

Next Generation Military Housing
Privatization

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Marcus Eaton Williamson

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Next Generation Military Housing
Privatization

Approved by:

Dr. Linda Thomas, Advisor
School of Building Construction
Georgia Institute of Technology

Dr. Uhlik
School of Building Construction
Georgia Institute of Technology

Professor Thomas Whatley
School of Building Construction
Georgia Institute of Technology

LtCol Weinkle
Executive Officer NROTC
Georgia Institute of Technology

Date Approved: June 1, 2005

This document is dedicated to the service members of the United States of America and their families in hopes of providing a better system for coping with their frequent moves.

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SUMMARY

Military service members, officer and enlisted from all branches of military service, move every 2.8 years on average, although actual move rates may vary depending on branch of service, job or individual circumstances (Philpott, 2001). Understandably, this constant moving impacts a service member's decisions regarding housing. Current military housing options are 1) purchase a home and sell it at the end of their two to three year tour, 2) purchase a home and try to rent it after their tour is complete, 3) rent a home or apartment or 4) on-base housing (depending on availability).

Over a twenty year career, most service members will use a combination of these housing options. With no equity gained in on-base housing or renting a home, service members must either purchase a home and sell it at the end of their tour or try and rent it, to gain any equity toward a home when they retire. This continuous turn over of home loans over a 20 year career, results in military personnel ending their career with little equity in a home because they have primarily only paid the high interest portions of the loans to financial institutions and any equity gained from rising home prices is offset by closing costs.

If military housing needs have been around for so long, why have no new approaches emerged? This same question could be asked about why it took so long for Wal-Mart and Sam's Club to appear and dominate the market. Consumer demands needed to align with business capabilities and willing entrepreneurs who recognized the

value of bulk purchasing and efficient distribution and in the case with any Department of Defense (DOD) initiative, Congress had to get involved.

This study presents the hypothesis that military housing privatization, based on implementing planned communities that are built specifically for military personnel and owned by a corporation consisting of military personnel membership, would be beneficial to the service member, Department of Defense, financial institutions and the community.

A financial analysis of current home market values and realty costs at several key military base locations (to provide a baseline for current approaches) revealed that none of the current approaches provide a significant amount of home equity for the service member. The limited geographic locations selected are representative of military bases and the available metropolitan statistical area (MSA) housing data allows the areas of these military bases to be isolated for financial analysis. In addition to market values at each of the locations over a decade, the financial analysis reviewed the typical opening/closing costs at each location, utility costs at each location, loan interest tax deductions, and the military Basic Allowance for Housing (BAH) rates at each location. This analysis included housing markets fluctuations over the past decade and therefore the profits/losses that members would have seen during a three year period at each of these locations. The analysis reviewed the option of using the property as a rental home after the initial three year tour. This study breaks down the financial benefits/losses for each of the key stakeholders for Pensacola, Florida.

Each of the current stakeholders has various resources they are providing under the current approaches. The government is providing the majority of monthly payments for housing, service members are assuming the risk associated with purchasing a home

and the potential equity gain/loss, financial institutions are providing the loan and realtors are brokering the deals. A new approach can be developed to capitalize on this understanding and implement savings and risk reductions from performing these services in bulk similar to how Wal-Mart and Sam's Club have been able to drive consumable goods prices down through purchasing in bulk. By purchasing and developing large communities designed specifically for military personnel in bulk, savings can be realized at almost every level. Del Webb has demonstrated that planned communities geared toward a specific group, in their case retirees, can be very successful (Times, 2001). This study reviews similar planned communities; except these communities are geared specifically toward military personnel and their needs. This study refers to these planned communities for service members as the Military Community Limited Liability Company (LLC). Through the establishment of a company that would identify, purchase, construct, manage and eventually sell these planned communities, the Military Community LLC, bulk savings can be realized. The Military Community LLC can negotiate deals to procure property in economically depressed areas commonly located near military bases, which will result in savings from property costs and tax incentives. Homes can be constructed in bulk based on known income levels of service members for the area with amenities specifically tailored to military personnel. Commercial spaces can be rented with a known target audience. Homes and utilities would remain in the Military Community LLC name avoiding costly transfer fees. Service members would simply join the Military Community LLC and reside in a Military Community LLC for the duration of their orders and pay their basic allowance for housing (BAH) directly to the Military Community LLC.

Military officers are used for the service member stakeholder for the Military Community LLC financial Analysis. Officers from all branches of service are used because officers are more likely to invest in a home within their first or second tour and fraternization issues, due to homes intermixing junior enlisted personnel with officers, can be avoided by the Military Community LLC by concentrating on providing housing to officers only during the initial stages. The Military Community LLC can work out many of the details during the initial offer to officers and then greatly increase their market and provide a valuable service to all military personnel by expanding to enlisted personnel.

Several variables, including rising/decreasing housing prices, location of homes, and fluctuations in interest rates, were included in the analysis to determine their impacts on each stakeholder.

The financial analysis of the Military Community LLC approach yielded a significant increase in the service member home equity and financial institution rate of return while maintaining the same investment by the government. While the Military Community LLC does not eliminate the need for service members to move every 2.8 years, this option provides benefits that make the constant moves and deployments easier logistically and financially.

Based on the results of the Military Community LLC financial analysis compared to the current approaches, this new approach offers a better investment, financially and/or other benefits, for the key stakeholders- the service member, financial institutions and the government. The Military Community LLC offers a win-win-win approach that could

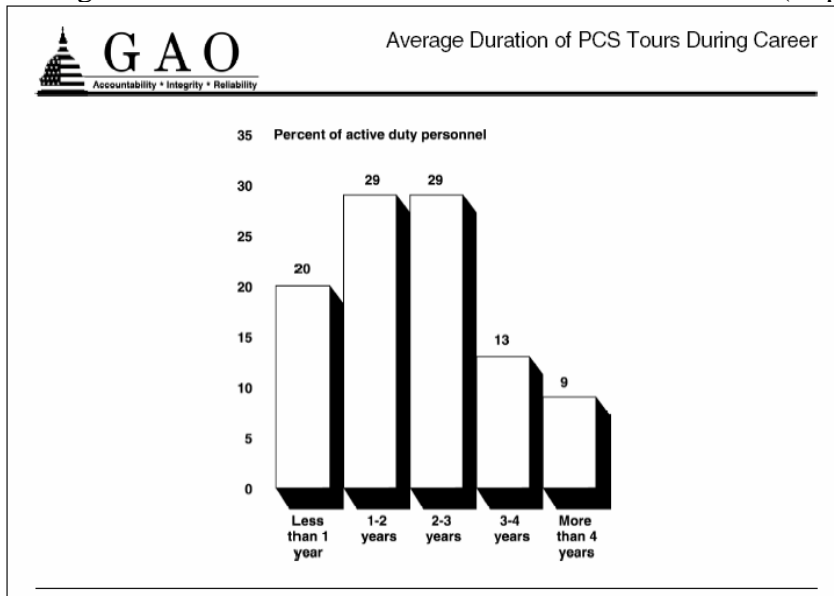
quickly dominate the military housing industry similar to the popularity of Wal-Mart and Sam's Club and their dominance of the consumable goods industry.

CHAPTER 1
BACKGROUND

Military Moving Rates and Trends in Housing

Most military services have a policy that military members need to relocate after every tour, which is typically 2-3 years (Philpott, 2001). This policy has resulted in military families moving every 2.8 years on average (Philpott, 2001). The move frequency is an average and varies on job specialties and branch of service. According to a GAO study, service members in the Marine Corps move more frequently than service members in the Air Force (Report, 2001). Table 1 provides a breakdown for the percentage of service members moving during various durations. United Services Automobile Association (USAA), a major financial institution for military members, cautions military members that if they will not be in a house for 4-5 years, they may be better off investing the money elsewhere (Foundation, 2004).

Table 1- Average Duration of PCS Tours for All Branches of Service (Report, 2001)



There is a current trend to reduce the number of military personnel stationed overseas and bring these personnel back to the United States. President Bush announced “60,000 to 70,000 uniformed personnel, and about 100,000 family members and civilian employees would be redeployed from overseas bases to the United States” (Gilmore, 2004). These personnel will clearly result in an influx of housing requirements near existing bases since these 100,000 family members will have to be relocated to bases in the United States. These families will have to either find housing in the local community or add their names to the waiting lists for on-base housing.

Military personnel are faced with having to move every two to three years, making it extremely difficult to build any equity in a home when they are forced to refinance their loan every time they buy and sell their home. This continuous turn over of home loans over a 20 year career, results in military personnel ending their career with little equity in a home because they have primarily only paid the high interest portions of the loans to financial institutions and equity gained from rising home prices is offset by closing costs.

How Large Is the Military Market?

The United Services Automobile Association (USAA) figured out the potential market promise of the U.S. military. USAA started as an automobile insurance company specifically for active duty and retired officers (including Navy, Marine Corps, Army, Air Force and Coast Guard). USAA has grown into a full service insurance and financial institution servicing active, reserve and retired officers and enlisted personnel. Table 2 indicates how large the military market is for USAA. In addition, USAA has learned that there are benefits to military members such as the availability of allotments. Allotments are sent straight from DFAS to the financial institution regardless of the financial

condition of the service member. This provides a greatly reduced risk of late payments, missed payments or partial payments assuming the service member uses the optional allotments.

Table 2- General Facts about U.S. Military

General Facts about U.S. Military	
Description	Quantity
# of officers	223,119
# of enlisted	1,179,001
Total #	1,402,120
# of married personnel	724,896
total # of dependents (not including service member)	1,916,056
Ave # of children	2
# stationed in US	1,180,832
# of existing on-base military houses	319,822

With over 223,000 officers in the U.S. military, if only ten percent of officers participated in the program, this would create a pool of over 20,000 members, which would easily support 8,000-10,000 homes. At an average home value of \$225,000, this creates a Military Community LLC with a \$2,250,000,000 asset base. If the Military Community LLC grows to include enlisted personnel and reserve personnel, the potential asset base grows extensively.

Current Military Housing Options

Currently military members have four main methods for obtaining their residence at each location: 1) on-base military housing, which typically has long waiting lists; 2) rent a home or apartment; or 3) buying and sell a house using a standard loan; or 4) buy and rent a house using a standard loan. Standard loans are typically fixed or variable rate loans and military members may qualify to use either VA or FHA (Foundation, 2004).

Assumptions

Both the current approaches and the new approach contained in the financial analysis of this study are based on several assumptions:

1. Service members are interested in gaining equity in a home.
2. The limited geographic locations selected for this study are representative of military bases.
3. Military personnel levels will stabilize sufficiently to support the hypothesis.
4. BAH rates based on an O-2 officer with dependents unless stated otherwise.
5. Mortgage and hazard insurance based on \$100/\$100,000 home value.
6. Property tax based on 40% assessed value (purchase price) times 2.85%.

Basic Allowance For Housing (BAH)

Basic Allowance for Housing (BAH) is defined as “an allowance to offset the cost of housing when you do not receive government-provided housing” (O. o. t. S. o. Defense, 2005). The dollar value of BAH is calculated based on the location of the service member, the pay grade of the service member and whether the service member has dependents. The government establishes BAH rates by surveying the cost of rental properties in different geographic locations and then establishing rates such that service members of each pay grade pay approximately the same out-of-pocket expenses, regardless of location (O. o. t. S. o. Defense, 2005). Based on this approach, BAH is higher in areas such as Washington DC and San Diego, CA, where rental costs are higher, than areas such as Pensacola, FL. Prior to fiscal year 2000, BAH did not cover all of the expenses associated with service members living in the local community and resulted in an out-of-pocket expense of almost 20% for service members. The Secretary of Defense announced a budget initiative that would decrease the out-of-pocket expenses from almost 20% to 15% in 2000, 3.5% in 2004 and 0% in 2005 (O. o. t. S. o. Defense, 2005).

Military Housing Privatization

One of the benefits of military service is the on-base housing; however, with budget cuts and pressures by the federal government for on-base housing to only be used

in cases of critical housing shortages, trends have emerged within the Department of Defense to shift toward “Privatization” of military housing.

In 1996, Congress established the Military Housing Privatization Initiative (MHPI) to help improve the quality of life of service members by improving the condition of their housing. MHPI was designed and developed to attract private sector financing, expertise and innovation to provide housing faster and more efficiently than traditional military processes permitted. Military Services (Army, Air Force, Navy and Marine Corps) are authorized to enter into agreements with private developers to own, maintain and operate family housing via a fifty-year lease. Table 3 identifies the number of on-base military homes needing repair and the costs associated with these repairs for each branch of service.

Table 3- On-base Housing Condition Assessment (Representatives, 2001)
 Deficits (current projections)
 [Dollars in thousands]

	New construction	Replacement	Improvement	Grand total
Army:				
Number of Units	7,400	20,000	41,000	68,400
Costs	965,000	3,000,000	3,000,000	6,965,000
Navy:				
Number of Units	15,600	4,200	13,600	33,400
Costs	2,294,300	693,000	1,088,000	4,075,300
Marine Corps:				
Number of Units	10,731	5,611	6,278	22,620
Costs	1,622,464	960,135	370,717	2,953,316
Air Force:				
Number of Units	6,000	26,700	38,500	71,200
Costs	417,845	2,575,395	3,031,112	6,024,352
Total DOD:				
Number of Units	39,731	56,511	99,378	195,620
Costs	5,299,609	7,228,530	7,489,829	20,017,968

MHPI addresses two significant problems concerning housing for military Service members and their families: (1) the poor condition of DOD owned housing, and (2) a shortage of quality affordable private housing. Under the MHPI

authorities, DOD works with the private sector to revitalize our military family housing through a variety of financial tools - direct loans, loan guarantees, equity investments, conveyance or leasing of land and/or housing and other facilities.

Military Service members receive a Basic Allowance where they can choose to live in private sector housing, or privatized housing (Environment, 2004).

Privatization has expanded to include public-private ventures on private land.

Examples of privatization include: 6,550 houses in San Diego, CA and 150 houses in Kingsville, TX, that are being constructed on private land with 30 year deals for the Navy (C. Housing, 2004a). Similarly, at Shaw AFB, the Air Force is out leasing 439 acres and the contractor is demolishing 1699 existing units and constructing 1488 new units under a 50 year agreement (Young, 2004). Many of the Public-Private Ventures have different business terms between the military service (Navy/Marine Corps, Air Force or Army) and the property management company (Young, 2004). The business terms might include different guarantees by the government with respect to occupancy rates, land lease agreements, or contract terms (Young, 2004). Under privatization, privatized housing may be on or off the military base; service members receive BAH and pay it directly to the property management company; rents are based on BAH rates and cover the same costs as on base housing; and property management company is responsible for all repairs and maintenance (N. O. F. Housing, 2004). Under Public-Private Ventures, service members are benefiting from older military housing being replaced by newer privatized housing; however, there are no additional financial benefits to the service member. Detailed information on Public-Private Ventures and frequently asked

questions are included in Appendix C. Figure 1 is photos of housing being provided under Public-Private Ventures in San Diego, CA.



Figure 1- San Diego, CA Military Housing Public-Private-Venture (PPV, 2005)

Public-Private Ventures have resulted in a cost savings from traditional military on-base housing (GAO-04-556, 2004). However, according to a 2004 GAO Military Housing Report, local community housing options provided the greatest cost savings at service members expense for the government, this is partly due to BAH rates still not covering 100% of actual housing costs (Report, 2004). Table 4 provides a comparison of government costs for on-base housing versus privatization and community housing.

Table 4- Comparison of Military Housing (Report, 2004)

Table 2: Estimated Annual Government Costs for Housing Options in 2004		
Fiscal year 2004 dollars		
Category	Cost per family	Difference
Costs of military-owned housing option		
Operations and maintenance	\$9,006	
Capital investment	6,923	
Federal impact aid	3,106	
Total	\$19,035	
Costs of military privatized housing option		
Housing allowance	\$13,433	
Federal impact aid	3,106	
Other net privatization costs	165	
Total	\$16,704	
Difference with military-owned housing option		\$2,331
Costs of community housing option		
Housing allowance	\$13,433	
Federal impact aid	149	
DOD housing referral services	34	
Total	\$13,616	
Difference with privatized housing option		\$3,088
Difference with military-owned housing option		\$5,419

At the same time MHPI authorized the Department of Defense to start using privatization to replace substandard military housing with new housing, the U.S. General Accounting Office (GAO) started a series of studies to review the Department of Defense housing programs (Report, 2004). GAO's study revealed in 2004, the Department of Defense (DOD) would provide housing for around 711,000 families at a cost of \$9.8 billion. DOD has historically viewed community housing as more cost effective and only provided on-base housing when communities could not support the military housing requirement (Report, 2004). GAO's study estimated the costs to provide housing for a typical military family to be \$13,600 for local community housing, \$16,700 for privatized military housing and \$19,000 for military-owned housing for DOD's fiscal year 2004 (Report, 2004). With 711,000 families and a price tag of \$9.8 billion, it is understandable the GAO would need to review Department of Defense housing options. The GAO's findings that local community housing is the most beneficial to the government identifies a key requirement for the government as a stakeholder and it will become an integral part of the new Military Community LLC.

Military Housing Stakeholders and Current Approaches

The current approaches to housing for military personnel, developed the stakeholders' needs, proposed new approaches to meet these needs, analyzed these new approaches and identified and reviewed the recommended new approach.

The major stakeholders in military home purchases have been the active duty service member, Department of Defense, local real estate services, and financial institutions. The local community is not easily identified as a key stakeholder in the current approaches financial analysis; however, the local community becomes a key stakeholder in the new approach. Local real estate services and financial institutions are

currently benefiting from the turn over of homes by service members so they have no obvious incentive to change. While the GAO has conducted various reports that indicate the government receives greatest benefit from the community approach to military housing, their reports do not review the benefits to the remaining stakeholders (Report, 2004). This study breaks down the resources of each of these stakeholders, reviews the current approaches to military housing and aligns them with new approaches to real estate. The new approach listed below will establish the need for large property management/developers that have purchasing powers within the real estate markets similar to Wal-Mart/Sam's Club within the consumer goods market. With DOD's preference toward community housing and the military base realignment and closure almost complete, the markets are now primed for this transformation. The 2004 GAO Military Housing Report recommended the Department of Defense encourage community housing options since it provides a higher cost savings (Report, 2004).

This study assumes the equity earned would be favorable to service members, BAH rates will continue to cover 100% of service member housing costs after 2005 and the Military Community LLC can obtain land and negotiate tax incentives near military bases.

CHAPTER 2 FINANCIAL ANALYSIS FOR CURRENT MILITARY HOUSING OPTIONS

Every three to four years, military personnel are faced with having to move making it extremely difficult to build any equity in a home when they are forced to refinance their loan every time they buy and sell their home. This chapter reviews the current housing options available to military service members and completes a financial analysis for each of the key stakeholders.

Military personnel are given the following options every 2.8 years when they move:

1. Apply for on-base housing
2. Rent a home/apartment
3. Buy a home and sell it when you move again
4. Buy a home and rent it when you move again

Difficulties exist for each of the approaches. On-base housing typically has a waiting list so it is always questionable whether a home will be available in time and no equity is gained for the service member (Stop, 2005). Renting a house or apartment means the service member will gain no equity in the home. Availability of community housing is subject to existing market conditions and because BAH is a lagging indicator, it does not reflect the most current market conditions (O. o. t. S. o. Defense, 2005). Buying a house and selling it in three years makes it difficult for the average home buyer to gain enough equity to pay for the finance and realtor fees at opening and closing. Veterans Administration (VA) loans offer lower opening costs because they require no money down; however, they have higher interest rates than most standard fixed rate loans

(Center, 2005). Buying and then renting may tie up the service member's down payment so it is not available for the next move and there is no guarantee on having consistent, reliable renters and profitable market rents. Each of these options is reviewed in detail in the financial analysis.

Financing Options

There are multiple options when an individual selects a home loan. Typically the loan interest rate can be fixed, adjustable or some combination of the two. Interest only loans also exist, which establish payments based on paying only the loan interest for a fixed term and after the end of that term, the loan must be refinanced, paid off or steeper payments are applied (Epley, 2002). The loan can be amortized over a variety of years, but the most common are 15 and 30 years. The type of loan could be Department of Veteran Affairs (VA), Federal Housing Administration (FHA) or conventional. Apart from standard loan structures there are a myriad of alternatives. Options include discount points, upfront payments in percentage points to lower the interest rate, balloon mortgages, where the balance of the loan is due at a preset year and seller financed mortgage options (Epley, 2002). Even though a variety of home loans are available, this study concentrates only on fixed rate interest loans (Epley, 2002).

Financial Analysis

Assumptions

In addition to the assumptions identified earlier in this study, the current approaches are based on the following assumptions:

1. Closing costs are paid by the buyer.
2. A 6% realtor commission is used in the financial analysis.
3. Federal tax deductions do not include deductions associated with property tax since some states offer reduced property taxes for military members that elect to homestead in their state.

4. The home purchase-rent option assumes a vacancy rate that is one half the local vacancy rate because service members can often network easily with other service members to rent their home.
5. The home purchase-rent option assumes the home is maintained by the service member at year 20 and not sold due to market value variations and home can be depreciated by service member for rental period and capital gains would have to be paid on depreciated portion.
6. The home purchase-rent option financial analysis is based on a 2.1% rent increase from 2004 to 2010, a 3% increase from 2010 to 2016 and a 3.5% increase from 2016 to 2021.
7. Financial analysis is not based on converting costs to net present values.

Financial Parameters Selected for Analysis

The largest percentage of home loans is 30 year, fixed rate, and conventional loans so this type of loan is used for the financial analysis. The financial analysis conducted is based on a military member owning a home for three years from 2001 through 2003. (Note: a three year period is used because military orders are typically cut for exactly two or three year periods.) The BAH rates and federal income rates are based on a married O-2 officer (i.e. Lieutenant Junior Grade in the Navy) with over two years of service. This financial analysis focuses on officers to provide a more accurate comparison to the new approach, which is initially geared toward officers. References used in the calculations below are annotated in the financial calculations in Appendix A, Current Approaches to Military Housing Financial Analysis. Two interest rates, 8.39% and 6%, were used to provide a comparison between the equity gain/lost by each stakeholder as interest rates rise or drop. Appendix A includes the detailed financial analysis. A 6% interest rate was also selected based on the market interest rate at the time of this writing. Table 5 provides the yearly fixed interest rates for a 30-year loan. The 8.39% interest rate is based on a 10-year, 1990-2000, mortgage interest rate average

as mortgage rates have fluctuated significantly over any given 20 year period (Development, 2001).

Table 5- Historical Interest Rates (U.S. Housing Market Conditions, Second Quarter 2001: Historical Data, Table 14)

Period	FHA		Conventional					
	30-Year Fixed Rate		30-Year Fixed Rate		15-Year Fixed Rate		1-Year ARMs	
	Rate	Points ¹	Rate	Points	Rate	Points	Rate	Points
Annual Data								
1989	10.08	1.6	10.32	2.1	NA	NA	8.80	2.3
1990	9.92	1.8	10.13	2.1	NA	NA	8.36	2.1
1991	9.25	0.9	9.25	2.0	NA	NA	7.10	1.9
1992	8.29	1.2	8.40	1.7	7.96	1.7	5.63	1.7
1993	7.46	0.4	7.33	1.6	6.83	1.6	4.59	1.5
1994	8.42	0.6	8.35	1.8	7.86	1.8	5.33	1.5
1995	8.28	0.5	7.95	1.8	7.49	1.8	6.07	1.5
1996	8.03	0.5	7.81	1.7	7.32	1.7	5.67	1.4
1997	7.90	0.4	7.59	1.7	7.13	1.7	5.60	1.4
1998	7.12	0.3	6.95	1.1	6.59	1.1	5.59	1.1
1999	7.53	0.5	7.44	1.0	7.06	1.0	5.98	1.0
2000	NA	NA	8.05	1.0	7.72	1.0	7.04	1.0

¹ Annual data for the FHA rate are based on the most active (modal) quote and the secondary market discount (excluding origination fee) until 1994. Subsequent annual and monthly data are based on the average rate quoted and the primary market discount (excluding origination fee).

Sources: Office of Housing, Department of Housing and Urban Development (FHA), and Federal Home Loan Mortgage Corporation (Conventional)

*Mortgage loan interest rate data on FHA-insured loans are no longer collected by the Department of Housing and Urban Development.

Median new home prices were used to set the original purchase price (Realtors, 2004); however, homes being constructed in later years may not have comparable features, which would result in skewed market value changes. The U.S. Department of Housing and Urban Development uses the concept of the “Constant-Quality House” to relate physical properties to comparable market value (Development, 2002). This study uses the “Constant-Quality House” data for existing regional home sale historical information from 1990 to 2000 to determine the market value percentage increase in home costs for the sale amount (Development, 2002). It is important to note that housing

markets fluctuate quarterly during the same year so the sale price could fluctuate; however, most military members have a very limited move window and must sell at the existing market conditions (Development, 2002).

Utility costs are included in the analysis to indicate the actual out-of-pocket costs that the service member must absorb because Basic Allowance for Housing (BAH) is not designed to pay for these costs. A cost-of-index factor was applied to a standard set of utility costs including electric, gas, cable and phone to come up with the adjusted amount.

A 10% down payment was used for each analysis; however, because service members have a fixed base income and the equity for a down payment typically has to come from this fixed income, it is important to note that military members may be less likely to have the larger down payment available for more expensive regions like San Diego, CA. BAH is used to account for home market value differences between expensive areas such as San Diego, CA and less expensive areas such as Pensacola, FL; however, BAH does not include any additional equity for the additional down payment required if a service member elects to purchase a home instead of rent. It is also important to note that in the rental analysis, the down payment remains tied up in the property so this equity is not available for another home if the service member plans to buy a house at another duty station. As Private Mortgage Insurance (PMI) must be paid if the down payment is less than 20%, this can add additional costs to future loans. Because only a 10% down payment is used in this analysis, PMI is included in the monthly mortgage rate. Homeowner insurance and taxes are also included in the monthly mortgage rate as they are typically included in mortgage payments.

The financial analysis includes a Basic Allowance for Housing (BAH) rate, which is a monthly payment by the Department of Defense to the service member. This amount is based on the location of the service member and the housing market in the area. The BAH rate is designed to cover the average housing costs except for utilities. BAH rates also fluctuate from year to year based on previous housing trends. It is important to note that BAH rates do not anticipate future housing market changes. The BAH rate is the Department of Defense's stake in the analysis because it is the primary source of equity for the other stakeholders.

The monthly mortgage cost, equity gained from three years of payments and interest paid during three years were calculated for both the 6% and 8.39% fixed interest rate (Calculators, 2004). Federal income tax deductions were then calculated using the annual interest amount. This interest was compared against the standard \$9,700 deduction and the tax savings were only utilized if they were greater than the standard tax deduction.

A stakeholder analysis was then computed to determine the benefits for each major stakeholder. The Department of Defense's amount was based on the BAH payments made. The realtors' profit was based on 6% of the home's sale price. The financial institution's profit was based on the 1% origination and interest amounts. Obviously, the Department of Defense would be losing equity while the financial institutions and realtors were gaining equity so the goal of the financial analysis was to determine the profit/loss of the military service member. The service member's gain/loss would be based on the equity gained from BAH payments, the home and mortgage over

three years and federal income tax benefits minus the mortgage payments, including tax and insurance, and utilities paid.

Appendix B includes the breakdown of opening and closing costs used in the analysis. As these costs could fluctuate based on a number of parameters, a 1% origination point was used, and a 6% realtor fee was used. As most additional opening and closing costs are minimal compared to these fees, the same fees, such as title costs, pest inspection, credit report, were used for each region even though some states have special requirements such as Georgia's requirement to use an attorney. As these fluctuations were not expected to affect overall closing costs by more than \$1,000, the assumed costs were used to simplify the analysis. Based on the exact closing date and type of home insurance that was selected, the amount required in the escrow account would vary so a standard duration and amount was applied to all cities. It is also important to note that most states have homestead exemptions that are applicable to military personnel that will reduce their taxes; however, there are a variety of parameters that affect whether this exemption can be taken. In addition, if the service member moves and the house is being rented out, it does not apply for homestead exemption. For these reasons, a (non-homestead) home tax rate was used.

Appendix A also includes a financial analysis of the home purchase and rental after three years options. This approach assumed the house would be rented at year three instead of sold. The down payment equity remained in the home. Market rents were found for fiscal year 2001 for each of the cities evaluated in the home purchase/sell option and the same home purchase, utility and interest rate information was utilized. Interestingly, market rents are increasing in cities as people move back from the suburbs

to the cities; however, suburb market rents are declining (Perkins, 2003). The net affect is a .3% decline in market rents across the nation. This study's analysis assumes the national .3% decline from the 2001 data to 2004, followed by a 2.1% increase from 2004-2010, a 3% increase from 2010-2016 and a 3.5% increase from 2016-2021 (Development, 2002). The increased rate was selected based on inflation and the current trend for mortgage rates to be on the rise (Max, 2004). The rental analysis then assumes a 10% property management fee, a yearly \$1100 property maintenance fee (Home, 2004), and a vacancy rate (Commerce, 1998). This study assumes a vacancy rate of ½ of the vacancy rate for each city based on military personnel typically being able to network with other military personnel to rent their home. If this assumption were false, the service member would gain less equity for the purchase-rent option. A stakeholder analysis was then conducted similar to the home purchase/sell option; however, the duration is for 20 years, the minimum time required for retirement, and not three with the exception of the Department of Defense's BAH contribution which stops when the service member moves/retires.

Goal of Financial Analysis

The goal of the financial analysis was to determine the service members profit/loss from the different housing options based on different interest rates at various military base locations. The stakeholder analysis identifies who is receiving the greatest benefits. Based on the results, recommendations will be made to determine if new approaches should be developed to improve the benefits for the service member.

Results and Discussion of Current Approaches

On-base Housing Financial Analysis

The on-base housing option is one of the most preferred options by military members moving every couple of years because of its simplicity and low costs to the service member. According to a 1996 GAO report, BAH rates fail to pay 20% of the housing costs for a service member to live off-base (Report, 1996). This out-of-pocket expense has made on-base housing extremely desirable to many service members, which has driven the long waiting lists at many bases. The only service member costs not included in on-base housing are phone, internet and cable bills. Maintenance is also provided by the Government. It is important to note that the government costs included in this analysis are utility costs and market rent costs. Government home costs were not available for this analysis because most new government housing construction is being performed using privatization and these costs must be kept confidential for contracting purposes so market rents were used for each area. There is no involvement by financial institutions or realtors in this option. This study's financial analysis of the on-base housing option is summarized in Table 6.

Table 6: On-Base Housing Financial Analysis for Year 2003

Location	On-Base Housing Stakeholders			
	Service Member (Insurance +Utilities)	Gov't Annual Home Costs	Finance Company	Realtors & Support Industry
Atlanta, GA	(\$742)	(\$13,548)	\$0	\$0
Biloxi/Gulfport, MS	(\$787)	(\$10,224)	\$0	\$0
Charleston, SC	(\$800)	(\$10,728)	\$0	\$0
Colorado Springs, CO	(\$676)	(\$12,768)	\$0	\$0
Columbia, SC	(\$800)	(\$12,408)	\$0	\$0
Ft Wayne, IN	(\$738)	(\$10,020)	\$0	\$0
Jacksonville, FL	(\$704)	(\$11,232)	\$0	\$0
Lincoln, NE	(\$701)	(\$8,160)	\$0	\$0
Newport, RI	(\$850)	(\$14,700)	\$0	\$0
Norfolk, VA*	(\$834)	(\$11,868)	\$0	\$0
Pensacola, FL	(\$764)	(\$10,236)	\$0	\$0
San Diego, CA	(\$671)	(\$15,588)	\$0	\$0
Washington, DC	(\$805)	(\$15,900)	\$0	\$0

Figure 2 provides a comparison of military families living in on-base housing versus those in community housing. The fact that only one third of military families, 293,000 families, live in on-base housing is limited by the availability of on-base housing. Without additional on-base housing available, it is difficult to determine what amount of military families would choose to live in on-base housing over community housing.

Table 1.1: Military Families in Private and Government Housing (as of Sept. 30, 1995)

	Families in private housing		Families in government housing	
	Number	Percent	Number	Percent
Army	201,300	63.8	114,200	36.2
Navy	194,500	77.9	55,200	22.1
Air Force	154,600	61.4	97,200	38.6
Marine Corps	54,900	67.4	26,500	32.6
Total	605,300	67.4	293,100	32.6

²Current suitability standards for government family housing units include a separate family room and a separate bathroom off the master bedroom in all three-, four-, and five-bedroom units; a half bath on the first floor of two-floor units; vanity-style lavatories in all bathrooms; a separate enclosed washer/dryer space; a refrigerator, range, microwave oven, garbage disposal, and dishwasher; a carport or garage; bulk storage space; and specific living space square footage criteria by paygrade.

Figure 2- On-base vs. Private Housing (Report, 1996)

One of the benefits of military service is on-base housing. One of the reasons on-base housing is viewed so favorably by service members is on-base housing does not require out-of-pocket costs for service members. As stated earlier, BAH rates have historically under funded housing costs for service members by 20% (Report, 1996). A 2004 GAO survey found that 72% of service members would prefer community housing if BAH rates increased to eliminate these out-of-pocket expenses (Report, 2004). It stands to reason that the Department of Defense's efforts to increase BAH rates to eliminate out of pocket expenses could result in a decrease in waiting lists for on-base housing. Privatization has been successful in improving the quality of life for service members who are now enjoying better homes (Benner, 2003). Privatization efforts are addressing deficiencies in on-base housing and providing community housing that is based on BAH rates through public-private-ventures, which provide housing located in the local communities based on known BAH rates.

Apartment/House Rental Financial Analysis

The financial analysis of the apartment or home rental option reveals that the service member typically suffers a greater loss under the renting option than the on-base housing option. BAH rates have typically not covered housing costs let alone utilities. With on-base housing paying all housing costs and most utility costs, it is almost always a better option. In addition, service members have to pay deposits and connection fees associated with utilities and related move-in expenses. The government does not charge these fees with on-base housing. Additional benefits associated with on-base housing include reduced commuting expense and higher security. Table 7 summarizes the profit or loss that each stakeholder is receiving for the service member renting a home or

apartment in town. All calculations are based on values for years 2001, 2002 and 2003 to ensure comparable data. The government costs are based on paying BAH rates for this three year period. Service member profit/loss is based on difference between BAH received and rent and utilities costs for this period. No financing is assumed for this approach and realtor industry is based on receiving market rent for 36 months.

Table 7- Rental Financial Analysis Summary

Location	Apt/House Rental Stakeholders			
	Service Member (rent+utilities+ insurance)	Gov't Annual Home Costs	Finance Company	Realtors & Support Industry
Atlanta, GA	\$139	(\$45,240)	\$0	\$ 34,164
Biloxi/Gulfport, MS	(\$8,223)	(\$28,200)	\$0	\$ 24,192
Charleston, SC	(\$8,472)	(\$29,832)	\$0	\$ 25,704
Colorado Springs, CO	(\$7,792)	(\$33,060)	\$0	\$ 31,824
Columbia, SC	(\$10,668)	(\$32,676)	\$0	\$ 30,744
Ft Wayne, IN	(\$9,013)	(\$25,392)	\$0	\$ 23,580
Jacksonville, FL	(\$5,726)	(\$31,344)	\$0	\$ 27,216
Lincoln, NE	\$303	(\$28,068)	\$0	\$ 18,000
Newport, RI	(\$13,656)	(\$37,992)	\$0	\$ 29,124
Norfolk, VA*	(\$12,095)	(\$30,588)	\$0	\$ 24,228
Pensacola, FL	(\$9,377)	(\$26,424)	\$0	\$ 37,620
San Diego, CA	\$2,470	(\$51,660)	\$0	\$ 40,284
Washington, DC	\$346	(\$54,300)	\$0	\$ 41,220

Home Purchase/Sale Financial Analysis

Table 8 summarizes the financial analysis for a service member purchasing a home in 2001 and then selling it three years later in 2003 at various locations using a fixed 6% interest rate. The service member profit/loss is calculated based on the income from this period minus the expenses. The income portion consists of the BAH received during the three year period (adjusted according to BAH increases for each year), equity gained in the home during this period, principal gained from mortgage payments and tax benefits received during this period. The home equity gain is based on purchasing the

home at the median market value for each location in 2001 and then selling the house for the median market value in 2003 (Realtors, 2004). Expenses include mortgage payments, utilities and opening/closing costs. The finance company income is calculated based on the interest portion of the mortgage payments during this three year period plus the 1% loan origination fee. The realtor's income is based on the 6% closing costs when the home is purchased in 2001 and then sold in 2003. (Note: the commission from both sale prices is included because this is the income to the realtor; however, the service member would typically only pay the commission when the house is sold in 2003.)

Table 8- Home Purchase/Sell Financial Analysis @ 6% Fixed Interest Rate

Location	6% Interest Rate			
	Purchase - Sell Stakeholders			
	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	\$18,725	\$23,991	\$17,482	(\$45,240)
Biloxi/Gulfport, MS	\$5,194	\$16,593	\$12,091	(\$28,200)
Charleston, SC	\$307	\$26,065	\$18,993	(\$29,832)
Colorado Springs, CO	\$8,263	\$29,954	\$22,048	(\$33,060)
Columbia, SC	\$7,079	\$20,015	\$14,585	(\$32,676)
Ft Wayne, IN	\$6,023	\$16,230	\$11,946	(\$25,392)
Jacksonville, FL	\$9,155	\$18,996	\$13,842	(\$31,344)
Lincoln, NE	\$7,620	\$20,292	\$14,936	(\$28,068)
Norfolk, VA	\$2,067	\$23,041	\$16,789	(\$30,588)
Pensacola, FL	\$3,066	\$18,149	\$13,225	(\$26,424)
Newport, RI	(\$10,046)	\$27,309	\$18,923	(\$37,992)
San Diego, CA	\$3,809	\$51,611	\$37,107	(\$51,660)
Washington, DC	\$18,418	\$36,971	\$26,940	(\$54,300)

The BAH rate, the interest rate and market sale prices emerged in the financial analysis of the home purchase/sell option as the greatest contributing factors to whether the home purchase/sale option was profitable. For the home purchase/sell option to be profitable for the service member, the analysis reveals three key intertwined concepts: 1) higher

interest rates drive mortgage payments higher than BAH rates, 2) home market value increase must surpass the combined opening and closing costs in just three years; 3) BAH rates are still not adequately reflecting real estate market trends and greatly influence the profit/loss.

At the higher 8.39% mortgage interest rate shown in Table 9, the service member lost equity in almost every region; however, when the interest rate drop to 6%, the service member gained a little equity in most cases. This demonstrates how the three concepts are connected. The increase in most regions was sufficient to cover the 9% opening in closing costs (1% loan origination+6% broker+ miscellaneous opening and closing costs); however, the BAH rates could not cover the increase in mortgage payments at higher interest rates. The degree of profitability was further affected by how closely the BAH rates reflected mortgage payments. Atlanta's BAH rate is \$100/month greater than the mortgage payment causing the largest return on investment for the service member; however, Newport's BAH rate \$400/month less than the mortgage payment causing a significant loss to the service member.

Table 9- Home Purchase/Sell Financial Analysis @ 8.39% Fixed Interest Rate

8.39% Interest Rate				
House Purchase-Sell Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	\$11,390	\$33,210	\$17,482	(\$45,240)
Biloxi/Gulfport, MS	(\$1,183)	\$22,969	\$12,091	(\$28,200)
Charleston, SC	(\$8,888)	\$36,081	\$18,993	(\$29,832)
Colorado Springs, CO	(\$1,653)	\$41,464	\$22,048	(\$33,060)
Columbia, SC	(\$612)	\$27,707	\$14,585	(\$32,676)
Ft Wayne, IN	(\$214)	\$22,467	\$11,946	(\$25,392)
Jacksonville, FL	\$1,855	\$26,295	\$13,842	(\$31,344)
Lincoln, NE	(\$177)	\$28,090	\$14,936	(\$28,068)
Norfolk, VA	(\$6,568)	\$31,895	\$16,789	(\$30,588)
Pensacola, FL	(\$3,908)	\$25,123	\$13,225	(\$26,424)
Newport, RI	(\$19,472)	\$37,804	\$18,923	(\$37,992)
San Diego, CA	(\$13,048)	\$71,444	\$37,107	(\$51,660)
Washington, DC	\$6,342	\$51,179	\$26,940	(\$54,300)

As expected, the financial analysis concludes very little equity is gained in the three years studied, even at the lower 6% interest rate. It is important to remember that the service member has the down payment tied up during this period and could be investing this money for a greater return in some cases.

Home Purchase-Rent Financial Analysis

A summary of the financial analysis of a service member purchasing a home at a fixed 6% interest rate, living in the home during the three year tour and then renting the house for the next 17 years is included in Table 10. The service member profit/loss is based on income minus expenses for the full 20 year period. The income is based on the adjusted BAH income for 2001 through 2003 (the period the service member is residing in the home), the rental income for the following 17 years based on market rent (USER,

2000) adjusted according to market rent trends (Perkins, 2003), principal gained from mortgage payments, and tax benefits. This approach assumes the service members move back into the house in year 2021 and do not sell the house for several reasons: 1) the market value is influenced by issues such as deterioration (especially due to long period of renters), neighborhood deterioration, functional obsolescence, and market trends; 2) amount of depreciation assumed by owner during rental period; and 3) capital gains costs associated with depreciation taken. The expenses for this approach include mortgage payments, utilities for first three years, 10% property management fee, annual maintenance cost (Home, 2004) and market vacancy rate (Commerce, 1998). (Note: actual vacancy rate used is 1/2 of listed rate because military personnel can frequently network with other military personnel to minimize vacancy.) The profit for the finance company is based on the interest gained from 20 years of mortgage payments and the loan origination fees. The income for the realtor industry is based on a 6% commission for the original purchase price in 2001 and the 17 years of property management fees. The government loss is based on paying adjusted BAH for the three year period.

Table 10- Home Purchase-Rent Financial Analysis @ 6% Fixed Interest Rate

6% Interest Rate				
Purchase - Rent Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	\$46,455	\$87,383	\$23,349	(\$45,240)
Biloxi/Gulfport, MS	\$9,518	\$60,438	\$16,396	(\$28,200)
Charleston, SC	(\$49,879)	\$94,939	\$20,349	(\$29,832)
Colorado Springs, CO	(\$20,539)	\$109,103	\$24,390	(\$33,060)
Columbia, SC	\$22,629	\$72,903	\$20,465	(\$32,676)
Ft Wayne, IN	\$17,694	\$59,115	\$16,001	(\$25,392)
Jacksonville, FL	\$22,159	\$69,189	\$18,560	(\$31,344)
Lincoln, NE	(\$39,401)	\$73,921	\$14,958	(\$28,068)
Norfolk, VA	\$3,037	\$83,923	\$20,803	(\$30,588)
Pensacola, FL	\$4,610	\$66,103	\$16,952	(\$26,424)
Newport, RI	\$29,264	\$99,470	\$26,020	(\$37,992)
San Diego, CA	(\$105,960)	\$187,987	\$35,627	(\$51,660)
Washington, DC	\$1,457	\$134,663	\$30,957	(\$54,300)

The purchase-rent option for 6% fixed interest rate was more profitable in several areas than the purchase-sell option, but also resulted in the service member suffering a loss in more regions. A property management service is used in this analysis to provide a constant contact for renters while the service member relocates during their career.

Table 11- Home Purchase-Rent Financial Analysis @ 8.39% Fixed Interest Rate

8.39% Interest Rate				
House Purchase-Rent Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	(\$2,729)	\$120,282	\$23,349	(\$45,240)
Biloxi/Gulfport, MS	(\$31,588)	\$88,978	\$16,396	(\$28,200)
Charleston, SC	(\$113,628)	\$139,770	\$20,349	(\$29,832)
Colorado Springs, CO	(\$93,151)	\$160,625	\$24,390	(\$33,060)
Columbia, SC	(\$26,956)	\$107,329	\$20,465	(\$32,676)
Ft Wayne, IN	(\$22,515)	\$87,032	\$16,001	(\$25,392)
Jacksonville, FL	(\$24,899)	\$101,861	\$18,560	(\$31,344)
Lincoln, NE	(\$89,680)	\$108,813	\$14,958	(\$28,068)
Norfolk, VA	(\$53,821)	\$123,552	\$20,803	(\$30,588)
Pensacola, FL	(\$40,352)	\$97,320	\$16,952	(\$26,424)
Newport, RI	(\$37,322)	\$146,443	\$26,020	(\$37,992)
San Diego, CA	(\$230,843)	\$276,759	\$35,627	(\$51,660)
Washington, DC	(\$88,002)	\$198,255	\$30,957	(\$54,300)

Interest rates and market rents are the critical components of the home purchase-rent option. At 6% mortgage interest rate, most of the regions were profitable; however, the profitability was determined by the difference between the market rents and the mortgage payments. A service member should conduct a market rent check and compare the rents to the mortgage payment to determine if this option is viable. As the mortgage interest rate climbed from 6% to 8.39%, every region became unprofitable for the service member as Table 11 reveals. Refinancing the loan at a lower mortgage rate could help offset these losses; however, there is no guarantee that mortgage rates would drop or drop quickly enough. This analysis demonstrates the purchase/rental option is best suited for lower interest rate periods especially if market rents are higher. It is important to note that with higher interest rates, market rents would likely increase as fewer people look to purchase new homes. A quick study of market rents versus the mortgage payment prior

to purchase could help the homeowner determine if this option will be profitable. This option is also useful if the home is not selling under the purchase/sell option so that the service member is gaining some equity instead of the house remaining vacant.

Current Approaches Summary

Based on the four options above, the service member needs to check several market conditions against the BAH rate to determine the best approach. BAH rates should be compared against the expected mortgage payment, market rents and trends, and home market value and trends. The service member should start by comparing the BAH rate with home market values. If the BAH rate is greater, there will be a better chance for profit under the home purchase-sell option. Next, the service member should compare the trends associated with home market values and rents. If the home values are trending to increase greater than 9% in three years, that indicates the potential for profit under the purchase-sell option. If the house is not selling for the required amount at the three year mark, knowledge on market rents can assist in determining whether the house should be rented. If market rents are low and interest rates are higher, it may be a better alternative to rent a house instead of buying if the service member can gain profit from a higher BAH rate. On-base housing is the best alternative if BAH rates are not meeting market conditions.

As all the above variables indicate, knowledge of market conditions and research are instrumental in a service member's decision for housing at every location. Because this effort can generate a considerable amount of stress and absorb needed time, alternative approaches could be beneficial.

A comparison of the financial benefits of each stakeholder for Pensacola, Florida is listed in Table 12 showing the finance company and realtor industry are the largest beneficiaries of these approaches.

Table 12- Financial Analysis of Current Housing Options Summary

Type of Housing	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
On-Base Option	(\$764)	\$0	\$0	(\$30,708)
Apt/House Rental Option	(\$9,377)	\$0	Varies	(\$26,424)
Interest Rate= 6%				
Purchase/ Sell Home Option	\$3,066	\$18,149	\$13,225	(\$26,424)
Purchase/ Rent Home Option	\$4,610	\$66,103	\$16,952	(\$26,424)
Interest Rate= 8.39%				
Purchase/ Sell Home Option	(\$3,908)	\$25,123	\$13,225	(\$26,424)
Purchase/ Rent Home Option	(\$40,352)	\$97,320	\$16,952	(\$26,424)
Location: Pensacola, FL				

Table 13 is a summary comparison of the equity gained by the service member under each of the current approaches. The current approach that yielded the greatest equity gain is highlighted in grey.

Table 13- Comparison of Current Approaches for Service Members

Location	Service Member					
	Equity Gained/Loss					
	On-Base Housing	Rental	Purchase-Sell 6%	Purchase-Sell 8.39%	Purchase-Rent 6%	Purchase-Rent 8.39%
Atlanta, GA	(\$850)	\$139	\$18,725	\$11,390	\$46,455	(\$2,729)
Biloxi/Gulfport, MS	(\$834)	(\$8,223)	\$5,194	(\$1,183)	\$9,518	(\$31,588)
Charleston, SC	(\$805)	(\$8,472)	\$307	(\$8,888)	(\$49,879)	(\$113,628)
Colorado Springs, CO	(\$800)	(\$7,792)	\$8,263	(\$1,653)	(\$20,539)	(\$93,151)
Columbia, SC	(\$800)	(\$10,668)	\$7,079	(\$612)	\$22,629	(\$26,956)
Ft Wayne, IN	(\$787)	(\$9,013)	\$6,023	(\$214)	\$17,694	(\$22,515)
Jacksonville, FL	(\$764)	(\$5,726)	\$9,155	\$1,855	\$22,159	(\$24,899)
Lincoln, NE	(\$742)	\$303	\$7,620	(\$177)	(\$39,401)	(\$89,680)
Norfolk, VA*	(\$738)	(\$13,656)	\$2,067	(\$6,568)	\$3,037	(\$53,821)
Pensacola, FL	(\$704)	(\$12,095)	\$3,066	(\$3,908)	\$4,610	(\$40,352)
Newport, RI	(\$701)	(\$9,377)	(\$10,046)	(\$19,472)	\$29,264	(\$37,322)
San Diego, CA	(\$676)	\$2,470	\$3,809	(\$13,048)	(\$105,960)	(\$230,843)
Washington, DC	(\$671)	\$346	\$18,418	\$6,342	\$1,457	(\$88,002)

Interestingly, the finance industry is receiving, in interest payments, almost the entire amount paid by government in BAH for the home purchase options, which forces homeowners to fund everything else. In addition, under the purchase/sell option, the realty industry is profiting from 6% of the home sale value every three years providing a consistent churn of equity.

Table 14 is a comparison of the income received by the Realtor Industry at each location. Comparing Table 13 to Table 14 yields an interesting fact that the realtor industry received more equity than the service member in every case and location except for Atlanta, GA for both the 6% interest rate purchase-sell and purchase rent option and the 6% purchase-rent option in Columbia, SC, FT Wayne, IN, Jacksonville, FL and Newport, RI.

Table 14- Comparison of Current Approaches for Realtor Industry

Realtor Industry						
Equity Gained/Loss						
Location	On-Base Housing	Rental	Purchase-Sell 6%	Purchase-Sell 8.39%	Purchase-Rent 6%	Purchase-Rent 8.39%
Atlanta, GA	\$0	\$34,164	\$17,482	\$17,482	\$23,349	\$23,349
Biloxi/Gulfport, MS	\$0	\$24,192	\$12,091	\$12,091	\$16,396	\$16,396
Charleston, SC	\$0	\$25,704	\$18,993	\$18,993	\$20,349	\$20,349
Colorado Springs, CO	\$0	\$31,824	\$22,048	\$22,048	\$24,390	\$24,390
Columbia, SC	\$0	\$30,744	\$14,585	\$14,585	\$20,465	\$20,465
Ft Wayne, IN	\$0	\$23,580	\$11,946	\$11,946	\$16,001	\$16,001
Jacksonville, FL	\$0	\$27,216	\$13,842	\$13,842	\$18,560	\$18,560
Lincoln, NE	\$0	\$18,000	\$14,936	\$14,936	\$14,958	\$14,958
Norfolk, VA*	\$0	\$29,124	\$16,789	\$16,789	\$20,803	\$20,803
Pensacola, FL	\$0	\$24,228	\$13,225	\$13,225	\$16,952	\$16,952
Newport, RI	\$0	\$37,620	\$18,923	\$18,923	\$26,020	\$26,020
San Diego, CA	\$0	\$40,284	\$37,107	\$37,107	\$35,627	\$35,627
Washington, DC	\$0	\$41,220	\$26,940	\$26,940	\$30,957	\$30,957

One of the major components affecting service member profitability was accurate BAH rates. The Department of Defense needs a more accurate system to allow BAH rates to adjust quickly and reflect current market conditions. If on-base housing is to remain a last source of housing for military members, BAH rates must be adjusted.

With so many variables and such a wide range of profit gain or loss for service members, it is clear that new approaches to housing should be researched. With the bulk of profits going to the financial industry, it would appear that an approach that allows service members to not have to refinance their loans with every move would enable more equity to be gained.

As the financial analyses for the four current approaches to military housing have demonstrated, the profit or loss a service member receives can vary dramatically based on a variety of factors including location, interest rates, housing market values, market rents and BAH rates. Obviously, the finance and realty community are going to ensure a

positive return for their investments. However, why have no new approaches emerged to minimize the risks facing service members? Wal-Mart's strategies to purchase consumer goods in bulk and streamline efficiencies have proved extremely successful so can the same ideas be applied to housing for military personnel?

With over 1.4 million active duty military personnel (Defense, 2002), the concept of purchasing homes in bulk should be viable and streamlining efficiencies could be obtained by eliminating the need to buy and sell the home every time a service member moves, and providing utilities and maintenance in bulk. These objectives can be integrated into a new approach of planned communities.

CHAPTER 3 NEW APPROACHES FINANCIAL ANALYSIS

Introduction

The 2004 GAO Military Housing Report recommended the Department of Defense encourage community housing options since community housing provides a higher cost savings for the federal government (Report, 2004). In accordance with GAO's recommendations, Public-Private-Ventures (PPV's) are a first step by the Department of Defense to shift away from on-base housing toward community housing. This research hypothesizes that military housing privatization, based on implementing planned communities that are built specifically for military personnel and owned by a corporation consisting of military personnel membership, would be beneficial to the service member and the community. These communities would incorporate the concepts of bulk buying power and improved efficiencies to increase profitability for key stakeholders. These communities can be strategically located near the bases (real estate values are often low adjacent to military bases and considered economically depressed areas), constructed according to the Basic Allowance for Housing (BAH) rate for each location, constructed for frequent resident moves, service contracts for maintenance, utilities maintained by corporation and then billed directly to residents, community center geared toward spouse and military activities and key business (veterinarian, pet boarding, video store, coffee shops, restaurants, military gear store, etc).

Details

If the corporation owned 2000 houses, there would be 4000 members with 30 year loans to maintain the equity for the homes. The Military Community LLC would need to establish a development plan based on availability and cost of real estate, tax incentives, breakdown of military personnel at each location and other parameters to determine the quantity of homes appropriate for the Military Community LLC portfolio. A larger number of members to available home are required because some personnel would be at overseas locations or stateside locations that do not have access to the Military Community LLC housing. Military pay allotments would be used to secure payment and minimize risk (an allotment automatically sends the payment from DFAS). At retirement, members could either cash out or select one of the homes to retain.

Additional options for the planned communities could include dispersed communities, which would be based on homes scattered throughout existing communities. These homes would be owned by the corporation, which is identified as a limited liability corporation (LLC) for this paper to allow pass-through benefits for taxes and income to service members (other options for the Military Community could be a Real Estate Investment Trust or other publicly traded security). These homes would be maintained by the corporation under a maintenance contract. The homes would be designed and built using life cycle costs theories minimizing maintenance costs and down times. Homes would be selected based on BAH rates for each location. Similarly to the above approach, if the corporation owned 2000 houses, there would be 4000 members with 30 year loans to maintain the equity for the homes. Military pay allotments would be used to secure payment and minimize risk for the Military Community LLC.

Funding and startup capitalization initiatives could include privatization agreements, where the planned community enters into a “privatization” agreement with the Military Service for that location (i.e. Navy for Norfolk, VA) using one of the above approaches or a combination of the above approach allowing additional risks to be mitigated. Military pay allotments would be used to secure payment and minimize risk (an allotment automatically sends the payment from the Defense Finance and Accounting Service (DFAS)).

The financial analysis contained in this chapter presents a new military housing community approach based on establishing a privately owned Military Community Limited Liability Company (Military Community LLC) that will identify, negotiate, procure, construct, maintain and manage thousands of homes located near military bases and their service member occupants. Service members would then “buy into” the Military Community LLC (similar to a timeshare) and stay in the housing every time they are stationed at a base with Military Community LLC housing. This would allow a service member to spend up to approximately 15 years of a 21 year career in Military Community LLC homes. This study assumes a typical service member would spend six years of their career either overseas or at a duty station that does not have Military Community LLC housing. The Military Community LLC can easily manage the transfer of homes because service members are typically given orders six months before transfer that assign them to a specific base for a specific period. Service members would pay their BAH in the form of allotments, which guarantees payment for a set amount on a set date, to the Military Community LLC. In order to minimize vacancies, a ratio of 2:1 of service members to homes would be maintained to account for service members who are

stationed overseas, at military bases that do not offer Military Community LLC housing or using other housing arrangements (see Figure 3).

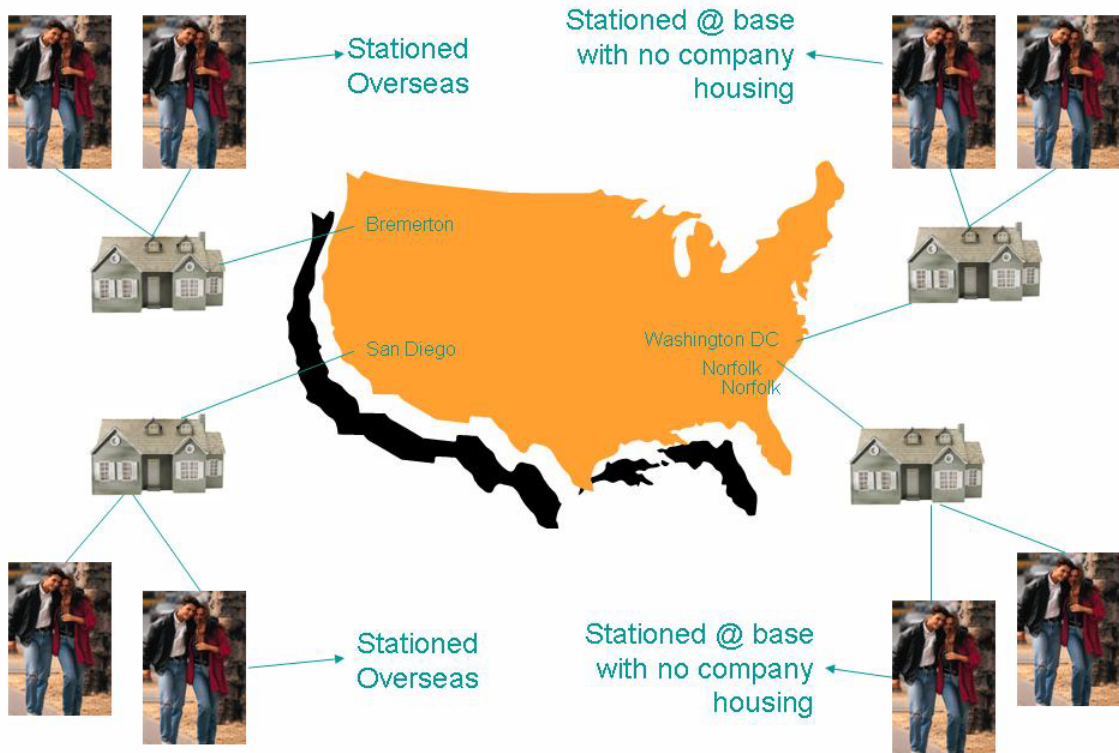


Figure 3- Service Member to Home Ratio

Overview of Military Community LLC

The Military Community LLC has a unique opportunity to secure housing adjacent to military bases for reduced costs and obtain tax incentives because real estate adjacent to military bases is typically economically depressed or must be monitored to ensure development is compatible with the military base’s missions (Practices, 2004).

The Military Community LLC can assist local communities to meet the land-use requirements for military bases because these communities could serve as a buffer around the military base. New communities can be constructed specifically for military service members using known basic allowance for housing (BAH) rates that the government provides service members to pay for housing in that area. In addition to known BAH

rates, military bases typically have a constant breakdown of service member ranks (i.e. Pensacola will have a large number of junior officers while Washington D.C. will have a large number of senior officers). The Military Community LLC would need to be started initially for just officers to avoid limited duration of senior enlisted careers (an E-7 may only have 5 years remaining in his/her career making the program less desirable) and fraternization issues, which could arise from high concentrations of military officers and enlisted residing in the same community. On-base housing separated officer housing from enlisted housing to avoid concerns with fraternization.

Military Community LLC Startup Capital

Initial startup capital could come from several sources: 1) a public-private venture (PPV) between the government and the Military Community LLC, 2) private venture capitalists, 3) a joint venture from several investors, and 4) a 20-year commercial loan. The PPV option offers the minimum risk since the government would typically guarantee certain occupancy and BAH rates. This option would enable the Military Community LLC to become established under the safety umbrella of the PPV and then expand based on demand. With start up capital secured and homes constructed, the Military Community LLC would then issue loans to individual service members, who would pay these loans with BAH allotments. With the equity gained from the BAH payments, the Military Community LLC would then repay the start up capital and eventually the service member cash-out equity. Figure 4 depicts the cash flow.

Military Community LLC Financial Flow

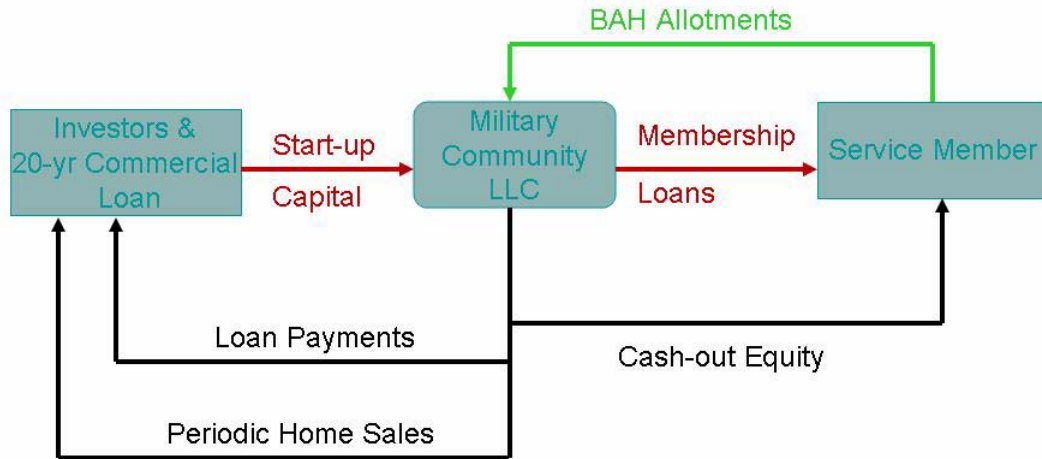


Figure 4- Military Community LLC Cash Flow

Assumptions

The service member equity was calculated based on the information in Table 16. The Initial Build-Out Investment is based on constructing 425 homes in Pensacola, FL (100 homes), Gulfport, MS (50 homes), Norfolk, VA (125 homes) and Washington DC (200 homes). The cost of each home is based on the 2004 Median New Home Price found in Current Approaches Financial Analysis with a 10% bulk construction savings discount applied. The bulk savings discount is based on savings from purchasing and constructing large number of homes at the same time and purchasing land in depressed areas where home values would be lower than median market value. The resale value is based on selling the 425 homes at the 2004 Median New Home Price. Because the homes would be sold over various years, no market value appreciation was included. In

reality, market value would most likely increase resulting in a higher internal rate of return of for the Military Community LLC.

The total payments to the finance company by the Military Community LLC are based on a 20 year fixed rate loan repaid at year 15. Because homes are sold off during the 20 year amortization period, service members will have payments based on a 15 year period and older homes start to have increased maintenance costs, the financial analysis is based on repayment of the loan at year 15.

The Military Community LLC net present value after expenses and payments is based on the 15 year cash flow for the Military Community LLC. Appendix D contains the detailed calculations for this analysis. The Military Community LLC 20 year loan is based on an 80% loan to value ratio with a 7% fixed rate loan that is repaid in year 15. The 20 year amortization period allows the mortgage payments for the Military Community LLC to remain low enough to ensure positive cash flow for years 2 through 15. The annual cash flows are based on the first five years of the Military Community LLC being tax exempt and taxes being reduced to 50% for years 6 through 14. The Military Community LLC starts paying full tax rates at year 15. This assumption is based on the Military Community LLC being able to negotiate this tax break with the local community for constructing the communities in an economically depressed area. Taxes are calculated using the same approach as the Current Approaches Financial Analysis. If the Military Community LLC is unable to negotiate favorable tax incentives in a community, it can simply elect not to construct homes at that location. The analysis also includes a 5% sales commission on the purchase of the Military Community LLC land, \$100,000 for site closing costs and \$650,000 for general administrative costs per year.

Financial Analysis Key Assumptions

This financial analysis is based on several key assumptions:

1. A ratio of two service members to every Military Community LLC home is used to account for service members participating in the Military Community LLC that are stationed overseas, stationed in an area that does not have Military Community LLC housing or no Military Community LLC housing is available.

2. The typical military officer community is based on a 21-year career where 15 years are spent in Military Community LLC housing.

3. No pass through tax benefits are included in financial analysis for service members even though a limited liability corporation would allow these benefits to be passed to service members. (Additional research should be conducted to determine tax benefits that can be passed to service members.)

4. Service member loans are based on a 15-year commercial loan where “charges” are taken for each stay in a Military Community LLC. A “charge” is defined as the duration of orders (i.e. 36 months) multiplied by the BAH rate.

5. The BAH rate is based on 2005 rates for the area and rank of the service member for the Typical Military Career table in Figure 1.

6. Military Community LLC loan is based on a 20 year fixed rate loan repaid at year 15 (20 year amortization period). By selling off homes during this period and BAH payments received, the Military Community LLC will have a 12.65% internal rate of repaying the loan.

Determination of Home Value to be Constructed in Military Community LLC

With known service member income based on location and rank breakdown, the Military Community LLC can construct the homes tailored specifically for these groups.

This knowledge provides another advantage over typical developers, who do not have such a well defined client. The homes constructed by the Military Community LLC would be constructed based on three income levels:

1. Class A- Based on O-5/O-6 with dependents BAH rate
2. Class B- Based on O-3/O-4 with dependents BAH rate
3. Class C- Based on O-2 with dependents BAH rate

All Military Community LLC homes would include basic utilities, maintenance and access to the community centers. This ensures the communities are maintained at an appropriate level and allows savings from bulk services.

Based on this approach, Pensacola, which has a very high junior officer ratio, would construct a larger percentage of class B & C houses. With the knowledge of the breakdown of officer ranks and their associated income at each location, the risk associated with accurately determining the correct home value for your target market is greatly reduced. Houses can also be tailored to provide amenities desired by military service members, such as additional closet space for uniforms, entertaining areas and easy access for furniture move in and move out.

Typical Military Career of Service Member

Service members are also likely to follow similar paths in their respective careers. Different jobs or specialties within each branch of service is may also have a higher move rate (i.e. Air Force civil engineers may move every 2 years while aircraft technicians with specialties may only move two or three times in their entire career). Typical career paths can be developed for the different services and major service member categories, such as Navy aviation officers, surface officers and submarine officers. These career paths can be useful to tailor membership for these major categories. The tailored membership would include an initial loan assumption. The career depicted in Table 13 represents a

typical career for a Navy Civil Engineer Corps (CEC) officer. While exact duty stations and when they occur may change for each Navy submarine officer, the figure depicts movement patterns between stateside and overseas tours and allows an initial loan amount to be identified. (Note: CEC officers would typically spend one of the CBC Gulfport tours at Port Hueneme, CA; however, housing data was not available for this small region of California so an additional tour at CBC Gulfport was used.) The financial analysis for the new approach will be utilizing the Typical CEC Officer Career found in Table 15.

Table 15- Typical Military Career for Navy Civil Engineer Corps Officer

Typical Navy Civil Engineer Officer Career			
Location	Rank	# of Years	Yrs of membership in Military Community LLC
Pensacola, FL	O-1/O-2	3	3
CBC Gulfport, MS	O-2/O-3	2	5
Overseas	O-3	3	5
San Diego, CA	O-3	3	8
CBC Gulfport, MS	O-4	2	10
Overseas	O-4/O-5	3	10
CBC Gulfport, MS	O-5	2	12
Washington DC	O-5/O-6	3	15
Total Years=		21	

Military Community LLC Loan

With service members receiving BAH specifically tailored to each duty station and their rank, a typical loan value does not have significant meaning. Financial institutions normally have to qualify applicants to ensure they can afford the loan amount; however, under this approach, the Military Community LLC is paid directly by DFAS through an allotment. The allotment is established prior to the member moving into the Military Community LLC home for the duration of the stay. Service members would assume an open-ended 15-year loan based on this initial loan amount. The duration enables an amortization period to be applied to the service member loan. The

initial loan amount developed for each major service field provides a starting point for membership in the Military Community LLC. This initial loan amount would be more useful for prospective members to see what types of returns they should expect for membership than actually assigning a loan to a member.

Military Community LLC membership can also plan that almost all officers will have to spend one or two tours overseas and one tour in Washington D.C. The overseas tours would prevent the service member from staying in Military Community LLC housing requiring a typical loan to be terminated or the service member would have to pay mortgage payments out of pocket. This problem coupled with the variations in home values and BAH rates drive the need for the “charge” financing option instead of a typical loan. The charge loan concept works by viewing each stay a service member spends in a Military Community LLC home as a separate loan (“charge”) and all of these individual stays (“charges”) will be rolled into one total loan account to determine the equity that the service member has gained over their career. A typical home loan is based on the market value of a particular house; however, under this hypothesis, the service member is assuming a loan of an unknown amount since the service member does not know where they will be stationed throughout their entire career. The “charge” concept allows the Military Community LLC to assign a smaller loan for each Military Community LLC home the service member stays in without knowing future stays.

When a service member moves into a Military Community LLC home, the service member would take a “charge” against the initial 15 year loan to equal the orders duration and Military Community LLC monthly rate (e.g. a Lieutenant with dependents stationed at Gulfport, Mississippi for three years would take a \$30,096 charge based on

\$836/month BAH for 36 months). Table 16 demonstrates how the “charge” breakdown would occur for according to the Typical Military Career. Each charge is calculated based on the duration of stay times the annual BAH for that particular rank and location.

Table 16- Charge Breakdown

Charge	Charge Amount	Annual BAH	# of Years in Home	Location
1	\$33,660.00	\$11,220.00	3	Pensacola
2	\$23,328.00	\$11,664.00	2	Gulfport
3	\$47,952.00	\$15,984.00	3	Norfolk
4	\$26,544.00	\$13,272.00	2	Gulfport
5	\$28,824.00	\$14,412.00	2	Gulfport
6	\$86,904.00	\$28,968.00	3	Washington DC
Total Loan Amount=	\$247,212.00			

Each charge would be based on years 1-3 of a 15-year amortization period. By each charge being based on duration of orders, the service member benefits from longer duration orders because a larger amount of principal is gained on the charge. With any tenant change, certain maintenance costs are incurred such as painting and carpet cleaning so with longer orders and reduced tenant turnover, the Military Community LLC has reduced tenant turnover costs. By taking a “charge” for each duty station, the loan can be easily tracked for each duty station. The BAH paid to the Military Community LLC would be composed of two parts, an interest portion paid to the Military Community LLC and a principal portion that will becomes the service member’s equity when they “cash out.” Table 17 depicts the breakdown between principal and interest paid during the Typical Military Career. Appendix D contains the detailed mortgage calculations, where each mortgage calculation is based on the charge amount found in Table 16. Each mortgage calculation is amortized over 15 years and the interest and principal is calculated for each year the service member remains in the Military Community LLC at

that location. For example: Based on the Typical CEC Officer Career, the officer will be a Lieutenant when staying in the Military Community LLC Norfolk, VA location. The BAH for a Lieutenant with dependents in Norfolk, VA is \$1,332 per month or \$15,984 per year and since the service member will be staying for three years, the resulting total charge is \$47,952. The mortgage calculation is based on a \$47,952 loan for 15 years with an 8.39% fixed interest rate. A higher interest rate is applied to the service member than the interest rate the Military Community LLC is paying on the home to offset the lower interest received as a result of the smaller charge amounts (i.e. a \$33,660 charge at 8.39% interest for a Pensacola stay yields \$22,782 in interest for the Military Community LLC; however, the Military Community LLC is paying 7% interest rate on a \$109,260 home in Pensacola, which results in a three year payment of \$30,495 of which \$22,120 is interest). An amortization table is then calculated in Appendix D for each of the first three years to determine the principal and interest per year. For the Norfolk, VA example, these appear as lines 6, 7, 8 in Table 17. The principal is then added every year for the service member and this becomes the equity that the service member is building.

Table 17- Interest-Principal Breakdown

Years in Military Community LLC Home	Location	Annual BAH Allotments Paid	Principal	Interest
1	Pensacola- 1st Stay	\$11,220.00	\$3,327.38	\$7,892.62
2	Pensacola- 1st Stay	\$11,220.00	\$3,617.54	\$7,602.46
3	Pensacola- 1st Stay	\$11,220.00	\$3,933.00	\$7,287.00
4	Gulfport- 2nd Stay	\$11,664.00	\$3,459.06	\$8,204.94
5	Gulfport- 2nd Stay	\$11,664.00	\$3,760.70	\$7,903.30
6	Norfolk- 3rd Stay	\$15,984.00	\$4,740.19	\$11,243.81
7	Norfolk- 3rd Stay	\$15,984.00	\$5,153.55	\$10,830.45
8	Norfolk- 3rd Stay	\$15,984.00	\$5,602.95	\$10,381.05
9	Gulfport- 4th Stay	\$13,272.00	\$3,935.92	\$9,336.08
10	Gulfport- 4th Stay	\$13,272.00	\$4,279.15	\$8,992.85
11	Gulfport- 5th Stay	\$14,412.00	\$4,274.00	\$10,138.00
12	Gulfport- 5th Stay	\$14,412.00	\$4,646.70	\$9,765.30
13	Washington DC- 6th Stay	\$28,968.00	\$8,590.70	\$20,377.30
14	Washington DC- 6th Stay	\$28,968.00	\$9,339.83	\$19,628.17
15	Washington DC- 6th Stay	\$28,968.00	\$10,154.29	\$18,813.71
		Totals=	\$78,814.96	\$168,397.04
		Cash Out Total=	\$78,814.96	

Both the Military Community LLC and the service member benefit from the “charge” approach. The service member does not have to take out a loan for more than their duration at each location and the Military Community LLC is receiving payments based on the initial years of a loan.

Military Community LLC Utilities

Service members would be required to have an initial payment of \$5,000 upon joining the Military Community LLC that would be used as an escrow account. Service members can receive a dislocation allowance (DLA) that is used to cover miscellaneous expenses occurred for a service member’s move and can be paid in advance of the move (D. o. Defense, 2005). Miscellaneous fees would normally include the start up costs for utilities and deposits. Figure 5 shows current rates for officers, which is almost \$2,000 for an O-2 with dependents being used in this example. Based on the DLA, the service

member would only need an additional \$3,000 upon joining the Military Community LLC and every subsequent move the service member would actually be pocketing the DLA because the utilities are maintained in the Military Community LLC's name to eliminate these fees.

Primary DLA Rate Effective January 1, 2004		
Paygrade	Without Dependent Rate	With Dependent Rate
O-10	\$2,819.31	\$3,470.55
O-9	\$2,819.31	\$3,470.55
O-8	\$2,819.31	\$3,470.55
O-7	\$2,819.31	\$3,470.55
O-6	\$2,586.50	\$3,124.92
O-5	\$2,491.13	\$3,012.12
O-4	\$2,308.57	\$2,655.21
O-3	\$1,850.14	\$2,196.76
O-2	\$1,467.59	\$1,875.77
O-1	\$1,235.82	\$1,676.82
O-3E	\$1,997.82	\$2,360.87
O-2E	\$1,698.36	\$2,130.13
O-1E	\$1,460.42	\$1,968.07

Figure 5- Dislocation Allowance Rate Chart (usmilitary.about.com, 2005)

This escrow account would be used to pay any overages in monthly utilities. Since the Military Community LLC would retain basic utilities (water, sewer, electric, cable, internet, basic phone) in the company's name, service members would receive monthly electronic notices of how their usage bills compare to the established amounts. Similar to on-base housing, service members would be required to pay full costs of cable, internet and basic phone. Overages would be taken from the escrow account and funds would be added/dispersed from this account annually. Service members would save from the constant headaches and fees associated with starting and closing utilities. The Military Community LLC could negotiate cost savings from larger contract services and

take advantage of local incentives such as electric load shedding, solar power or fuel cells.

Maintenance

To ensure homes are kept up to acceptable standards for each tenant, the Military Community LLC would provide maintenance services. This study assumes a 10% savings for maintenance from the \$1,100 annual home maintenance cost for individual homes due to the Military Community LLC being able to use bulk service contracts and repairs (i.e. roof replacements could be issued for 40 homes under one contract reducing the cost over a contract for only one roof).

Landscaping services could be handled through several methods. As a benefit to service members, landscaping would be provided by the Military Community LLC to eliminate the headaches associated with landscaping maintenance when service members are deployed. Landscaping fees can be charged as a condo fee that can be tailored to the amount of landscaping requested by the service member.

Cashing Out Military Community LLC Membership

Upon completing their military career or desiring to end membership in the Military Community LLC, service members would “cash out” and receive whatever principal they had earned to date or they could opt to purchase one of the Military Community LLC homes for no closing costs. This approach is based on the Military Community LLC offering members securities (another option not reviewed in this research would be for the Military Community LLC to actually offer members property, using something similar to condos). By eliminating closing costs and realtor fees, this retirement purchase option could save the service member considerable money (over \$22,000 in San Diego, CA) and allow the retired members to remain close to the military

base services. Selling these houses would provide the Military Community LLC the opportunity to build newer houses and periodically expanding the communities as older homes are sold. Table 18 indicates the total “cash out” value for the Typical Military Career would be almost \$79,000. While this amount may not be sufficient to purchase a home, it is a significant improvement over the current approaches discussed earlier, whereby the service member leaves military service with little to no equity.

Table 18- Cash Out Total

Years in Military Community LLC Home	Location	Annual BAH Allotments Paid	Principal	Interest
1	Pensacola- 1st Stay	\$11,220.00	\$3,327.38	\$7,892.62
2	Pensacola- 1st Stay	\$11,220.00	\$3,617.54	\$7,602.46
3	Pensacola- 1st Stay	\$11,220.00	\$3,933.00	\$7,287.00
4	Gulfport- 2nd Stay	\$11,664.00	\$3,459.06	\$8,204.94
5	Gulfport- 2nd Stay	\$11,664.00	\$3,760.70	\$7,903.30
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7	Norfolk- 3rd Stay	\$15,984.00	\$5,153.55	\$10,830.45
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11	Gulfport- 5th Stay	\$14,412.00	\$4,274.00	\$10,138.00
12	Gulfport- 5th Stay	\$14,412.00	\$4,646.70	\$9,765.30
13	Washington DC- 6th Stay	\$28,968.00	\$8,590.70	\$20,377.30
14	Washington DC- 6th Stay	\$28,968.00	\$9,339.83	\$19,628.17
15	Washington DC- 6th Stay	\$28,968.00	\$10,154.29	\$18,813.71
Totals=			\$78,814.96	\$168,397.04
Cash Out Total=			\$78,814.96	

Military Community LLC Phased Construction Approach

The Military Community LLC has several benefits toward a phased construction approach. First, by selecting areas with high concentration of junior officers such as Pensacola, FL and Gulfport, MS that are also known to be retirement areas, communities

can be started in areas that would afford members the maximum career duration. Both of these areas are also known retirement areas, which serves as a future income potential when these communities get older and the Military Community LLC starts to sell homes. By starting in areas with high retirement, the Military Community LLC can take advantage of the market value increases from transforming economically depressed areas into desirable locations. By selling homes when the market value of the community increases, the Military Community LLC benefits from years of rent coupled with the increased sale price. By negotiating tax credits with local government officials for several phases of development, the Military Community LLC can sell off homes as it begins another phase of development.

An additional option the Military Community LLC might want to investigate is negotiating with the developer that is constructing the communities to also construct homes near the Military Community LLC that would be constructed and sold after the Military Community LLC homes are constructed to capitalize on the increased market value of real estate that would result from the Military Community LLC. These homes could be constructed to be sold to civilians, enlisted personnel or the local community. Both the Military Community LLC and developer would benefit from the market value increases that would result from new construction in an economically depressed area.

Commercial Properties Included in Military Community LLC

Military Community LLC subdivisions would include commercial properties that are tailored to military service members. This provides another opportunity to increase profits for the developer and financial institutions. Certain merchants tend to cater to military personnel and would be eager to have immediate access to these personnel. In 2004, the Naval base in Pearl Harbor, Hawaii entered into a contract to consolidate and

move many of their services, such as Pizza-Hut, coffee shop and dry cleaners, off-base to allow the contractor to open these services to the public in addition to service members (CEC Bi-Weekly, 2005). Merchants such as restaurants, hotel, veterinarian/pet boarding, military credit unions, military specialty shops and tailors/laundry mats all benefit greatly from having a concentrated military subdivision.

Military Community LLC would negotiate a national contract for hotels located at each subdivision. Hotels would be eager for this opportunity due to the close proximity to the base and known business generated by base visitors. This contract would include a guaranteed a suite for military Community LLC members up to 90 days if a home is not immediately available when they arrive. The contract would ensure the monthly rate does not exceed the BAH rate for a set number of available rooms (during peak periods, hotel may only have to provide BAH rate for 5 rooms instead of 10). Military Community LLC could also negotiate an agreement with the hotel to have a joint community center reducing costs for both the hotel and Military Community LLC.

Stakeholder Benefits

For the Military Community LLC approach to be viable there must be sufficient benefits for each of the key stakeholders versus what benefits these stakeholders have under the current approach. The major stakeholders are the financial institution lending the initial capital, the Military Community LLC, the federal government, who is providing the BAH, and the service member. Real estate company's role would change from the current approach of individual home sales to large land sales during the initial construction stage. Below is a breakdown of benefits by major stakeholder:

Financial Institutions and Insurance Companies Benefits

- Financial institutions typically make the majority of their return on investment for a home loan in the origination fee and then sell the loan on the secondary market. Under this approach, the financial institution is processing one loan at \$69Million instead of 475 smaller loans. This reduction in loan processing for the same fee increases the financial institutions internal rate of return.
- Requiring military members to pay through an allotment (guaranteed payment directly from government), the financial institutions risk of default is greatly reduced. Allotments are paid directly by the Department of Defense on the specified date eliminating the service member forgetting or electing to pay other bills first.
- The Military Community LLC allows home and insurance contracts to be managed in bulk therefore reduce administrative costs. The Military Community LLC would finance several hundred homes at one time instead of service members applying for loans one at a time.
- Bulk insurance opportunities. Significant savings from claims could be avoided because Military Community LLC performs scheduled preventative maintenance, which reduces the probability of claims (i.e. most individuals don't regularly perform tree maintenance so high winds will result in branches damaging roof and resultant water damage).
- Military Community LLC would protect homes against natural disasters such as hurricanes because damaged units can not be occupied. To protect their homes, the Military Community LLC will have service contracts in place that could have hurricane

shutters installed, flying debris removed and other measures to protect against damage to homes.

- Currently, many financial institution that service military members, such as USAA and Navy Federal, do not have bank branches at most bases causing an inconvenience to their members. By investing in the Military Community LLC, these financial institutions can require a branch office (could be a joint office to reduce overhead) where their client base could increase along with increasing membership or additional services such as checking/savings accounts, financial advisors, insurance and other services.
- Higher percentage of military personnel will elect to purchase home instead of rent. Currently, most service members elect to rent or try for on-base housing because purchasing a home does not makes sense for 2-3 year orders.

Developer/Military Community LLC Benefits

- The Military Community LLC can receive a higher rate of return by charging service members a higher interest rate and restarting the amortization period with every new charge taken. Since every charge is based on a 15 year amortization period, the interest paid is higher during the initial years so the Military Community LLC receives a higher internal rate of return.
- The Military Community LLC can negotiate tax incentives from local governments for developing in economically depressed areas.
- The developer can reduce construction costs by building in bulk so purchasing power and efficiencies can be increased. The Military Community LLC can leverage this bulk discount for lower home construction costs. The construction costs can also be reduced from tax incentives.

- The subdivisions would include income opportunities from commercial stores included in the communities. Negotiations with certain companies such as Wal-Mart, Starbucks, Hampton Inn and Blockbuster could provide significant additional revenue. In addition, stores catering almost exclusively to military members such as BlackHawk, Danner Boots, Abbots Uniforms will have immediate access to their desired clients.
- Because the Military Community LLC has flexibility in when they want to sell homes to the public or expand into new areas, the Military Community LLC can purchase/sell when the market is most favorable to their position (i.e. if market values are high, the Military Community LLC can sell of some homes for a higher return on investment and negotiate expansions in additional economically depressed areas).
- Continued expansion possible when military personnel retiring request to purchase one of the homes.
- Having agreements with an on-site hotel to provide interim housing for Military Community LLC members (up to 90 days) until the next house becomes available enables the Military Community LLC to have a greater window to place members in homes and therefore minimize vacancy periods. This method allows management personnel to have larger window to place new families.

Service Member Benefits

- Service member benefits are extensive; however, not all benefits are easy to assign monetary figures.
- Under this new approach, the service member gains equity in a home, largely difficult under the current system.

- Service members would not have to pay expensive opening/closing costs every time they move yet they would still “own” a home.
- Service members would not have to buy yard or home maintenance tools or spend valuable time performing this work since it would be included in Military Community Services.
- Since the Military Community LLC maintains maintenance and service contracts, stresses, associated with emergency repairs and yard maintenance for service members under the current system, are eliminated. This would result in annual savings of \$500-\$1000 per year for service members.
- Moves would be much easier when moving into an area with a Military Community LLC by avoiding time associated with locating and negotiating a place to live.
- Utility connection fees and hassles with having services turned on and off are avoided by keeping the services in the Military Community LLC’s name.
- By using internet voice/IP services for all Military Community LLC communities, service members could keep the same telephone number and internet address as they move to each community. With electronic banking and constant moves, this can be a tremendous comfort to service members. By establishing a client server, members can even check their accounts while traveling or if they are living in an area without Military Community LLC housing.
- Community center would provide needed space for spouses and children to meet and play. Military spouse networks are always a strong network and having a community center that is located in the community and immediately accessible would be very

desirable. Community centers would include play areas for children, a small theater, barbeque pits and meeting areas.

- Because the Military Community LLC is a limited liability company, tax deductions and proceeds can be passed through to service members.
- Service members benefit from the opportunity to purchase a home that they know was properly maintained if they retire in a Military Community LLC home.
- Service members avoid having to repeatedly buy and sell homes or find renters.

Department of Defense Benefits

- Service members are located closer to base for quicker response times. Every unit has numerous watches and special duties that may require service members to return to base to address an emergency. With service members located immediately outside of the gate, response times can be reduced drastically.
- Communities could provide a buffer around the base from economically depressed areas and higher crime rates.
- Due to the close proximity of Military Community LLC members, on base services such as military exchanges, day care, gas stations and commissaries would have an increased usage from these members enabling them to better compete with civilian merchants by increasing their volume. The government could negotiate deals with the Military Community LLC, similar to Pearl Harbor, Hawaii (CEC Biweekly, 2005), and have these services included in the Military Community LLC subdivisions.
- Homes built specifically for frequent moves would likely have easier access for moving personnel and reduce government move expenses.

- On-base housing and current privatization efforts still require oversight by military personnel and federal employees. With the Military Community LLC, these personnel and the space requirements would be handled by the privately owned Military Community LLC.
- By having maintenance and upkeep included, service members would have a lower household goods weight (e.g. lawn mowers, yard tools, house tools) reducing government move expenses. Service members would also be available to work longer hours near
- Close proximity would encourage physical fitness by making jogging and biking a great alternative to driving to work.
- Military Community LLC provides an emphasis on the service member and may assist with retention and recruiting efforts.

Community Benefits

- Economically depressed areas immediately surrounding bases would gradually diminish as higher value homes and commercial businesses are constructed. Many cities have started revitalization programs to encourage investors into economically depressed areas. The Military Community LLC will serve as a spark to improve the areas around military bases. By selling off homes to retiring service members and others, the Military Community LLC will be able to construct additional phases and attract military retirees into these communities.
- Local businesses would benefit from service contracts for home maintenance. With multiple homes, local businesses and the Military Community LLC will be able to schedule preventative maintenance work to improve contractor efficiencies. Contractors will save considerable accounting efforts with one client instead of 200 clients.

- Reduced traffic and pollution on roads during peak rush hour periods because service members do not have to commute great distances.
- School districts near bases would improve due to the higher market value homes and increased taxes.
- Less expensive apartments could be replaced with higher value homes increasing the tax basis.
- Retired military personnel will be more likely to remain in the communities due to the easy access to base services.

Financial Analysis

As the benefits above demonstrate, the Military Community LLC appears to meet the needs of all parties; however, the practicality of the approach depends on the financial viability for each of the parties. Table 19 is an overview of the financial analysis of the Military Community LLC approach.

Table 19- Financial Analysis Summary

Military Community LLC Financial Analysis Summary	
Initial Build-Out Investment for 425 homes in 4 locations=	\$ 85,905,000
Principal gained from Service member over 15 yrs=	\$ 78,815
Total BAH paid over 15 year period by Government (425 members)=	\$ 105,065,100
Resale value of 425 homes at year 15=	\$ 158,277,390
Total Payments to Finance Company from Military Community=	\$ 122,815,252
Military Community Net Present Value After Expenses & Payments=	\$ 61,868,012
Military Community Return on Initial Investment=	13%

Sensitivity Analysis

The Military Community LLC could also increase their internal rate of return to 14% by amortizing service member mortgage payments over a 20 year period instead of

15 years. However, this would drop the equity gained by service members to only \$51,887, which would be far less attractive to service members. For this reason, the 15 year amortization period in this financial analysis appears to offer a realistic balance between return on investment for the Military Community LLC and the service member.

Challenges

As with any innovative idea, there are potential difficulties to overcome. Financial investors must be convinced that the risks for such a large initial investment are worth the increased rate of return. The Military Community LLC will need to make sure that the homes are staying occupied by not expanding too quickly and ensuring sufficient service members are participating in the program. This difficulty can be offset by having a plan to sell off excess homes or expand the program to include federal government or key business employees (perhaps Lockheed Martin is located near the base). Since the program would likely be phased, service members would have to understand that it will take several years to have housing built at predetermined bases across the country. The Military Community LLC would have to construct the subdivisions with security considerations due to the high concentration of military service members.

It is important to note that each base will have a unique set of real estate conditions; therefore it is important to establish local real estate contacts (at minimum a broker and attorney) at each location that have good working relationships with city planners to identify the best location for each of the Military Communities. Information gathered from these teams can establish which locations offer the greatest return on investment. Since the Military Communities will be built out in phases, construction should start at the most profitable locations and then expand into new locations as it becomes profitable. Cities with severe traffic problems and a high concentration of

military bases such as Washington D.C. and San Diego may be very excited about the opportunity to reduce congested roadways and offer greater tax incentives by having Military Communities LLC construct subdivisions immediately adjacent to the military bases.

The Military Community LLC will also need to work with local communities to ensure that the communities do not adversely impact the local rental market, who may be relying largely on service members as renters.

CHAPTER 4 CONCLUSIONS AND RECOMMENDATIONS

As the Current Approaches Financial Analysis in this study indicates, the beneficiaries of the current military housing approaches are realtors and financial institutions. Interestingly, realtors are not a primary stakeholder in the military housing market and yet they are reaping the greatest benefits. In addition, a majority of home loans are sold by loan originating financial institutions to secondary markets, allowing the secondary markets to reap the benefits from the loan turn over. The Military Community LLC offers loan originating financial institutions a more profitable scenario by bundling home purchases.

Conclusion

Financial Analysis Results

Based on this study's financial analysis, this new approach appears to be a win-win-win scenario. The financial investors would have a higher internal rate of return based on reduced processing costs for the same origination fee and current interest rate. Since this loan would likely be sold to the secondary market, it offers the financial institution the ability to secure a 1% origination fee on \$85,905,000 and then immediately sell the loan on the secondary market. The Military Community LLC has an internal rate of return of 23%. Service members will end up with \$78,815 in equity to use toward purchasing a company home or cashing out of the plan. Table 20 compares the equity gained in the Military Community LL versus the best case current approach. The best case approach for the current approaches was selected by identifying the current approach that yielded

the greatest equity for each location for the Typical CEC Officer Career. The Military Community LLC clearly offers the service member a superior approach to military housing than any existing approach.

Table 20- Comparison of Military Community LLC vs. Current Approach

Service Member Comparison				
Current Approach				
Location	Rank	# of Years	Current Approach Used	Best Current Approach Value
Pensacola, FL	O-1/O-2	3	Purchase-Rent @ 6%	\$4,610
CBC Gulfport, MS	O-2/O-3	2	Purchase-Rent @ 6%	\$9,518
Overseas	O-3	3		
Norfolk, VA	O-3	3	Purchase-Rent @ 6%	\$3,037
CBC Gulfport, MS	O-4	2	Purchase-Rent @ 6%	\$9,518
Overseas	O-4/O-5	3		
CBC Gulfport, MS	O-5	2	Purchase-Rent @ 6%	\$9,518
Washington DC	O-5/O-6	3	Purchase-Sell @ 6%	\$18,418
Best Case Current Approach Total=				\$ 54,619
New Approach Total=				\$ 78,815

The reason all the stakeholders benefit is the same reason Wal-Mart and Sam's Club have dominated the retail landscape- bulk purchasing power.

Wal-Mart successfully uses an efficient approach to the consumer goods market and leveraged the benefits from bulk purchasing to grow into one of the largest companies in the world. The military housing market is now primed for a company to capitalize on the surge of 100,000 personnel from overseas, the benefits of MHPI and privatization, bulk savings and savings from home loan turn over. The Military Community LLC offers a win-win-win scenario for the service member, the federal government and financial institutions. In addition, local communities will also see considerable benefits by providing incentives for the Military Community LLC to construct communities in their city.

Recommendations

The favorable results of this study's hypothesis indicate additional review and research is needed. This study should be reviewed in detail by the Department of Defense, key financial institution stakeholders such as USAA and investment bankers. Based on a favorable review by these key stakeholders, Military Community LLC locations should be identified and feasibility reviews conducted at each location to determine viability, quantity and make up of each community. Additional research should also be conducted on the specialty codes and jobs within each branch of service to determine the move frequency and identify a key target military audience for the Military Community LLC. Research should also be conducted on what tax benefits can be passed from the limited liability corporation to the service member.

New Approach Options

After initial issues associated with starting a new concept such as the Military Community LLC are worked out, the Military Community LLC could be expanded to include enlisted personnel from all branches of service and eventually civilian government employees. The initial \$5,000 buy-in costs may have to be eliminated or altered for enlisted personnel, who may have difficulty paying this upfront cost. The increased target market can also help provide demand for the Military Community LLC homes that could increase the home's market value.

The Military Community LLC could negotiate with the developer/builder and the local community to allow additional homes to be constructed and sold by the developer that could increase market value for both stakeholders by transforming an economically depressed area. Construction of new schools in these communities could also increase the market value of the Military Community LLC homes.

In addition to the approach discussed above, variations are possible. Instead of or in addition to constructing large communities, the Military Community LLC could purchase homes dispersed throughout the community. This approach might appeal to some military members who do not want to live in a predominately military owned community; however, an increased maintenance and service fee would need to be charged due to the higher costs associated with dispersed locations. If interest rates continue to rise or a housing bubble burst occurs in a Military Community LLC area, foreclosure rates could increase dramatically. This offers the Military Community LLC a unique opportunity to obtain dispersed houses at a potentially reduced value.

The Military Community LLC approach offers a promising opportunity to create a win-win situation for all the key stakeholders associated with military housing. This approach leverages the benefits of bulk purchasing power to increase profits for all parties. By capitalizing on known income rates and populations, homes can be constructed in bulk across the nation to meet the target populations with a much greater certainty and reduced risk. With increased profits for each key stakeholder, the military housing market is ready for this transformation.

APPENDIX A

CURRENT APPROACHES TO MILITARY HOUSING FINANCIAL ANALYSIS

The Current Approach Financial Analysis contains the following spreadsheets:

A1- Opening & Closing Cost Analysis

A2- 6% Interest Rate Current Approach Financial Analysis

A3- 8.39% Interest Rate Current Approach Financial Analysis

A4- Notes

A5- Summary

A1- Opening & Closing Cost Analysis

Note: Opening and closing based on date of April 30th.

Description	Atlanta, GA	Biloxi/Gulfport, MS	Charleston, SC	Colorado Springs, CO	Columbia, SC	FT Wayne, IN
Average House Cost @ purchase	\$ 138,800	\$ 96,000	\$ 150,800	\$ 173,300	\$ 115,800	\$ 93,900
Annual Interest (40% assessed*2.85%) ¹	\$ 1,582	\$ 1,094	\$ 1,719	\$ 1,976	\$ 1,320	\$ 1,070
House Cost-10% Downpayment	\$ 124,920	\$ 86,400	\$ 135,720	\$ 155,970	\$ 104,220	\$ 84,510
Prepaid Costs						
Interest for 7 days @ 8.39% annual	\$20.10	\$13.90	\$21.84	\$25.10	\$16.77	\$13.60
PMI	\$936.90	\$648.00	\$1,017.90	\$1,169.78	\$781.65	\$633.83
Hazard Ins Escrow (2 months of insurance) ²	\$277.60	\$192.00	\$301.60	\$346.60	\$231.60	\$187.80
Loan Origination- 1%	\$1,249.20	\$864.00	\$1,357.20	\$1,559.70	\$1,042.20	\$845.10
County Taxes 4 months	\$527.44	\$364.80	\$573.04	\$658.54	\$440.04	\$356.82
Opening Costs=	\$3,011.24	\$2,082.70	\$3,271.58	\$3,759.71	\$2,512.26	\$2,037.14
Average House Cost @ sale	\$ 152,561	\$ 105,518	\$ 165,751	\$ 194,163	\$ 127,281	\$ 105,204
Closing Costs						
Appraisor	\$345.00	\$345.00	\$345.00	\$345.00	\$345.00	\$345.00
Realtor Fee- 6%	\$9,153.66	\$6,331.06	\$9,945.04	\$11,649.80	\$7,636.84	\$6,312.27
Credit Report	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Pest Inspection	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Title Search	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00
Recording Fee	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
Application	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00
Administration	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00
Flood zone certification fee	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00
Attorney Fees	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Survey	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00
Title Insurance Coverage	\$577.50	\$577.50	\$577.50	\$577.50	\$577.50	\$577.50
Processing Fee	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00
Tax Related Service Fee	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00
Closing Costs=	\$11,993.16	\$9,170.56	\$12,784.54	\$14,489.30	\$10,476.34	\$9,151.77

¹ Based on Fulton County, GA rates from website www.fultoncountytaxes.org

² Mortgage and hazard insurance based on \$100/\$100000 home value (actual amount will vary dramatically based on plan selected)

A1:

A1- Opening & Closing Cost Analysis (cont.)

Note: Opening and closing based on date of April 30th.

Location								
Description	Jacksonville, FL	Lincoln, NE	Norfolk, VA*	Pensacola, FL	Providence, RI	San Diego, CA	Washington, DC	
Average House Cost @ purchase	\$ 109,900	\$ 117,400	\$ 133,304	\$ 105,000	\$ 158,000	\$ 298,600	\$ 213,900	
Annual Interest (40% assessed*2.85%) ¹	\$ 1,253	\$ 1,338	\$ 1,520	\$ 1,197	\$ 1,801	\$ 3,404	\$ 2,438	
House Cost-10% Downpayment	\$ 98,910	\$ 105,660	\$ 119,973	\$ 94,500	\$ 142,200	\$ 268,740	\$ 192,510	
Prepaid Costs								
Interest for 7 days @ 8.39% annual	\$15.92	\$17.00	\$19.30	\$15.21	\$22.88	\$43.24	\$30.98	
PMI	\$741.83	\$792.45	\$899.80	\$708.75	\$1,066.50	\$2,015.55	\$1,443.83	
Hazard Ins Escrow (2 months of insurance) ²	\$219.80	\$234.80	\$266.61	\$210.00	\$316.00	\$597.20	\$427.80	
Loan Origination- 1%	\$989.10	\$1,056.60	\$1,199.73	\$945.00	\$1,422.00	\$2,687.40	\$1,925.10	
County Taxes 4 months	\$417.62	\$446.12	\$506.55	\$399.00	\$600.40	\$1,134.68	\$812.82	
Opening Costs=	\$2,384.26	\$2,546.97	\$2,892.00	\$2,277.96	\$3,427.78	\$6,478.07	\$4,640.52	
Average House Cost @ sale	\$ 120,796	\$ 131,534	\$ 146,520	\$ 115,410	\$ 157,388	\$ 319,845	\$ 235,107	
Closing Costs								
Appraiser	\$345.00	\$345.00	\$345.00	\$345.00	\$345.00	\$345.00	\$345.00	
Realtor Fee- 6%	\$7,247.75	\$7,892.02	\$8,791.17	\$6,924.60	\$9,443.28	\$19,190.68	\$14,106.40	
Credit Report	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	
Pest Inspection	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	
Title Search	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	
Recording Fee	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00	
Application	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00	
Administration	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00	
Flood zone certification fee	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00	
Attorney Fees	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	
Survey	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	
Title Insurance Coverage	\$577.50	\$577.50	\$577.50	\$577.50	\$577.50	\$577.50	\$577.50	
Processing Fee	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00	
Tax Related Service Fee	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	
Closing Costs=	\$10,087.25	\$10,731.52	\$11,630.67	\$9,764.10	\$12,282.78	\$22,030.18	\$16,945.90	

¹ Based on Fulton County, GA rates from website www.fultoncountytaxes.org

² Mortgage and hazard insurance based on \$100/\$100000 home value (actual amount will vary dramatically based on plan selected)

A2- 6% Interest Rate Current Approach Financial Analysis

Downpayment: 10%

BAH rates based on O-2 Married w/ dependents

Location	BAH Rate ¹ (monthly)				Median New Home Price ²				Region	Regional	Regional	Regional	Existing Home Sale ³
	2001	2002	2003	2004	2001	2002	2003	2004(1Q)		1990 value	2000 value	% increase	
Atlanta, GA	\$ 1,216	\$ 1,277	\$ 1,277	\$ 1,277	\$ 138,800	\$ 146,500	\$ 152,400	\$ 152,200	South	\$ 85,900	\$ 128,300	3.3%	\$ 152,561
Biloxi/Gulfport, MS	\$ 737	\$ 792	\$ 821	\$ 866	\$ 96,000	\$ 100,200	\$ 107,600	\$ 107,400	South	\$ 85,900	\$ 128,300	3.3%	\$ 105,518
Charleston, SC	\$ 775	\$ 841	\$ 870	\$ 1,028	\$ 150,800	\$ 159,400	\$ 168,900	\$ 177,100	South	\$ 85,900	\$ 128,300	3.3%	\$ 165,751
Colorado Springs, CO	\$ 865	\$ 873	\$ 1,017	\$ 1,025	\$ 173,300	\$ 176,900	\$ 184,500	\$ 181,400	Midwest	\$ 74,000	\$ 123,600	4.0%	\$ 194,163
Columbia, SC	\$ 863	\$ 930	\$ 930	\$ 930	\$ 115,800	\$ 119,500	\$ 123,600	\$ 121,500	South	\$ 85,900	\$ 128,300	3.3%	\$ 127,281
Ft Wayne, IN	\$ 685	\$ 685	\$ 746	\$ 792	\$ 93,900	\$ 94,900	\$ 93,200	\$ 89,600	Midwest	\$ 74,000	\$ 123,600	4.0%	\$ 105,204
Jacksonville, FL	\$ 800	\$ 834	\$ 978	\$ 1,026	\$ 109,900	\$ 117,800	\$ 131,600	\$ 143,600	South	\$ 85,900	\$ 128,300	3.3%	\$ 120,796
Lincoln, NE	\$ 693	\$ 759	\$ 887	\$ 1,005	\$ 117,400	\$ 122,400	\$ 131,500	\$ 127,700	Midwest	\$ 74,000	\$ 123,600	4.0%	\$ 131,534
Norfolk, VA*	\$ 834	\$ 834	\$ 881	\$ 994	\$ 133,304	\$ 136,024	\$ 138,800	\$ 142,400	South	\$ 85,900	\$ 128,300	3.3%	\$ 146,520
Pensacola, FL	\$ 645	\$ 729	\$ 828	\$ 900	\$ 105,000	\$ 112,200	\$ 116,400	\$ 121,400	South	\$ 85,900	\$ 128,300	3.3%	\$ 115,410
Newport, RI	\$ 931	\$ 965	\$ 1,270	\$ 1,520	\$ 158,000	\$ 193,200	\$ 233,400	\$ 239,900	Northeast	\$ 141,200	\$ 139,400	-0.1%	\$ 157,388
San Diego, CA	\$ 1,252	\$ 1,506	\$ 1,547	\$ 1,694	\$ 298,600	\$ 364,200	\$ 424,900	\$ 483,000	West	\$ 139,600	\$ 183,000	2.4%	\$ 319,845
Washington, DC	\$ 1,263	\$ 1,540	\$ 1,722	\$ 1,750	\$ 213,900	\$ 250,200	\$ 286,200	\$ 300,700	South	\$ 85,900	\$ 128,300	3.3%	\$ 235,107

A2- 6% Interest Rate Current Approach Financial Analysis (cont.)

Location	Misc. Home Costs ⁴		Utility Costs ⁵ Monthly	Ave Mortgage Rate ⁶	Downpayment (10% 2001 Price)	Loan Amount ⁷	PMI Monthly rate (.41%)	Monthly Mortgage Payment ⁸	Monthly Mortgage Payment ¹⁰ (w/PMI, taxes & insurance)	Equity Gained from Home Sale	Equity Gained from Mortgage Payments	Interest Paid in 2001	Interest Paid in 2002	Interest Paid in 2003	Interest Paid over 3 years
	Opening	Closing													
Atlanta, GA	\$ 3,011	\$ 11,993	\$ 304	6.00%	\$ 13,880	\$ 127,931	\$ 44	\$ 767	\$ 954	\$ 13,761	\$ 5,010	\$ 7,633	\$ 7,536	\$ 7,433	\$ 22,603
Biloxi/Gulfport, MS	\$ 2,083	\$ 9,171	\$ 340	6.00%	\$ 9,600	\$ 88,483	\$ 30	\$ 531	\$ 660	\$ 9,518	\$ 3,465	\$ 5,279	\$ 5,212	\$ 5,141	\$ 15,633
Charleston, SC	\$ 3,272	\$ 12,785	\$ 350	6.00%	\$ 15,080	\$ 138,992	\$ 47	\$ 833	\$ 1,037	\$ 14,951	\$ 5,443	\$ 8,293	\$ 8,188	\$ 8,076	\$ 24,557
Colorado Springs, CO	\$ 3,760	\$ 14,489	\$ 251	6.00%	\$ 17,330	\$ 159,730	\$ 55	\$ 958	\$ 1,191	\$ 20,863	\$ 6,255	\$ 9,530	\$ 9,409	\$ 9,281	\$ 28,221
Columbia, SC	\$ 2,512	\$ 10,476	\$ 350	6.00%	\$ 11,580	\$ 106,732	\$ 36	\$ 640	\$ 796	\$ 11,481	\$ 4,180	\$ 6,368	\$ 6,287	\$ 6,202	\$ 18,857
Ft Wayne, IN	\$ 2,037	\$ 9,152	\$ 301	6.00%	\$ 9,390	\$ 86,547	\$ 30	\$ 519	\$ 645	\$ 11,304	\$ 3,389	\$ 5,164	\$ 5,098	\$ 5,029	\$ 15,291
Jacksonville, FL	\$ 2,384	\$ 10,087	\$ 274	6.00%	\$ 10,990	\$ 101,294	\$ 35	\$ 607	\$ 755	\$ 10,896	\$ 3,967	\$ 6,044	\$ 5,967	\$ 5,886	\$ 17,897
Lincoln, NE	\$ 2,547	\$ 10,732	\$ 271	6.00%	\$ 11,740	\$ 108,207	\$ 37	\$ 649	\$ 807	\$ 14,134	\$ 4,237	\$ 6,456	\$ 6,374	\$ 6,287	\$ 19,118
Norfolk, VA*	\$ 2,892	\$ 11,631	\$ 377	6.00%	\$ 13,330	\$ 122,865	\$ 42	\$ 737	\$ 916	\$ 13,216	\$ 4,811	\$ 7,331	\$ 7,238	\$ 7,139	\$ 21,708
Pensacola, FL	\$ 2,278	\$ 9,764	\$ 321	6.00%	\$ 10,500	\$ 96,778	\$ 33	\$ 580	\$ 722	\$ 10,410	\$ 3,790	\$ 5,774	\$ 5,701	\$ 5,623	\$ 17,099
Newport, RI	\$ 3,428	\$ 12,283	\$ 390	6.00%	\$ 15,800	\$ 145,628	\$ 50	\$ 873	\$ 1,086	\$ (612)	\$ 5,703	\$ 8,689	\$ 8,579	\$ 8,462	\$ 25,729
San Diego, CA	\$ 6,478	\$ 22,030	\$ 247	6.00%	\$ 29,860	\$ 275,218	\$ 94	\$ 1,650	\$ 2,053	\$ 21,245	\$ 10,777	\$ 16,421	\$ 16,213	\$ 15,991	\$ 48,625
Washington, DC	\$ 4,641	\$ 16,946	\$ 354	6.00%	\$ 21,390	\$ 197,151	\$ 67	\$ 1,182	\$ 1,470	\$ 21,207	\$ 7,720	\$ 11,763	\$ 11,614	\$ 11,455	\$ 34,832

A2- 6% Interest Rate Current Approach Financial Analysis (cont.)

Location	2001 Federal Tax Credit Interest Paid over 3 years	2002 Federal Tax Credit Interest Paid over 3 years	2003 Federal Tax Credit Interest Paid over 3 years	Homeowner Out-of- Pocket (BAH- Mortgage- Utilities)	Homeowner Equity Gain/Loss over 3 years	Stakeholders			
						Homeowner	Company	Realtors	Government
						Gain/Loss Out-of- Pocket minus Equity Gain/Loss	Interest + Origination	6% Closing Cost	Amount Paid in BAH
Atlanta, GA	\$ -	\$ -	\$ -	\$ (46)	\$ 18,771	\$ 18,725	\$ 23,991	\$ 17,482	(\$45,240)
Biloxi/Gulfport, MS	\$ -	\$ -	\$ -	\$ (7,789)	\$ 12,983	\$ 5,194	\$ 16,593	\$ 12,091	(\$28,200)
Charleston, SC	\$ -	\$ -	\$ -	\$ (20,087)	\$ 20,394	\$ 307	\$ 26,065	\$ 18,993	(\$29,832)
Colorado Springs, CO	\$ -	\$ -	\$ -	\$ (18,856)	\$ 27,118	\$ 8,263	\$ 29,954	\$ 22,048	(\$33,060)
Columbia, SC	\$ -	\$ -	\$ -	\$ (8,581)	\$ 15,660	\$ 7,079	\$ 20,015	\$ 14,585	(\$32,676)
Ft Wayne, IN	\$ -	\$ -	\$ -	\$ (8,671)	\$ 14,694	\$ 6,023	\$ 16,230	\$ 11,946	(\$25,392)
Jacksonville, FL	\$ -	\$ -	\$ -	\$ (5,708)	\$ 14,862	\$ 9,155	\$ 18,996	\$ 13,842	(\$31,344)
Lincoln, NE	\$ -	\$ -	\$ -	\$ (10,751)	\$ 18,371	\$ 7,620	\$ 20,292	\$ 14,936	(\$28,068)
Norfolk, VA*	\$ -	\$ -	\$ -	\$ (15,961)	\$ 18,027	\$ 2,067	\$ 23,041	\$ 16,789	(\$30,588)
Pensacola, FL	\$ -	\$ -	\$ -	\$ (11,134)	\$ 14,200	\$ 3,066	\$ 18,149	\$ 13,225	(\$26,424)
Newport, RI	\$ -	\$ -	\$ -	\$ (15,137)	\$ 5,091	\$ (10,046)	\$ 27,309	\$ 18,923	(\$37,992)
San Diego, CA	\$ 1,008	\$ 977	\$ 944	\$ (31,141)	\$ 34,951	\$ 3,809	\$ 51,611	\$ 37,107	(\$51,660)
Washington, DC	\$ 309	\$ 287	\$ 263	\$ (11,368)	\$ 29,787	\$ 18,418	\$ 36,971	\$ 26,940	(\$54,300)

A2- 6% Interest Rate Current Approach Financial Analysis (cont.)

Location	Market Rent 3 BR 2001	Market Rent (.3%/year decrease till 2004, 2.1% increase till 2010, 3% increase till 2016, 3.5% increase till 2021)				2004 Property Management Fee (10% rent)	2010 Property Management Fee (10% rent)	2016 Property Management Fee (10% rent)	2021 Property Management Fee (10% rent)	Property Maintenance Costs (annual) ¹¹	Vacancy Rate**
		2004	2010	2016	2021						
Atlanta, GA	\$ 949	\$ 940	\$ 1,059	\$ 1,250	\$ 1,468	\$ 94	\$ 106	\$ 125	\$ 147	\$1,100	11.6%
Biloxi/Gulfport, MS	\$ 672	\$ 666	\$ 750	\$ 885	\$ 1,040	\$ 67	\$ 75	\$ 88	\$ 104	\$1,100	13.2%
Charleston, SC	\$ 714	\$ 708	\$ 797	\$ 940	\$ 1,105	\$ 71	\$ 80	\$ 94	\$ 110	\$1,100	14.1%
Colorado Springs, CO	\$ 884	\$ 876	\$ 986	\$ 1,164	\$ 1,368	\$ 88	\$ 99	\$ 116	\$ 137	\$1,100	6.1%
Columbia, SC	\$ 854	\$ 846	\$ 953	\$ 1,124	\$ 1,321	\$ 85	\$ 95	\$ 112	\$ 132	\$1,100	14.1%
Ft Wayne, IN	\$ 655	\$ 649	\$ 731	\$ 862	\$ 1,013	\$ 65	\$ 73	\$ 86	\$ 101	\$1,100	6.9%
Jacksonville, FL	\$ 756	\$ 749	\$ 844	\$ 995	\$ 1,170	\$ 75	\$ 84	\$ 100	\$ 117	\$1,100	9.0%
Lincoln, NE	\$ 500	\$ 496	\$ 558	\$ 658	\$ 774	\$ 50	\$ 56	\$ 66	\$ 77	\$1,100	6.6%
Norfolk, VA*	\$ 809	\$ 802	\$ 903	\$ 1,065	\$ 1,252	\$ 80	\$ 90	\$ 107	\$ 125	\$1,100	7.4%
Pensacola, FL	\$ 673	\$ 667	\$ 751	\$ 886	\$ 1,041	\$ 67	\$ 75	\$ 89	\$ 104	\$1,100	9.0%
Newport, RI	\$ 1,045	\$ 1,036	\$ 1,166	\$ 1,376	\$ 1,617	\$ 104	\$ 117	\$ 138	\$ 162	\$1,100	7.2%
San Diego, CA	\$ 1,119	\$ 1,109	\$ 1,249	\$ 1,473	\$ 1,731	\$ 111	\$ 125	\$ 147	\$ 173	\$1,100	7.2%
Washington, DC	\$ 1,145	\$ 1,135	\$ 1,278	\$ 1,508	\$ 1,771	\$ 113	\$ 128	\$ 151	\$ 177	\$1,100	6.7%

A2- 6% Interest Rate Current Approach Financial Analysis (cont.)

Location	17 Year Rental Expenses (rental period after 3 yr mark)	17 Year Rental Income (rental period after 3 yr mark)	17 Year Rent Equity Gain/Loss	Average Year Rent Equity Gain/Loss	Equity from home sale at yr 20***	Stakeholders			
						Homeowner	Company	Support	Government
						Gain/Loss from 3 yr period	Gain from 3 yr interest	Gain from closing costs & fees	Amount Paid in BAH
Atlanta, GA	\$235,239	\$222,896	(\$12,343)	(\$726)	\$58,844	\$46,455	\$87,383	\$ 23,349	\$ (45,240)
Biloxi/Gulfport, MS	\$168,829	\$145,437	(\$23,392)	(\$1,376)	\$40,699	\$9,518	\$60,438	\$ 16,396	\$ (28,200)
Charleston, SC	\$246,647	\$152,925	(\$93,723)	(\$5,513)	\$63,931	(\$49,879)	\$94,939	\$ 20,349	\$ (29,832)
Colorado Springs, CO	\$282,121	\$206,968	(\$75,153)	(\$4,421)	\$73,470	(\$20,539)	\$109,103	\$ 24,390	\$ (33,060)
Columbia, SC	\$200,793	\$182,910	(\$17,883)	(\$1,052)	\$49,093	\$22,629	\$72,903	\$ 20,465	\$ (32,676)
Ft Wayne, IN	\$165,491	\$152,047	(\$13,444)	(\$791)	\$39,809	\$17,694	\$59,115	\$ 16,001	\$ (25,392)
Jacksonville, FL	\$190,259	\$171,533	(\$18,726)	(\$1,102)	\$46,592	\$22,159	\$69,189	\$ 18,560	\$ (31,344)
Lincoln, NE	\$194,872	\$116,440	(\$78,432)	(\$4,614)	\$49,781	(\$39,401)	\$73,921	\$ 14,958	\$ (28,068)
Norfolk, VA*	\$224,302	\$186,786	(\$37,516)	(\$2,207)	\$56,514	\$3,037	\$83,923	\$ 20,803	\$ (30,588)
Pensacola, FL	\$181,472	\$152,701	(\$28,771)	(\$1,692)	\$44,514	\$4,610	\$66,103	\$ 16,952	\$ (26,424)
Newport, RI	\$264,379	\$241,797	(\$22,582)	(\$1,328)	\$66,983	\$29,264	\$99,470	\$ 26,020	\$ (37,992)
San Diego, CA	\$463,257	\$258,919	(\$204,338)	(\$12,020)	\$126,590	(\$105,960)	\$187,987	\$ 35,627	\$ (51,660)
Washington, DC	\$345,078	\$266,362	(\$78,716)	(\$4,630)	\$90,682	\$1,457	\$134,663	\$ 30,957	\$ (54,300)

A3- 8.39% Interest Rate Current Approach Financial Analysis

Downpayment: 10%

BAH rates based on O-2 Married w/ dependents

Location	BAH Rate ¹ (monthly)				Median New Home Price ²			
	2001	2002	2003	2004	2001	2002	2003	2004(1Q)
Atlanta, GA	\$ 1,216	\$ 1,277	\$ 1,277	\$ 1,277	\$ 138,800	\$ 146,500	\$ 152,400	\$ 152,200
Biloxi/Gulfport, MS	\$ 737	\$ 792	\$ 821	\$ 866	\$ 96,000	\$ 100,200	\$ 107,600	\$ 107,400
Charleston, SC	\$ 775	\$ 841	\$ 870	\$ 1,028	\$ 150,800	\$ 159,400	\$ 168,900	\$ 177,100
Colorado Springs, CO	\$ 865	\$ 873	\$ 1,017	\$ 1,025	\$ 173,300	\$ 176,900	\$ 184,500	\$ 181,400
Columbia, SC	\$ 863	\$ 930	\$ 930	\$ 930	\$ 115,800	\$ 119,500	\$ 123,600	\$ 121,500
Ft Wayne, IN	\$ 685	\$ 685	\$ 746	\$ 792	\$ 93,900	\$ 94,900	\$ 93,200	\$ 89,600
Jacksonville, FL	\$ 800	\$ 834	\$ 978	\$ 1,026	\$ 109,900	\$ 117,800	\$ 131,600	\$ 143,600
Lincoln, NE	\$ 693	\$ 759	\$ 887	\$ 1,005	\$ 117,400	\$ 122,400	\$ 131,500	\$ 127,700
Norfolk, VA*	\$ 834	\$ 834	\$ 881	\$ 994	\$ 133,304	\$ 136,024	\$ 138,800	\$ 142,400
Pensacola, FL	\$ 645	\$ 729	\$ 828	\$ 900	\$ 105,000	\$ 112,200	\$ 116,400	\$ 121,400
Newport, RI	\$ 931	\$ 965	\$ 1,270	\$ 1,520	\$ 158,000	\$ 193,200	\$ 233,400	\$ 239,900
San Diego, CA	\$ 1,252	\$ 1,506	\$ 1,547	\$ 1,694	\$ 298,600	\$ 364,200	\$ 424,900	\$ 483,000
Washington, DC	\$ 1,263	\$ 1,540	\$ 1,722	\$ 1,750	\$ 213,900	\$ 250,200	\$ 286,200	\$ 300,700

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

	Region	Regional	Regional	Regional	Existing Home Sale ³
Location		1990 value	2000 value	% increase	
Atlanta, GA	South	\$ 85,900	\$ 128,300	3.3%	\$ 152,561
Biloxi/Gulfport, MS	South	\$ 85,900	\$ 128,300	3.3%	\$ 105,518
Charleston, SC	South	\$ 85,900	\$ 128,300	3.3%	\$ 165,751
Colorado Springs, CO	Midwest	\$ 74,000	\$ 123,600	4.0%	\$ 194,163
Columbia, SC	South	\$ 85,900	\$ 128,300	3.3%	\$ 127,281
Ft Wayne, IN	Midwest	\$ 74,000	\$ 123,600	4.0%	\$ 105,204
Jacksonville, FL	South	\$ 85,900	\$ 128,300	3.3%	\$ 120,796
Lincoln, NE	Midwest	\$ 74,000	\$ 123,600	4.0%	\$ 131,534
Norfolk, VA*	South	\$ 85,900	\$ 128,300	3.3%	\$ 146,520
Pensacola, FL	South	\$ 85,900	\$ 128,300	3.3%	\$ 115,410
Newport, RI	Northeast	\$ 141,200	\$ 139,400	-0.1%	\$ 157,388
San Diego, CA	West	\$ 139,600	\$ 183,000	2.4%	\$ 319,845
Washington, DC	South	\$ 85,900	\$ 128,300	3.3%	\$ 235,107

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

Location	Misc. Home Costs ⁴		Utility Costs ⁵ (monthly)	Ave Mortgage Rate ⁶	Downpayment (10% 2001 Price)	Loan Amount ⁷	PMI Monthly rate (.41%)	Monthly Mortgage Payment ⁸	Monthly Mortgage Payment ¹⁰ (w/ taxes & insurance)
	Opening	Closing							
Atlanta, GA	\$ 1,249	\$ 400	\$ 304	8.39%	\$ 13,880	\$ 126,169	\$ 43	\$ 976	\$ 1,119
Biloxi/Gulfport, MS	\$ 864	\$ 400	\$ 340	8.39%	\$ 9,600	\$ 87,264	\$ 30	\$ 703	\$ 802
Charleston, SC	\$ 1,357	\$ 400	\$ 350	8.39%	\$ 15,080	\$ 137,077	\$ 47	\$ 1,105	\$ 1,261
Colorado Springs, CO	\$ 1,560	\$ 400	\$ 251	8.39%	\$ 17,330	\$ 157,530	\$ 54	\$ 1,270	\$ 1,449
Columbia, SC	\$ 1,042	\$ 400	\$ 350	8.39%	\$ 11,580	\$ 105,262	\$ 36	\$ 848	\$ 968
Ft Wayne, IN	\$ 845	\$ 400	\$ 301	8.39%	\$ 9,390	\$ 85,355	\$ 29	\$ 688	\$ 785
Jacksonville, FL	\$ 989	\$ 400	\$ 274	8.39%	\$ 10,990	\$ 99,899	\$ 34	\$ 805	\$ 919
Lincoln, NE	\$ 1,057	\$ 400	\$ 271	8.39%	\$ 11,740	\$ 106,717	\$ 36	\$ 860	\$ 981
Norfolk, VA*	\$ 1,200	\$ 400	\$ 377	8.39%	\$ 13,330	\$ 121,173	\$ 41	\$ 977	\$ 1,114
Pensacola, FL	\$ 945	\$ 400	\$ 321	8.39%	\$ 10,500	\$ 95,445	\$ 33	\$ 769	\$ 878
Newport, RI	\$ 1,422	\$ 400	\$ 390	8.39%	\$ 15,800	\$ 143,622	\$ 49	\$ 1,157	\$ 1,321
San Diego, CA	\$ 2,687	\$ 400	\$ 247	8.39%	\$ 29,860	\$ 271,427	\$ 93	\$ 2,188	\$ 2,496
Washington, DC	\$ 1,925	\$ 400	\$ 354	8.39%	\$ 21,390	\$ 194,435	\$ 66	\$ 1,567	\$ 1,788

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

Location	Equity Gained from Home Sale	Equity Gained from Mortgage Payments	Interest Paid in 2001	Interest Paid in 2002	Interest Paid in 2003	Interest Paid over 3 years	2001 Federal Tax Credit Interest Paid over 3 years	2002 Federal Tax Credit Interest Paid over 3 years	2003 Federal Tax Credit Interest Paid over 3 years
Atlanta, GA	\$ 13,761	\$ 3,232	\$ 10,696	\$ 10,610	\$ 10,516	\$ 31,822	\$ 149	\$ 136	\$ 122
Biloxi/Gulfport, MS	\$ 9,518	\$ 2,236	\$ 7,398	\$ 7,338	\$ 7,273	\$ 22,009	\$ -	\$ -	\$ -
Charleston, SC	\$ 14,951	\$ 3,512	\$ 11,621	\$ 11,527	\$ 11,425	\$ 34,573	\$ 288	\$ 274	\$ 259
Colorado Springs, CO	\$ 20,863	\$ 4,036	\$ 13,355	\$ 13,247	\$ 13,130	\$ 39,731	\$ 548	\$ 532	\$ 514
Columbia, SC	\$ 11,481	\$ 2,697	\$ 8,924	\$ 8,852	\$ 8,773	\$ 26,549	\$ -	\$ -	\$ -
Ft Wayne, IN	\$ 11,304	\$ 2,187	\$ 7,236	\$ 7,178	\$ 7,114	\$ 21,528	\$ -	\$ -	\$ -
Jacksonville, FL	\$ 10,896	\$ 2,559	\$ 8,469	\$ 8,401	\$ 8,326	\$ 25,196	\$ -	\$ -	\$ -
Lincoln, NE	\$ 14,134	\$ 2,734	\$ 9,047	\$ 8,974	\$ 8,895	\$ 26,916	\$ -	\$ -	\$ -
Norfolk, VA*	\$ 13,216	\$ 3,104	\$ 10,272	\$ 10,190	\$ 10,100	\$ 30,562	\$ 86	\$ 73	\$ 60
Pensacola, FL	\$ 10,410	\$ 2,445	\$ 8,091	\$ 8,026	\$ 7,955	\$ 24,073	\$ -	\$ -	\$ -
Newport, RI	\$ (612)	\$ 3,679	\$ 12,176	\$ 12,077	\$ 11,971	\$ 36,224	\$ 371	\$ 357	\$ 341
San Diego, CA	\$ 21,245	\$ 6,954	\$ 23,010	\$ 22,825	\$ 22,623	\$ 68,458	\$ 1,997	\$ 1,969	\$ 1,938
Washington, DC	\$ 21,207	\$ 4,981	\$ 16,483	\$ 16,350	\$ 16,206	\$ 49,040	\$ 1,017	\$ 998	\$ 976

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

Location	Homeowner Out-of-Pocket (BAH-Mortgage-Utilities)	Homeowner Equity Gain/Loss over 3 years	Stakeholders			
			Homeowner	Finance Company	Realtors	Government
			Gain/Loss Out of-Pocket minus Equity Gain/Loss	Interest + Origination	6% Closing Cost	Amount Paid in BAH
Atlanta, GA	\$ (5,990)	\$ 17,402	\$ 11,412	\$ 33,210	\$ 17,482	(\$45,240)
Biloxi/Gulfport, MS	\$ (12,921)	\$ 11,753	\$ (1,168)	\$ 22,969	\$ 12,091	(\$28,200)
Charleston, SC	\$ (28,148)	\$ 19,283	\$ (8,865)	\$ 36,081	\$ 18,993	(\$29,832)
Colorado Springs, CO	\$ (28,120)	\$ 26,494	\$ (1,626)	\$ 41,464	\$ 22,048	(\$33,060)
Columbia, SC	\$ (14,771)	\$ 14,177	\$ (594)	\$ 27,707	\$ 14,585	(\$32,676)
Ft Wayne, IN	\$ (13,691)	\$ 13,491	\$ (200)	\$ 22,467	\$ 11,946	(\$25,392)
Jacksonville, FL	\$ (11,583)	\$ 13,455	\$ 1,872	\$ 26,295	\$ 13,842	(\$31,344)
Lincoln, NE	\$ (17,026)	\$ 16,868	\$ (159)	\$ 28,090	\$ 14,936	(\$28,068)
Norfolk, VA*	\$ (23,086)	\$ 16,540	\$ (6,547)	\$ 31,895	\$ 16,789	(\$30,588)
Pensacola, FL	\$ (16,747)	\$ 12,855	\$ (3,892)	\$ 25,123	\$ 13,225	(\$26,424)
Newport, RI	\$ (23,583)	\$ 4,136	\$ (19,447)	\$ 37,804	\$ 18,923	(\$37,992)
San Diego, CA	\$ (47,104)	\$ 34,102	\$ (13,002)	\$ 71,444	\$ 37,107	(\$51,660)
Washington, DC	\$ (22,803)	\$ 29,179	\$ 6,376	\$ 51,179	\$ 26,940	(\$54,300)

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

Location	Market Rent 3 BR 2001	Market Rent (.3%/year decrease till 2004, 2.1% increase till 2010, 3% increase till 2016, 3.5% increase till 2021)				2004 Property Mgt Fee (10% rent)	2010 Property Mgt Fee (10% rent)	2016 Property Mgt Fee (10% rent)	2021 Property Mgt Fee (10% rent)	Property Maintenance Costs (annual) ²³	Vacancy Rate**
		2004	2010	2016	2021						
Atlanta, GA	\$ 949	\$ 940	\$ 1,059	\$ 1,250	\$ 1,468	\$ 94	\$ 106	\$ 125	\$ 147	\$1,100	11.6%
Biloxi/Gulfport, MS	\$ 672	\$ 666	\$ 750	\$ 885	\$ 1,040	\$ 67	\$ 75	\$ 88	\$ 104	\$1,100	13.2%
Charleston, SC	\$ 714	\$ 708	\$ 797	\$ 940	\$ 1,105	\$ 71	\$ 80	\$ 94	\$ 110	\$1,100	14.1%
Colorado Springs, CO	\$ 884	\$ 876	\$ 986	\$ 1,164	\$ 1,368	\$ 88	\$ 99	\$ 116	\$ 137	\$1,100	6.1%
Columbia, SC	\$ 854	\$ 846	\$ 953	\$ 1,124	\$ 1,321	\$ 85	\$ 95	\$ 112	\$ 132	\$1,100	14.1%
Ft Wayne, IN	\$ 655	\$ 649	\$ 731	\$ 862	\$ 1,013	\$ 65	\$ 73	\$ 86	\$ 101	\$1,100	6.9%
Jacksonville, FL	\$ 756	\$ 749	\$ 844	\$ 995	\$ 1,170	\$ 75	\$ 84	\$ 100	\$ 117	\$1,100	9.0%
Lincoln, NE	\$ 500	\$ 496	\$ 558	\$ 658	\$ 774	\$ 50	\$ 56	\$ 66	\$ 77	\$1,100	6.6%
Norfolk, VA*	\$ 809	\$ 802	\$ 903	\$ 1,065	\$ 1,252	\$ 80	\$ 90	\$ 107	\$ 125	\$1,100	7.4%
Pensacola, FL	\$ 673	\$ 667	\$ 751	\$ 886	\$ 1,041	\$ 67	\$ 75	\$ 89	\$ 104	\$1,100	9.0%
Newport, RI	\$ 1,045	\$ 1,036	\$ 1,166	\$ 1,376	\$ 1,617	\$ 104	\$ 117	\$ 138	\$ 162	\$1,100	7.2%
San Diego, CA	\$ 1,119	\$ 1,109	\$ 1,249	\$ 1,473	\$ 1,731	\$ 111	\$ 125	\$ 147	\$ 173	\$1,100	7.2%
Washington, DC	\$ 1,145	\$ 1,135	\$ 1,278	\$ 1,508	\$ 1,771	\$ 113	\$ 128	\$ 151	\$ 177	\$1,100	6.7%

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

Location	17 Year Rental Expenses (rental period after 3 yr mark)	17 Year Rental Income (rental period after 3 yr mark)	17 Year Rent Equity Gain/Loss	Average Year Rent Equity Gain/Loss	Equity from home sale at yr 20***
Atlanta, GA	\$268,921	\$222,896	(\$46,025)	(\$2,707)	\$49,022
Biloxi/Gulfport, MS	\$197,910	\$145,437	(\$52,473)	(\$3,087)	\$33,906
Charleston, SC	\$292,328	\$152,925	(\$139,404)	(\$8,200)	\$53,260
Colorado Springs, CO	\$334,620	\$206,968	(\$127,652)	(\$7,509)	\$61,207
Columbia, SC	\$235,872	\$182,910	(\$52,963)	(\$3,115)	\$40,899
Ft Wayne, IN	\$193,937	\$152,047	(\$41,890)	(\$2,464)	\$33,164
Jacksonville, FL	\$223,551	\$171,533	(\$52,017)	(\$3,060)	\$38,815
Lincoln, NE	\$230,435	\$116,440	(\$113,995)	(\$6,706)	\$41,464
Norfolk, VA*	\$264,682	\$186,786	(\$77,896)	(\$4,582)	\$47,081
Pensacola, FL	\$213,281	\$152,701	(\$60,580)	(\$3,564)	\$37,084
Newport, RI	\$312,242	\$241,797	(\$70,446)	(\$4,144)	\$55,803
San Diego, CA	\$553,712	\$258,919	(\$294,793)	(\$17,341)	\$105,461
Washington, DC	\$409,875	\$266,362	(\$143,513)	(\$8,442)	\$75,546

A3- 8.39% Interest Rate Current Approach Financial Analysis (cont.)

Location	Stakeholders				On-Base Housing Stakeholders			
	Homeowner	Finance Company	Realtors & Support Industry	Government	Insurance +Utilities paid by servicemember	Gov't Annual Home Costs	Finance Company	Realtors & Support Industry
	Gain/Loss from 20 yr period	Gain from 20 yr interest	Gain from closing costs & fees	Amount Paid in BAH			Gain from 3 yr interest	Gain from closing costs & fees
Atlanta, GA	(\$2,585)	\$121,922	\$ 23,349	\$ (45,240)	(\$742)	(\$1,129)	0	0
Biloxi/Gulfport, MS	(\$31,488)	\$90,112	\$ 16,396	\$ (28,200)	(\$787)	(\$852)	0	0
Charleston, SC	(\$113,471)	\$141,551	\$ 20,349	\$ (29,832)	(\$800)	(\$894)	0	0
Colorado Springs, CO	(\$92,971)	\$162,672	\$ 24,390	\$ (33,060)	(\$676)	(\$1,064)	0	0
Columbia, SC	(\$26,835)	\$108,697	\$ 20,465	\$ (32,676)	(\$800)	(\$1,034)	0	0
Ft Wayne, IN	(\$22,417)	\$88,141	\$ 16,001	\$ (25,392)	(\$738)	(\$835)	0	0
Jacksonville, FL	(\$24,784)	\$103,159	\$ 18,560	\$ (31,344)	(\$704)	(\$936)	0	0
Lincoln, NE	(\$89,558)	\$110,200	\$ 14,958	\$ (28,068)	(\$701)	(\$680)	0	0
Norfolk, VA*	(\$53,682)	\$125,126	\$ 20,803	\$ (30,588)	(\$834)	(\$989)	0	0
Pensacola, FL	(\$40,242)	\$98,560	\$ 16,952	\$ (26,424)	(\$764)	(\$853)	0	0
Newport, RI	(\$37,158)	\$148,309	\$ 26,020	\$ (37,992)	(\$850)	(\$1,225)	0	0
San Diego, CA	(\$230,532)	\$280,285	\$ 35,627	\$ (51,660)	(\$671)	(\$1,299)	0	0
Washington, DC	(\$87,779)	\$200,781	\$ 30,957	\$ (54,300)	(\$805)	(\$1,325)	0	0

A4- Notes

Note: Pricing reflected sale price of all homes and did not account for variations in new homes being built, therefore HUD figures were used to calculate actual increase in value for existing homes.

Note: Existing home prices in Northeast actually decreased by .1% from 1990 to 2000. Washington, D.C. was placed in South region because the HUD report above indicates the housing market was robust.

Note: rents have been rising in cities but dropping in surrounding areas. Most bases are outside city therefore national average of .3% decrease is used for rents.

¹ BAH Rates obtained from <http://www.dfas.mil/money/milpay/pay/>

² Median Home Prices based on National Association of Realtors Report- "Median Sale Price of Existing Single-Family Homes for Metropolitan Areas"

³ Existing home sale based on HUD existing home price increases for 10 yr period from 1990-2000 from U.S. Housing Market Conditions, Second Quarter 2001: Historical Data, Table 8

⁴ Misc Home Costs from Opening-Closing Costs Analysis

⁵ Utility costs based on COL index multiplied by (\$100 electric, \$50 gas, \$50 cable, \$80 phone, \$30 water/sewer= total \$310)

⁶ Average Mortgage Rates based on 10 year period from 1989-1999 FHA 30 year fixed loan from HUD report: U.S. Housing Market Conditions, Second Quarter 2001: Historical Data, Table 14

⁷ Based on 2001 New home price+Opening Costs-Downpayment

⁸ Based on Mortgage calculator at http://www.mortgage-calculator-payment.com/mortgage/fix_rate_mortgage.php

⁹ Based on a married O-2 (over 2 yrs) earning \$35,647.20/year has a standard tax deduction= \$9,700, therefore interest must be greater than standard deduction for it to be beneficial. Income tax rate is 15%.

¹⁰ Mortgage and hazard insurance based on \$100/\$100000 home value (actual amount will vary dramatically based on plan selected); taxes based on 40% assessed value (purchase price)*2.85%

¹¹ Annual maintenance costs found at <http://rhol.org/rental/maintq&a.htm>

*2% inflation was used for 2001, 2002 because data was not available

** Vacancy Rate from HUD data for MSA. Note: actual vacancy rate used is 1/2 of listed rate because military personnel can frequently network with other military personnel to minimize vacancy.

*** Home sale based on market increase of 2% per year after 3 yr mark and closing costs are deducted (note: neighborhood prices typically increase to a point and then start decreasing as neighborhood ages)

Tax rates are based on O-2 with dependents (annual salary of O-2 w/ over 2 years service= \$35,647.20)

BAH Rates obtained from <http://www.dtic.mil/perdiem/bahform.html>

Market Rents found from HUD at <http://www.huduser.org/datasets/il/fmr00/> & http://realtimes.com/rtcpages/20030312_rentersmrkt.htm

A5- Summary

On-Base Housing Stakeholders				
Location	Service Member (Insurance +Utilities)	Gov't Annual Home Costs	Finance Company	Realtors & Support Industry
Atlanta, GA	(\$742)	(\$13,548)	\$0	\$0
Biloxi/Gulfport, MS	(\$787)	(\$10,224)	\$0	\$0
Charleston, SC	(\$800)	(\$10,728)	\$0	\$0
Colorado Springs, CO	(\$676)	(\$12,768)	\$0	\$0
Columbia, SC	(\$800)	(\$12,408)	\$0	\$0
Ft Wayne, IN	(\$738)	(\$10,020)	\$0	\$0
Jacksonville, FL	(\$704)	(\$11,232)	\$0	\$0
Lincoln, NE	(\$701)	(\$8,160)	\$0	\$0
Norfolk, VA*	(\$834)	(\$11,868)	\$0	\$0
Pensacola, FL	(\$764)	(\$10,236)	\$0	\$0
Newport, RI	(\$850)	(\$14,700)	\$0	\$0
San Diego, CA	(\$671)	(\$15,588)	\$0	\$0
Washington, DC	(\$805)	(\$15,900)	\$0	\$0

Apt/House Rental Stakeholders				
Location	Service Member (rent+utilities+ insurance)	Gov't Annual Home Costs	Finance Company	Realtors & Support Industry
Atlanta, GA	\$139	(\$45,240)	\$0	Varies
Biloxi/Gulfport, MS	(\$8,223)	(\$28,200)	\$0	Varies
Charleston, SC	(\$8,472)	(\$29,832)	\$0	Varies
Colorado Springs, CO	(\$7,792)	(\$33,060)	\$0	Varies
Columbia, SC	(\$10,668)	(\$32,676)	\$0	Varies
Ft Wayne, IN	(\$9,013)	(\$25,392)	\$0	Varies
Jacksonville, FL	(\$5,726)	(\$31,344)	\$0	Varies
Lincoln, NE	\$303	(\$28,068)	\$0	Varies
Norfolk, VA*	(\$12,095)	(\$30,588)	\$0	Varies
Pensacola, FL	(\$9,377)	(\$26,424)	\$0	Varies
Newport, RI	(\$13,656)	(\$37,992)	\$0	Varies
San Diego, CA	\$2,470	(\$51,660)	\$0	Varies
Washington, DC	\$346	(\$54,300)	\$0	Varies

A5- Summary (cont.)

Type of Housing	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
On-Base Option	(\$764)	\$0	\$0	(\$30,708)
Apt/House Rental Option	(\$9,377)	\$0	Varies	\$26,424
Interest Rate= 6%				
Purchase/ Sell Home Option	\$3,066	\$18,149	\$13,225	\$26,424
Purchase/ Rent Home Option	\$4,610	\$66,103	\$16,952	\$26,424
Interest Rate= 8.39%				
Purchase/ Sell Home Option	(\$3,908)	\$25,123	\$13,225	\$26,424
Purchase/ Rent Home Option	(\$40,352)	\$97,320	\$16,952	\$26,424
Location: Pensacola, FL				

6% Interest Rate				
Purchase - Sell Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	\$18,725	\$23,991	\$17,482	(\$45,240)
Biloxi/Gulfport, MS	\$5,194	\$16,593	\$12,091	(\$28,200)
Charleston, SC	\$307	\$26,065	\$18,993	(\$29,832)
Colorado Springs, CO	\$8,263	\$29,954	\$22,048	(\$33,060)
Columbia, SC	\$7,079	\$20,015	\$14,585	(\$32,676)
Ft Wayne, IN	\$6,023	\$16,230	\$11,946	(\$25,392)
Jacksonville, FL	\$9,155	\$18,996	\$13,842	(\$31,344)
Lincoln, NE	\$7,620	\$20,292	\$14,936	(\$28,068)
Norfolk, VA	\$2,067	\$23,041	\$16,789	(\$30,588)
Pensacola, FL	\$3,066	\$18,149	\$13,225	(\$26,424)
Newport, RI	(\$10,046)	\$27,309	\$18,923	(\$37,992)
San Diego, CA	\$3,809	\$51,611	\$37,107	(\$51,660)
Washington, DC	\$18,418	\$36,971	\$26,940	(\$54,300)

A5- Summary (cont.)

6% Interest Rate				
Purchase - Rent Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	\$46,455	\$87,383	\$23,349	(\$45,240)
Biloxi/Gulfport, MS	\$9,518	\$60,438	\$16,396	(\$28,200)
Charleston, SC	(\$49,879)	\$94,939	\$20,349	(\$29,832)
Colorado Springs, CO	(\$20,539)	\$109,103	\$24,390	(\$33,060)
Columbia, SC	\$22,629	\$72,903	\$20,465	(\$32,676)
Ft Wayne, IN	\$17,694	\$59,115	\$16,001	(\$25,392)
Jacksonville, FL	\$22,159	\$69,189	\$18,560	(\$31,344)
Lincoln, NE	(\$39,401)	\$73,921	\$14,958	(\$28,068)
Norfolk, VA	\$3,037	\$83,923	\$20,803	(\$30,588)
Pensacola, FL	\$4,610	\$66,103	\$16,952	(\$26,424)
Newport, RI	\$29,264	\$99,470	\$26,020	(\$37,992)
San Diego, CA	(\$105,960)	\$187,987	\$35,627	(\$51,660)
Washington, DC	\$1,457	\$134,663	\$30,957	(\$54,300)

A5- Summary (cont.)

8.39% Interest Rate				
House Purchase-Sell Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	\$11,390	\$33,210	\$17,482	(\$45,240)
Biloxi/Gulfport, MS	(\$1,183)	\$22,969	\$12,091	(\$28,200)
Charleston, SC	(\$8,888)	\$36,081	\$18,993	(\$29,832)
Colorado Springs, CO	(\$1,653)	\$41,464	\$22,048	(\$33,060)
Columbia, SC	(\$612)	\$27,707	\$14,585	(\$32,676)
Ft Wayne, IN	(\$214)	\$22,467	\$11,946	(\$25,392)
Jacksonville, FL	\$1,855	\$26,295	\$13,842	(\$31,344)
Lincoln, NE	(\$177)	\$28,090	\$14,936	(\$28,068)
Norfolk, VA	(\$6,568)	\$31,895	\$16,789	(\$30,588)
Pensacola, FL	(\$3,908)	\$25,123	\$13,225	(\$26,424)
Newport, RI	(\$19,472)	\$37,804	\$18,923	(\$37,992)
San Diego, CA	(\$13,048)	\$71,444	\$37,107	(\$51,660)
Washington, DC	\$6,342	\$51,179	\$26,940	(\$54,300)

8.39% Interest Rate				
House Purchase-Rent Stakeholders				
Location	Service Member	Finance Company	Realtors & Support Industry	Gov't 3 yr BAH Costs
Atlanta, GA	(\$2,729)	\$120,282	\$23,349	(\$45,240)
Biloxi/Gulfport, MS	(\$31,588)	\$88,978	\$16,396	(\$28,200)
Charleston, SC	(\$113,628)	\$139,770	\$20,349	(\$29,832)
Colorado Springs, CO	(\$93,151)	\$160,625	\$24,390	(\$33,060)
Columbia, SC	(\$26,956)	\$107,329	\$20,465	(\$32,676)
Ft Wayne, IN	(\$22,515)	\$87,032	\$16,001	(\$25,392)
Jacksonville, FL	(\$24,899)	\$101,861	\$18,560	(\$31,344)
Lincoln, NE	(\$89,680)	\$108,813	\$14,958	(\$28,068)
Norfolk, VA	(\$53,821)	\$123,552	\$20,803	(\$30,588)
Pensacola, FL	(\$40,352)	\$97,320	\$16,952	(\$26,424)
Newport, RI	(\$37,322)	\$146,443	\$26,020	(\$37,992)
San Diego, CA	(\$230,843)	\$276,759	\$35,627	(\$51,660)
Washington, DC	(\$88,002)	\$198,255	\$30,957	(\$54,300)

APPENDIX B

TYPICAL MILITARY CAREER

Typical Navy Civil Engineer Officer Career			
Location	Rank	# of Years	Yrs in Community
Pensacola, FL	O-1/O-2	3	3
CBC Gulfport, MS	O-2/O-3	2	5
Overseas	O-3	3	5
San Diego, CA	O-3	3	8
CBC Gulfport, MS	O-4	2	10
Overseas	O-4/O-5	3	10
CBC Gulfport, MS	O-5	2	12
Washington DC	O-5/O-6	3	15
Total Years=		21	
Typical Navy Submarine Officer Career ²			
Location	Rank	# of Years	Yrs in Community
Charleston, SC	O-1	1	1
Groton, CT	O-2/O-3	3	3
Guam	O-3	3	3
San Diego, CA	O-3	3	3
Pearl Harboe, HI	O-4	3	3
Kings Bay, GA	O-4/O-5	3	3
Diego Garcia	O-5	3	3
Washington DC	O-5/O-6	3	3
Total Years=		22	
Typical Navy Aviation Officer Career ³			
Location	Rank	# of Years	Yrs in Community
Pensacola, FL	O-1/O-2	2	2
Jacksonville, FL	O-2/O-3	3	3
Sigonella, Italy	O-3	3	3
Fallon, NV	O-3	3	3
Brunswick, ME	O-4	3	3

Typical Military Career (cont.)

Atsugi, Japan	O-4/O-5	3	3
Norfolk, VA	O-5	3	3
Washington DC	O-5/O-6	3	3
Total Years=		23	
Typical Navy Surface Officer Career⁴			
Location	Rank	# of Years	Yrs in Community
Newport, RI	O-1	1	1
Norfolk, VA	O-2/O-3	3	3
San Diego, CA	O-3	3	3
Guam	O-3	3	3
Pascagola, MS	O-4	3	3
Pear Harbor, HI	O-4/O-5	3	3
Washington DC	O-5	3	3
Bangor, ME	O-6	3	3
Total Years=		22	

¹ Initial training schools found from <http://www.navy.com/officer>

² Submarine bases found from <http://www.rontini.com/ports.html>

³ Aviation bases found from <http://www.globemaster.de/bases.html>

⁴ Surface bases found from http://www.military.com/InstallationGuides/ChooseInstallation?lb_service_code=Navy

APPENDIX C

CURRENT NAVY PUBLIC-PRIVATE VENTURES (PPV)

Below are examples of current Navy Public-Private Ventures:

C1- General Information and Facts

C2- List of Navy and Marine Corps PPV

C3- Navy Region Northeast

C1- General Information and Facts

General Information

PPV Defined:

PPV- Public/Private Venture- is a partnership between the Department of the Navy (DON) and a private company in which the private company may own, build, revitalize, repair, and manage housing units and make them available to military families on a preferential basis.

WHY PPV?

Limited financial resources coupled with aging housing units and a large backlog of maintenance and repairs make providing high-quality housing for service members difficult for the DON. Through the PPV arrangement, the DON can build and repair housing units more quickly and provide a higher level of maintenance to military families than is possible using traditional construction and management methods.

HOW IS PPV HOUSING DIFFERENT FROM MILITARY HOUSING?

- The housing is owned and managed by a private company
- Service members will sign a 1-year lease (unless they have orders for less than 1 year remaining in the New Orleans area, in which case the lease term is tailored to reflect the time remaining)
- Service members receive basic allowance for housing (BAH) and pay rent directly to the landlord
- A private management company handles all maintenance and service calls

HOW IS PPV HOUSING SIMILAR TO MILITARY HOUSING?

- All leases contain the "Military Addendum"
- Service members continue to live in a military community
- For "normal" utility use, BAH will cover rent and utility (gas and electric) bills
- Cable TV and phone remain the service member's responsibility
- Community policies are patterned after existing DON policies
- The DON pays the cost of moving into PPV units

For more information on PPV, please visit <http://www.hsgnavfac.com/ppv/>.

Figure 6- General PPV Information (N. O. F. Housing, 2004)

C1- General Information and Facts (cont.)

Sailors & Marines Frequently Asked Questions

Q: What housing choices do I have?

A: Based upon housing availability at a particular installation you may be able to choose from:

1. Community housing
2. Privatized or "PPV" housing
3. Military housing

Q: What is Privatized housing?

A: Privatized housing is also referred to as Public/Private Venture (PPV) housing in the Navy. PPV housing is owned by a private entity and governed by a business agreement in which the Navy has limited rights & responsibilities. The private entity is entirely responsible for the construction, renovation, maintenance and day-to-day management of the housing. PPV housing may be located on or off government property and may be former military housing.

Q: Who is privatizing their housing?

A: All of the services: Navy/USMC, Army and Air Force are privatizing their housing. You can see all the locations that have been privatized and are scheduled for privatization at the OSD website.

Q: Why are we privatizing our housing?

A: Privatized housing offers several advantages over traditional military housing:

1. It relies on the private sector to provide housing services versus duplicating this function within the Navy and allows the Navy to focus on its core mission requirements.
2. It reduces reliability on annual Family Housing funding appropriations, which historically have not kept pace with the funding required to maintain our Navy housing.
3. It attracts private investors to finance housing construction, renovations and maintenance which allows the Navy to reduce housing deficits, upgrade aging homes, and perform needed maintenance much quicker than through annual military family housing appropriations.

Q: How is privatized housing similar to military housing?

A: A few of the similarities are:

1. Zero out of pocket expenses for residents; rent is based on BAH
2. You will continue to live in a military community
3. Government pays for the cost of moves into PPV units for eligible service members
4. You will continue to go to the Housing Welcome Center for housing information
5. The Housing Welcome Center will receive your application for PPV housing and will refer you to the Property Management Company

C1- General Information and Facts (cont.)

Q: How is privatized housing different from military housing?

A: Units are managed and operated by a private property management company.

1. You must sign a lease. The lease will include a "military clause".
2. You will receive BAH and pay rent directly to the property manager
3. The property management company handles all resident matters, including maintenance

Q: What will my rent be?

A: Your rent and estimated utilities is based upon your BAH rate. Rents are based upon the projected BAH and are targeted to be "zero-out-of-pocket" expense if the service member uses reasonable amounts of utilities.

Q: What happens if I don't pay my rent?

A: Here is what could happen:

1. You could be evicted.
2. You could develop a poor credit rating and be denied credit.

Q: Will I have to pay for Utilities?

A: Yes, you'll have to pay for utilities. Some "utilities and services" (for example water and trash removal) may be included as part of your rent. Others (for example electricity and gas) may be your responsibility to pay for directly. Some locations while transitioning from military to PPV housing may have all utilities included in the rent, but this targeted to be phased out over time as individual homes are metered for their utilities

Q: Will I have to pay deposits?

A: Although the goal is to limit deposits (security and pet) they may be required based upon the local lease requirements.

Q: Where can I get more information?

A: Here are some resources for more information:

1. Your local housing office.
2. The Navy Housing One Stop web site.
3. The Office of the Secretary Defense web site.

Figure 7- Frequently Asked Questions Regarding PPV (C. Housing, 2004b)

C2- Navy and Marine Corps PPV Projects

Existing Navy Public-Private Venture Family Housing Projects

Many of these PPV's were awarded with different parameters. Some PPV's have housing located on base, some off-base and some are a combination. In addition, some the PPV's require the service member to pay the rent and some are set up with a direct allotment from the Navy.

Navy Region Southeast - Corpus Christi/Kingsville, TX

- Awarded to Landmark/Capstone (15 year deal)
- Limited Partnership
- Includes Government differential lease payments
- 404 new units constructed on private land
- Executed in July 1996

Navy Region Northwest - Everett, WA Phase I:

- Awarded to Arlington/Dujardin (10 year deal)
- Limited Partnership
- Includes Government differential lease payments
- 185 new units constructed on private land
- Executed in March 1997

USMC - Camp Pendleton Phase I:

- Awarded to Hunt
- Direct loan
- 512 existing units privatized
- 200 units renovated, 312 units replaced
- 200 new units constructed
- 712 units end state
- Executed in November 2000

Navy Region Southeast - Kingsville, TX:

- Awarded to Hunt (30 year deal)
- Limited Partnership
- Includes Government direct loan
- 150 new units constructed on private land
- Executed in November 2000

Navy Region Northwest - Everett, WA Phase II:

- Awarded to Gateway/Pinnacle (30 years)
- Limited Partnership
- 288 new units constructed on private land
- Executed in December 2000

Navy Region Southwest - San Diego, CA - Phase I:

- Awarded to Lincoln/Clark

C2- Navy and Marine Corps PPV Projects (cont.)

- Limited Liability Company (LLC)
- 2,660 existing units privatized
- 1,058 units renovated, 812 new replacement units
- 588 new units constructed
- 3,248 units end state
- Executed in August 2001

Navy Region Southeast - New Orleans, LA:

- Awarded to Patrician Development
- Limited Liability Company (LLC)
- 416 existing units privatized. Another 82 units conveyed with underlying land.
- 216 units renovated
- 519 new units constructed
- 935 units end state
- Executed in October 2001

Navy Region Southeast - South Texas, TX, (NAS Corpus Christi & NS Ingleside):

- Awarded to Landmark/Capstone
- Limited Liability Company (LLC)
- 537 existing units privatized
- 14 units renovated
- 422 units replaced
- 124 new units constructed
- 665 units end state
- Executed in February 2002

USMC - MCAS Beaufort, MCRD Parris Island and NH Beaufort, SC:

- Awarded to Actus Lend Lease
- Limited Liability Company (LLC)
- 1,558 existing units privatized
- 331 units replaced
- 1,227 units renovated
- 160 new units constructed
- 1,718 units end state
- Executed in March 2003

Navy Region Southwest - San Diego, CA - Phase II

- Awarded to Lincoln/Clark (under Phase I reserved rights)
- Limited Liability Company (LLC)
- 3,302 existing units privatized
- Renovate 1,072 units
- Demolish 545 units, 460 new units constructed
- 3,217 units end state
- Executed in May 2003

C2- Navy and Marine Corps PPV Projects (cont.)

USMC - Camp Pendleton - Phase II/Quantico, VA; MCB Camp Pendleton, CA

- Hunt/Fluor Lincoln Clark Family Communities
- Limited Liability Company (LLC)
- 3,320 existing units to be privatized
- Renovate 2491 units
- 829 units replaced
- 77 units of deficit construction
- 3,397 units end state (this phase only)
- Executed in September 2003

MCB Quantico, VA

- Hunt/Fluor Lincoln Clark Family Communities
- Limited Liability Company (LLC)
- 1,311 existing units to be privatized
- Demolition of 1,167 units and replacement with 993 units
- Renovate 144 units
- 1,137 units end state
- Executed September 2003

Navy Region Hawaii - Phase I

- Awarded to Hawaii Military Communities
- Limited Liability Company (LLC)
- 2,003 existing units privatized
- Demolish 961 units and replace with 906
- Renovate 190 units
- End state (this phase): 1,948 units
- Executed in May 2004

MCAS Yuma, AZ/Camp Pendleton, CA Phase III

- Rights reserved Camp Pendleton II PPV Project
- 897 existing units
- 220 units to be replaced
- 290 units to be renovated
- 897 units end state
- Executed: Oct 2004

Northeast Regional - New London, Newport, Portsmouth, Saratoga Springs, Brunswick, Fairfield, Lakehurst, Earle, Mitchel

- Awarded to GMH Military Housing
- Limited Liability Company (LLC)
- 5,607 existing units privatized
- Demolish 1,861 units and replace with 1,125 units
- 952 units renovated, 48 units converted (24)

C2- Navy and Marine Corps PPV Projects (cont.)

- 569 units divested or transferred
- 4,264 units end state
- Executed in November 2004

Northwest Regional - Phase I (Bangor, Bremerton, Everett, Whidbey, Keyport, Jim Creek & Indian Island)

- Awarded to American Eagle Northwest, LLC
- 3,098 units to be privatized
- Demolish 585 units and replace with 572 units
- 133 units divested
- 1,639 units renovated
- Deficit Reduction: 33 Units
- 2,985 units end state
- Executed: January 2005

Figure 8- Navy and Marine Corps PPV Projects (C. Housing, 2004b)

C3- Navy Region Northeast

Navy Awards Largest Public-Private Venture Housing Initiative to Date

Service members in Navy Region Northeast to receive new housing



The Department of the Navy (DoN) and GMH Military Housing-Navy Northeast LLC entered into the Navy's newest public-private venture (PPV) housing project. With the goal of providing quality and affordable housing for military families in the Northeast, this project is the largest PPV contract awarded by the Navy to date. The project privatizes approximately 5,600 Navy homes spanning seven Naval installations, five states, and 13 communities.

"Navy family housing privatization initiatives have proven to be very successful and are an important tool in the Navy's efforts to put quality homes in the hands of Sailors faster," said RADM Jeffrey B. Cassias, Commander, Navy Region Northeast. "I'm excited about the plans our region and partner have in store for our many deserving military families, and I know those families are excited about the new and improved housing and communities."

The housing locations are at Naval Air Station Brunswick, Brunswick, Maine; Naval Shipyard Portsmouth, Kittery, Maine; Naval Station Newport, Newport, R.I.; Naval Submarine Base New London, Groton, Conn.; Naval Support Unit Saratoga Springs, Saratoga Springs, N.Y.; Naval Weapons Station Earle, Colts Neck, N.J.; Naval Air Engineering Center Lakehurst, Lakehurst, N.J.; Navy Housing Complex, Fairfield, Conn.; and Navy Housing Complex Mitchel Manor and Mitchel Field, Long Island, N.Y.

This public-private venture will pursue a comprehensive six-year Initial Development Plan (IDP) that will invest more than \$600 million into housing throughout the region. The GMH Military Housing-Navy Northeast Housing, LLC, will replace or renovate more than 2,400 homes. Replacement homes will be safe, high-quality, energy-efficient, three-and four-bedroom, single-family homes, town homes, or duplexes. Additional amenities, such as recreational areas, tot lots, and community centers will be provided for housing residents.

The National Defense Authorization Act for Fiscal Year 1996, Section 2801, provides a series of authorities that allow the Navy and other military services to enter into long-term agreements with private industry to design, finance, construct, own, operate, maintain and professionally manage public/private housing ventures.

Since 1996, NAVFAC has executed 14 Navy and Marine Corps privatization projects.

Source: NAVFAC HQ Public Affairs



Figure 9- Navy Region Northeast PPV (Affairs, 2004)

APPENDIX D

MILITARY COMMUNITY LLC FINANCIAL ANALYSIS

The Military Community LLC financial analysis is composed of the following components:

D1- Breakdown of Community Housing Locations

D2- 15-Yr Financial Analysis for Service Member

D3- 20-Yr Financial Analysis for Military Community LLC

D4- Financial Comparison between 7% Military Community LLC home costs in Pensacola versus 8.39% Service Member Interest Rate

D5- Investor Return on Investment Analysis

D6- Summary of Stakeholder Benefits

D1- Breakdown of Community Housing Locations

Location	2005 BAH ¹	2004 Median New Home Price ²	Bulk Construction Savings ³	Military Community LLC Costs								
				Adjusted New Home Cost	Annual Insurance & Taxes ⁵	Annual Maintenance ⁶	Payback Period (yrs) ⁴	# of Homes ⁷	Start-up Capital ⁸	Annual Mortgage Payments ⁹	15 year Mortgage Interest ¹⁰	
Atlanta, GA	\$ 1,379	\$ 152,200	10%	\$ 136,980	\$ 1,887	\$ 880	9.9					
Biloxi/Gulfport, MS	\$ 935	\$ 107,400	10%	\$ 96,660	\$ 1,332	\$ 880	10.7	50	\$ 4,833,000	\$ 451,111	\$ 1,933,671	
Charleston, SC	\$ 1,110	\$ 177,100	10%	\$ 159,390	\$ 2,196	\$ 880	15.6		\$ -			
Colorado Springs, CO	\$ 1,107	\$ 181,400	10%	\$ 163,260	\$ 2,249	\$ 880	16.1		\$ -			
Columbia, SC	\$ 1,004	\$ 121,500	10%	\$ 109,350	\$ 1,507	\$ 880	11.3		\$ -			
Ft Wayne, IN	\$ 855	\$ 89,600	10%	\$ 80,640	\$ 1,111	\$ 880	9.7		\$ -			
Jacksonville, FL	\$ 1,108	\$ 143,600	10%	\$ 129,240	\$ 1,781	\$ 880	12.2	50	\$ 6,462,000	\$ 603,162	\$ 2,585,430	
Lincoln, NE	\$ 1,085	\$ 127,700	10%	\$ 114,930	\$ 1,583	\$ 880	10.9		\$ -			
Norfolk, VA*	\$ 1,074	\$ 142,400	10%	\$ 128,160	\$ 1,766	\$ 880	12.5	125	\$ 16,020,000	\$ 1,495,304	\$ 6,409,561	
Pensacola, FL	\$ 972	\$ 121,400	10%	\$ 109,260	\$ 1,505	\$ 880	11.8	100	\$ 10,926,000	\$ 509,916	\$ 2,185,732	
Newport, RI	\$ 1,642	\$ 239,900	10%	\$ 215,910	\$ 2,975	\$ 880	13.6	35	\$ 7,556,850	\$ 705,355	\$ 3,023,476	
San Diego, CA	\$ 1,830	\$ 483,000	10%	\$ 434,700	\$ 5,989	\$ 880	28.8	125	\$ 54,337,500	\$ 5,071,853	\$ 21,740,295	
Washington, DC	\$ 1,890	\$ 300,700	10%	\$ 270,630	\$ 3,729	\$ 880	15.0	200	\$ 54,126,000	\$ 5,052,112	\$ 21,655,675	
Total=									\$ 154,261,350	\$ 13,888,813	\$ 59,533,841	

¹ BAH based on 2005 rate for an O-2 with dependents using <http://www.dfas.mil/money/milpay/pay/>

² Median Home Prices based on National Association of Realtors Report- "Median Sale Price of Existing Single-Family Homes for Metropolitan Areas"

³ Based on assumption that large community construction will result in savings from mass construction and incentives for construction in economically depressed region.

⁴ Based on (Adjusted New Home Price)/(O2 BAH*12months-Annual Insurance & Taxes-Annual Maintenance)

⁵ Based on Fulton County, GA rates from website www.fultoncountytaxes.org which uses a multiplier per \$1000 home value

⁶ Annual maintenance costs found at <http://rhol.org/rental/maintq&a.htm> and a 20% reduction was applied due to savings by performing maintenance in bulk

⁷ Based on a percentage of the total number of officers stationed at each location.

⁸ Start up costs based on Adjusted Home Costs times # of homes in each phase

⁹ Mortgage payments based on 15 year fixed mortgage, 0 down payment, at 8.39% interest rate (<http://www.hsh.com/show/comfort-comm.html>)

using Mortgage calculator at http://www.mortgage-calculator-payment.com/mortgage/fix_rate_mortgage.php

Note: 8.39% interest rate is based on average mortgage rates during 10 year period from 1989-1999 FHA 30 year fixed loan from HUD report: U.S. Housing Market Conditions, Second Quarter 2001: Historical Data, Table 14

¹⁰ Utility costs based on COL index multiplied by (\$100 electric, \$50 gas, \$35 cable, \$15 phone, \$30 water/sewer= total \$230)

¹¹ Maintenance & service costs based on \$880 annual maintenance cost/12 months plus \$20 monthly lawn service fee

¹² Service member equity for each location is based on 15-year loan calculations included in Appendix H.

¹¹ Finance company income based on 15-year loan calculations for each location found in Appendix H.

D1- Breakdown of Community Housing Locations (cont.)

Location	BAH Paid ²		Monthly Payment Breakdown			# of houses * utilities
	# of Years @ location	Total BAH received/paid	Maintenanc e & Service ¹¹	Utilities ¹⁰	Monthly Finance Payment	
Atlanta, GA			\$ 93	\$ 225	\$ 1,060	
Biloxi/Gulfport, MS	6	\$ 78,696	\$ 93	\$ 252	\$ 590	\$ 3,108,720
Charleston, SC			\$ 93	\$ 260	\$ 757	
Colorado Springs, CO			\$ 93	\$ 186	\$ 828	
Columbia, SC			\$ 93	\$ 260	\$ 651	
Ft Wayne, IN			\$ 93	\$ 223	\$ 539	
Jacksonville, FL			\$ 93	\$ 203	\$ 812	\$ 2,667,810
Lincoln, NE			\$ 93	\$ 201	\$ 791	
Norfolk, VA*	3	\$ 47,952	\$ 93	\$ 279	\$ 701	\$ 8,387,625
Pensacola, FL	3	\$ 33,660	\$ 93	\$ 239	\$ 640	\$ 5,973,180
Newport, RI			\$ 93	\$ 289	\$ 1,259	
San Diego, CA			\$ 93	\$ 184	\$ 1,553	
Washington, DC	3	\$ 86,904	\$ 93	\$ 262	\$ 1,534	\$ 12,807,480
Total= \$ 247,212						\$ 32,944,815

D1- Breakdown of Community Housing Locations (cont.)

Location	Service Member Equity Gained ¹²						Finance Company Income ¹³						
	1st Stay- Equity Gained	2nd Stay- Equity Gained	3rd Stay- Equity Gained	4th Stay- Equity Gained	5th Stay- Equity Gained	6th Stay- Equity Gained	1st Stay- Interest Received	2nd Stay- Interest Received	3rd Stay- Interest Received	4th Stay- Interest Received	5th Stay- Interest Received	6th Stay- Interest Received	
Atlanta, GA													
Biloxi/Gulfport, MS		\$7,220		\$8,215	\$8,921			\$16,108		\$18,329	\$19,903		
Charleston, SC													
Colorado Springs, CO													
Columbia, SC													
Ft Wayne, IN													
Jacksonville, FL													
Lincoln, NE													
Norfolk, VA*			\$15,497						\$32,455				
Pensacola, FL	\$10,878						\$22,782						
Newport, RI													
San Diego, CA													
Washington, DC						\$28,085						\$58,819	
							Principal Total=	\$78,815				Interest Total=	\$168,397

D2- 15-Yr Financial Analysis for Service Member

Spreadsheets modified from (Brueggeman, 2005)

Input Assumptions				Pensacola- 1st Stay				
Loan amount			\$95,574					
Initial interest rate			8.39%					
Loan term			15 years					
Points			0					
Monthly payment	\$	935						
Annual payment		\$11,220.00	(Assuming monthly payments)					
Annual constant		11.74%						
Effective cost (calculated below)		8.39%						
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
	0							(\$95,574)
1	1	\$95,574	\$935.00	8.39%	\$668	\$267	\$95,307	\$935
	2	\$95,307	935.00	8.39%	\$666	\$269	\$95,038	\$935
	3	\$95,038	935.00	8.39%	\$664	\$271	\$94,768	\$935
	4	\$94,768	935.00	8.39%	\$663	\$272	\$94,495	\$935
	5	\$94,495	935.00	8.39%	\$661	\$274	\$94,221	\$935
	6	\$94,221	935.00	8.39%	\$659	\$276	\$93,945	\$935
	7	\$93,945	935.00	8.39%	\$657	\$278	\$93,667	\$935
	8	\$93,667	935.00	8.39%	\$655	\$280	\$93,387	\$935
	9	\$93,387	935.00	8.39%	\$653	\$282	\$93,104	\$935
	10	\$93,104	935.00	8.39%	\$651	\$284	\$92,820	\$935
	11	\$92,820	935.00	8.39%	\$649	\$286	\$92,534	\$935
	12	\$92,534	935.00	8.39%	\$647	\$288	\$92,246	\$935
					\$7,893	\$3,327		
2	1	\$92,246	935.00	8.39%	\$645	\$290	\$91,956	\$935
	2	\$91,956	935.00	8.39%	\$643	\$292	\$91,664	\$935
	3	\$91,664	935.00	8.39%	\$641	\$294	\$91,370	\$935
	4	\$91,370	935.00	8.39%	\$639	\$296	\$91,074	\$935
	5	\$91,074	935.00	8.39%	\$637	\$298	\$90,776	\$935
	6	\$90,776	935.00	8.39%	\$635	\$300	\$90,475	\$935
	7	\$90,475	935.00	8.39%	\$633	\$302	\$90,173	\$935
	8	\$90,173	935.00	8.39%	\$630	\$305	\$89,868	\$935
	9	\$89,868	935.00	8.39%	\$628	\$307	\$89,562	\$935
	10	\$89,562	935.00	8.39%	\$626	\$309	\$89,253	\$935
	11	\$89,253	935.00	8.39%	\$624	\$311	\$88,942	\$935
	12	\$88,942	935.00	8.39%	\$622	\$313	\$88,629	\$935
					\$7,602	\$3,618		
3	1	\$88,629	935.00	8.39%	\$620	\$315	\$88,313	\$935
	2	\$88,313	935.00	8.39%	\$617	\$318	\$87,996	\$935
	3	\$87,996	935.00	8.39%	\$615	\$320	\$87,676	\$935
	4	\$87,676	935.00	8.39%	\$613	\$322	\$87,354	\$935
	5	\$87,354	935.00	8.39%	\$611	\$324	\$87,030	\$935
	6	\$87,030	935.00	8.39%	\$608	\$327	\$86,703	\$935
	7	\$86,703	935.00	8.39%	\$606	\$329	\$86,375	\$935
	8	\$86,375	935.00	8.39%	\$604	\$331	\$86,044	\$935
	9	\$86,044	935.00	8.39%	\$602	\$333	\$85,710	\$935
	10	\$85,710	935.00	8.39%	\$599	\$336	\$85,374	\$935
	11	\$85,374	935.00	8.39%	\$597	\$338	\$85,036	\$935
	12	\$85,036	935.00	8.39%	\$595	\$340	\$84,696	\$935
					\$7,287	\$3,933		
				3 yr total=		\$22,782	\$10,878	
				Effective Cost		8.39%		

D2- 15-Yr Financial Analysis for Service Member (cont.)

Input Assumptions				Gulfport- 2nd Stay				
Loan amount			\$99,356					
Initial Interest rate			8.39%					
Loan term			15 years					
Points			0					
Monthly payment	\$	972						
Annual payment		\$11,664.00	(Assuming monthly payments)					
Annual constant		11.74%						
Effective cost (calculated below)		8.39%						
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
	0							((\$99,356))
1	1	\$99,356	\$972.00	8.39%	\$695	\$277	\$99,078	\$972
	2	\$99,078	972.00	8.39%	\$693	\$279	\$98,799	\$972
	3	\$98,799	972.00	8.39%	\$691	\$281	\$98,518	\$972
	4	\$98,518	972.00	8.39%	\$689	\$283	\$98,235	\$972
	5	\$98,235	972.00	8.39%	\$687	\$285	\$97,950	\$972
	6	\$97,950	972.00	8.39%	\$685	\$287	\$97,662	\$972
	7	\$97,662	972.00	8.39%	\$683	\$289	\$97,373	\$972
	8	\$97,373	972.00	8.39%	\$681	\$291	\$97,082	\$972
	9	\$97,082	972.00	8.39%	\$679	\$293	\$96,789	\$972
	10	\$96,789	972.00	8.39%	\$677	\$295	\$96,494	\$972
	11	\$96,494	972.00	8.39%	\$675	\$297	\$96,196	\$972
	12	\$96,196	972.00	8.39%	\$673	\$299	\$95,897	\$972
					\$8,205	\$3,459		
2	1	\$95,897	972.00	8.39%	\$670	\$302	\$95,595	\$972
	2	\$95,595	972.00	8.39%	\$668	\$304	\$95,292	\$972
	3	\$95,292	972.00	8.39%	\$666	\$306	\$94,986	\$972
	4	\$94,986	972.00	8.39%	\$664	\$308	\$94,678	\$972
	5	\$94,678	972.00	8.39%	\$662	\$310	\$94,368	\$972
	6	\$94,368	972.00	8.39%	\$660	\$312	\$94,056	\$972
	7	\$94,056	972.00	8.39%	\$658	\$314	\$93,741	\$972
	8	\$93,741	972.00	8.39%	\$655	\$317	\$93,425	\$972
	9	\$93,425	972.00	8.39%	\$653	\$319	\$93,106	\$972
	10	\$93,106	972.00	8.39%	\$651	\$321	\$92,785	\$972
	11	\$92,785	972.00	8.39%	\$649	\$323	\$92,462	\$972
	12	\$92,462	972.00	8.39%	\$646	\$326	\$92,136	\$972
					\$7,903	\$3,761		
				2 yr total=	\$16,108	\$7,220	\$23,328	
						BAH Paid=	\$23,328	
3	1	\$92,136	972.00	8.39%	\$644	\$328	\$91,808	\$972
	2	\$91,808	972.00	8.39%	\$642	\$330	\$91,478	\$972
	3	\$91,478	972.00	8.39%	\$640	\$332	\$91,146	\$972
	4	\$91,146	972.00	8.39%	\$637	\$335	\$90,811	\$972
	5	\$90,811	972.00	8.39%	\$635	\$337	\$90,474	\$972
	6	\$90,474	972.00	8.39%	\$633	\$339	\$90,134	\$972
	7	\$90,134	972.00	8.39%	\$630	\$342	\$89,793	\$972
	8	\$89,793	972.00	8.39%	\$628	\$344	\$89,448	\$972
	9	\$89,448	972.00	8.39%	\$625	\$347	\$89,102	\$972
	10	\$89,102	972.00	8.39%	\$623	\$349	\$88,753	\$972
	11	\$88,753	972.00	8.39%	\$621	\$351	\$88,401	\$972
	12	\$88,401	972.00	8.39%	\$618	\$354	\$88,047	\$972
					\$7,575	\$4,089		
				3 yr total=	\$23,684	\$11,308		
				Effective Cost	8.39%			

D2- 15-Yr Financial Analysis for Service Member (cont.)

Input Assumptions				Norfolk- 3rd Stay				
Loan amount			\$136,154					
Initial Interest rate				8.39%				
Loan term				15 years				
Points				0				
Monthly payment	\$		1,332					
Annual payment		\$15,984.00	(Assuming monthly payments)					
Annual constant			11.74%					
Effective cost (calculated below)			8.39%					
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
	0							-\$136,154
1	1	\$136,154	\$1,332.00	8.39%	\$952	\$380	\$135,774	\$1,332
	2	\$135,774	1,332.00	8.39%	\$949	\$383	\$135,391	\$1,332
	3	\$135,391	1,332.00	8.39%	\$947	\$385	\$135,006	\$1,332
	4	\$135,006	1,332.00	8.39%	\$944	\$388	\$134,618	\$1,332
	5	\$134,618	1,332.00	8.39%	\$941	\$391	\$134,227	\$1,332
	6	\$134,227	1,332.00	8.39%	\$938	\$394	\$133,834	\$1,332
	7	\$133,834	1,332.00	8.39%	\$936	\$396	\$133,437	\$1,332
	8	\$133,437	1,332.00	8.39%	\$933	\$399	\$133,038	\$1,332
	9	\$133,038	1,332.00	8.39%	\$930	\$402	\$132,637	\$1,332
	10	\$132,637	1,332.00	8.39%	\$927	\$405	\$132,232	\$1,332
	11	\$132,232	1,332.00	8.39%	\$925	\$407	\$131,824	\$1,332
	12	\$131,824	1,332.00	8.39%	\$922	\$410	\$131,414	\$1,332
					\$11,244	\$4,740		
2	1	\$131,414	1,332.00	8.39%	\$919	\$413	\$131,001	\$1,332
	2	\$131,001	1,332.00	8.39%	\$916	\$416	\$130,585	\$1,332
	3	\$130,585	1,332.00	8.39%	\$913	\$419	\$130,166	\$1,332
	4	\$130,166	1,332.00	8.39%	\$910	\$422	\$129,744	\$1,332
	5	\$129,744	1,332.00	8.39%	\$907	\$425	\$129,319	\$1,332
	6	\$129,319	1,332.00	8.39%	\$904	\$428	\$128,891	\$1,332
	7	\$128,891	1,332.00	8.39%	\$901	\$431	\$128,460	\$1,332
	8	\$128,460	1,332.00	8.39%	\$898	\$434	\$128,026	\$1,332
	9	\$128,026	1,332.00	8.39%	\$895	\$437	\$127,590	\$1,332
	10	\$127,590	1,332.00	8.39%	\$892	\$440	\$127,150	\$1,332
	11	\$127,150	1,332.00	8.39%	\$889	\$443	\$126,707	\$1,332
	12	\$126,707	1,332.00	8.39%	\$886	\$446	\$126,260	\$1,332
					\$10,830	\$5,154		
				2 yr total=	\$22,074	\$9,894		
3	1	\$126,260	1,332.00	8.39%	\$883	\$449	\$125,811	\$1,332
	2	\$125,811	1,332.00	8.39%	\$880	\$452	\$125,359	\$1,332
	3	\$125,359	1,332.00	8.39%	\$876	\$456	\$124,903	\$1,332
	4	\$124,903	1,332.00	8.39%	\$873	\$459	\$124,445	\$1,332
	5	\$124,445	1,332.00	8.39%	\$870	\$462	\$123,983	\$1,332
	6	\$123,983	1,332.00	8.39%	\$867	\$465	\$123,518	\$1,332
	7	\$123,518	1,332.00	8.39%	\$864	\$468	\$123,049	\$1,332
	8	\$123,049	1,332.00	8.39%	\$860	\$472	\$122,577	\$1,332
	9	\$122,577	1,332.00	8.39%	\$857	\$475	\$122,103	\$1,332
	10	\$122,103	1,332.00	8.39%	\$854	\$478	\$121,624	\$1,332
	11	\$121,624	1,332.00	8.39%	\$850	\$482	\$121,143	\$1,332
	12	\$121,143	1,332.00	8.39%	\$847	\$485	\$120,658	\$1,332
					\$10,381	\$5,603		
				3 yr total=	\$32,455	\$15,497		
Effective Cost				8.39%				

D2- 15-Yr Financial Analysis for Service Member (cont.)

Input Assumptions		Gulfport- 4th Stay						
Loan amount		\$113,053						
Initial Interest rate		8.39%						
Loan term		15 years						
Points		0						
Monthly payment	\$ 1,106							
Annual payment	\$13,272	(Assuming monthly payments)						
Annual constant	11.74%							
Effective cost (calculated below)	8.39%							
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
	0							(\$113,053)
1	1	\$113,053	\$1,106	8.39%	\$790	\$316	\$112,737	\$1,106
	2	\$112,737	\$1,106	8.39%	\$788	\$318	\$112,420	\$1,106
	3	\$112,420	\$1,106	8.39%	\$786	\$320	\$112,100	\$1,106
	4	\$112,100	\$1,106	8.39%	\$784	\$322	\$111,777	\$1,106
	5	\$111,777	\$1,106	8.39%	\$782	\$324	\$111,453	\$1,106
	6	\$111,453	\$1,106	8.39%	\$779	\$327	\$111,126	\$1,106
	7	\$111,126	\$1,106	8.39%	\$777	\$329	\$110,797	\$1,106
	8	\$110,797	\$1,106	8.39%	\$775	\$331	\$110,466	\$1,106
	9	\$110,466	\$1,106	8.39%	\$772	\$334	\$110,132	\$1,106
	10	\$110,132	\$1,106	8.39%	\$770	\$336	\$109,796	\$1,106
	11	\$109,796	\$1,106	8.39%	\$768	\$338	\$109,458	\$1,106
	12	\$109,458	\$1,106	8.39%	\$765	\$341	\$109,117	\$1,106
					\$9,336	\$3,936		
2	1	\$109,117	\$1,106	8.39%	\$763	\$343	\$108,774	\$1,106
	2	\$108,774	\$1,106	8.39%	\$761	\$345	\$108,428	\$1,106
	3	\$108,428	\$1,106	8.39%	\$758	\$348	\$108,081	\$1,106
	4	\$108,081	\$1,106	8.39%	\$756	\$350	\$107,730	\$1,106
	5	\$107,730	\$1,106	8.39%	\$753	\$353	\$107,377	\$1,106
	6	\$107,377	\$1,106	8.39%	\$751	\$355	\$107,022	\$1,106
	7	\$107,022	\$1,106	8.39%	\$748	\$358	\$106,664	\$1,106
	8	\$106,664	\$1,106	8.39%	\$746	\$360	\$106,304	\$1,106
	9	\$106,304	\$1,106	8.39%	\$743	\$363	\$105,941	\$1,106
	10	\$105,941	\$1,106	8.39%	\$741	\$365	\$105,576	\$1,106
	11	\$105,576	\$1,106	8.39%	\$738	\$368	\$105,208	\$1,106
	12	\$105,208	\$1,106	8.39%	\$736	\$370	\$104,838	\$1,106
					\$8,993	\$4,279		
				2 yr total=	\$18,329	\$8,215	\$26,544	
						BAH Paid=	\$26,544	
3	1	\$104,838	\$1,106	8.39%	\$733	\$373	\$104,465	\$1,106
	2	\$104,465	\$1,106	8.39%	\$730	\$376	\$104,089	\$1,106
	3	\$104,089	\$1,106	8.39%	\$728	\$378	\$103,711	\$1,106
	4	\$103,711	\$1,106	8.39%	\$725	\$381	\$103,330	\$1,106
	5	\$103,330	\$1,106	8.39%	\$722	\$384	\$102,947	\$1,106
	6	\$102,947	\$1,106	8.39%	\$720	\$386	\$102,560	\$1,106
	7	\$102,560	\$1,106	8.39%	\$717	\$389	\$102,171	\$1,106
	8	\$102,171	\$1,106	8.39%	\$714	\$392	\$101,780	\$1,106
	9	\$101,780	\$1,106	8.39%	\$712	\$394	\$101,385	\$1,106
	10	\$101,385	\$1,106	8.39%	\$709	\$397	\$100,988	\$1,106
	11	\$100,988	\$1,106	8.39%	\$706	\$400	\$100,588	\$1,106
	12	\$100,588	\$1,106	8.39%	\$703	\$403	\$100,186	\$1,106
					\$8,620	\$4,652		
				3 yr total=	\$26,949	\$12,867		
				Effective Cost	8.39%			

D2- 15-Yr Financial Analysis for Service Member (cont.)

Input Assumptions				Gulfport- 5th Stay				
Loan amount			\$122,764					
Initial Interest rate			8.39%					
Loan term			15 years					
Points			0					
Monthly payment	\$	1,201						
Annual payment		\$14,412.00	(Assuming monthly payments)					
Annual constant		11.74%						
Effective cost (calculated below)		8.39%						
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
	0							(\$122,764)
1	1	\$122,764	\$1,201.00	8.39%	\$858	\$343	\$122,421	\$1,201
	2	\$122,421	1,201.00	8.39%	\$856	\$345	\$122,076	\$1,201
	3	\$122,076	1,201.00	8.39%	\$854	\$347	\$121,728	\$1,201
	4	\$121,728	1,201.00	8.39%	\$851	\$350	\$121,379	\$1,201
	5	\$121,379	1,201.00	8.39%	\$849	\$352	\$121,026	\$1,201
	6	\$121,026	1,201.00	8.39%	\$846	\$355	\$120,671	\$1,201
	7	\$120,671	1,201.00	8.39%	\$844	\$357	\$120,314	\$1,201
	8	\$120,314	1,201.00	8.39%	\$841	\$360	\$119,954	\$1,201
	9	\$119,954	1,201.00	8.39%	\$839	\$362	\$119,592	\$1,201
	10	\$119,592	1,201.00	8.39%	\$836	\$365	\$119,227	\$1,201
	11	\$119,227	1,201.00	8.39%	\$834	\$367	\$118,860	\$1,201
	12	\$118,860	1,201.00	8.39%	\$831	\$370	\$118,490	\$1,201
					\$10,138	\$4,274		
2	1	\$118,490	1,201.00	8.39%	\$828	\$373	\$118,117	\$1,201
	2	\$118,117	1,201.00	8.39%	\$826	\$375	\$117,742	\$1,201
	3	\$117,742	1,201.00	8.39%	\$823	\$378	\$117,364	\$1,201
	4	\$117,364	1,201.00	8.39%	\$821	\$380	\$116,984	\$1,201
	5	\$116,984	1,201.00	8.39%	\$818	\$383	\$116,601	\$1,201
	6	\$116,601	1,201.00	8.39%	\$815	\$386	\$116,215	\$1,201
	7	\$116,215	1,201.00	8.39%	\$813	\$388	\$115,826	\$1,201
	8	\$115,826	1,201.00	8.39%	\$810	\$391	\$115,435	\$1,201
	9	\$115,435	1,201.00	8.39%	\$807	\$394	\$115,041	\$1,201
	10	\$115,041	1,201.00	8.39%	\$804	\$397	\$114,645	\$1,201
	11	\$114,645	1,201.00	8.39%	\$802	\$399	\$114,245	\$1,201
	12	\$114,245	1,201.00	8.39%	\$799	\$402	\$113,843	\$1,201
					\$9,765	\$4,647		
			2 yr total=		\$19,903	\$8,921	\$28,824	
						BAH Paid=	\$28,824	
3	1	\$113,843	1,201.00	8.39%	\$796	\$405	\$113,438	\$1,201
	2	\$113,438	1,201.00	8.39%	\$793	\$408	\$113,030	\$1,201
	3	\$113,030	1,201.00	8.39%	\$790	\$411	\$112,619	\$1,201
	4	\$112,619	1,201.00	8.39%	\$787	\$414	\$112,206	\$1,201
	5	\$112,206	1,201.00	8.39%	\$785	\$416	\$111,789	\$1,201
	6	\$111,789	1,201.00	8.39%	\$782	\$419	\$111,370	\$1,201
	7	\$111,370	1,201.00	8.39%	\$779	\$422	\$110,947	\$1,201
	8	\$110,947	1,201.00	8.39%	\$776	\$425	\$110,522	\$1,201
	9	\$110,522	1,201.00	8.39%	\$773	\$428	\$110,094	\$1,201
	10	\$110,094	1,201.00	8.39%	\$770	\$431	\$109,663	\$1,201
	11	\$109,663	1,201.00	8.39%	\$767	\$434	\$109,228	\$1,201
	12	\$109,228	1,201.00	8.39%	\$764	\$437	\$108,791	\$1,201
					\$9,360	\$5,052		
			3 yr total=		\$29,263	\$13,973		
			Effective Cost		8.39%			

D2- 15-Yr Financial Analysis for Service Member (cont.)

Input Assumptions				Washington DC- 6th Stay				
Loan amount			\$246,754					
Initial Interest rate			8.39%					
Loan term			15 years					
Points			0					
Monthly payment	\$	2,414						
Annual payment		\$28,968	(Assuming monthly payments)					
Annual constant		11.74%						
Effective cost (calculated below)		8.39%						
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
	0							(\$246,754)
1	1	\$246,754	\$2,414	8.39%	\$1,725	\$689	\$246,065	\$2,414
	2	\$246,065	\$2,414	8.39%	\$1,720	\$694	\$245,372	\$2,414
	3	\$245,372	\$2,414	8.39%	\$1,716	\$698	\$244,673	\$2,414
	4	\$244,673	\$2,414	8.39%	\$1,711	\$703	\$243,970	\$2,414
	5	\$243,970	\$2,414	8.39%	\$1,706	\$708	\$243,262	\$2,414
	6	\$243,262	\$2,414	8.39%	\$1,701	\$713	\$242,548	\$2,414
	7	\$242,548	\$2,414	8.39%	\$1,696	\$718	\$241,830	\$2,414
	8	\$241,830	\$2,414	8.39%	\$1,691	\$723	\$241,107	\$2,414
	9	\$241,107	\$2,414	8.39%	\$1,686	\$728	\$240,379	\$2,414
	10	\$240,379	\$2,414	8.39%	\$1,681	\$733	\$239,645	\$2,414
	11	\$239,645	\$2,414	8.39%	\$1,676	\$738	\$238,907	\$2,414
	12	\$238,907	\$2,414	8.39%	\$1,670	\$744	\$238,163	\$2,414
					\$20,377	\$8,591		
2	1	\$238,163	\$2,414	8.39%	\$1,665	\$749	\$237,414	\$2,414
	2	\$237,414	\$2,414	8.39%	\$1,660	\$754	\$236,660	\$2,414
	3	\$236,660	\$2,414	8.39%	\$1,655	\$759	\$235,901	\$2,414
	4	\$235,901	\$2,414	8.39%	\$1,649	\$765	\$235,136	\$2,414
	5	\$235,136	\$2,414	8.39%	\$1,644	\$770	\$234,366	\$2,414
	6	\$234,366	\$2,414	8.39%	\$1,639	\$775	\$233,591	\$2,414
	7	\$233,591	\$2,414	8.39%	\$1,633	\$781	\$232,810	\$2,414
	8	\$232,810	\$2,414	8.39%	\$1,628	\$786	\$232,024	\$2,414
	9	\$232,024	\$2,414	8.39%	\$1,622	\$792	\$231,232	\$2,414
	10	\$231,232	\$2,414	8.39%	\$1,617	\$797	\$230,435	\$2,414
	11	\$230,435	\$2,414	8.39%	\$1,611	\$803	\$229,632	\$2,414
	12	\$229,632	\$2,414	8.39%	\$1,606	\$808	\$228,823	\$2,414
					\$19,628	\$9,340		
3	1	\$228,823	\$2,414	8.39%	\$1,600	\$814	\$228,009	\$2,414
	2	\$228,009	\$2,414	8.39%	\$1,594	\$820	\$227,189	\$2,414
	3	\$227,189	\$2,414	8.39%	\$1,588	\$826	\$226,364	\$2,414
	4	\$226,364	\$2,414	8.39%	\$1,583	\$831	\$225,533	\$2,414
	5	\$225,533	\$2,414	8.39%	\$1,577	\$837	\$224,695	\$2,414
	6	\$224,695	\$2,414	8.39%	\$1,571	\$843	\$223,852	\$2,414
	7	\$223,852	\$2,414	8.39%	\$1,565	\$849	\$223,004	\$2,414
	8	\$223,004	\$2,414	8.39%	\$1,559	\$855	\$222,149	\$2,414
	9	\$222,149	\$2,414	8.39%	\$1,553	\$861	\$221,288	\$2,414
	10	\$221,288	\$2,414	8.39%	\$1,547	\$867	\$220,421	\$2,414
	11	\$220,421	\$2,414	8.39%	\$1,541	\$873	\$219,548	\$2,414
	12	\$219,548	\$2,414	8.39%	\$1,535	\$879	\$218,669	\$2,414
					\$18,814	\$10,154		
				3 yr total=	\$58,819	\$28,085		
				Effective Cost	8.39%			

D3- 20-Yr Financial Analysis for Military Community LLC

Spreadsheets modified from (Brueggeman, 2005)

Input Assumptions		Entire Military Community						
Loan amount		\$68,724,000						
Initial interest rate		7.00%						
Loan term		20 years						
Points		0						
Monthly payment		\$532,816						
Annual payment		\$6,393,797 (Assuming monthly payments)						
Annual constant		9.30%						
Effective cost (calculated below)		7.00%						
Year	Month	Beg. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow
1	1	\$68,724,000	\$532,816	7.00%	\$400,890	\$131,926	\$68,592,074	\$532,816
	2	\$68,592,074	\$532,816	7.00%	\$400,120	\$132,696	\$68,459,378	\$532,816
	3	\$68,459,378	\$532,816	7.00%	\$399,346	\$133,470	\$68,325,907	\$532,816
	4	\$68,325,907	\$532,816	7.00%	\$398,568	\$134,249	\$68,191,659	\$532,816
	5	\$68,191,659	\$532,816	7.00%	\$397,785	\$135,032	\$68,056,627	\$532,816
	6	\$68,056,627	\$532,816	7.00%	\$396,997	\$135,819	\$67,920,808	\$532,816
	7	\$67,920,808	\$532,816	7.00%	\$396,205	\$136,612	\$67,784,196	\$532,816
	8	\$67,784,196	\$532,816	7.00%	\$395,408	\$137,409	\$67,646,787	\$532,816
	9	\$67,646,787	\$532,816	7.00%	\$394,606	\$138,210	\$67,508,577	\$532,816
	10	\$67,508,577	\$532,816	7.00%	\$393,800	\$139,016	\$67,369,561	\$532,816
	11	\$67,369,561	\$532,816	7.00%	\$392,989	\$139,827	\$67,229,733	\$532,816
	12	\$67,229,733	\$532,816	7.00%	\$392,173	\$140,643	\$67,089,090	\$532,816
					\$4,758,888	\$1,634,910		
2	1	\$67,089,090	\$532,816	7.00%	\$391,353	\$141,463	\$66,947,627	\$532,816
	2	\$66,947,627	\$532,816	7.00%	\$390,528	\$142,289	\$66,805,338	\$532,816
	3	\$66,805,338	\$532,816	7.00%	\$389,698	\$143,119	\$66,662,220	\$532,816
	4	\$66,662,220	\$532,816	7.00%	\$388,863	\$143,953	\$66,518,266	\$532,816
	5	\$66,518,266	\$532,816	7.00%	\$388,023	\$144,793	\$66,373,473	\$532,816
	6	\$66,373,473	\$532,816	7.00%	\$387,179	\$145,638	\$66,227,835	\$532,816
	7	\$66,227,835	\$532,816	7.00%	\$386,329	\$146,487	\$66,081,348	\$532,816
	8	\$66,081,348	\$532,816	7.00%	\$385,475	\$147,342	\$65,934,006	\$532,816
	9	\$65,934,006	\$532,816	7.00%	\$384,615	\$148,201	\$65,785,804	\$532,816
	10	\$65,785,804	\$532,816	7.00%	\$383,751	\$149,066	\$65,636,738	\$532,816
	11	\$65,636,738	\$532,816	7.00%	\$382,881	\$149,935	\$65,486,803	\$532,816
	12	\$65,486,803	\$532,816	7.00%	\$382,006	\$150,810	\$65,335,993	\$532,816
					\$4,640,700	\$1,753,097		
3	1	\$65,335,993	\$532,816	7.00%	\$381,127	\$151,690	\$65,184,303	\$532,816
	2	\$65,184,303	\$532,816	7.00%	\$380,242	\$152,575	\$65,031,728	\$532,816
	3	\$65,031,728	\$532,816	7.00%	\$379,352	\$153,465	\$64,878,264	\$532,816
	4	\$64,878,264	\$532,816	7.00%	\$378,457	\$154,360	\$64,723,904	\$532,816
	5	\$64,723,904	\$532,816	7.00%	\$377,556	\$155,260	\$64,568,644	\$532,816
	6	\$64,568,644	\$532,816	7.00%	\$376,650	\$156,166	\$64,412,477	\$532,816
	7	\$64,412,477	\$532,816	7.00%	\$375,739	\$157,077	\$64,255,400	\$532,816
	8	\$64,255,400	\$532,816	7.00%	\$374,823	\$157,993	\$64,097,407	\$532,816
	9	\$64,097,407	\$532,816	7.00%	\$373,902	\$158,915	\$63,938,492	\$532,816
	10	\$63,938,492	\$532,816	7.00%	\$372,975	\$159,842	\$63,778,650	\$532,816
	11	\$63,778,650	\$532,816	7.00%	\$372,042	\$160,774	\$63,617,876	\$532,816
	12	\$63,617,876	\$532,816	7.00%	\$371,104	\$161,712	\$63,456,164	\$532,816
					\$4,513,968	\$1,879,829		
4	1	\$63,456,164	\$532,816	7.00%	\$370,161	\$162,655	\$63,293,508	\$532,816
	2	\$63,293,508	\$532,816	7.00%	\$369,212	\$163,604	\$63,129,904	\$532,816
	3	\$63,129,904	\$532,816	7.00%	\$368,258	\$164,559	\$62,965,345	\$532,816
	4	\$62,965,345	\$532,816	7.00%	\$367,298	\$165,519	\$62,799,827	\$532,816
	5	\$62,799,827	\$532,816	7.00%	\$366,332	\$166,484	\$62,633,343	\$532,816
	6	\$62,633,343	\$532,816	7.00%	\$365,361	\$167,455	\$62,465,888	\$532,816
	7	\$62,465,888	\$532,816	7.00%	\$364,384	\$168,432	\$62,297,455	\$532,816
	8	\$62,297,455	\$532,816	7.00%	\$363,402	\$169,415	\$62,128,041	\$532,816
	9	\$62,128,041	\$532,816	7.00%	\$362,414	\$170,403	\$61,957,638	\$532,816

D3- 20-Yr Financial Analysis for Military Community LLC (cont.)

	10	\$61,957,638	\$532,816	7.00%	\$361,420	\$171,397	\$61,786,241	\$532,816
	11	\$61,786,241	\$532,816	7.00%	\$360,420	\$172,397	\$61,613,844	\$532,816
	12	\$61,613,844	\$532,816	7.00%	\$359,414	\$173,402	\$61,440,442	\$532,816
					\$4,378,075	\$2,015,722		
5	1	\$61,440,442	\$532,816	7.00%	\$358,403	\$174,414	\$61,266,028	\$532,816
	2	\$61,266,028	\$532,816	7.00%	\$357,385	\$175,431	\$61,090,597	\$532,816
	3	\$61,090,597	\$532,816	7.00%	\$356,362	\$176,455	\$60,914,142	\$532,816
	4	\$60,914,142	\$532,816	7.00%	\$355,332	\$177,484	\$60,736,658	\$532,816
	5	\$60,736,658	\$532,816	7.00%	\$354,297	\$178,519	\$60,558,139	\$532,816
	6	\$60,558,139	\$532,816	7.00%	\$353,256	\$179,561	\$60,378,578	\$532,816
	7	\$60,378,578	\$532,816	7.00%	\$352,208	\$180,608	\$60,197,970	\$532,816
	8	\$60,197,970	\$532,816	7.00%	\$351,155	\$181,662	\$60,016,309	\$532,816
	9	\$60,016,309	\$532,816	7.00%	\$350,095	\$182,721	\$59,833,587	\$532,816
	10	\$59,833,587	\$532,816	7.00%	\$349,029	\$183,787	\$59,649,800	\$532,816
	11	\$59,649,800	\$532,816	7.00%	\$347,957	\$184,859	\$59,464,941	\$532,816
	12	\$59,464,941	\$532,816	7.00%	\$346,879	\$185,938	\$59,279,003	\$59,811,820
					\$4,232,359	\$2,161,439		
6	1	\$59,279,003	\$532,816	7.00%	\$345,794	\$187,022	\$59,091,981	\$532,816
	2	\$59,091,981	\$532,816	7.00%	\$344,703	\$188,113	\$58,903,868	\$532,816
	3	\$58,903,868	\$532,816	7.00%	\$343,606	\$189,211	\$58,714,657	\$532,816
	4	\$58,714,657	\$532,816	7.00%	\$342,502	\$190,314	\$58,524,343	\$532,816
	5	\$58,524,343	\$532,816	7.00%	\$341,392	\$191,424	\$58,332,919	\$532,816
	6	\$58,332,919	\$532,816	7.00%	\$340,275	\$192,541	\$58,140,378	\$532,816
	7	\$58,140,378	\$532,816	7.00%	\$339,152	\$193,664	\$57,946,713	\$532,816
	8	\$57,946,713	\$532,816	7.00%	\$338,022	\$194,794	\$57,751,919	\$532,816
	9	\$57,751,919	\$532,816	7.00%	\$336,886	\$195,930	\$57,555,989	\$532,816
	10	\$57,555,989	\$532,816	7.00%	\$335,743	\$197,073	\$57,358,916	\$532,816
	11	\$57,358,916	\$532,816	7.00%	\$334,594	\$198,223	\$57,160,693	\$532,816
	12	\$57,160,693	\$532,816	7.00%	\$333,437	\$199,379	\$56,961,314	\$57,494,131
					\$4,076,108	\$2,317,689		
7	1	\$56,961,314	\$532,816	7.00%	\$332,274	\$200,542	\$56,760,772	\$532,816
	2	\$56,760,772	\$532,816	7.00%	\$331,105	\$201,712	\$56,559,060	\$532,816
	3	\$56,559,060	\$532,816	7.00%	\$329,928	\$202,889	\$56,356,171	\$532,816
	4	\$56,356,171	\$532,816	7.00%	\$328,744	\$204,072	\$56,152,099	\$532,816
	5	\$56,152,099	\$532,816	7.00%	\$327,554	\$205,263	\$55,946,837	\$532,816
	6	\$55,946,837	\$532,816	7.00%	\$326,357	\$206,460	\$55,740,377	\$532,816
	7	\$55,740,377	\$532,816	7.00%	\$325,152	\$207,664	\$55,532,713	\$532,816
	8	\$55,532,713	\$532,816	7.00%	\$323,941	\$208,876	\$55,323,837	\$532,816
	9	\$55,323,837	\$532,816	7.00%	\$322,722	\$210,094	\$55,113,743	\$532,816
	10	\$55,113,743	\$532,816	7.00%	\$321,497	\$211,320	\$54,902,423	\$532,816
	11	\$54,902,423	\$532,816	7.00%	\$320,264	\$212,552	\$54,689,871	\$532,816
	12	\$54,689,871	\$532,816	7.00%	\$319,024	\$213,792	\$54,476,079	\$55,008,895
					\$3,908,562	\$2,485,235		
8	1	\$54,476,079	\$532,816	7.00%	\$317,777	\$215,039	\$54,261,040	\$532,816
	2	\$54,261,040	\$532,816	7.00%	\$316,523	\$216,294	\$54,044,746	\$532,816
	3	\$54,044,746	\$532,816	7.00%	\$315,261	\$217,555	\$53,827,190	\$532,816
	4	\$53,827,190	\$532,816	7.00%	\$313,992	\$218,824	\$53,608,366	\$532,816
	5	\$53,608,366	\$532,816	7.00%	\$312,715	\$220,101	\$53,388,265	\$532,816
	6	\$53,388,265	\$532,816	7.00%	\$311,432	\$221,385	\$53,166,880	\$532,816
	7	\$53,166,880	\$532,816	7.00%	\$310,140	\$222,676	\$52,944,204	\$532,816
	8	\$52,944,204	\$532,816	7.00%	\$308,841	\$223,975	\$52,720,229	\$532,816
	9	\$52,720,229	\$532,816	7.00%	\$307,535	\$225,282	\$52,494,947	\$532,816
	10	\$52,494,947	\$532,816	7.00%	\$306,221	\$226,596	\$52,268,351	\$532,816
	11	\$52,268,351	\$532,816	7.00%	\$304,899	\$227,918	\$52,040,433	\$532,816
	12	\$52,040,433	\$532,816	7.00%	\$303,569	\$229,247	\$51,811,186	\$52,344,002
					\$3,728,904	\$2,664,893		
9	1	\$51,811,186	\$532,816	7.00%	\$302,232	\$230,585	\$51,580,601	\$532,816
	2	\$51,580,601	\$532,816	7.00%	\$300,887	\$231,930	\$51,348,672	\$532,816

D3- 20-Yr Financial Analysis for Military Community LLC (cont.)

	3	\$51,348,672	\$532,816	7.00%	\$299,534	\$233,283	\$51,115,389	\$532,816
	4	\$51,115,389	\$532,816	7.00%	\$298,173	\$234,643	\$50,880,746	\$532,816
	5	\$50,880,746	\$532,816	7.00%	\$296,804	\$236,012	\$50,644,734	\$532,816
	6	\$50,644,734	\$532,816	7.00%	\$295,428	\$237,389	\$50,407,345	\$532,816
	7	\$50,407,345	\$532,816	7.00%	\$294,043	\$238,774	\$50,168,571	\$532,816
	8	\$50,168,571	\$532,816	7.00%	\$292,650	\$240,166	\$49,928,405	\$532,816
	9	\$49,928,405	\$532,816	7.00%	\$291,249	\$241,567	\$49,686,838	\$532,816
	10	\$49,686,838	\$532,816	7.00%	\$289,840	\$242,977	\$49,443,861	\$532,816
	11	\$49,443,861	\$532,816	7.00%	\$288,423	\$244,394	\$49,199,467	\$532,816
	12	\$49,199,467	\$532,816	7.00%	\$286,997	\$245,820	\$48,953,647	\$49,486,464
					\$3,536,259	\$2,857,538		
10	1	\$48,953,647	\$532,816	7.00%	\$285,563	\$247,253	\$48,706,394	\$532,816
	2	\$48,706,394	\$532,816	7.00%	\$284,121	\$248,696	\$48,457,698	\$532,816
	3	\$48,457,698	\$532,816	7.00%	\$282,670	\$250,147	\$48,207,552	\$532,816
	4	\$48,207,552	\$532,816	7.00%	\$281,211	\$251,606	\$47,955,946	\$532,816
	5	\$47,955,946	\$532,816	7.00%	\$279,743	\$253,073	\$47,702,873	\$532,816
	6	\$47,702,873	\$532,816	7.00%	\$278,267	\$254,550	\$47,448,323	\$532,816
	7	\$47,448,323	\$532,816	7.00%	\$276,782	\$256,035	\$47,192,288	\$532,816
	8	\$47,192,288	\$532,816	7.00%	\$275,288	\$257,528	\$46,934,760	\$532,816
	9	\$46,934,760	\$532,816	7.00%	\$273,786	\$259,030	\$46,675,730	\$532,816
	10	\$46,675,730	\$532,816	7.00%	\$272,275	\$260,541	\$46,415,188	\$532,816
	11	\$46,415,188	\$532,816	7.00%	\$270,755	\$262,061	\$46,153,127	\$532,816
	12	\$46,153,127	\$532,816	7.00%	\$269,227	\$263,590	\$45,889,537	\$46,422,354
					\$3,329,687	\$3,064,110		
11	1	\$45,889,537	\$532,816	7.00%	\$267,689	\$265,127	\$45,624,410	\$532,816
	2	\$45,624,410	\$532,816	7.00%	\$266,142	\$266,674	\$45,357,736	\$532,816
	3	\$45,357,736	\$532,816	7.00%	\$264,587	\$268,230	\$45,089,506	\$532,816
	4	\$45,089,506	\$532,816	7.00%	\$263,022	\$269,794	\$44,819,712	\$532,816
	5	\$44,819,712	\$532,816	7.00%	\$261,448	\$271,368	\$44,548,344	\$532,816
	6	\$44,548,344	\$532,816	7.00%	\$259,865	\$272,951	\$44,275,393	\$532,816
	7	\$44,275,393	\$532,816	7.00%	\$258,273	\$274,543	\$44,000,849	\$532,816
	8	\$44,000,849	\$532,816	7.00%	\$256,672	\$276,145	\$43,724,705	\$532,816
	9	\$43,724,705	\$532,816	7.00%	\$255,061	\$277,756	\$43,446,949	\$532,816
	10	\$43,446,949	\$532,816	7.00%	\$253,441	\$279,376	\$43,167,573	\$532,816
	11	\$43,167,573	\$532,816	7.00%	\$251,811	\$281,006	\$42,886,567	\$532,816
	12	\$42,886,567	\$532,816	7.00%	\$250,172	\$282,645	\$42,603,923	\$43,136,739
					\$3,108,182	\$3,285,615		
12	1	\$42,603,923	\$532,816	7.00%	\$248,523	\$284,294	\$42,319,629	\$532,816
	2	\$42,319,629	\$532,816	7.00%	\$246,865	\$285,952	\$42,033,677	\$532,816
	3	\$42,033,677	\$532,816	7.00%	\$245,196	\$287,620	\$41,746,057	\$532,816
	4	\$41,746,057	\$532,816	7.00%	\$243,519	\$289,298	\$41,456,759	\$532,816
	5	\$41,456,759	\$532,816	7.00%	\$241,831	\$290,985	\$41,165,774	\$532,816
	6	\$41,165,774	\$532,816	7.00%	\$240,134	\$292,683	\$40,873,091	\$532,816
	7	\$40,873,091	\$532,816	7.00%	\$238,426	\$294,390	\$40,578,701	\$532,816
	8	\$40,578,701	\$532,816	7.00%	\$236,709	\$296,107	\$40,282,594	\$532,816
	9	\$40,282,594	\$532,816	7.00%	\$234,982	\$297,835	\$39,984,759	\$532,816
	10	\$39,984,759	\$532,816	7.00%	\$233,244	\$299,572	\$39,685,187	\$532,816
	11	\$39,685,187	\$532,816	7.00%	\$231,497	\$301,320	\$39,383,868	\$532,816
	12	\$39,383,868	\$532,816	7.00%	\$229,739	\$303,077	\$39,080,790	\$39,613,607
					\$2,870,665	\$3,523,132		
13	1	\$39,080,790	\$532,816	7.00%	\$227,971	\$304,845	\$38,775,945	\$532,816
	2	\$38,775,945	\$532,816	7.00%	\$226,193	\$306,623	\$38,469,322	\$532,816
	3	\$38,469,322	\$532,816	7.00%	\$224,404	\$308,412	\$38,160,910	\$532,816
	4	\$38,160,910	\$532,816	7.00%	\$222,605	\$310,211	\$37,850,699	\$532,816
	5	\$37,850,699	\$532,816	7.00%	\$220,796	\$312,021	\$37,538,678	\$532,816
	6	\$37,538,678	\$532,816	7.00%	\$218,976	\$313,841	\$37,224,837	\$532,816
	7	\$37,224,837	\$532,816	7.00%	\$217,145	\$315,672	\$36,909,166	\$532,816
	8	\$36,909,166	\$532,816	7.00%	\$215,303	\$317,513	\$36,591,653	\$532,816

D3- 20-Yr Financial Analysis for Military Community LLC (cont.)

	9	\$36,591,653	\$532,816	7.00%	\$213,451	\$319,365	\$36,272,288	\$532,816
	10	\$36,272,288	\$532,816	7.00%	\$211,588	\$321,228	\$35,951,059	\$532,816
	11	\$35,951,059	\$532,816	7.00%	\$209,715	\$323,102	\$35,627,957	\$532,816
	12	\$35,627,957	\$532,816	7.00%	\$207,830	\$324,987	\$35,302,971	\$35,835,787
					\$2,615,978	\$3,777,820		
14	1	\$35,302,971	\$532,816	7.00%	\$205,934	\$326,882	\$34,976,088	\$532,816
	2	\$34,976,088	\$532,816	7.00%	\$204,027	\$328,789	\$34,647,299	\$532,816
	3	\$34,647,299	\$532,816	7.00%	\$202,109	\$330,707	\$34,316,592	\$532,816
	4	\$34,316,592	\$532,816	7.00%	\$200,180	\$332,636	\$33,983,956	\$532,816
	5	\$33,983,956	\$532,816	7.00%	\$198,240	\$334,577	\$33,649,379	\$532,816
	6	\$33,649,379	\$532,816	7.00%	\$196,288	\$336,528	\$33,312,850	\$532,816
	7	\$33,312,850	\$532,816	7.00%	\$194,325	\$338,491	\$32,974,359	\$532,816
	8	\$32,974,359	\$532,816	7.00%	\$192,350	\$340,466	\$32,633,893	\$532,816
	9	\$32,633,893	\$532,816	7.00%	\$190,364	\$342,452	\$32,291,441	\$532,816
	10	\$32,291,441	\$532,816	7.00%	\$188,367	\$344,450	\$31,946,991	\$532,816
	11	\$31,946,991	\$532,816	7.00%	\$186,357	\$346,459	\$31,600,532	\$532,816
	12	\$31,600,532	\$532,816	7.00%	\$184,336	\$348,480	\$31,252,052	\$31,784,869
					\$2,342,879	\$4,050,919		
15	1	\$31,252,052	\$532,816	7.00%	\$182,304	\$350,513	\$30,901,539	\$532,816
	2	\$30,901,539	\$532,816	7.00%	\$180,259	\$352,557	\$30,548,982	\$532,816
	3	\$30,548,982	\$532,816	7.00%	\$178,202	\$354,614	\$30,194,368	\$532,816
	4	\$30,194,368	\$532,816	7.00%	\$176,134	\$356,683	\$29,837,685	\$532,816
	5	\$29,837,685	\$532,816	7.00%	\$174,053	\$358,763	\$29,478,922	\$532,816
	6	\$29,478,922	\$532,816	7.00%	\$171,960	\$360,856	\$29,118,066	\$532,816
	7	\$29,118,066	\$532,816	7.00%	\$169,855	\$362,961	\$28,755,105	\$532,816
	8	\$28,755,105	\$532,816	7.00%	\$167,738	\$365,078	\$28,390,027	\$532,816
	9	\$28,390,027	\$532,816	7.00%	\$165,608	\$367,208	\$28,022,819	\$532,816
	10	\$28,022,819	\$532,816	7.00%	\$163,466	\$369,350	\$27,653,469	\$532,816
	11	\$27,653,469	\$532,816	7.00%	\$161,312	\$371,505	\$27,281,964	\$532,816
	12	\$27,281,964	\$532,816	7.00%	\$159,145	\$373,672	\$26,908,292	\$27,441,109
					\$2,050,037	\$4,343,760		
16	1	\$26,908,292	\$532,816	7.00%	\$156,965	\$375,851	\$26,532,441	\$532,816
	2	\$26,532,441	\$532,816	7.00%	\$154,773	\$378,044	\$26,154,397	\$532,816
	3	\$26,154,397	\$532,816	7.00%	\$152,567	\$380,249	\$25,774,148	\$532,816
	4	\$25,774,148	\$532,816	7.00%	\$150,349	\$382,467	\$25,391,681	\$532,816
	5	\$25,391,681	\$532,816	7.00%	\$148,118	\$384,698	\$25,006,982	\$532,816
	6	\$25,006,982	\$532,816	7.00%	\$145,874	\$386,942	\$24,620,040	\$532,816
	7	\$24,620,040	\$532,816	7.00%	\$143,617	\$389,200	\$24,230,841	\$532,816
	8	\$24,230,841	\$532,816	7.00%	\$141,347	\$391,470	\$23,839,371	\$532,816
	9	\$23,839,371	\$532,816	7.00%	\$139,063	\$393,753	\$23,445,617	\$532,816
	10	\$23,445,617	\$532,816	7.00%	\$136,766	\$396,050	\$23,049,567	\$532,816
	11	\$23,049,567	\$532,816	7.00%	\$134,456	\$398,361	\$22,651,206	\$532,816
	12	\$22,651,206	\$532,816	7.00%	\$132,132	\$400,684	\$22,250,522	\$22,783,338
					\$1,736,027	\$4,657,771		
17	1	\$22,250,522	\$532,816	7.00%	\$129,795	\$403,022	\$21,847,500	\$532,816
	2	\$21,847,500	\$532,816	7.00%	\$127,444	\$405,373	\$21,442,127	\$532,816
	3	\$21,442,127	\$532,816	7.00%	\$125,079	\$407,737	\$21,034,390	\$532,816
	4	\$21,034,390	\$532,816	7.00%	\$122,701	\$410,116	\$20,624,274	\$532,816
	5	\$20,624,274	\$532,816	7.00%	\$120,308	\$412,508	\$20,211,766	\$532,816
	6	\$20,211,766	\$532,816	7.00%	\$117,902	\$414,914	\$19,796,852	\$532,816
	7	\$19,796,852	\$532,816	7.00%	\$115,482	\$417,335	\$19,379,517	\$532,816
	8	\$19,379,517	\$532,816	7.00%	\$113,047	\$419,769	\$18,959,748	\$532,816
	9	\$18,959,748	\$532,816	7.00%	\$110,599	\$422,218	\$18,537,530	\$532,816
	10	\$18,537,530	\$532,816	7.00%	\$108,136	\$424,681	\$18,112,849	\$532,816
	11	\$18,112,849	\$532,816	7.00%	\$105,658	\$427,158	\$17,685,691	\$532,816
	12	\$17,685,691	\$532,816	7.00%	\$103,167	\$429,650	\$17,256,041	\$17,788,857
					\$1,399,316	\$4,994,481		
		Effective Cost		7.00%				

D4- Financial Comparison between 7% Military Community LLC home costs in Pensacola versus 8.39% Service Member Interest Rate

Spreadsheets modified from (Brueggeman, 2005)

Input Assumptions				Pensacola House- Military Community					
Loan amount		\$109,260							
Initial Interest rate		7.00%							
Loan term		20 years							
Points		0							
		\$847	\$30,495.30						
		\$10,165	(Assuming monthly payments)						
		9.30%							
		7.00%							
Year	Month	Req. Balance	Payment	Rate	Interest	Principal	End Balance	Cash flow	
1	1	\$109,260	\$847.09	7.00%	\$637	\$210	\$109,050	\$847	
	2	\$109,050	847.09	7.00%	\$636	\$211	\$108,839	\$847	
	3	\$108,839	847.09	7.00%	\$635	\$212	\$108,627	\$847	
	4	\$108,627	847.09	7.00%	\$634	\$213	\$108,414	\$847	
	5	\$108,414	847.09	7.00%	\$632	\$215	\$108,199	\$847	
	6	\$108,199	847.09	7.00%	\$631	\$216	\$107,983	\$847	
	7	\$107,983	847.09	7.00%	\$630	\$217	\$107,766	\$847	
	8	\$107,766	847.09	7.00%	\$629	\$218	\$107,547	\$847	
	9	\$107,547	847.09	7.00%	\$627	\$220	\$107,328	\$847	
	10	\$107,328	847.09	7.00%	\$626	\$221	\$107,107	\$847	
	11	\$107,107	847.09	7.00%	\$625	\$222	\$106,884	\$847	
	12	\$106,884	847.09	7.00%	\$623	\$224	\$106,661	\$847	
					\$7,566	\$2,599			
2	1	\$106,661	847.09	7.00%	\$622	\$225	\$106,436	\$847	
	2	\$106,436	847.09	7.00%	\$621	\$226	\$106,210	\$847	
	3	\$106,210	847.09	7.00%	\$620	\$228	\$105,982	\$847	
	4	\$105,982	847.09	7.00%	\$618	\$229	\$105,753	\$847	
	5	\$105,753	847.09	7.00%	\$617	\$230	\$105,523	\$847	
	6	\$105,523	847.09	7.00%	\$616	\$232	\$105,292	\$847	
	7	\$105,292	847.09	7.00%	\$614	\$233	\$105,059	\$847	
	8	\$105,059	847.09	7.00%	\$613	\$234	\$104,824	\$847	
	9	\$104,824	847.09	7.00%	\$611	\$236	\$104,589	\$847	
	10	\$104,589	847.09	7.00%	\$610	\$237	\$104,352	\$847	
	11	\$104,352	847.09	7.00%	\$609	\$238	\$104,113	\$847	
	12	\$104,113	847.09	7.00%	\$607	\$240	\$103,874	\$847	
					\$7,378	\$2,787			
3	1	\$103,874	847.09	7.00%	\$606	\$241	\$103,632	\$847	
	2	\$103,632	847.09	7.00%	\$605	\$243	\$103,390	\$847	
	3	\$103,390	847.09	7.00%	\$603	\$244	\$103,146	\$847	
	4	\$103,146	847.09	7.00%	\$602	\$245	\$102,900	\$847	
	5	\$102,900	847.09	7.00%	\$600	\$247	\$102,654	\$847	
	6	\$102,654	847.09	7.00%	\$599	\$248	\$102,405	\$847	
	7	\$102,405	847.09	7.00%	\$597	\$250	\$102,156	\$847	
	8	\$102,156	847.09	7.00%	\$596	\$251	\$101,904	\$847	
	9	\$101,904	847.09	7.00%	\$594	\$253	\$101,652	\$847	
	10	\$101,652	847.09	7.00%	\$593	\$254	\$101,398	\$847	
	11	\$101,398	847.09	7.00%	\$591	\$256	\$101,142	\$847	
	12	\$101,142	847.09	7.00%	\$590	\$257	\$100,885	\$847	
					\$7,176	\$2,989			
4	1	\$100,885	847.09	7.00%	\$588	\$259	\$100,626	\$847	
	2	\$100,626	847.09	7.00%	\$587	\$260	\$100,366	\$847	
	3	\$100,366	847.09	7.00%	\$585	\$262	\$100,105	\$847	
	4	\$100,105	847.09	7.00%	\$584	\$263	\$99,842	\$847	
	5	\$99,842	847.09	7.00%	\$582	\$265	\$99,577	\$847	
	6	\$99,577	847.09	7.00%	\$581	\$266	\$99,311	\$847	
	7	\$99,311	847.09	7.00%	\$579	\$268	\$99,043	\$847	
	8	\$99,043	847.09	7.00%	\$578	\$269	\$98,773	\$847	
	9	\$98,773	847.09	7.00%	\$576	\$271	\$98,503	\$847	

D4- Financial Comparison between 7% Military Community LLC home costs in Pensacola versus 8.39% Service Member Interest Rate (cont.)

	10	\$98,503	847.09	7.00%	\$575	\$272	\$98,230	\$847
	11	\$98,230	847.09	7.00%	\$573	\$274	\$97,956	\$847
	12	\$97,956	847.09	7.00%	\$571	\$276	\$97,680	\$847
					\$6,960	\$3,205		
5	1	\$97,680	847.09	7.00%	\$570	\$277	\$97,403	\$847
	2	\$97,403	847.09	7.00%	\$568	\$279	\$97,124	\$847
	3	\$97,124	847.09	7.00%	\$567	\$281	\$96,844	\$847
	4	\$96,844	847.09	7.00%	\$565	\$282	\$96,561	\$847
	5	\$96,561	847.09	7.00%	\$563	\$284	\$96,278	\$847
	6	\$96,278	847.09	7.00%	\$562	\$285	\$95,992	\$847
	7	\$95,992	847.09	7.00%	\$560	\$287	\$95,705	\$847
	8	\$95,705	847.09	7.00%	\$558	\$289	\$95,416	\$847
	9	\$95,416	847.09	7.00%	\$557	\$290	\$95,126	\$847
	10	\$95,126	847.09	7.00%	\$555	\$292	\$94,833	\$847
	11	\$94,833	847.09	7.00%	\$553	\$294	\$94,540	\$847
	12	\$94,540	847.09	7.00%	\$551	\$296	\$94,244	\$95,091
					\$6,729	\$3,436		
6	1	\$94,244	847.09	7.00%	\$550	\$297	\$93,947	\$847
	2	\$93,947	847.09	7.00%	\$548	\$299	\$93,648	\$847
	3	\$93,648	847.09	7.00%	\$546	\$301	\$93,347	\$847
	4	\$93,347	847.09	7.00%	\$545	\$303	\$93,044	\$847
	5	\$93,044	847.09	7.00%	\$543	\$304	\$92,740	\$847
	6	\$92,740	847.09	7.00%	\$541	\$306	\$92,434	\$847
	7	\$92,434	847.09	7.00%	\$539	\$308	\$92,126	\$847
	8	\$92,126	847.09	7.00%	\$537	\$310	\$91,816	\$847
	9	\$91,816	847.09	7.00%	\$536	\$311	\$91,505	\$847
	10	\$91,505	847.09	7.00%	\$534	\$313	\$91,191	\$847
	11	\$91,191	847.09	7.00%	\$532	\$315	\$90,876	\$847
	12	\$90,876	847.09	7.00%	\$530	\$317	\$90,559	\$91,406
					\$6,480	\$3,685		
7	1	\$90,559	847.09	7.00%	\$528	\$319	\$90,240	\$847
	2	\$90,240	847.09	7.00%	\$526	\$321	\$89,920	\$847
	3	\$89,920	847.09	7.00%	\$525	\$323	\$89,597	\$847
	4	\$89,597	847.09	7.00%	\$523	\$324	\$89,273	\$847
	5	\$89,273	847.09	7.00%	\$521	\$326	\$88,946	\$847
	6	\$88,946	847.09	7.00%	\$519	\$328	\$88,618	\$847
	7	\$88,618	847.09	7.00%	\$517	\$330	\$88,288	\$847
	8	\$88,288	847.09	7.00%	\$515	\$332	\$87,956	\$847
	9	\$87,956	847.09	7.00%	\$513	\$334	\$87,622	\$847
	10	\$87,622	847.09	7.00%	\$511	\$336	\$87,286	\$847
	11	\$87,286	847.09	7.00%	\$509	\$338	\$86,948	\$847
	12	\$86,948	847.09	7.00%	\$507	\$340	\$86,608	\$87,455
					\$6,214	\$3,951		
8	1	\$86,608	847.09	7.00%	\$505	\$342	\$86,266	\$847
	2	\$86,266	847.09	7.00%	\$503	\$344	\$85,922	\$847
	3	\$85,922	847.09	7.00%	\$501	\$346	\$85,576	\$847
	4	\$85,576	847.09	7.00%	\$499	\$348	\$85,229	\$847
	5	\$85,229	847.09	7.00%	\$497	\$350	\$84,879	\$847
	6	\$84,879	847.09	7.00%	\$495	\$352	\$84,527	\$847
	7	\$84,527	847.09	7.00%	\$493	\$354	\$84,173	\$847
	8	\$84,173	847.09	7.00%	\$491	\$356	\$83,817	\$847
	9	\$83,817	847.09	7.00%	\$489	\$358	\$83,458	\$847
	10	\$83,458	847.09	7.00%	\$487	\$360	\$83,098	\$847
	11	\$83,098	847.09	7.00%	\$485	\$362	\$82,736	\$847
	12	\$82,736	847.09	7.00%	\$483	\$364	\$82,371	\$83,218
					\$5,928	\$4,237		
9	1	\$82,371	847.09	7.00%	\$480	\$367	\$82,005	\$847
	2	\$82,005	847.09	7.00%	\$478	\$369	\$81,636	\$847

**D4- Financial Comparison between 7% Military Community LLC home costs
in Pensacola versus 8.39% Service Member Interest Rate (cont.)**

	3	\$81,636	847.09	7.00%	\$476	\$371	\$81,265	\$847
	4	\$81,265	847.09	7.00%	\$474	\$373	\$80,892	\$847
	5	\$80,892	847.09	7.00%	\$472	\$375	\$80,517	\$847
	6	\$80,517	847.09	7.00%	\$470	\$377	\$80,139	\$847
	7	\$80,139	847.09	7.00%	\$467	\$380	\$79,760	\$847
	8	\$79,760	847.09	7.00%	\$465	\$382	\$79,378	\$847
	9	\$79,378	847.09	7.00%	\$463	\$384	\$78,994	\$847
	10	\$78,994	847.09	7.00%	\$461	\$386	\$78,608	\$847
	11	\$78,608	847.09	7.00%	\$459	\$389	\$78,219	\$847
	12	\$78,219	847.09	7.00%	\$456	\$391	\$77,828	\$78,675
					\$5,622	\$4,543		
10	1	\$77,828	847.09	7.00%	\$454	\$393	\$77,435	\$847
	2	\$77,435	847.09	7.00%	\$452	\$395	\$77,040	\$847
	3	\$77,040	847.09	7.00%	\$449	\$398	\$76,642	\$847
	4	\$76,642	847.09	7.00%	\$447	\$400	\$76,242	\$847
	5	\$76,242	847.09	7.00%	\$445	\$402	\$75,840	\$847
	6	\$75,840	847.09	7.00%	\$442	\$405	\$75,435	\$847
	7	\$75,435	847.09	7.00%	\$440	\$407	\$75,028	\$847
	8	\$75,028	847.09	7.00%	\$438	\$409	\$74,619	\$847
	9	\$74,619	847.09	7.00%	\$435	\$412	\$74,207	\$847
	10	\$74,207	847.09	7.00%	\$433	\$414	\$73,793	\$847
	11	\$73,793	847.09	7.00%	\$430	\$417	\$73,376	\$847
	12	\$73,376	847.09	7.00%	\$428	\$419	\$72,957	\$73,804
					\$5,294	\$4,871		
11	1	\$72,957	847.09	7.00%	\$426	\$422	\$72,535	\$847
	2	\$72,535	847.09	7.00%	\$423	\$424	\$72,111	\$847
	3	\$72,111	847.09	7.00%	\$421	\$426	\$71,685	\$847
	4	\$71,685	847.09	7.00%	\$418	\$429	\$71,256	\$847
	5	\$71,256	847.09	7.00%	\$416	\$431	\$70,825	\$847
	6	\$70,825	847.09	7.00%	\$413	\$434	\$70,391	\$847
	7	\$70,391	847.09	7.00%	\$411	\$436	\$69,954	\$847
	8	\$69,954	847.09	7.00%	\$408	\$439	\$69,515	\$847
	9	\$69,515	847.09	7.00%	\$406	\$442	\$69,074	\$847
	10	\$69,074	847.09	7.00%	\$403	\$444	\$68,629	\$847
	11	\$68,629	847.09	7.00%	\$400	\$447	\$68,183	\$847
	12	\$68,183	847.09	7.00%	\$398	\$449	\$67,733	\$68,580
					\$4,942	\$5,224		
12	1	\$67,733	847.09	7.00%	\$395	\$452	\$67,281	\$847
	2	\$67,281	847.09	7.00%	\$392	\$455	\$66,827	\$847
	3	\$66,827	847.09	7.00%	\$390	\$457	\$66,369	\$847
	4	\$66,369	847.09	7.00%	\$387	\$460	\$65,910	\$847
	5	\$65,910	847.09	7.00%	\$384	\$463	\$65,447	\$847
	6	\$65,447	847.09	7.00%	\$382	\$465	\$64,982	\$847
	7	\$64,982	847.09	7.00%	\$379	\$468	\$64,514	\$847
	8	\$64,514	847.09	7.00%	\$376	\$471	\$64,043	\$847
	9	\$64,043	847.09	7.00%	\$374	\$474	\$63,569	\$847
	10	\$63,569	847.09	7.00%	\$371	\$476	\$63,093	\$847
	11	\$63,093	847.09	7.00%	\$368	\$479	\$62,614	\$847
	12	\$62,614	847.09	7.00%	\$365	\$482	\$62,132	\$62,979
					\$4,564	\$5,601		
13	1	\$62,132	847.09	7.00%	\$362	\$485	\$61,647	\$847
	2	\$61,647	847.09	7.00%	\$360	\$487	\$61,160	\$847
	3	\$61,160	847.09	7.00%	\$357	\$490	\$60,670	\$847
	4	\$60,670	847.09	7.00%	\$354	\$493	\$60,176	\$847
	5	\$60,176	847.09	7.00%	\$351	\$496	\$59,680	\$847
	6	\$59,680	847.09	7.00%	\$348	\$499	\$59,181	\$847
	7	\$59,181	847.09	7.00%	\$345	\$502	\$58,680	\$847
	8	\$58,680	847.09	7.00%	\$342	\$505	\$58,175	\$847

**D4- Financial Comparison between 7% Military Community LLC home costs
in Pensacola versus 8.39% Service Member Interest Rate (cont.)**

	9	\$58,175	847.09	7.00%	\$339	\$508	\$57,667	\$847
	10	\$57,667	847.09	7.00%	\$336	\$511	\$57,156	\$847
	11	\$57,156	847.09	7.00%	\$333	\$514	\$56,643	\$847
	12	\$56,643	847.09	7.00%	\$330	\$517	\$56,126	\$56,973
					\$4,159	\$6,006		
14	1	\$56,126	847.09	7.00%	\$327	\$520	\$55,606	\$847
	2	\$55,606	847.09	7.00%	\$324	\$523	\$55,084	\$847
	3	\$55,084	847.09	7.00%	\$321	\$526	\$54,558	\$847
	4	\$54,558	847.09	7.00%	\$318	\$529	\$54,029	\$847
	5	\$54,029	847.09	7.00%	\$315	\$532	\$53,497	\$847
	6	\$53,497	847.09	7.00%	\$312	\$535	\$52,962	\$847
	7	\$52,962	847.09	7.00%	\$309	\$538	\$52,424	\$847
	8	\$52,424	847.09	7.00%	\$306	\$541	\$51,883	\$847
	9	\$51,883	847.09	7.00%	\$303	\$544	\$51,338	\$847
	10	\$51,338	847.09	7.00%	\$299	\$548	\$50,791	\$847
	11	\$50,791	847.09	7.00%	\$296	\$551	\$50,240	\$847
	12	\$50,240	847.09	7.00%	\$293	\$554	\$49,686	\$50,533
					\$3,725	\$6,440		
15	1	\$49,686	847.09	7.00%	\$290	\$557	\$49,128	\$847
	2	\$49,128	847.09	7.00%	\$287	\$561	\$48,568	\$847
	3	\$48,568	847.09	7.00%	\$283	\$564	\$48,004	\$847
	4	\$48,004	847.09	7.00%	\$280	\$567	\$47,437	\$847
	5	\$47,437	847.09	7.00%	\$277	\$570	\$46,867	\$847
	6	\$46,867	847.09	7.00%	\$273	\$574	\$46,293	\$847
	7	\$46,293	847.09	7.00%	\$270	\$577	\$45,716	\$847
	8	\$45,716	847.09	7.00%	\$267	\$580	\$45,136	\$847
	9	\$45,136	847.09	7.00%	\$263	\$584	\$44,552	\$847
	10	\$44,552	847.09	7.00%	\$260	\$587	\$43,965	\$847
	11	\$43,965	847.09	7.00%	\$256	\$591	\$43,374	\$847
	12	\$43,374	847.09	7.00%	\$253	\$594	\$42,780	\$43,627
					\$3,259	\$6,906		
16	1	\$42,780	847.09	7.00%	\$250	\$598	\$42,182	\$847
	2	\$42,182	847.09	7.00%	\$246	\$601	\$41,581	\$847
	3	\$41,581	847.09	7.00%	\$243	\$605	\$40,977	\$847
	4	\$40,977	847.09	7.00%	\$239	\$608	\$40,369	\$847
	5	\$40,369	847.09	7.00%	\$235	\$612	\$39,757	\$847
	6	\$39,757	847.09	7.00%	\$232	\$615	\$39,142	\$847
	7	\$39,142	847.09	7.00%	\$228	\$619	\$38,523	\$847
	8	\$38,523	847.09	7.00%	\$225	\$622	\$37,901	\$847
	9	\$37,901	847.09	7.00%	\$221	\$626	\$37,275	\$847
	10	\$37,275	847.09	7.00%	\$217	\$630	\$36,645	\$847
	11	\$36,645	847.09	7.00%	\$214	\$633	\$36,012	\$847
	12	\$36,012	847.09	7.00%	\$210	\$637	\$35,375	\$36,222
					\$2,760	\$7,405		
17	1	\$35,375	847.09	7.00%	\$206	\$641	\$34,734	\$847
	2	\$34,734	847.09	7.00%	\$203	\$644	\$34,090	\$847
	3	\$34,090	847.09	7.00%	\$199	\$648	\$33,441	\$847
	4	\$33,441	847.09	7.00%	\$195	\$652	\$32,789	\$847
	5	\$32,789	847.09	7.00%	\$191	\$656	\$32,133	\$847
	6	\$32,133	847.09	7.00%	\$187	\$660	\$31,474	\$847
	7	\$31,474	847.09	7.00%	\$184	\$663	\$30,810	\$847
	8	\$30,810	847.09	7.00%	\$180	\$667	\$30,143	\$847
	9	\$30,143	847.09	7.00%	\$176	\$671	\$29,472	\$847
	10	\$29,472	847.09	7.00%	\$172	\$675	\$28,796	\$847
	11	\$28,796	847.09	7.00%	\$168	\$679	\$28,117	\$847
	12	\$28,117	847.09	7.00%	\$164	\$683	\$27,434	\$28,281
					2224.69	7940.41		
		Effective Cost		7.00%				

D5- Investor Return on Investment Analysis (Spreadsheets modified from (Brueggeman, 2005))

		(Based on Military Career)								
				BAH Rate	Sale Price					
Pensacola	Type	Price	Number	Total	935	\$ 12,140,000	Land	17,181,000		
Gulfport		\$ 96,660	50	\$ 4,833,000	1,093	\$ 5,370,000	Direct Costs	68,724,000		
Norfolk		\$ 128,160	125	\$ 16,020,000	1,332	\$ 17,800,000	Commission	5%		
Washington DC		\$ 270,630	200	\$ 54,126,000	2,414	\$ 60,140,000				
Totals			475	\$ 85,905,000		\$ 93,450,000				

Release Prices				
	Pensacola	Gulfport	Norfolk	Washington DC
	33,818	29,918	38,868	83,766
(calculated below)				

Land and Development Costs:	
Site	17,181,000
Site Closing	100,000
Site Improvements	68,724,000
Const. Loan Fee	0
Total Direct Costs	
86,095,000	
Operating Expenses:	
Selling Commissions	859,050
Property Taxes	
General & Admin.	1,065,222
650,000	
Total Indirect Costs	
1,715,222	
Total Project Costs	
87,720,222	
- Loan Amount	
68,724,000	
Total Equity Required	
18,996,222	
Percent Financed	
78.34%	

Available Financing	
80% of land acquisition	13,744,800
80% of improvement costs	54,479,200
7.0% interest rate	68,724,000
Total to be financed	
68,724,000	
Total Loan Amount	
68,724,000	

TARGET REVENUE: \$85,905,000

DRAWS AND UNITS:						
Months	Draws Amount	Pensacola	Gulfport	Norfolk	Washington DC	Cumulative Units
0	13,744,800					0
1-3	10,995,840	0	0	0	0	0
4-6	13,744,800	12	6	12	15	45
7-12	13,744,800	36	22	44	70	217
13-18	8,246,880	36	21	48	72	394
19-24	8,246,880	16	1	21	43	475
Total	68,724,000	100	50	125	200	475

PRESENT VALUES, ACCELERATION, & RESALE PRICE:											
Year	Draw	Pensacola	Gulfport	Norfolk	Washington DC	Cumulative Units	Yearly BAH	Cumulative BAH	MPVIF @ 7%	PV Draws	Annual Sales+ Yearly BAH
1	68,724,000	48	28	56	85	189	387,450	387,450	1.00000	68,724,000	\$ 387,450
2	0	100	50	125	200	425	9,569,400	9,956,850	.87344	0	\$ 8,358,285
3	0	100	50	125	200	425	9,569,400	19,526,250	.81630	0	\$ 7,811,481
4	0	100	50	125	200	425	9,569,400	29,095,650	.76290	0	\$ 7,300,449
5	0	100	50	125	200	425	9,569,400	38,665,050	.71299	0	\$ 6,822,850
6	0	100	50	125	200	425	9,569,400	48,234,450	.66634	0	\$ 6,376,495
7	0	100	50	125	200	425	9,569,400	57,803,850	.62275	0	\$ 5,959,341
8	0	100	50	125	200	425	9,569,400	67,373,250	.58201	0	\$ 5,569,478
9	0	100	50	125	200	425	9,569,400	76,942,650	.54393	0	\$ 5,205,120
10	0	100	50	125	200	425	9,569,400	86,512,050	.50835	0	\$ 4,864,598
11	0	100	50	125	200	425	9,569,400	96,081,450	.47509	0	\$ 4,546,353
12	0	100	50	125	200	425	9,569,400	105,650,850	.44401	0	\$ 4,248,928
13	0	100	50	125	200	425	9,569,400	115,220,250	.41496	0	\$ 3,970,961
14	0	100	50	125	200	425	9,569,400	124,789,650	.38782	0	\$ 3,711,178
15	0	100	50	125	200	425	158,277,390	283,067,040	.36245	0	\$ 57,367,010 (see Note 1)
Total	68,724,000	1448	728	1806	2885	425	283,067,040			68,724,000	\$ 132,499,977
Present Value	68,724,000						222,032,900				

LOAN SCHEDULE AND LENDER'S IRR					
Year	Interest	Principal	Payments	Annual Cash Flow	Annual
1	4,758,888	1,634,910	6,393,797	67,089,090	(68,724,000)
2	4,640,700	1,753,097	6,393,797	65,335,993	1,753,097
3	4,513,968	1,879,829	6,393,797	63,456,164	1,879,829
4	4,378,075	2,015,722	6,393,797	61,440,442	2,015,722
5	4,232,359	2,161,439	6,393,797	59,279,003	2,161,439
6	4,076,108	2,317,689	6,393,797	56,961,314	2,317,689
7	3,908,562	2,485,235	6,393,797	54,476,079	2,485,235
8	3,728,904	2,664,893	6,393,797	51,811,186	2,664,893
9	3,536,259	2,857,538	6,393,797	48,953,647	2,857,538
10	3,329,697	3,064,110	6,393,797	45,899,537	3,064,110
11	3,108,192	3,285,615	6,393,797	42,603,923	3,285,615
12	2,870,655	3,523,132	6,393,797	39,080,790	3,523,132
13	2,615,978	3,777,820	6,393,797	35,302,971	3,777,820
14	2,342,879	4,050,919	6,393,797	31,252,062	4,050,919
15	2,050,037	4,352,052	6,393,797	26,920,265	4,352,052
	54,091,252	68,724,000	122,815,252		

D5- Investor Return on Investment Analysis (cont.)

Lender's Yield 7.00% Minimum Number of Servicemembers in Plan= 665
 (21/15¹425=Typical Military Career being 21 years/servicemembers spending 15 years in program/number of homes)

MILITARY COMMUNITY LLC'S CASH FLOW, NPV AND IRR

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Inflow:															
BAH+Yr 15 Sales	\$387,450	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$9,569,400	\$158,277,390
Loan Draw	\$68,724,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Servicemember Deposit	\$3,325,000														-\$3,325,000
Servicemember Utility Portion ⁴		\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745	\$247,745
Commercial Property Income		\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
Initial Investment Capital	-\$17,181,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Inflow	\$55,255,450	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$9,967,145	\$155,350,134
Outflows:															
Site Purch.	\$17,181,000														
Improvements	\$54,979,200														
Loan Fee	\$0														
Loan Pmt. ⁶		\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$6,393,797	\$26,908,292
Utilities ⁴		\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467	\$1,486,467
Maintenance Costs		\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000	\$418,000
Equity Pmt to Servicemember															\$52,411,949
Gen & Admin	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000
Prop. Tax & Ins ^{3,5}	\$95,450	\$95,450	\$95,450	\$95,450	\$95,450	\$639,515	\$639,515	\$639,515	\$639,515	\$639,515	\$639,515	\$639,515	\$639,515	\$639,515	\$1,065,222
Total Outflow	\$72,905,650	\$9,043,714	\$9,043,714	\$9,043,714	\$9,043,714	\$9,587,779	\$9,587,779	\$9,587,779	\$9,587,779	\$9,587,779	\$9,587,779	\$9,587,779	\$9,587,779	\$9,587,779	\$82,939,931
Net Cash	(\$17,650,200)	\$923,430	\$923,430	\$923,430	\$923,430	\$379,365	\$379,365	\$379,365	\$379,365	\$379,365	\$379,365	\$379,365	\$379,365	\$379,365	\$72,410,204
Net Present Value		\$1,868,012													
Internal Rate of Return		12.65%													

¹ Year 15 based on selling all units for original cost+3% inflation per year +Yearly BAH

² Based on no taxes for first 5 years and 50% reduction for next 10 years due to economically depressed areas.

³ Mortgage and hazard insurance based on \$100/\$100000 home value (actual amount will vary dramatically based on plan selected); taxes based on 40% assessed value(purchase price)*2.85%

⁴ Similar to on-base housing, servicemember would pay cable and phone costs

⁵ Utility costs based on COL index multiplied by (\$100 electric, \$50 gas, \$35 cable, \$15 phone, \$30 water/sewer= total \$230)

⁶ Based on Military Community LLC balloon loan payment at year 15 after home sale.

D6- Summary of Stakeholder Benefits

Military Community LLC Financial Analysis Summary	
Initial Build-Out Investment for 425 homes in 4 locations=	\$ 85,905,000
Principal gained from Service member over 15 yrs=	\$ 78,815
Total BAH paid over 15 year period by Government (425 members)=	\$ 105,065,100
Resale value of 425 homes at year 15=	\$ 158,277,390
Total Payments to Finance Company from Military Community=	\$ 122,815,252
Military Community Net Present Value After Expenses & Payments=	\$ 61,868,012
Military Community Return on Initial Investment=	13%

REFERENCES

- Affairs, N. H. P. (2004). Navy Awards Largest Public-Private Venture Housing Initiative to Date, *CEC Biweekly* (pp. 2): Chief of Civil Engineers.
- Benner, J. (2003, November 13, 2003). Military Aims to Improve Base Housing -- and Morale; Private Sector Assists Renewal of Family Units. *The Washington Post*, p. T.01.
- Brueggeman, W. B. a. F., Jeffrey D. (2005). *Real Estate Finance and Investments*. New York: McGraw-Hill Irwin.
- Calculators, M. (2004). *Mortgage Payment Calculators*. Retrieved November 24, 2004, 2004, from http://www.mortgage-calculator-payment.com/mortgage/fixed_rate_mortgage.php
- Center, M. R. (2005). *VA Loan Information*. Retrieved May 8, 2005, 2005, from <http://www.mortgageresearchcenter.com/loans/va.htm>
- Commerce, U. S. D. o. (1998). *State and Metropolitan Area Data Book 1997-98 (5th edition)*. Washington, DC: US Department of Commerce.
- Defense, D. o. (2002). *2002 Demographics Profile of the Military Community*.
- Defense, D. o. (2005). *DisLocation Allowance (DLA)*. Retrieved May 12, 2005, 2005, from <https://secureapp2.hqda.pentagon.mil/perdiem/dla.html>
- Defense, O. o. t. S. o. (2005). *Basic Allowance for Housing (BAH)*, from <http://www.defenselink.mil/militarypay/pay/bah/index.html>
- Development, U. S. D. o. H. a. U. (2001). Table 14. Mortgage Interest Rates, Average Commitment Rates, and Points: 1972-Present.

References (cont.)

- Development, U. S. D. o. H. a. U. (2002). Table 8. New Single-Family Home Prices: 1964-Present.
- Environment, O. o. t. D. U. S. o. D. I. a. (2004). *Military Housing Privatization*. Retrieved October 29, 2004, 2004, from <http://www.acq.osd.mil/housing/mhpi.htm>
- Epley, D. R., Rabianski, J.S., Haney Jr., R.L. (2002). *Real Estate Decisions*. United States: South-Western.
- Foundation, U. E. (2004). *Buying A Home*. Retrieved 2004, October 17, 2004, from <http://www.usaedfoundation.org/house/>
- GAO-04-556. (2004). *Military Housing* (No. GAO-04-556).
- Gilmore, G. (2004). Troop, base realignments pressure exchanges to change, *Air Force Link*: American Forces Press Service.
- Home, R. (2004). *FAQs About Maintenance*. Retrieved October 2004, 2004, from <http://rhol.org/rental/maintq&a.htm>
- Housing, C. (2004a). *Public Private Ventures*. Retrieved October 30, 2004, 2004, from <https://www.housing.navy.mil/>
- Housing, C. (2004b). *Public Private Ventures*. Retrieved October 28, 2004, 2004, from <http://www.housing.navy.mil/ppv/index.cfm>
- Housing, N. O. F. (2004). *What is PPV?* Retrieved November 2, 2004, 2004, from <http://nsa.nola.navy.mil/navfacorl/ppvhome.htm>
- Max, S. (2004). Your Home: Bracing for higher rates, *CNN Money*: CNN Money.
- Perkins, B. (2003). It's A Renter's Market-- Haggles, *Realty Times*.
- Philpott, T. (2001). *Longer Careers, Fewer Moves: Two of Rumsfeld's Tougher Goals*. Retrieved 2004, October 1, 2004

References (cont.)

- PPV, L. C. (2005). *We're Working Together*. Retrieved May 6, 2005, 2005, from <http://www.lincolncarkppv.com/>
- Practices, N. C. f. B. (2004). *State Strategies to Address Encroachment at Military Installations*. Retrieved May 24, 2005, 2005, from <http://www.nga.org/cda/files/032403MILITARY.pdf>
- Realtors, N. A. o. (2004). *Median Sales Price of Existing Single-Family Homes for Metropolitan Areas*. Retrieved October 2004, 2004, from <http://www.realtor.org/research.nsf/Pages/MetroPrice>
- Report, G. (1996). *Military Family Housing: Opportunities Exist to Reduce Costs and Mitigate Inequities* (No. GAO/NSIAD-96-203). Washington DC.
- Report, G. (2001). *Military Personnel- Longer Time Between Moves Related to Higher Satisfaction and Retention* (No. GAO-01-841). Washington DC.
- Report, G. (2004). *Military Housing: Further Improvements Needed in Requirements Determinations and Program Review* (No. GAO-04-556).
- Representatives, H. o. (2001). *House Report 106-614- Military Construction Appropriations Bill, 2001*. Retrieved October 19, 2004, 2004, from http://thomas.loc.gov/cgi-bin/cpquery/?&db_id=cp106&r_n=hr614.106&sel=TOC_8190
- Stop, N. H. O. (2005). *Your one-stop source for Navy Housing Information- worldwide*. Retrieved May 8, 2005, 2005, from <http://www.housing.navy.mil/onestop/main.htm>
- Times, C. C. (2001). Don't Give Up your Lock Without First Considering the Consequences, *Contra Costa Times* (Walnut Creek, CA).
- USER, H. (2000). fy 2000 income limits and section 8 fair market rents.
- usmilitary.about.com. (2005). *Fiscal Year 2004 Military Pay and Allowances Dislocation Allowance*. Retrieved May 12, 2005, 2005, from <http://usmilitary.about.com/od/fy2004paycharts/1/bldla.htm>

References (cont.)

Young, E. (2004). *Welcome to the Ernst & Young Privatization Support Contractor (PSC) Web Site*. Retrieved October 30, 2004, 2004, from <http://psc.ey.com/>

BIOGRAPHY



Marcus E. Williamson

Lieutenant, Civil Engineer Corps, USNR

LT Marcus Williamson hails from Iowa City, Iowa, but has had the opportunity to live in Arizona, Florida, South Carolina, California, Georgia, Oregon, New York, Maryland, Massachusetts, Rhode Island and Mississippi. He received his Associate of Arts from University of Florida and Bachelor of Science degree in Civil/Environmental Engineering from Northern Arizona University. He obtained his EIT from Arizona.

Prior to returning to active duty as a Lieutenant Junior Grade, he spent almost 10 years performing data center, biotech laboratory and semiconductor cleanroom design/build work for IBM, Intel, Hyundai, Human Genome Sciences, Corning Lasertron and American University in Cairo, Egypt.

LT Marcus Williamson has already served in Operations DESERT SHIELD, DESERT STORM, ENDURING FREEDOM and IRAQI FREEDOM and IRAQI FREEDOM II. His awards include Seabee Combat Warfare Qualified, Navy Commendation Medal (2nd Award- 1 with Combat "V"), Navy Achievement Medal, Combat Action Ribbon, Navy Presidential Unit Citation, Navy Unit Commendation, Marine Meritorious Unit Commendation, Navy Battle "E" (2nd Award), Global War on Terrorism Expeditionary Medal, Global War on Terrorism Service Medal, Selected Marine Reserve Medal (2nd Award), Fleet Marine Force Ribbon, National Defense Medal (2nd Award), Southwest Asia Service (3rd Award), Humanitarian Service, Sea Service (2nd Award), Armed Forces Reserve Medal with Mobilization, Kuwait Liberation- Saudi Arabia, Kuwait Liberation- Kuwait, Navy Rifle Expert, Navy Pistol Marksman.

LT Williamson is a member of Society of American Military Engineers, International Facility Management Association, American Society of Civil Engineers, Tau Beta Pi, Blue Key Society, Golden Key Society, and Phi Kappa Phi.

LT Williamson is married to the lovely Joanna Williamson and has two great children, Marcus Williamson II and Jack Williamson. His interests include volunteer work, golf, volleyball and his family.