required for the conventional units and a DSCR of 1.15% would be required for both the affordable scenarios.

#3: In the event FHA insured financing is utilized, the **Statutory Limit/High Cost Factor** criteria would also be applied based upon per family unit limitations and a local adjustment factor. It is not anticipated that this criteria would apply to any of the scenarios outlined in this forecast.

In the event that the cost of development exceeds the amount of NOI generated by the asset to support the debt associated with the development, the mortgage would be constrained by criteria #2.

In the event the amount of NOI generated is adequate to support the debt associated with the development cost, the mortgage would be constrained by criteria #1.

The best approach for determining the amount of subsidy requirement one could anticipate for the next 10-years assumes that;

- once the maximum loan amount has been estimated (the debt portion of the transaction),
- the balance remaining equates to the total amount of subsidy required to complete the transaction.

The subsidy can be provided by various sources including:

1) Developer equity,
2) Equity from the sale of tax credits @ either 4% or 9%,
3) HOME funds,
4) Various Federal and State housing supplement programs, and
5) The aforementioned allowance by the FHA 221(d)4 program to allow for the market value of the site to be utilized to assist with meeting cash requirements.

2. 1,300-Square-foot Single Family Residential ("SFR") Unit

Residential Resources, Inc. was engaged to complete one component of the Affordable and Attainable Housing Study consisting of a Construction Cost Analysis of building a 1,300 square foot single family detached home – with and without current land costs.

a. Assumptions

Affordability housing can be defined using more than one benchmark. There is the affordability of the initial purchase. Then there is the affordability of annual operating and maintenance expenses.

Our assumptions and subsequent component costs were based upon a blend of the two ideas. For example 5 years ago in the southern Nevada housing market a one-piece fiberglass tub/shower insert was an acceptable component in an affordable housing product – and is so today. Five years ago a 10 SEER rated air conditioning unit was an acceptable component in nearly all price ranges of housing product. In today's escalating energy rate environment a 13 SEER rating would be considered by many to the minimum standard.

- **Foundation**: Slab on grade construction as is customary in southern Nevada
- **Walls & Floors**: Light wood-frame construction using dimensional lumber and platform framing; stucco exterior
- **Plumbing**: Manifold plumbing system with plastic piping
- **Landscape**: Drought tolerant/xeriscape landscaping with drip irrigation
- **Heating & Air Conditioning**: 13 SEER rated air conditioning unit and gas forced air heating unit
- **Roofing**: Concrete interlocking tile; while there are many innovations in roofing materials the acceptance by the public and regulatory entities has excluded virtually all but concrete tiles for production housing
- **Interior Treatments**: Sheet vinyl flooring at entry, laundry room, kitchen and bathrooms. FHA-grade pad and carpet all other areas. Flat latex paint.

A more detailed specification level is as follows presented in Table AII-5:

Residential Resources, Inc.'s ("RRI") current database of 'hard' construction costs form the basis of the estimates of the various line-items contained in the cost analysis. This database was developed over nearly 25 years in southern Nevada as part of RRI's product recommendation offerings to home builder clients.

The building spec level was determined by examining entry-level builder product such as introduced by KB Homes, Astoria Homes and Richmond American Homes and modifying the level of amenities that is acceptable to a 'typical' home buyer looking for affordable detached housing as an alternative to for-sale condominiums or for-rent housing.

A hypothetical floor plan was developed and 'put to bid' amongst a number of subcontractors (for the largest dollar line items, e.g. framing, concrete, etc.) and reviewed by Residential Resources and a general contractor.

Building permit and other governmental fees and costs associated with on- and off-site development were obtained from the respective governmental agencies (e.g. Clark County Building Department, Las Vegas Valley Water District, etc.). Architectural fees and certain other fees are estimated based upon a community consisting of a minimum number of homes; in this case forty-two. These total indirect costs were reviewed by an employee of a large home builder's land acquisition department for relevance.

Hypothetical land costs were determined through an examination of comparable land sales that have recorded since June 1, 2005 as well as several transactions currently in escrow for parcels similar in size used in the hypothetical model.

Table AII-1:
300-Unit Apartment Community Detailed Cost Breakdown with Conventional Financing, 2005-2009

Construction Component	As A % of Total Cost		2005		2006		2007		2008		2009	
MAIN BUILDINGS	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**
Concrete	3.85%	3.15%	$842,623	$689,419	$872,808	$714,115	$904,074	$739,697	$936,460	$766,195	$970,006	$793,641
Masonry	2.05%	1.68%	$448,998	$367,362	$465,082	$380,521	$481,742	$394,153	$498,999	$408,272	$516,875	$422,898
Metals	0.50%	0.41%	$109,541	$89,624	$113,465	$92,835	$117,530	$96,161	$121,740	$99,605	$126,101	$103,173
Rough Carpentry	9.14%	7.48%	$2,000,627	$1,636,877	$2,072,295	$1,695,514	$2,146,529	$1,756,251	$2,223,423	$1,819,165	$2,303,072	$1,884,332
Finish Carpentry	1.47%	1.20%	$321,400	$262,964	$332,914	$272,384	$344,840	$282,141	$357,193	$292,248	$369,988	$302,718
Waterproofing	0.28%	0.23%	$60,187	$49,244	$62,343	$51,008	$64,577	$52,835	$66,890	$54,728	$69,286	$56,689
Insulation	1.07%	0.87%	$233,527	$191,067	$241,892	$197,912	$250,558	$205,002	$259,533	$212,345	$268,830	$219,952
Roofing	0.51%	0.42%	$111,948	$91,594	$115,959	$94,875	$120,113	$98,274	$124,415	$101,794	$128,872	$105,441
Sheet Metal	0.09%	0.08%	$20,464	$16,743	$21,197	$17,343	$21,956	$17,964	$22,743	$18,608	$23,557	$19,274
Doors	1.18%	0.96%	$257,602	$210,765	$266,830	$218,315	$276,388	$226,136	$286,289	$234,237	$296,545	$242,628
Windows	0.40%	0.32%	$86,670	$70,912	$89,775	$73,452	$92,990	$76,083	$96,322	$78,809	$99,772	$81,632
Glass (add to Windows)	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lath & Plaster	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drywall	2.76%	2.25%	$603,077	$493,427	$624,681	$511,103	$647,059	$529,412	$670,238	$548,376	$694,247	$568,021
Tile Work	0.42%	0.35%	$92,689	$75,836	$96,009	$78,553	$99,448	$81,367	$103,011	$84,281	$106,701	$87,301
Acoustical	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Flooring	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Resilient Flooring	0.57%	0.47%	$125,190	$102,428	$129,674	$106,097	$134,320	$109,898	$139,131	$113,835	$144,115	$117,912
Painting & Decorating	0.80%	0.66%	$175,747	$143,793	$182,043	$148,944	$188,564	$154,280	$195,319	$159,806	$202,316	$165,531
Specialties	0.57%	0.47%	$125,190	$102,428	$129,674	$106,097	$134,320	$109,898	$139,131	$113,835	$144,115	$117,912
Special Equipment	0.28%	0.23%	$60,187	$49,244	$62,343	$51,008	$64,577	$52,835	$66,890	$54,728	$69,286	$56,689
Cabinets	1.69%	1.39%	$370,754	$303,344	$384,035	$314,211	$397,792	$325,467	$412,042	$337,126	$426,803	$349,202
Appliances	1.92%	1.57%	$420,108	$343,724	$435,157	$356,038	$450,745	$368,792	$466,892	$382,003	$483,617	$395,687
Blinds & Shades, Artwork	0.25%	0.21%	$55,372	$45,305	$57,356	$46,928	$59,411	$48,609	$61,539	$50,350	$63,743	$52,154
Carpets	1.33%	1.08%	$290,103	$237,357	$300,495	$245,860	$311,260	$254,667	$322,410	$263,790	$333,959	$273,239
Special Construction (Sprinklers)	1.10%	0.90%	$240,749	$196,977	$249,374	$204,033	$258,307	$211,342	$267,560	$218,913	$277,145	$226,755
Elevators	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing & Hot Water	3.93%	3.21%	$859,475	$703,207	$890,264	$728,398	$922,155	$754,491	$955,189	$781,518	$989,406	$809,514
Heat & Ventilation	2.35%	1.92%	$514,000	$420,545	$532,413	$435,610	$551,485	$451,215	$571,241	$467,379	$591,704	$484,121
Air Conditioning	2.12%	1.74%	$464,646	$380,165	$481,291	$393,784	$498,532	$407,890	$516,391	$422,502	$534,889	$437,637
Electrical	3.29%	2.70%	$721,044	$589,945	$746,874	$611,079	$773,629	$632,969	$801,342	$655,644	$830,048	$679,130
Construction Costs	43.92%	35.93%	**$9,611,919**	**$7,864,297**	**$9,956,242**	**$8,146,016**	**$10,312,899**	**$8,437,826**	**$10,682,332**	**$8,740,090**	**$11,065,000**	**$9,053,182**
Total Construction Costs	79.85%		**$17,476,216**		**$18,102,258**		**$18,750,725**		**$19,422,423**		**$20,118,182**	
ASCCESSORY STRUCTURES	4.71%	3.86%	**$1,031,611**	**$844,045**	**$1,068,566**	**$874,281**	**$1,106,845**	**$905,600**	**$1,146,495**	**$938,041**	**$1,187,565**	**$971,644**
Total Cost Asccessory Structures	8.57%		**$1,875,657**		**$1,942,847**		**$2,012,445**		**$2,084,536**		**$2,159,209**	
LAND IMPROVEMENTS												
Earth Work	0.83%	0.68%	$180,562	$147,733	$187,030	$153,025	$193,730	$158,506	$200,670	$164,185	$207,858	$170,066
Site Utilities	1.51%	1.24%	$331,030	$270,843	$342,889	$280,545	$355,172	$290,595	$367,895	$301,005	$381,074	$311,788
Roads & Walks	2.29%	1.87%	$500,759	$409,712	$518,697	$424,389	$537,278	$439,591	$556,525	$455,338	$576,461	$471,650
Site Improvements	1.26%	1.03%	$275,658	$225,538	$285,533	$233,618	$295,761	$241,987	$306,356	$250,655	$317,331	$259,634
Landscaping, Lawns & Planting	0.48%	0.40%	$105,930	$86,670	$109,724	$89,775	$113,655	$92,990	$117,726	$96,322	$121,944	$99,772
Unusual Site Condition	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	6.37%	5.21%	**$1,393,939**	**$1,140,495**	**$1,443,873**	**$1,181,351**	**$1,495,596**	**$1,223,670**	**$1,549,172**	**$1,267,505**	**$1,604,668**	**$1,312,910**
Total Cost Land Improvements	11.58%		**$2,534,434**		**$2,625,224**		**$2,719,266**		**$2,816,677**		**$2,917,577**	
TOTAL HARD COSTS without LAND	100.00%		**$21,886,307**		**$22,670,329**		**$23,482,436**		**$24,323,635**		**$25,194,968**	
LAND												
Acreage			20		20		20		20		20	
Density Allowance (per acre)			15		15		15		15		15	
Market Value per acre			**$340,000**		**$346,800**		**$353,736**		**$360,811**		**$368,027**	
Land Costs			**$6,800,000**		**$6,936,000**		**$7,074,720**		**$7,216,214**		**$7,360,544**	
TOTAL HARD COSTS with LAND			**$28,686,307**		**$29,606,329**		**$30,557,156**		**$31,539,849**		**$32,555,512**	

Source: GMAC Commercial Mortgage.

Table AII-1 cont.:
300-Unit Apartment Community Detailed Cost Breakdown with Conventional Financing, 20010-20015

Construction Component	2010		2011		2012		2013		2014		2015	
MAIN BUILDINGS	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor
Concrete	$1,004,754	$822,072	$1,040,747	$851,520	$1,078,029	$882,024	$1,116,647	$913,620	$1,156,648	$946,348	$1,198,082	$980,249
Masonry	$535,390	$438,047	$554,570	$453,739	$574,436	$469,993	$595,013	$486,829	$616,328	$504,268	$638,407	$522,333
Metals	$130,618	$106,869	$135,297	$110,698	$140,144	$114,663	$145,164	$118,771	$150,364	$123,025	$155,751	$127,432
Rough Carpentry	$2,385,574	$1,951,833	$2,471,031	$2,021,753	$2,559,549	$2,094,177	$2,651,239	$2,169,195	$2,746,213	$2,246,901	$2,844,589	$2,327,391
Finish Carpentry	$383,242	$313,562	$396,971	$324,794	$411,191	$336,429	$425,921	$348,481	$441,179	$360,964	$456,983	$373,895
Waterproofing	$71,768	$58,719	$74,339	$60,823	$77,002	$63,002	$79,760	$65,259	$82,618	$67,596	$85,577	$70,018
Insulation	$278,460	$227,831	$288,436	$235,993	$298,768	$244,447	$309,471	$253,203	$320,557	$262,274	$332,040	$271,669
Roofing	$133,489	$109,218	$138,271	$113,131	$143,224	$117,183	$148,355	$121,381	$153,669	$125,729	$159,174	$130,233
Sheet Metal	$24,401	$19,965	$25,275	$20,680	$26,181	$21,421	$27,119	$22,188	$28,090	$22,983	$29,096	$23,806
Doors	$307,168	$251,319	$318,171	$260,322	$329,569	$269,647	$341,375	$279,307	$353,604	$289,312	$366,271	$299,676
Windows	$103,346	$84,556	$107,048	$87,585	$110,883	$90,722	$114,855	$93,972	$118,970	$97,339	$123,231	$100,826
Glass (add to Windows)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lath & Plaster	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drywall	$719,117	$588,368	$744,878	$609,445	$771,561	$631,277	$799,200	$653,891	$827,829	$677,315	$857,484	$701,578
Tile Work	$110,523	$90,428	$114,482	$93,667	$118,583	$97,023	$122,831	$100,498	$127,231	$104,098	$131,789	$107,827
Acoustical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Resilient Flooring	$149,278	$122,136	$154,625	$126,512	$160,164	$131,044	$165,902	$135,738	$171,845	$140,600	$178,001	$145,637
Painting & Decorating	$209,563	$171,461	$217,070	$177,603	$224,846	$183,965	$232,901	$190,555	$241,244	$197,381	$249,886	$204,452
Specialties	$149,278	$122,136	$154,625	$126,512	$160,164	$131,044	$165,902	$135,738	$171,845	$140,600	$178,001	$145,637
Special Equipment	$71,768	$58,719	$74,339	$60,823	$77,002	$63,002	$79,760	$65,259	$82,618	$67,596	$85,577	$70,018
Cabinets	$442,092	$361,712	$457,929	$374,669	$474,333	$388,091	$491,325	$401,993	$508,925	$416,393	$527,156	$431,310
Appliances	$500,942	$409,861	$518,887	$424,544	$537,475	$439,752	$556,728	$455,505	$576,672	$471,822	$597,329	$488,724
Blinds & Shades, Artwork	$66,027	$54,022	$68,392	$55,957	$70,842	$57,962	$73,380	$60,038	$76,008	$62,189	$78,731	$64,416
Carpets	$345,923	$283,028	$358,314	$293,166	$371,150	$303,668	$384,446	$314,546	$398,217	$325,814	$412,483	$337,486
Special Construction (Sprinklers)	$287,073	$234,878	$297,356	$243,292	$308,008	$252,007	$319,042	$261,034	$330,471	$270,385	$342,309	$280,071
Elevators	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing & Hot Water	$1,024,849	$838,513	$1,061,562	$868,551	$1,099,590	$899,664	$1,138,980	$931,893	$1,179,781	$965,275	$1,222,044	$999,854
Heat & Ventilation	$612,900	$501,464	$634,856	$519,427	$657,598	$538,035	$681,155	$557,308	$705,555	$577,272	$730,830	$597,952
Air Conditioning	$554,050	$453,314	$573,898	$469,553	$594,456	$486,373	$615,751	$503,796	$637,809	$521,844	$660,657	$540,537
Electrical	$859,783	$703,458	$890,582	$728,658	$922,485	$754,760	$955,531	$781,798	$989,760	$809,804	$1,025,216	$838,813
Construction Costs	**$11,461,376**	**$9,377,489**	**$11,871,951**	**$9,713,414**	**$12,297,233**	**$10,061,373**	**$12,737,751**	**$10,421,796**	**$13,194,048**	**$10,795,131**	**$13,666,692**	**$11,181,839**
Total Construction Costs	**$20,838,865**		**$21,585,365**		**$22,358,606**		**$23,159,547**		**$23,989,179**		**$24,848,531**	
ASCCESSORY STRUCTURES	**$1,230,106**	**$1,006,451**	**$1,274,172**	**$1,042,504**	**$1,319,816**	**$1,079,849**	**$1,367,095**	**$1,118,532**	**$1,416,068**	**$1,158,601**	**$1,466,795**	**$1,200,105**
Total Cost Asccessory Structures	**$2,236,557**		**$2,316,676**		**$2,399,665**		**$2,485,627**		**$2,574,668**		**$2,666,899**	
LAND IMPROVEMENTS												
Earth Work	$215,304	$176,158	$223,017	$182,469	$231,006	$189,005	$239,281	$195,776	$247,853	$202,789	$256,732	$210,053
Site Utilities	$394,725	$322,957	$408,865	$334,526	$423,511	$346,509	$438,683	$358,922	$454,397	$371,780	$470,675	$385,098
Roads & Walks	$597,111	$488,545	$618,501	$506,046	$640,657	$524,174	$663,607	$542,951	$687,379	$562,401	$712,003	$582,548
Site Improvements	$328,698	$268,935	$340,473	$278,569	$352,670	$288,548	$365,303	$298,884	$378,389	$309,591	$391,944	$320,681
Landscaping, Lawns & Planting	$126,312	$103,346	$130,837	$107,048	$135,524	$110,883	$140,378	$114,855	$145,407	$118,970	$150,616	$123,231
Unusual Site Condition	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$1,662,151	**$1,359,941**	$1,721,693	$1,408,658	$1,783,368	$1,459,120	$1,847,253	$1,511,389	$1,913,426	$1,565,531	$1,981,970	$1,621,612
Total Cost Land Improvements	**$3,022,092**		**$3,130,351**		**$3,242,488**		**$3,358,642**		**$3,478,957**		**$3,603,582**	
TOTAL HARD COSTS without LAND	**$26,097,514**		**$27,032,392**		**$28,000,759**		**$29,003,816**		**$30,042,804**		**$31,119,012**	
LAND												
Acreage	20		20		20		20		20		20	
Density Allowance (per acre)	15		15		15		15		15		15	
Market Value per acre	**$375,388**		**$382,896**		**$390,554**		**$398,365**		**$407,352**		**$415,499**	
Land Costs	**$7,507,751**		**$7,657,915**		**$7,811,078**		**$7,967,302**		**$8,147,046**		**$8,309,981**	
TOTAL HARD COSTS with LAND	**$33,605,265**		**$34,690,307**		**$35,811,837**		**$36,971,118**		**$38,189,850**		**$39,428,993**	

Source: GMAC Commercial Mortgage

Table AII-2:
300-Unit Apartment Community Detailed Cost Breakdown with GNMA Financing, 2005-2009

Construction Component	As A % of Total Cost		2005		2006		2007		2008		2009	
MAIN BUILDINGS	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor
Concrete	3.85%	3.15%	$837,698	$685,389	$867,706	$709,942	$898,790	$735,373	$930,987	$761,716	$964,337	$789,003
Masonry	2.05%	1.68%	$446,373	$365,215	$462,364	$378,297	$478,927	$391,849	$496,083	$405,886	$513,854	$420,426
Metals	0.50%	0.41%	$108,901	$89,101	$112,802	$92,292	$116,843	$95,599	$121,028	$99,023	$125,364	$102,570
Rough Carpentry	9.14%	7.48%	$1,988,934	$1,627,310	$2,060,183	$1,685,604	$2,133,984	$1,745,987	$2,210,428	$1,808,532	$2,289,611	$1,873,318
Finish Carpentry	1.47%	1.20%	$319,522	$261,427	$330,968	$270,792	$342,824	$280,492	$355,105	$290,540	$367,826	$300,948
Waterproofing	0.28%	0.23%	$59,836	$48,956	$61,979	$50,710	$64,199	$52,527	$66,499	$54,408	$68,881	$56,357
Insulation	1.07%	0.87%	$232,162	$189,951	$240,479	$196,755	$249,093	$203,803	$258,016	$211,104	$267,259	$218,667
Roofing	0.51%	0.42%	$111,294	$91,059	$115,281	$94,321	$119,411	$97,700	$123,688	$101,199	$128,119	$104,825
Sheet Metal	0.09%	0.08%	$20,344	$16,645	$21,073	$17,241	$21,828	$17,859	$22,610	$18,499	$23,420	$19,161
Doors	1.18%	0.96%	$256,096	$209,533	$265,270	$217,039	$274,773	$224,814	$284,616	$232,868	$294,812	$241,209
Windows	0.40%	0.32%	$86,163	$70,497	$89,250	$73,023	$92,447	$75,638	$95,759	$78,348	$99,189	$81,155
Glass (add to Windows)	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lath & Plaster	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drywall	2.76%	2.25%	$599,552	$490,543	$621,030	$508,115	$643,277	$526,317	$666,320	$545,171	$690,190	$564,701
Tile Work	0.42%	0.35%	$92,147	$75,393	$95,448	$78,094	$98,867	$80,891	$102,409	$83,789	$106,077	$86,790
Acoustical	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Flooring	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Resilient Flooring	0.57%	0.47%	$124,458	$101,829	$128,916	$105,477	$133,534	$109,255	$138,318	$113,169	$143,273	$117,223
Painting & Decorating	0.80%	0.66%	$174,720	$142,953	$180,979	$148,074	$187,462	$153,378	$194,177	$158,872	$201,133	$164,563
Specialties	0.57%	0.47%	$124,458	$101,829	$128,916	$105,477	$133,534	$109,255	$138,318	$113,169	$143,273	$117,223
Special Equipment	0.28%	0.23%	$59,836	$48,956	$61,979	$50,710	$64,199	$52,527	$66,499	$54,408	$68,881	$56,357
Cabinets	1.69%	1.39%	$368,587	$301,571	$381,791	$312,374	$395,468	$323,564	$409,634	$335,155	$424,308	$347,161
Appliances	1.92%	1.57%	$417,652	$341,715	$432,614	$353,957	$448,111	$366,636	$464,163	$379,770	$480,791	$393,374
Blinds & Shades, Artwork	0.25%	0.21%	$55,049	$45,040	$57,021	$46,653	$59,063	$48,325	$61,179	$50,056	$63,371	$51,849
Carpets	1.33%	1.08%	$288,407	$235,970	$298,739	$244,423	$309,440	$253,179	$320,525	$262,248	$332,007	$271,642
Special Construction (Sprinklers)	1.10%	0.90%	$239,342	$195,826	$247,916	$202,840	$256,797	$210,107	$265,996	$217,633	$275,525	$225,429
Elevators	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing & Hot Water	3.93%	3.21%	$854,452	$699,097	$885,061	$724,140	$916,766	$750,081	$949,606	$776,951	$983,624	$804,783
Heat & Ventilation	2.35%	1.92%	$510,996	$418,087	$529,301	$433,064	$548,262	$448,578	$567,902	$464,647	$588,245	$481,292
Air Conditioning	2.12%	1.74%	$461,931	$377,943	$478,478	$391,482	$495,618	$405,506	$513,373	$420,032	$531,763	$435,079
Electrical	3.29%	2.70%	$716,830	$586,497	$742,509	$607,507	$769,107	$629,270	$796,659	$651,812	$825,197	$675,161
Construction Costs	43.92%	35.93%	**$9,555,740**	**$7,818,333**	**$9,898,051**	**$8,098,405**	**$10,252,623**	**$8,388,510**	**$10,619,898**	**$8,689,007**	**$11,000,328**	**$9,000,269**
Total Construction Costs	79.85%		**$17,374,074**		**$17,996,456**		**$18,641,133**		**$19,308,905**		**$20,000,597**	
ASCCESSORY STRUCTURES	4.71%	3.86%	**$1,025,582**	**$839,112**	**$1,062,321**	**$869,171**	**$1,100,375**	**$900,307**	**$1,139,794**	**$932,558**	**$1,180,624**	**$965,965**
Total Cost Asccessory Structures	8.57%		**$1,864,694**		**$1,931,492**		**$2,000,683**		**$2,072,352**		**$2,146,589**	
LAND IMPROVEMENTS												
Earth Work	0.83%	0.68%	$179,507	$146,869	$185,937	$152,130	$192,598	$157,580	$199,497	$163,225	$206,644	$169,072
Site Utilities	1.51%	1.24%	$329,096	$269,260	$340,885	$278,906	$353,096	$288,897	$365,745	$299,246	$378,847	$309,965
Roads & Walks	2.29%	1.87%	$497,832	$407,317	$515,666	$421,908	$534,138	$437,022	$553,272	$452,677	$573,092	$468,893
Site Improvements	1.26%	1.03%	$274,047	$224,220	$283,864	$232,252	$294,033	$240,572	$304,566	$249,190	$315,476	$258,117
Landscaping, Lawns & Planting	0.48%	0.40%	$105,311	$86,163	$109,083	$89,250	$112,991	$92,447	$117,038	$95,759	$121,231	$99,189
Unusual Site Condition	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	6.37%	5.21%	**$1,385,792**	**$1,133,830**	**$1,435,434**	**$1,174,446**	**$1,486,855**	**$1,216,518**	**$1,540,118**	**$1,260,096**	**$1,595,289**	**$1,305,236**
Total Cost Land Improvements	11.58%		**$2,519,621**		**$2,609,880**		**$2,703,373**		**$2,800,214**		**$2,900,525**	
TOTAL HARD COSTS without LAND	100.00%		**$21,758,389**		**$22,537,828**		**$23,345,189**		**$24,181,471**		**$25,047,711**	
LAND												
Acreage			20		20		20		20		20	
Density Allowance (per acre)			15		15		15		15		15	
Market Value per acre			**$340,000**		**$346,800**		**$353,736**		**$360,811**		**$368,027**	
Land Costs			**$6,800,000**		**$6,936,000**		**$7,074,720**		**$7,216,220**		**$7,360,540**	
TOTAL HARD COSTS with LAND			**$28,558,389**		**$29,473,828**		**$30,419,909**		**$31,397,691**		**$32,408,251**	

Source: GMAC Commercial Mortgage.

Table AII-2 cont.:
300-Unit Apartment Community Detailed Cost Breakdown with GNMA Financing, 2010-2015

Construction Component	2010		2011		2012		2013		2014		2015	
MAIN BUILDINGS	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**
Concrete	$998,882	$817,267	$1,034,664	$846,543	$1,071,728	$876,869	$1,110,120	$908,280	$1,149,888	$940,817	$1,191,080	$974,520
Masonry	$532,261	$435,487	$551,328	$451,087	$571,078	$467,246	$591,536	$483,984	$612,726	$501,321	$634,675	$519,280
Metals	$129,855	$106,245	$134,506	$110,051	$139,325	$113,993	$144,316	$118,076	$149,485	$122,306	$154,840	$126,688
Rough Carpentry	$2,371,631	$1,940,425	$2,456,589	$2,009,936	$2,544,590	$2,081,937	$2,635,743	$2,156,517	$2,730,162	$2,233,769	$2,827,963	$2,313,788
Finish Carpentry	$381,002	$311,729	$394,651	$322,896	$408,788	$334,463	$423,432	$346,444	$438,600	$358,855	$454,312	$371,710
Waterproofing	$71,349	$58,376	$73,905	$60,467	$76,552	$62,633	$79,294	$64,877	$82,135	$67,201	$85,077	$69,609
Insulation	$276,833	$226,500	$286,750	$234,613	$297,022	$243,018	$307,662	$251,723	$318,683	$260,741	$330,099	$270,081
Roofing	$132,709	$108,580	$137,463	$112,469	$142,387	$116,498	$147,487	$120,672	$152,771	$124,994	$158,243	$129,472
Sheet Metal	$24,259	$19,848	$25,128	$20,559	$26,028	$21,295	$26,960	$22,058	$27,926	$22,848	$28,926	$23,667
Doors	$305,372	$249,850	$316,312	$258,800	$327,643	$268,071	$339,380	$277,674	$351,537	$287,621	$364,130	$297,925
Windows	$102,742	$84,062	$106,423	$87,073	$110,235	$90,192	$114,184	$93,423	$118,274	$96,770	$122,511	$100,236
Glass (add to Windows)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lath & Plaster	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drywall	$714,914	$584,930	$740,524	$605,883	$767,051	$627,587	$794,529	$650,069	$822,991	$673,356	$852,473	$697,478
Tile Work	$109,877	$89,899	$113,813	$93,120	$117,890	$96,456	$122,113	$99,911	$126,488	$103,490	$131,019	$107,197
Acoustical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Resilient Flooring	$148,405	$121,423	$153,722	$125,772	$159,228	$130,278	$164,932	$134,945	$170,840	$139,779	$176,960	$144,786
Painting & Decorating	$208,338	$170,459	$215,801	$176,565	$223,532	$182,890	$231,539	$189,441	$239,834	$196,228	$248,425	$203,257
Specialties	$148,405	$121,423	$153,722	$125,772	$159,228	$130,278	$164,932	$134,945	$170,840	$139,779	$176,960	$144,786
Special Equipment	$71,349	$58,376	$73,905	$60,467	$76,552	$62,633	$79,294	$64,877	$82,135	$67,201	$85,077	$69,609
Cabinets	$439,508	$359,597	$455,252	$372,479	$471,561	$385,822	$488,453	$399,643	$505,951	$413,960	$524,075	$428,789
Appliances	$498,014	$407,466	$515,854	$422,062	$534,333	$437,182	$553,474	$452,843	$573,301	$469,065	$593,838	$485,868
Blinds & Shades, Artwork	$65,641	$53,706	$67,992	$55,630	$70,428	$57,623	$72,951	$59,687	$75,564	$61,825	$78,271	$64,040
Carpets	$343,901	$281,373	$356,220	$291,453	$368,981	$301,893	$382,199	$312,708	$395,890	$323,910	$410,072	$335,513
Special Construction (Sprinklers)	$285,395	$233,505	$295,618	$241,870	$306,208	$250,534	$317,177	$259,509	$328,539	$268,805	$340,308	$278,434
Elevators	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing & Hot Water	$1,018,859	$833,612	$1,055,358	$863,474	$1,093,163	$894,406	$1,132,323	$926,446	$1,172,885	$959,634	$1,214,901	$994,010
Heat & Ventilation	$609,318	$498,533	$631,145	$516,392	$653,754	$534,890	$677,173	$554,051	$701,431	$573,898	$726,559	$594,457
Air Conditioning	$550,812	$450,664	$570,543	$466,808	$590,982	$483,530	$612,152	$500,852	$634,081	$518,793	$656,795	$537,378
Electrical	$854,757	$699,347	$885,377	$724,399	$917,093	$750,349	$949,946	$777,228	$983,975	$805,071	$1,019,224	$833,910
Construction Costs	**$11,394,387**	**$9,322,681**	**$11,802,563**	**$9,656,642**	**$12,225,360**	**$10,002,567**	**$12,663,302**	**$10,360,884**	**$13,116,933**	**$10,732,036**	**$13,586,815**	**$11,116,485**
Total Construction Costs	**$20,717,068**		**$21,459,205**		**$22,227,927**		**$23,024,186**		**$23,848,970**		**$24,703,299**	
ASCCESSORY STRUCTURES	**$1,222,917**	**$1,000,568**	**$1,266,725**	**$1,036,411**	**$1,312,102**	**$1,073,538**	**$1,359,105**	**$1,111,995**	**$1,407,791**	**$1,151,829**	**$1,458,222**	**$1,193,090**
Total Cost Asccessory Structures	**$2,223,485**		**$2,303,136**		**$2,385,640**		**$2,471,099**		**$2,559,620**		**$2,651,312**	
LAND IMPROVEMENTS												
Earth Work	$214,046	$175,129	$221,714	$181,402	$229,656	$187,900	$237,883	$194,632	$246,405	$201,604	$255,231	$208,826
Site Utilities	$392,418	$321,069	$406,475	$332,571	$421,036	$344,484	$436,119	$356,824	$451,742	$369,607	$467,924	$382,847
Roads & Walks	$593,621	$485,690	$614,886	$503,089	$636,913	$521,111	$659,729	$539,778	$683,362	$559,114	$707,842	$579,143
Site Improvements	$326,777	$267,363	$338,483	$276,941	$350,608	$286,861	$363,168	$297,137	$376,178	$307,782	$389,653	$318,807
Landscaping, Lawns & Planting	$125,574	$102,742	$130,072	$106,423	$134,732	$110,235	$139,558	$114,184	$144,557	$118,274	$149,736	$122,511
Unusual Site Condition	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$1,652,436	**$1,351,993**	$1,711,630	$1,400,425	$1,772,945	$1,450,591	$1,836,456	$1,502,555	$1,902,243	$1,556,380	$1,970,386	$1,612,134
Total Cost Land Improvements	**$3,004,429**		**$3,112,055**		**$3,223,537**		**$3,339,012**		**$3,458,623**		**$3,582,520**	
TOTAL HARD COSTS without LAND	**$25,944,982**		**$26,874,396**		**$27,837,103**		**$28,834,297**		**$29,867,213**		**$30,937,131**	
LAND												
Acreage	20		20		20		20		20		20	
Density Allowance (per acre)	15		15		15		15		15		15	
Market Value per acre	**$375,388**		**$382,896**		**$390,554**		**$398,365**		**$407,352**		**$415,499**	
Land Costs	**$7,507,760**		**$7,657,920**		**$7,811,080**		**$7,967,300**		**$8,147,040**		**$8,309,980**	
TOTAL HARD COSTS with LAND	**$33,452,742**		**$34,532,316**		**$35,648,183**		**$36,801,597**		**$38,014,253**		**$39,247,111**	

Source: GMAC Commercial Mortgage.

Table AII-3:
300-Unit Apartment Community Detailed Cost Breakdown with LIHTC Financing, 2005-2009

Construction Component	As A % of Total Cost		2005		2006		2007		2008		2009	
MAIN BUILDINGS	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor
Concrete	3.85%	3.15%	$773,206	$632,623	$800,904	$655,285	$829,595	$678,759	$859,313	$703,074	$890,096	$728,260
Masonry	2.05%	1.68%	$412,008	$337,098	$426,768	$349,173	$442,055	$361,682	$457,891	$374,638	$474,294	$388,059
Metals	0.50%	0.41%	$100,517	$82,241	$104,118	$85,187	$107,847	$88,239	$111,711	$91,400	$115,712	$94,674
Rough Carpentry	9.14%	7.48%	$1,835,812	$1,502,028	$1,901,576	$1,555,835	$1,969,695	$1,611,568	$2,040,254	$1,669,299	$2,113,341	$1,729,097
Finish Carpentry	0.92%	0.75%	$184,465	$150,926	$191,073	$156,332	$197,918	$161,933	$205,007	$167,733	$212,351	$173,742
Waterproofing	0.28%	0.23%	$55,229	$45,187	$57,207	$46,806	$59,257	$48,483	$61,379	$50,220	$63,578	$52,019
Insulation	1.07%	0.87%	$214,289	$175,327	$221,965	$181,608	$229,916	$188,113	$238,152	$194,852	$246,684	$201,832
Roofing	0.51%	0.42%	$102,726	$84,049	$106,406	$87,059	$110,218	$90,178	$114,166	$93,408	$118,256	$96,755
Sheet Metal	0.09%	0.08%	$18,778	$15,364	$19,451	$15,914	$20,147	$16,484	$20,869	$17,075	$21,617	$17,686
Doors	1.01%	0.83%	$203,243	$166,290	$210,523	$172,246	$218,065	$178,417	$225,877	$184,808	$233,968	$191,428
Windows	0.40%	0.32%	$79,530	$65,070	$82,379	$67,401	$85,330	$69,815	$88,386	$72,316	$91,553	$74,907
Glass (add to Windows)	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lath & Plaster	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drywall	2.76%	2.25%	$553,395	$452,777	$573,219	$468,997	$593,753	$485,798	$615,022	$503,200	$637,054	$521,226
Tile Work	0.42%	0.35%	$85,053	$69,589	$88,099	$72,081	$91,255	$74,664	$94,524	$77,338	$97,911	$80,109
Acoustical	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Flooring	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Resilient Flooring	0.57%	0.47%	$114,876	$93,990	$118,992	$97,357	$123,254	$100,844	$127,669	$104,457	$132,243	$108,199
Painting & Decorating	0.80%	0.66%	$161,269	$131,947	$167,046	$136,674	$173,030	$141,570	$179,228	$146,641	$185,649	$151,894
Specialties	0.30%	0.24%	$59,647	$48,802	$61,784	$50,551	$63,997	$52,361	$66,290	$54,237	$68,665	$56,180
Special Equipment	0.28%	0.23%	$55,229	$45,187	$57,207	$46,806	$59,257	$48,483	$61,379	$50,220	$63,578	$52,019
Cabinets	1.14%	0.94%	$229,753	$187,979	$237,983	$194,713	$246,508	$201,688	$255,339	$208,913	$264,486	$216,397
Appliances	1.92%	1.57%	$385,499	$315,408	$399,308	$326,707	$413,612	$338,410	$428,429	$350,533	$443,776	$363,090
Blinds & Shades, Artwork	0.25%	0.21%	$50,811	$41,572	$52,631	$43,062	$54,516	$44,604	$56,469	$46,202	$58,492	$47,857
Carpets	1.33%	1.08%	$266,204	$217,803	$275,740	$225,605	$285,618	$233,687	$295,849	$242,058	$306,447	$250,730
Special Construction (Sprinklers)	1.10%	0.90%	$220,916	$180,749	$228,830	$187,224	$237,027	$193,931	$245,518	$200,878	$254,313	$208,074
Elevators	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing & Hot Water	5.03%	4.11%	$1,009,586	$826,025	$1,045,752	$855,615	$1,083,214	$886,266	$1,122,017	$918,014	$1,162,210	$950,899
Heat & Ventilation	2.35%	1.92%	$471,656	$385,900	$488,552	$399,724	$506,053	$414,043	$524,181	$428,875	$542,958	$444,239
Air Conditioning	2.12%	1.74%	$426,368	$348,847	$441,642	$361,343	$457,462	$374,287	$473,850	$387,695	$490,824	$401,583
Electrical	3.29%	2.70%	$661,644	$541,345	$685,345	$560,737	$709,896	$580,824	$735,326	$601,631	$761,667	$623,182
Construction Costs	43.48%	35.57%	**$8,731,707**	**$7,144,124**	**$9,044,498**	**$7,400,044**	**$9,368,494**	**$7,665,132**	**$9,704,097**	**$7,939,716**	**$10,051,722**	**$8,224,136**
Total Construction Costs	79.05%		**$15,875,830**		**$16,444,542**		**$17,033,626**		**$17,643,813**		**$18,275,858**	
ASCCESSORY STRUCTURES	5.15%	4.22%	**$1,034,992**	**$846,811**	**$1,072,068**	**$877,146**	**$1,110,472**	**$908,568**	**$1,150,252**	**$941,115**	**$1,191,456**	**$974,828**
Total Cost Asccessory Structures	9.37%		**$1,881,803**		**$1,949,214**		**$2,019,040**		**$2,091,367**		**$2,166,285**	
LAND IMPROVEMENTS												
Earth Work	0.83%	0.68%	$165,687	$135,562	$171,622	$140,418	$177,770	$145,448	$184,138	$150,659	$190,735	$156,056
Site Utilities	1.51%	1.24%	$303,760	$248,531	$314,641	$257,434	$325,912	$266,655	$337,587	$276,208	$349,680	$286,102
Roads & Walks	2.29%	1.87%	$459,505	$375,959	$475,966	$389,427	$493,016	$403,377	$510,677	$417,827	$528,971	$432,795
Site Improvements	1.26%	1.03%	$252,949	$206,958	$262,010	$214,372	$271,396	$222,051	$281,118	$230,006	$291,188	$238,245
Landscaping, Lawns & Planting	0.48%	0.40%	$97,203	$79,530	$100,685	$82,379	$104,292	$85,330	$108,028	$88,386	$111,898	$91,553
Unusual Site Condition	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	6.37%	5.21%	**$1,279,104**	**$1,046,540**	**$1,324,925**	**$1,084,029**	**$1,372,387**	**$1,122,862**	**$1,421,549**	**$1,163,086**	**$1,472,472**	**$1,204,750**
Total Cost Land Improvements	11.58%		**$2,325,643**		**$2,408,954**		**$2,495,248**		**$2,584,634**		**$2,677,222**	
TOTAL HARD COSTS without LAND	100.00%		**$20,083,277**		**$20,802,710**		**$21,547,914**		**$22,319,814**		**$23,119,365**	
LAND												
Acreage			20		20		20		20		20	
Density Allowance (per acre)			15		15		15		15		15	
Market Value per acre			**$340,000**		**$346,800**		**$353,736**		**$360,811**		**$368,027**	
Land Costs			**$6,800,000**		**$6,936,000**		**$7,074,720**		**$7,216,220**		**$7,360,540**	
TOTAL HARD COSTS with LAND			**$26,883,277**		**$27,738,710**		**$28,622,634**		**$29,536,034**		**$30,479,905**	

Source: GMAC Commercial Mortgage.

Table AII-3 cont.:
300-Unit Apartment Community Detailed Cost Breakdown with LIHTC Financing, 2010-20015

Construction Component	2010		2011		2012		2013		2014		2015	
MAIN BUILDINGS	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**
Concrete	$921,981	$754,348	$955,009	$781,371	$989,219	$809,361	$1,024,656	$838,355	$1,024,656	$838,355	$1,099,382	$899,494
Masonry	$491,284	$401,960	$508,883	$416,359	$527,113	$431,274	$545,995	$446,723	$545,995	$446,723	$585,814	$479,302
Metals	$119,858	$98,065	$124,151	$101,578	$128,599	$105,217	$133,205	$108,986	$133,205	$108,986	$142,920	$116,934
Rough Carpentry	$2,189,046	$1,791,038	$2,267,463	$1,855,197	$2,348,689	$1,921,655	$2,432,825	$1,990,493	$2,432,825	$1,990,493	$2,610,247	$2,135,657
Finish Carpentry	$219,958	$179,966	$227,838	$186,413	$235,999	$193,090	$244,454	$200,007	$244,454	$200,007	$262,281	$214,594
Waterproofing	$65,856	$53,882	$68,215	$55,812	$70,659	$57,812	$73,190	$59,882	$73,190	$59,882	$78,527	$64,250
Insulation	$255,520	$209,062	$264,674	$216,551	$274,155	$224,309	$283,976	$232,344	$283,976	$232,344	$304,686	$249,288
Roofing	$122,492	$100,221	$126,880	$103,811	$131,425	$107,529	$136,133	$111,381	$136,133	$111,381	$146,061	$119,504
Sheet Metal	$22,391	$18,320	$23,193	$18,976	$24,024	$19,656	$24,884	$20,360	$24,884	$20,360	$26,699	$21,845
Doors	$242,349	$198,286	$251,031	$205,389	$260,023	$212,746	$269,338	$220,368	$269,338	$220,368	$288,980	$236,439
Windows	$94,832	$77,590	$98,229	$80,370	$101,748	$83,249	$105,393	$86,231	$105,393	$86,231	$113,079	$92,519
Glass (add to Windows)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lath & Plaster	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Drywall	$659,875	$539,898	$683,513	$559,238	$707,998	$579,271	$733,361	$600,022	$733,361	$600,022	$786,843	$643,781
Tile Work	$101,418	$82,978	$105,051	$85,951	$108,814	$89,030	$112,712	$92,219	$112,712	$92,219	$120,932	$98,944
Acoustical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Resilient Flooring	$136,980	$112,075	$141,887	$116,089	$146,970	$120,248	$152,235	$124,556	$152,235	$124,556	$163,337	$133,639
Painting & Decorating	$192,299	$157,335	$199,188	$162,972	$206,323	$168,810	$213,714	$174,857	$213,714	$174,857	$229,300	$187,609
Specialties	$71,124	$58,193	$73,672	$60,277	$76,311	$62,436	$79,045	$64,673	$79,045	$64,673	$84,809	$69,390
Special Equipment	$65,856	$53,882	$68,215	$55,812	$70,659	$57,812	$73,190	$59,882	$73,190	$59,882	$78,527	$64,250
Cabinets	$273,960	$224,149	$283,774	$232,179	$293,939	$240,496	$304,469	$249,111	$304,469	$249,111	$326,674	$267,278
Appliances	$459,673	$376,096	$476,140	$389,569	$493,197	$403,524	$510,864	$417,980	$510,864	$417,980	$548,120	$448,462
Blinds & Shades, Artwork	$60,587	$49,571	$62,758	$51,347	$65,006	$53,187	$67,335	$55,092	$67,335	$55,092	$72,245	$59,110
Carpets	$317,425	$259,711	$328,796	$269,015	$340,574	$278,652	$352,774	$288,634	$352,774	$288,634	$378,502	$309,683
Special Construction (Sprinklers)	$263,423	$215,528	$272,860	$223,249	$282,634	$231,246	$292,759	$239,530	$292,759	$239,530	$314,109	$256,998
Elevators	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plumbing & Hot Water	$1,203,844	$984,963	$1,246,968	$1,020,247	$1,291,638	$1,056,795	$1,337,908	$1,094,652	$1,337,908	$1,094,652	$1,435,479	$1,174,483
Heat & Ventilation	$562,408	$460,152	$582,555	$476,636	$603,424	$493,710	$625,040	$511,396	$625,040	$511,396	$670,623	$548,692
Air Conditioning	$508,407	$415,969	$526,619	$430,870	$545,484	$446,305	$565,024	$462,293	$565,024	$462,293	$606,231	$496,007
Electrical	$788,952	$645,506	$817,215	$668,630	$846,489	$692,582	$876,812	$717,392	$876,812	$717,392	$940,757	$769,710
Construction Costs	**$10,411,800**	**$8,518,745**	**$10,784,776**	**$8,823,908**	**$11,171,113**	**$9,140,002**	**$11,571,290**	**$9,467,419**	**$11,571,290**	**$9,467,419**	**$12,415,164**	**$10,157,861**
Total Construction Costs	**$18,930,545**		**$19,608,684**		**$20,311,115**		**$21,038,709**		**$21,038,709**		**$22,573,025**	
ASCCESSORY STRUCTURES	**$1,234,137**	**$1,009,749**	**$1,278,347**	**$1,045,920**	**$1,324,141**	**$1,083,388**	**$1,371,575**	**$1,122,198**	**$1,371,575**	**$1,122,198**	**$1,471,601**	**$1,204,037**
Total Cost Asccessory Structures	**$2,243,886**		**$2,324,268**		**$2,407,529**		**$2,493,772**		**$2,493,772**		**$2,675,639**	
LAND IMPROVEMENTS												
Earth Work	$197,567	$161,646	$204,645	$167,437	$211,976	$173,435	$219,569	$179,647	$219,569	$179,647	$235,582	$192,749
Site Utilities	$362,207	$296,351	$375,182	$306,967	$388,622	$317,963	$402,543	$329,354	$402,543	$329,354	$431,900	$353,373
Roads & Walks	$547,920	$448,298	$567,548	$464,357	$587,879	$480,992	$608,938	$498,222	$608,938	$498,222	$653,347	$534,557
Site Improvements	$301,619	$246,780	$312,424	$255,620	$323,616	$264,777	$335,209	$274,262	$335,209	$274,262	$359,655	$294,263
Landscaping, Lawns & Planting	$115,906	$94,832	$120,058	$98,229	$124,359	$101,748	$128,814	$105,393	$128,814	$105,393	$138,208	$113,079
Unusual Site Condition	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$1,525,220	**$1,247,907**	$1,579,857	$1,292,610	$1,636,451	$1,338,915	$1,695,073	$1,386,878	$1,695,073	$1,386,878	$1,818,692	$1,488,021
Total Cost Land Improvements	**$2,773,127**		**$2,872,468**		**$2,975,366**		**$3,081,951**		**$3,081,951**		**$3,306,713**	
TOTAL HARD COSTS without LAND	**$23,947,558**		**$24,805,419**		**$25,694,010**		**$26,614,433**		**$26,614,433**		**$28,555,376**	
LAND												
Acreage	20		20		20		20		20		20	
Density Allowance (per acre)	15		15		15		15		15		15	
Market Value per acre	**$375,388**		**$382,896**		**$390,554**		**$398,365**		**$398,365**		**$415,499**	
Land Costs	**$7,507,760**		**$7,657,920**		**$7,811,080**		**$7,967,300**		**$7,967,300**		**$8,309,980**	
TOTAL HARD COSTS with LAND	**$31,455,318**		**$32,463,339**		**$33,505,090**		**$34,581,733**		**$34,581,733**		**$36,865,356**	

Source: GMAC Commercial Mortgage.

Table AII-4:
100-Unit SRO Community Detailed Cost Breakdown with Conventional Financing, 2005-2009

Construction Component	As A % of Total Cost		2005		2006		2007		2008		2009		2010	
	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor	Materials	Labor
SUBSTRUCTURE														
Standard Foundations	1.09%	0.89%	$65,450	$53,550	$67,957	$55,601	$70,391	$57,593	$72,913	$59,656	$75,525	$61,793	$78,230	$64,007
Slab on Grade	0.37%	0.30%	$22,000	$18,000	$22,652	$18,534	$23,464	$19,198	$24,304	$19,885	$25,175	$20,598	$26,077	$21,336
Basement Excavation	0.25%	0.21%	$15,125	$12,375	$15,788	$12,917	$16,354	$13,380	$16,939	$13,859	$17,546	$14,356	$18,175	$14,870
Basement Walls	0.92%	0.75%	$55,275	$45,225	$57,317	$46,896	$59,371	$48,576	$61,497	$50,316	$63,700	$52,118	$65,982	$53,985
SHELL														
Floor Construction	8.72%	7.14%	$525,525	$429,975	$544,342	$445,371	$563,842	$461,325	$584,040	$477,851	$604,962	$494,969	$626,633	$512,700
Roof Construction	0.42%	0.34%	$25,300	$20,700	$26,085	$21,342	$27,019	$22,106	$27,987	$22,898	$28,989	$23,719	$30,028	$24,568
Exterior Walls	2.83%	2.32%	$170,500	$139,500	$176,757	$144,619	$183,089	$149,800	$189,647	$155,166	$196,441	$160,724	$203,478	$166,482
Exterior Windows	1.37%	1.12%	$82,500	$67,500	$85,461	$69,923	$88,523	$72,428	$91,694	$75,022	$94,978	$77,710	$98,381	$80,493
Exterior Doors	0.15%	0.12%	$8,800	$7,200	$9,267	$7,582	$9,599	$7,854	$9,943	$8,135	$10,299	$8,426	$10,668	$8,728
Roof Coverings	0.44%	0.36%	$26,675	$21,825	$27,801	$22,746	$28,796	$23,561	$29,828	$24,405	$30,897	$25,279	$32,003	$26,185
INTERIORS														
Partitions	3.20%	2.61%	$192,500	$157,500	$199,409	$163,153	$206,553	$168,998	$213,952	$175,051	$221,616	$181,322	$229,555	$187,818
Interior Doors	2.80%	2.29%	$168,850	$138,150	$175,041	$143,215	$181,311	$148,345	$187,806	$153,660	$194,534	$159,164	$201,503	$164,866
Fittings	1.26%	1.03%	$75,900	$62,100	$78,597	$64,306	$81,412	$66,610	$84,329	$68,996	$87,350	$71,468	$90,479	$74,028
Stair Construction	0.72%	0.59%	$43,175	$35,325	$44,618	$36,506	$46,217	$37,814	$47,872	$39,168	$49,587	$40,571	$51,363	$42,025
Wall Finishes	1.17%	0.96%	$70,675	$57,825	$73,105	$59,813	$75,724	$61,956	$78,437	$64,175	$81,246	$66,474	$84,157	$68,856
Floor Finishes	2.45%	2.00%	$147,400	$120,600	$152,732	$124,962	$158,203	$129,439	$163,870	$134,076	$169,740	$138,878	$175,821	$143,853
Ceiling Finishes	1.63%	1.33%	$98,175	$80,325	$101,592	$83,121	$105,232	$86,099	$109,001	$89,183	$112,906	$92,378	$116,950	$95,687
SERVICES														
Elevators & Lifts	2.66%	2.17%	$160,050	$130,950	$165,774	$135,633	$171,712	$140,492	$177,863	$145,525	$184,235	$150,738	$190,835	$156,138
Plumbing Fixtures	4.17%	3.41%	$251,075	$205,425	$260,159	$212,857	$269,478	$220,482	$279,132	$228,380	$289,131	$236,561	$299,488	$245,036
Domestic Water Distribution	1.28%	1.05%	$77,000	$63,000	$79,626	$65,149	$82,479	$67,483	$85,433	$69,900	$88,494	$72,404	$91,664	$74,998
Rain Water Drainage	0.09%	0.07%	$5,225	$4,275	$5,491	$4,493	$5,688	$4,654	$5,892	$4,821	$6,103	$4,993	$6,322	$5,172
Energy Supply	2.58%	2.11%	$155,375	$127,125	$160,969	$131,702	$166,735	$136,420	$172,708	$141,307	$178,895	$146,369	$185,303	$151,612
Cooling Generating Systems	3.56%	2.91%	$214,500	$175,500	$222,062	$181,687	$230,016	$188,195	$238,256	$194,937	$246,791	$201,920	$255,632	$209,153
Sprinklers	0.94%	0.77%	$56,650	$46,350	$58,690	$48,019	$60,793	$49,739	$62,970	$51,521	$65,226	$53,367	$67,563	$55,279
Standpipes	0.20%	0.16%	$11,825	$9,675	$12,356	$10,109	$12,798	$10,471	$13,257	$10,847	$13,732	$11,235	$14,224	$11,638
Electrical Service/Distribution	1.00%	0.81%	$59,950	$49,050	$62,122	$50,827	$64,348	$52,648	$66,653	$54,534	$69,040	$56,488	$71,514	$58,511
Lighting & Branch Wiring	3.02%	2.47%	$181,775	$148,725	$188,426	$154,167	$195,176	$159,690	$202,168	$165,410	$209,410	$171,335	$216,912	$177,473
Communications & Security	0.14%	0.11%	$8,250	$6,750	$8,580	$7,020	$8,888	$7,272	$9,206	$7,532	$9,536	$7,802	$9,878	$8,082
Other Electrical Systems	0.07%	0.06%	$4,400	$3,600	$4,462	$3,651	$4,622	$3,781	$4,787	$3,917	$4,959	$4,057	$5,136	$4,202
EQUIPMENT & FURNISHINGS														
Appliances/Duct Work/Cameras/Monitors/Batteries	8.08%		$486,500		$503,593		$521,633		$540,319		$559,675		$579,724	
Construction Costs	**49.46%**	**40.47%**	**$2,979,900**	**$2,438,100**	**$3,087,238**	**$2,525,922**	**$3,197,831**	**$2,616,407**	**$3,312,385**	**$2,710,133**	**$3,431,043**	**$2,807,217**	**$3,553,952**	**$2,907,779**
Total Construction Costs	**98.01%**		**$5,904,500**		**$6,116,754**		**$6,335,872**		**$6,562,838**		**$6,797,935**		**$7,041,454**	
LAND IMPROVEMENTS														
Earth Work	0.45%	0.37%	$27,232	$22,281	$27,801	$22,746	$28,796	$23,561	$29,828	$24,405	$30,897	$25,279	$32,003	$26,185
Site Utilities	0.26%	0.21%	$15,573	$12,742	$16,131	$13,198	$16,709	$13,671	$17,308	$14,161	$17,928	$14,668	$18,570	$15,194
Roads & Walks	0.09%	0.08%	$5,633	$4,609	$5,835	$4,774	$6,044	$4,945	$6,260	$5,122	$6,484	$5,305	$6,717	$5,496
Site Improvements	0.19%	0.16%	$11,597	$9,489	$12,013	$9,828	$12,443	$10,181	$12,889	$10,545	$13,350	$10,923	$13,829	$11,314
Landscaping, Lawns & Planting	0.10%	0.08%	$5,964	$4,880	$6,178	$5,055	$6,399	$5,236	$6,628	$5,423	$6,866	$5,618	$7,112	$5,819
Unusual Site Condition	0.00%	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	1.10%	0.90%	$66,000	$54,000	$67,957	$55,601	$70,391	$57,593	$72,913	$59,656	$75,525	$61,793	$78,230	$64,007
Total Cost Land Improvements	**1.99%**		**$120,000**		**$123,558**		**$127,984**		**$132,569**		**$137,318**		**$142,237**	
TOTAL HARD COSTS without LAND	**100.00%**		**$6,024,500**		**$6,240,312**		**$6,463,856**		**$6,695,407**		**$6,935,253**		**$7,183,691**	
LAND														
Acreage			1		1		1		1		1		1	
Density Allowance (per acre)			Mid-Rise		Mid-Rise		Mid-Rise		Mid-Rise		Mid-Rise		Mid-Rise	
Market Value per acre			$340,000		$346,800		$353,600		$360,400		$367,200		$374,000	
Land Costs			**$340,000**		**$346,800**		**$353,600**		**$360,400**		**$367,200**		**$374,000**	
TOTAL HARD COSTS with LAND			**$6,364,500**		**$6,587,112**		**$6,817,456**		**$7,055,807**		**$7,302,453**		**$7,557,691**	

Source: GMAC Commercial Mortgage.

Table AII- 4 cont.:
100-Unit SRO Community Detailed Cost Breakdown with Conventional Financing, 2010-2015

	2011		2012		2013		2014		2015	
Construction Component	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**	**Materials**	**Labor**
SUBSTRUCTURE										
Standard Foundations	$81,033	$66,300	$83,936	$68,675	$86,942	$71,135	$90,057	$73,683	$93,283	$76,322
Slab on Grade	$27,011	$22,100	$27,979	$22,892	$28,981	$23,712	$30,019	$24,561	$31,094	$25,441
Basement Excavation	$18,826	$15,403	$19,500	$15,955	$20,199	$16,526	$20,922	$17,118	$21,672	$17,731
Basement Walls	$68,346	$55,919	$70,794	$57,923	$73,330	$59,997	$75,957	$62,147	$78,678	$64,373
SHELL										
Floor Construction	$649,081	$531,066	$672,333	$550,090	$696,417	$569,796	$721,365	$590,207	$747,206	$611,350
Roof Construction	$31,104	$25,448	$32,218	$26,360	$33,372	$27,304	$34,567	$28,282	$35,806	$29,295
Exterior Walls	$210,767	$172,446	$218,317	$178,623	$226,138	$185,022	$234,239	$191,650	$242,630	$198,515
Exterior Windows	$101,905	$83,377	$105,555	$86,363	$109,337	$89,457	$113,253	$92,662	$117,310	$95,981
Exterior Doors	$11,050	$9,041	$11,446	$9,365	$11,856	$9,700	$12,280	$10,048	$12,720	$10,408
Roof Coverings	$33,150	$27,123	$34,337	$28,094	$35,567	$29,101	$36,841	$30,143	$38,161	$31,223
INTERIORS										
Partitions	$237,778	$194,546	$246,296	$201,515	$255,119	$208,734	$264,258	$216,211	$273,724	$223,956
Interior Doors	$208,721	$170,772	$216,198	$176,889	$223,943	$183,226	$231,965	$189,789	$240,274	$196,588
Fittings	$93,720	$76,680	$97,077	$79,427	$100,555	$82,272	$104,157	$85,219	$107,888	$88,272
Stair Construction	$53,203	$43,530	$55,109	$45,089	$57,083	$46,705	$59,128	$48,378	$61,246	$50,111
Wall Finishes	$87,172	$71,322	$90,294	$73,877	$93,529	$76,524	$96,879	$79,265	$100,350	$82,104
Floor Finishes	$182,119	$149,007	$188,643	$154,344	$195,401	$159,873	$202,401	$165,600	$209,651	$171,533
Ceiling Finishes	$121,140	$99,115	$125,479	$102,665	$129,974	$106,343	$134,630	$110,152	$139,453	$114,098
SERVICES										
Elevators & Lifts	$197,671	$161,731	$204,752	$167,524	$212,087	$173,526	$219,684	$179,742	$227,554	$186,180
Plumbing Fixtures	$310,216	$253,813	$321,329	$262,906	$332,840	$272,324	$344,763	$282,079	$357,113	$292,184
Domestic Water Distribution	$94,948	$77,684	$98,349	$80,467	$101,872	$83,350	$105,521	$86,336	$109,301	$89,428
Rain Water Drainage	$6,548	$5,358	$6,783	$5,549	$7,026	$5,748	$7,277	$5,954	$7,538	$6,167
Energy Supply	$191,941	$157,043	$198,817	$162,669	$205,939	$168,496	$213,317	$174,532	$220,958	$180,784
Cooling Generating Systems	$264,789	$216,646	$274,274	$224,406	$284,100	$232,445	$294,277	$240,772	$304,818	$249,397
Sprinklers	$69,983	$57,259	$72,490	$59,310	$75,087	$61,434	$77,776	$63,635	$80,563	$65,915
Standpipes	$14,733	$12,054	$15,261	$12,486	$15,808	$12,934	$16,374	$13,397	$16,961	$13,877
Electrical Service/Distribution	$74,075	$60,607	$76,729	$62,778	$79,478	$65,027	$82,325	$67,357	$85,274	$69,769
Lighting & Branch Wiring	$224,682	$183,831	$232,731	$190,416	$241,068	$197,237	$249,703	$204,303	$258,648	$211,621
Communications & Security	$10,231	$8,371	$10,598	$8,671	$10,978	$8,982	$11,371	$9,303	$11,778	$9,637
Other Electrical Systems	$5,320	$4,353	$5,511	$4,509	$5,708	$4,670	$5,913	$4,838	$6,125	$5,011
EQUIPMENT & FURNISHINGS										
Appliances/Duct Work/Cameras/Monitors/Batteries	$600,491		$622,002		$644,284		$667,364		$691,270	
Construction Costs	**$3,681,263**	**$3,011,943**	**$3,813,135**	**$3,119,838**	**$3,949,731**	**$3,231,598**	**$4,091,220**	**$3,347,362**	**$4,237,778**	**$3,467,273**
Total Construction Costs	**$7,293,697**		**$7,554,975**		**$7,825,613**		**$8,105,945**		**$8,396,321**	
LAND IMPROVEMENTS										
Earth Work	$33,150	$27,123	$34,337	$28,094	$35,567	$29,101	$36,841	$30,143	$38,161	$31,223
Site Utilities	$19,235	$15,738	$19,924	$16,302	$20,638	$16,886	$21,377	$17,490	$22,143	$18,117
Roads & Walks	$6,957	$5,692	$7,207	$5,896	$7,465	$6,108	$7,732	$6,326	$8,009	$6,553
Site Improvements	$14,324	$11,720	$14,837	$12,139	$15,369	$12,574	$15,919	$13,025	$16,489	$13,491
Landscaping, Lawns & Planting	$7,367	$6,027	$7,631	$6,243	$7,904	$6,467	$8,187	$6,698	$8,480	$6,938
Unusual Site Condition	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$81,033	$66,300	$83,936	$68,675	$86,942	$71,135	$90,057	$73,683	$93,283	$76,322
Total Cost Land Improvements	**$147,332**		**$152,610**		**$158,077**		**$163,740**		**$169,605**	
TOTAL HARD COSTS without LAND	**$7,441,029**		**$7,707,585**		**$7,983,690**		**$8,269,685**		**$8,565,926**	
LAND										
Acreage	1		1		1		1		1	
Density Allowance (per acre)	Mid-Rise		Mid-Rise		Mid-Rise		Mid-Rise		Mid-Rise	
Market Value per acre	$380,800		$387,600		$394,400		$401,200		$408,000	
Land Costs	**$380,800**		**$387,600**		**$394,400**		**$401,200**		**$408,000**	
TOTAL HARD COSTS with LAND	**$7,821,829**		**$8,095,185**		**$8,378,090**		**$8,670,885**		**$8,973,926**	

Source: GMAC Commercial Mortgage

TABLE AII- 5: 1,300 SQUARE-FOOT SINGLE FAMILY RESIDENTIAL UNIT COMPONENT ASSUMPTIONS

Exterior elevation:

- no rock; koins or window pop-outs
- flat roof tile
- stucco body color w/ accent color

Prewire & electrical:

- * Opt security system
- telephone prewire 2 (owner's suite, kitchen)
- kitchen track light
- ceiling light prewire all bedrooms
- * Opt ceiling fans prewire all bedrooms;
- standard light switch & switch plates – white

Plumbing:

- ice maker line
- dual basin pressed steel sink
- Dual handle control kitchen faucet
- * Opt Kitchen vegetable spray
- * Opt recirculating plumbing system w/ timer pump (depends upon jurisdiction)
- standard 1/1.6 gallon toilet
- Fiberglass 1-piece tub & surrounds in both baths
- laminate vanity tops
- pressed steel sink with enamel overlay
- dual control mixing faucet - all baths chrome
- single zone ground mounted a/c compressor
- gas FAU in attic
- 40-gallon gas hot water heater
- gas stub for dryer

Insulation:

- Code: R-11 wall & R-19 ceiling
- ceiling: R-30
- walls: R-13
- Aluminum frame low-E glazing

Kitchen:

- standard range-oven combination
- gas 4-burner top
- exhaust fan vents to interior

dishwasher
1/3 hp garbage disposal
simulated oak cabinetry; fixed shelving
laminate counters
dual basin stainless steel sink

Doors/door hardware:

metal sectional garage door (no windows); garage door openers optional
chrome knob passage handsets
flat 'grain' interior doors 6'8"
1.5" base; 'step' casing

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