EAGLE COUNTY, COLORADO

NEXUS/PROPORTIONALITY ANALYSIS FOR COMMERCIAL DEVELOPMENT / WORKFORCE HOUSING LINKAGE

JANUARY 2008

Introduction

Linkage programs would require that developers of commercial space contribute to the provision of affordable housing in proportion to the affordable housing need that they generate by creating new employment. The basic premise of employee housing mitigation programs is that new commercial development fuels demand for housing by generating new jobs. In Eagle County, and other areas where land is expensive and housing demand is fueled by wealth from outside the region, the private market tends to supply housing that is priced beyond the reach of most local employees. This results in an undersupply of adequate housing that is affordable for low- to middle-income employees and, therefore, also results in housing prices that tend to escalate much faster than wages. This trend was most recently documented in the Eagle County Housing Needs Assessment dated December 2007.

This Nexus Analysis report establishes the link between new commercial development and the demand for employees. It provides a rationale for determining the percentage of employees that should be mitigated by new development through linkage programs and presents a formula for determining the amount of fee that could be paid in lieu of producing units. This report does not address inclusionary requirements. The 2007 Housing Needs Assessment provides key measurements on which an inclusionary policy could be based including the percentage of units occupied as primary residences, the gap between the number of units needed to house the workforce and market availability, demand generated by income commuters who are forced to live outside of the county, and the distribution of incomes expressed at a percentage of the Area Median Income (AMI).

In summary, this report finds that housing linkage programs that target employee households earning less than 140% AMI could require up to a 55% mitigation rate in Eagle County based on current housing service levels in the County. Lower mitigation rates could be required depending upon community needs, supplemental housing programs and development undertaken by the County, and desired outcomes from linkage housing programs.

Methodology

The following seven-step process is used to establish a nexus/proportionality formula for these employee mitigation programs. The process uses well-documented statistics from primary research conducted in Eagle County and other mountain resort communities in Colorado and neighboring states to provide a method for quantifying the number of jobs and corresponding housing demand generated by development. The steps are:

1. Identifying the level of service that has been set for Eagle County in terms of the percentage of low-income households and employees for which housing is to be ensured;

2. Determining the number of jobs generated by existing commercial development to calculate the housing demand generated by new development;

3. Accounting for multiple job holding to avoid double counting employees;

4. Converting the number of employees to households by applying an employees per household ratio;

5. Identifying the households to target in the employee housing mitigation programs by examining the income levels of Eagle County's residents;

6. Crediting developments for contributions to employee housing; and

7. Consolidating the information on job generation, job holding patterns, employees per household, and income levels into a formula that can be applied to commercial or mixed-use projects to calculate mitigation requirements.

The above formula often results in a fraction of a dwelling unit being required. When this occurs, or in other circumstances as may be permitted by the County's Housing Guidelines, fees can be paid in lieu of producing units. The amount of the payment in lieu is based on the affordability gap, which is the difference between what targeted households can afford to pay and market prices for housing. This report concludes with an estimate of the gap between affordable and market costs and a calculation of the payment in lieu.

Level of Service

Programs that require new development to produce affordable housing as mitigation for the housing demand generated by the development must conform to level of service standards applicable for both existing and future needs. The level of service indicates the current level of affordable housing that exists in the community and, when considered in conjunction with County commitments for providing housing, provides a guideline for workforce housing mitigation requirements. It should be noted, however, that new development requirements need not be limited by the current level of service in the community if the county has adopted higher goals and is actively implementing housing programs to increase the current level of service.

The level of service is defined by the current percentage of households residing in the study area that earn within the income range targeted by the adopted housing program. It takes into account commuting and the income distribution of households in the county, expressed as a percentage of the AMI.

Proposed changes to Eagle County's "Local Resident Housing Guidelines" would expand the income range targeted by commercial linkage by eliminating minimums and raising the maximum income allowed to 140% AMI. The guidelines call for ownership and/or rental units to be provided at a variety of price points and rent levels so that households with incomes ranging from extremely low through 140% AMI are served.

Orienting programs to the County's median family income, as published by the U.S. Department of Housing and Urban Development (HUD) each year, corresponds with State and Federal programs that might be used by private developers as well as the public sector to produce employee housing, as these programs also base income levels on the County's median family income. The following table shows U.S. Department of Housing and Urban Development (HUD) estimates of the median household incomes in Eagle County for one- through five-person households in 2007.

Table 1. Area Median Income Limits By Household Size, 2007
Shading denotes median family income.

	1-person	2-persons	3-persons	4-persons	5-persons
50% AMI	$28,400	$32,450	$36,500	$40,550	$43,800
60% AMI	$34,080	$38,940	$43,800	$48,660	$52,560
80% AMI	$41,900	$47,900	$53,850	$59,850	$64,650
100% AMI	$56,800	$64,900	$73,000	$81,100	$87,600
120% AMI	$68,160	$77,880	$87,600	$97,320	$105,120
140% AMI	$79,520	$90,860	$102,200	$113,540	$122,640

Source: US Department of Housing and Urban Development (HUD)

Household incomes by AMI in 2007 were estimated from the 2000 US Census CHAS (Comprehensive Housing Affordability Strategy) special tabulations of households by AMI in 1999, the 1999 and 2005 HUD median family incomes in Eagle County, housing tenure and incomes from the 2000 US Census and the estimated number of Eagle County households in 2007. These projections include the following assumptions: the percentage of households in each AMI group has remained fairly constant since 1999 and household tenure has remained relatively constant since 2000. These estimates indicate that about 59% of owners and 83% of renters earn less than 140% AMI, for a total of 66.5% of all households.

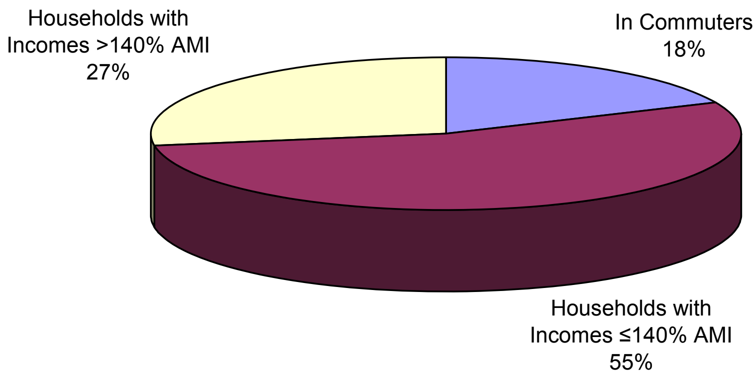
Table 2. Income Distribution of Eagle County Households by Tenure: 2007 Estimates

	Renters		Owners		Total	
	#	%	#	%	#	%
50% AMI or Less	1,471	25.6%	1,383	10.5%	2,854	15.1%
50.1 -80% AMI	1,141	19.8%	1,360	10.3%	2,501	13.2%
80.1-120% AMI	1,677	29.2%	3,763	28.6%	5,440	28.8%
120.1-140% AMI	484	8.4%	1,312	9.9%	1,796	9.5%
Over 140% AMI	978	17.1%	5,352	40.6%	6,333	33.5%
TOTAL	5,753	100.0%	13,171	100.0%	18,924	100.0%
Total ≤ 140% AMI	4,773	83.0%	7,818	59.4%	12,591	66.5%

Source: Department of Local Affairs; Colorado Demography Section; CHAS; RRC Associates, Inc.

Since all employees do not live in Eagle County, it is appropriate to take into account commuting when calculating the existing level of service. According to information referenced in the 2007 Housing Needs Assessment from the Colorado Department of Local Affairs, 81.7% of employees working in Eagle County also live in the county while 18.3% commute in from homes elsewhere. This methodology results in an existing level of service of 55%. In other words, 55% of all households generated by jobs in Eagle County live in the county and have incomes equal to or less than 140% AMI.

Level of Service Estimate



It is recognized that a portion of the households in Eagle County that earn less than 140% AMI are cost-burdened. However, these households are still residing in the County regardless of their ratio of income to housing payments and are, therefore, being served by housing in the community. Employee housing programs such as Section 8 rent subsidy vouchers and down payment assistance are intended to ease the burden on these lower-income households and provide more affordable housing options for local workers. This not only results in a more stable and content workforce, but also helps the County compete with other areas for employees by providing suitable and affordable housing for the workforce. The Eagle County Housing Office has a comprehensive work program for addressing existing housing needs including affordability.

The above approach generates a potential measurement for the County's existing level of service for housing linkage guidelines through which residents with incomes equal to or less than 140% AMI would be served. The data comfortably support a mitigation level of 55% and may support mitigation depending upon potential changes to adopted policies and continuation of workforce housing efforts by the Eagle County Housing Office. Levels of service could increase over time with the production of additional workforce housing units. It is important to recognize that alternative interpretations of the level of service standard may be more or less conservative than presented herein, potentially supporting a higher or lower mitigation rate than the 55% presented above.

Job Generation Rates

When new commercial/industrial/lodging projects are built, additional employment is generated. New commercial employment may be from new businesses or from businesses relocating from other space (thereby freeing up that space for other tenants). Regardless, the net effect over time is a net increase in employment in the community. Job generation rates that measure the number of jobs typically generated by residential units and in various types of commercial spaces can be used to estimate the number of jobs that will be created by new development.

Commercial Linkage

RRC Associates and Rees Consulting, Inc., both members of The Housing Collaborative, LLC, have been conducting housing needs assessments in mountain resort communities throughout Colorado and in neighboring states since 1990. As part of these studies, public and private sector employers were surveyed concerning the number of jobs they offer and the amount of space they occupy. From these surveys, a total of 2,169 employers were used to compile a database on job generation ratios, which are expressed as the number of total jobs (full and part time combined, not FTE) per 1,000 square feet of space. The study area includes both core resort areas as well as nearby communities, which are listed below, with survey dates ranging between 1990 and 2007.

- Blaine County, ID: 1990, 1996
- Chaffee County: 1994
- Copper: 2001
- Eagle County: 1990, 1999, 2001, 2007
- Estes Park: 1991, 1999
- Frisco: 1998
- Grand County: 1992, 2001, 2007
- Gunnison County: 1992, 1998
- Composite of Pitkin, Eagle, and Garfield Counties (from Healthy Mountain Communities surveys of 1997/98 season)
- Keystone: 2001
- Pitkin County: 1991
- Routt County: 1990
- San Miguel County: 2000
- Snowmass Village: 1999
- Summit County: 1990, 2001
- Telluride: 1993, 1996, 2001
- Teton County: 2006
- Aspen 2002
- Garfield County 2004
- Pitkin County 2004

For the purposes of comparison with Eagle County, results from Chaffee County and Estes Park were not included in the merged database runs shown below in Table 4. The composite database shows about 2.8 employees work in every 1,000 square feet of commercial space overall. The ratios are considerably higher for restaurants and bars (8.7 per 1,000 SF) and recreation-related establishments (5.5 per 1,000 SF) and slightly higher for retail space (3.0 per 1,000 SF). Generation rates in Eagle County are similar, or slightly higher, than the composite database for most categories.

Table 3. Commercial Job Generation Rates

	Merged Database*	Eagle County 1990/1999/2001/2007
Bar/restaurant	8.7	10.6
Construction	5.4	7.3
Education	1.3	1.3
Office (Finance/Banking, Legal, Medical, Prof. Services)	3.7	4.6
Government	1.8	1.2
Real estate/property management (office)	6.1	9.2
Retail sales	3.0	3.6
Service (personal and commercial service)	1.9	2.6
Recreation/attractions/amusements	5.5	2.0
Utilities	1.4	1.6
Overall	2.8	3.1
Lodging/hotel/housekeeping	0.8/room	0.9/room
Property Management (units)	0.4/unit	0.5/unit

*Merged database excludes Estes Park and Chaffee County. Source: RRC Associates, Inc.

Considerations for Commercial Linkage Requirements

When developing commercial linkage requirements, some communities use a single average while others combine similar categories into several groups. The rates are usually used to estimate employment when the PUD or building permit application is filed. The rates can be applied to new development and to redevelopment that results in additional space being created. Using a single average makes it less problematic when the exact use of space is not defined at the time of project approval; however, it can place disproportionate burden on commercial uses that have lower job generation rates. Utilizing multiple rates can complicate the situation when a change in use occurs. Some programs consider change in use to be exempt while others provide a credit. Most programs provide the opportunity for the applicant to provide their own job generation estimates in the event that the proposed use is expected to generate jobs at a different rate than established by the community.

It is important to note that the overall average of 2.8 jobs per 1,000 square feet of space is low for typical uses likely to be developed in Eagle County in the future. The average was calculated by aggregating all space then dividing it by the total number of jobs in that space. Large areas with few employees, like schools and warehouses, disproportionately affect the average. The median is 4.0 jobs:1,000 sq. ft. while the weighted average is 4.1 jobs: 1,000 sq. ft. As such, using the lower overall average of 2.8 results in conservative estimates of employment and makes it unlikely that many applicants will provide alternative calculations of job generation.

The merged database contains 301 valid cases from Eagle County (103 in 1990, 100 in 1999/2001 combined and 98 from 2007). The compared composite database has 1,856 valid cases sampled from 1990 through 2007 and combines surveys from commercial core areas, where space tends to be intensively used, and nearby communities and unincorporated areas, where employment is often less. Although the figures generated from Eagle County surveys could be used to determine local job generation, it is recommended that the merged dataset be used rather than specific local figures for the following reasons:

- The smaller number of cases in individual communities is less statistically valid than the merged data set, particularly when broken down by types of businesses.

- Surveys of individual communities provide point-in-time estimates of job generation during the year of the survey. These rates are subject to change depending on many factors, including local and regional economic conditions and changes in development incentives, ordinances and regulations that may affect the intensity of commercial space usage in the community.

- The merged data set provides a more general sample of the types of businesses and intensity of uses found in resort communities over a period of time that includes both economic booms and slumps. This results in numbers that represent average commercial job generation that can be comfortably used over an extended period of time, rather than constantly changing with point-in-time economic conditions.

- The merged data set also provides a more general sample of the intensity of uses of businesses in multiple resort communities. Because each community represents a different “maturation” state, the database presents an average mix of intensities that could be expected as communities change and as businesses move into and out of communities. The merged database provides job generation rates that recognize the economic mix of communities change over time, both within and between different industries, and accommodates this change.

Accounting for Multiple Job Holding

The job generation ratios for commercial space measure the total number of full- and part-time employees combined; no adjustment was made when counting part-time jobs. Some of the employees, particularly the part-time workers, may also hold other jobs. To avoid double counting and potentially requiring two different commercial developments to pay for housing the same employee, the number of total employees in commercial space that generate demand for housing in Eagle County needs to be adjusted for multiple job holding.

The 2007 Eagle County Housing Needs Assessment found that employees in Eagle County hold an average of 1.2 jobs. This measure was calculated by evenly weighting the number of jobs held during the winter, summer and shoulder seasons. It is similar to the results found in other mountain resort communities where, over the years, the number of jobs held by employees has typically ranged between 1.15 and 1.35. The projections of jobs and workers holding jobs in Eagle County in 2005 that were compiled by the Department of Local Affairs also average about 1.2 jobs per worker.

Converting from Workers to Households

Employees often live together in family and unrelated roommate households. Housing requirements need to recognize these lifestyle patterns. Based on the 2007 Housing Needs Assessment survey, the number of employees per household averages 1.8. This is the same average reported by the 2000 Census for all households with employees. The number of households generated by a project equals the number of new employees divided by 1.8 employees per household.

Identifying Program Methods and Household Targets

It is important that developers not be “double-charged” by housing requirements to avoid the need for crediting developments for payments made through other mechanisms (see the section on Credits in this report). For example, many programs implemented in other Colorado mountain resort communities typically employ either residential linkage or inclusionary zoning to avoid “double-charging” residential developments for the same employees or set different income targets for the different methods. The Guidelines for Eagle County prevents double-charging by having inclusionary for residential development and linkage requirements for commercial.

Income ranges served by programs are unique for each community depending on their specific household needs. Different ranges can be targeted based on local needs – for example, Aspen/Pitkin County have eight service-level categories, covering from low-income households through four levels of upper-income categories.

The County has the discretion to require different mitigation rates for residential and commercial development, provided the rates are based on a legitimate public purpose. For example, commercial development can be assessed a lower mitigation rate than residential provided there is a finding of fact that doing so achieves a public purpose, such as the encouragement of economic development and the support of fiscal soundness through the generation of sales tax revenues.

Credits

Any taxes or fees paid by new development that are used to address existing housing deficiencies must be credited for the amounts paid. In Eagle County, none of the fees or taxes paid by residential or commercial development are allocated to housing.

Mitigation Formula

To determine the number of affordable housing units that commercial, residential, or mixed-use projects must produce, the following formula is used. For illustrative purposes, the below table is based on the assumption that a 30% mitigation rate is required for commercial and 30% for residential mitigation. Other mitigation rates could easily be substituted, if desired.

Table 6. Calculation of Commercial and Residential Linkage Requirements

Commercial	Factor	Calculation
Size of Development		Leasable Square Feet
Jobs generated	2.8 per 1,000 SF	rate x SF/1,000
Employees generated	1.2 jobs per employee	Jobs generated / 1.2
Households generated	1.8 employees per unit	Employees generated/1.8
Units Required	55% mitigation rate	Households generated x 55%
Lodging and Property Management		
Size of Development		# Rooms or # Units
Jobs generated	Lodge/Hotel - 0.8/Room	# rooms x 0.8
	Prop. Management - 0.4/Unit	# units x 0.4
Employees generated	1.2 jobs per employee	Jobs generated / 1.2
Households generated	1.8 employee per unit	Employees generated/1.8
Units required	55% mitigation rate	Households generated x 55%

- The size of the project is first multiplied by the appropriate job generation rates to estimate the number of jobs that will be created;

- The number of jobs generated for commercial space and lodging is then divided by the average job holding ratio of 1.2 jobs per employee to estimate the number of new employees that will be generated by the development;

- The number of new employees is then divided by the number of employees per household (1.8) to estimate the number of new households generated by the project; and

- The total number of households is then multiplied by the percent mitigation rates, as approved by the Eagle County Board of Commissioners, to determine the number of units required.

The number of new households for which housing must be provided is a function of public policy as well as proportionality. Eagle County can require developers to provide housing for up to 100% of the income-targeted households generated by the development, particularly in light of existing Eagle County programs and projects that address affordable housing needs of households in the targeted categories. Based on the analyses presented in this report, a 55% percent mitigation rate would be easily supported for programs targeting households earning 140% AMI or less. The mitigation requirements can be less than the maximum permitted for residential or commercial development, or both, based on the desires of the County to achieve its goals and objectives for Community Housing through mechanisms other than linkage guidelines.

Fee in Lieu Calculation

The difference between prevailing market prices and what targeted low-income households can afford to pay for housing is the gap that must be taken into consideration when determining the amount of fee that could be paid in lieu of producing units under certain circumstances. This gap varies by the income level of the targeted household and whether homeownership or rental housing is to be provided.

To generate one number for each targeted income category that represents the gap between affordable and market costs, a series of calculations must be made, as follows:

1. The income range of targeted households is first established. The basis is the median family income for three-person households in Eagle County. The income for three-person households was used since the average household size in Eagle County as of 2007 is 2.74 persons (as estimated by the Department of Local Affairs). The income range must be updated annually to reflect changes in the published wage or median income figures, depending upon which is used as an eligibility measure. As a result, the amount of the gap and resulting payment in lieu will fluctuate yearly.

2. The target income point within the range is then set so that a single gap calculation can be performed. The point has been set at 100% AMI since both renter and ownership units will be produced and it is at the middle of the range of the averages required.

3. The affordable monthly housing payment is next established based on a commonly used standard: 30% of gross income equals housing payment.

4. The affordable monthly housing payment is then converted to an affordable purchase price by assuming the cost of property taxes and insurance is equal to 20% of the total affordable housing payment, then assuming that mortgage terms based on the remaining 80% of the payment include a 5% down payment and a 6.5% fixed rate of interest for 30 years.

5. The average size is based on the propose Guidelines – 1,000 square feet.

6. The per square foot sales prices of dwelling units recently purchased in Eagle County is used as the basis for housing costs. The figure of $385 per square foot was the median cost of units sold in 2007 through December 25th (with outliers removed). The cost of units sold rather than the cost of construction has been used for several reasons:

    - Market-rate prices on a per square foot basis can be readily obtained and can be used to update the fee on a regular basis;

- Construction costs vary widely, depending upon numerous variables. Adding the cost of land further complicates the calculation; and
- The County may use the fees obtained to purchase existing units, provide rent subsidies, or support other housing efforts in addition to new construction projects.

7. The affordability gap is the difference between the cost (median per square foot price of recently purchased dwellings multiplied by the average size of units required for each income category) and the affordable purchase price.

Table 7. Calculation of Fees in Lieu based on Median Income Limits

	100% AMI Average
Target Income Point (3-person households)	$73,000
Affordable Monthly Housing Pmt.	$1,825
Property Taxes/Insurance/HOA estimate (20% of Aff. Monthly Hsg. Pmt.)	$365
Mortgage Payment	$1,460
Max. Mortgage Amount*	$231,000
Affordable Purchase Price	$243,150
Average Sq. Ft of Units	1,000
Median per Sq Ft.	$385
Market Cost per Unit	$385,000
Affordability Gap	$141,850
Plus 15% Administrative Fee	21,278
Payment in Lieu per Unit	$163,128

It should be noted that the calculations presented above assume that any HOA fees (plus property taxes and insurance) would be covered by 20% of the "affordable monthly housing payment." This percentage can be amended depending upon expected HOA dues being lower or higher than this allowance. For developments that result in a fraction of a housing unit being required, the payment is determined by applying that fraction to the per-unit in lieu amount.