



Affordable and Green Housing on Nantucket Island

An Interactive Qualifying Project for the Nantucket Project Center
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Abstract

The shortage of affordable housing has been a major problem in Nantucket, MA, and continues to be so today. The goal of this project was to help Housing Nantucket evaluate strategies and options for expanding the availability of affordable housing on Nantucket. Through case studies, interviews, literature reviews, and observations, we identified suitable parcels of land for affordable housing developments and examined innovative land use and green building methods for these parcels.

Authorship Page

Haley Connelley, Matthew Henry, and Kristen Hughes all contributed equally to the research, writing, and editing that went into this project.

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- Penny Dey, Real Estate Broker, Atlantic East Real Estate
- Deborah Dilworth, Assessor, Town of Nantucket
- Steven Blashfield, Architect, Chip Webster and Associates
- Andrew Vorce, AICP, Planning Director, Nantucket Planning Office
- Susan Witte, Housing Planner, Nantucket Planning Office
- John Brescher, ZBA Administrator, Nantucket Zoning Board of Appeals
- Mark Voigt, HDC Administrator, Nantucket Historic District Commission
- Anne Perkins, Director of Ownership Programs, Rural Development Incorporated
- Wendy Forbes, Home Ownership Programs Assistant, Rural Development Incorporated
- Mary Anne Worth, Coordinator, Nantucket Council for Human Services
- Richard Ray, Health Director, Nantucket Health Department
- Mark London, Executive Director, Martha's Vineyard Commission
- Christine Flynn, Economic Development & Affordable Housing Planner, Martha's Vineyard Commission
- David Vigneault, Executive Director, Dukes County Regional Housing Authority

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Table of Contents

Abstract.....	i
Authorship Page.....	ii
Acknowledgements.....	iii
List of Tables and Figures.....	vii
List of Acronyms and Abbreviations.....	viii
List of Definitions.....	ix
Executive Summary.....	x
1 Introduction.....	1
2 Background.....	3
2.1 The Affordable Housing Problem.....	3
2.1.1 Overview of Land on Nantucket.....	6
2.2 Legislation, Policies, and Programs.....	8
2.2.1 State Legislation and Policies.....	8
2.2.1.1 Development Opposition.....	9
2.2.1.2 Housing Support.....	11
2.2.2 State Programs.....	12
2.2.3 Nantucket Legislation and Policies.....	12
2.2.4 Nantucket Programs.....	13
2.3 Planning and Developing Affordable Housing.....	15
2.3.1 Making Housing More Affordable.....	16
2.3.2 Affordable Green Buildings.....	16
2.3.3 Sun Exposure.....	17
2.3.4 Landscaping.....	17
2.3.4.1 Energy Savings.....	17
2.3.4.2 Other Benefits.....	18
2.3.5 Innovative Septic / Composting Toilets.....	18
3 Methodology.....	19
3.1 Identifying Suitable Parcels of Land.....	20
3.1.1 Interviews.....	20
3.1.2 GIS Mapping.....	21
3.1.3 Surveying the Land.....	22
3.2 Identifying Green Building Techniques.....	23

3.2.1	Current Land Use and Building Techniques	23
3.2.3	Identifying Best Green and Land Use Practices	25
3.3	Organizing Data	27
3.4	Presenting Results	27
4	Results and Analysis	29
4.1	Land Parcels	29
4.1.1	Criteria	29
4.1.2	Analysis of GIS Maps.....	31
4.1.3	Appropriate Land Parcels for Affordable Housing Developments.....	33
4.2	Green Technology.....	33
4.2.1	Windows	34
4.2.2	Passive Solar.....	35
4.2.3	Solar Panels.....	36
4.2.4	Sustainable Materials.....	39
4.3	Analysis of Interviews	40
4.3.1	Assessment of Current Housing Situation	40
4.3.2	Better Collaboration among Housing Groups	41
4.3.3	Scattered Developments.....	43
5	Conclusions.....	44
6	Recommendations.....	46
6.1	Recommended Land	46
6.1.1	Ideal Locations.....	46
6.1.2	Recommended Parcels	46
6.2	Green Recommendations	47
6.2.1	Passive Solar.....	47
6.2.2	Innovative Landscaping.....	48
6.2.3	Innovative Materials.....	48
6.2.4	Greener Heat	48
6.3	Other Recommendations.....	49
6.3.1	Creating Affordable Housing as a United Front.....	49
6.3.2	Collaboration with Conservation Groups.....	49
	References.....	51
	Appendix A: Sponsor Description	56
	Appendix B: Interview Protocol	60

Appendix C: Interview Transcripts.....	62
C-1 Interview with Penny Dey	62
C-2 Interview with Deborah Dilworth.....	65
C-3 Interview with Steven Blashfield.....	69
C-4 Interview with Andrew Vorce and Susan Witte	73
C-5 Interview with John Brescher	84
C-6 Interview with Mark Voigt	87
C-7 Interview with Anne Perkins and Wendy Forbes	93
C-8 Interview with Maryanne Worth.....	100
C-9 Interview with Richard Ray.....	107
C-10 Interview with Mark London and Christine Flynn	113
C-11 Interview with David Vigneault.....	126
Appendix D: Parcel Book	128

List of Tables and Figures

Tables:

Table 1: Summary of Types of Appeals	10
Table 2: Zoning Board Decisions 1970's Vs. 1990's	11
Table 3: Interviews and Topics.....	24

Figures:

Figure 1: Massachusetts Single-Family Home Average Selling Price and Median Household Income.....	4
Figure 2: Nantucket Lot Price.....	4
Figure 3: Nantucket Home Price.....	5
Figure 4: Population trend for 1960 to 2010.....	5
Figure 5: Affordable Home Price for Household Income	6
Figure 6: Nantucket Land Usage in 2007	7
Figure 7: Map of scenic Nantucket areas.....	7
Figure 8: Approval Requests and Appeals Filed	11
Figure 9: CPA Funds Distribution 2002-2005.....	14
Figure 10: Passive Solar During Summer and Winter.....	17
Figure 11: Windbreak	18
Figure 12: Sample GIS Map	22
Figure 13: Duplex in Wisdom Way Solar Village, Greenfield, MA	25
Figure 14: Affordable House in Jenney Way, Martha's Vineyard	26
Figure 15: Land Parcel Checklist Example	27
Figure 16: GIS Map	32
Figure 17: Suggested Parcel List	33
Figure 18: Window Temperatures at Colrain House	35
Figure 19: Wisdom Way Solar Village Duplex	37
Figure 20: RDI Colrain Home Energy.....	38
Figure 21: Recommended Parcel List.....	47
Figure 22: Home and Land Prices	56

List of Acronyms and Abbreviations

AMI: Area Median Income

CHAPA: Citizens Housing and Planning Association

COD: Country Overlay District

CPA: Massachusetts Community Preservation Act

DCRHA: Dukes County Regional Housing Authority

DHCD: Department of Housing and Community Development

GIS: Geographic Information Systems

HUD: U.S. Department of Housing and Urban Development

LEED: Leadership in Environmental and Energy Design

MHP: Massachusetts Housing Partnership

M.V.: Martha's Vineyard

NP&EDC: Nantucket Planning and Economic Development Commission

OSB: Oriented Strand Board

RDI: Rural Development Incorporated

SHGC: Solar Heat Gain Coefficients

TOD: Town Overlay District

ZBA: Zoning Board of Appeals

List of Definitions

Affordable Housing (general) – Dwelling units available at a cost of no more than 30% of gross household income to households at or below 80% of the county median income as reported by the Department of Housing and Urban Development (Cape Cod Commission, n.d.).

Affordable Housing (Nantucket) – Due to the high cost of living on Nantucket, and for the purpose of this project, affordable housing on Nantucket will be defined as dwelling units available at a cost of no more than 30% of gross household income to households at or below 150% of the area median income.

Green – For the purpose of this report “green” will be defined as energy efficient, sustainable, and environmentally friendly.

Lot – A parcel of land having fixed boundaries (WordNet, 2006).

Parcel – An area of land, usually with some implication for land ownership or land use (Manitoba Land Initiative, 2008).

Site – The piece of land on which something is located which can be comprised of one or more connected parcels (WordNet, 2006).

Executive Summary

There has been a growing issue of affordable housing in the United States for decades. Out of this dilemma has come the creation of several housing organizations that monitor and manage the housing situation in each state. For Massachusetts alone there are many groups. Two of them are the Citizens Housing and Planning Association (CHAPA) and the Department of Housing and Community Development (DHCD). Groups like these have been working to provide some form of relief from this problem, but there is still a crying need for affordable housing. This situation can be worse in towns that have a higher cost of living and/or higher housing costs than the national average.

Nantucket is a place that fits into both of these categories. The cost of living is extremely high, and home prices are even higher. There are several groups on the island that are all working to provide a form of relief for anybody who makes less than 150% of the median gross income in Nantucket County. One of these groups is Housing Nantucket, a small non-profit organization whose mission is to create “sustainable community housing opportunities in Nantucket.” Some of the services they provide are rental units to the residents of the island who earn less than 80% of the area median income and home ownership opportunities to residents who earn less than 150% of the area median income. They have had an abundance of success in doing so, but are starting to find progress more difficult due to a lack of available land to develop for affordable housing and opposition to new developments. A source of new ideas is needed to address the problem.

As part of our project to help the affordable housing situation, we worked with Housing Nantucket to evaluate strategies and options for expanding the availability of affordable housing on Nantucket. To accomplish this goal we created two objectives to be completed during our stay on the island, which were (1) to identify vacant parcels of land that are suitable for affordable housing developments, and (2) to examine innovative building and land use methods for these parcels.

To accomplish the first objective, we contacted the Geographic Information System (GIS) coordinator on the island, Nathan Porter, who provided us with GIS maps, overlays of Nantucket, and data tables regarding the parcels of land on the island. From these overlays and data tables we were able to narrow down the list of over 13,000 parcels of land to a manageable

number to investigate further. These data tables contained land use codes that we were unfamiliar with. To gain knowledge of these codes, we conducted an interview with the town's Assessor to interpret the codes and ask which codes were best suited for the parcels of land we were searching for. Another way we narrowed down the list of land parcels was to create a list of criteria that each parcel must meet in order to be used for affordable housing developments. These criteria came from research and interviews we conducted with affordable housing organizations, town officials, and other key informants in the affordable housing field. With the information we have obtained, we have created a list of the recommended criteria that the parcels of land should meet in order to accommodate affordable housing developments. These criteria are as follows:

- Be located in the town sewer district
- Have access to the town water supply
- Be located in close proximity to common amenities
- Be located along existing roads
- Have nearby access to sidewalks and bike paths
- Have potential to incorporate passive solar energy

As there is a lack of available land on the island, not all parcels found were able to meet the criteria we had set. Despite this, we identified the parcels of land that incorporated most or all of these recommended standards and organized them from the parcels that met the most number of criteria to the parcels that met the least number of criteria.

By inputting the criteria we developed into the GIS software, we were able to successfully narrow down the 13,256 parcels of land to 208 vacant parcels. We presented this list to our liaison, Aaron Marcavitch, who further narrowed down the list to 84 potential parcels, and deemed 25 parcels best suited for development. After further investigation into the list of 84 parcels, we found six additional parcels that we felt were also suitable for affordable housing. With additional evaluation of these 31 parcels and combining linked lots, we found 20 sites that are highly recommended for future affordable housing developments.

To find the appropriate innovative land and building methods for Housing Nantucket, we first investigated the current housing and land policies the Town of Nantucket enforces. From this information, we narrowed down which innovative land and building methods were permissible, and which areas we should focus on during our research into these innovative

techniques. Through case studies, additional research, and interviews on this topic, we found the appropriate innovative techniques. The case studies which we researched included the Wisdom Way Solar Village in Greenfield, Massachusetts; the Jenney Way project located in Edgartown, Massachusetts; and the Clarendon Street house from Nantucket, Massachusetts. We studied and interviewed the key informants in these communities to discover what innovative techniques were used to help overcome the housing issues in those areas and what techniques Housing Nantucket could possibly implement.

All three of the case studies we have researched have incorporated green technology into its affordable housing design. We have seen the use of solar equipment, new insulation methods, and even new window technology. Each site that we visited approached the green building situation slightly differently, but ultimately achieved very similar results. For example, each house used different insulation methods, but all managed to create a home that was tightly sealed. Another feature was that all of these sites maintained the affordability of their units while using many green technologies. These visits allowed us to observe the different ideas in regards to affordable and green housing that these different areas of the state had incorporated.

In our interviews we asked common questions regarding the current affordable housing situation on the island. These questions resulted in an array of answers, but one response occurred many times. This response was that there needs to be better communication between the non-profit organizations involved with affordable housing and the town government. The recommendations we have are that the non-profits involved with affordable housing and the town government should have better collaboration on goals and progress. Four of the six interviewees whom we spoke with agreed that there was not enough communication between the housing organizations on the island. There are several different housing organizations on Nantucket, our sponsor, Housing Nantucket, Habitat for Humanity, and the Nantucket Housing Authority. All of these groups share the same goal of providing more affordable housing for the residents of the island. It is very important that there be a collaborative effort put forth towards the affordable housing front. Nantucket is still at less than half of the required 10% affordable housing minimum. If Housing Nantucket and various other housing organizations on the island can work together for this shared goal of more affordable housing units, the 10% minimum can be reached more easily. Communication between these groups will ensure that Nantucket is not working against itself in the quest for more affordable housing.

1 Introduction

Providing housing at an affordable rate is what many housing organizations strive to do every day. Without a year-round, affordable place to live, some people are forced to move often, to commute unreasonably long distances, or worse. Although their efforts have been evident, Housing Nantucket continues to struggle to provide residents of Nantucket, MA with affordable housing. Affordable housing is defined by:

“Housing units whose sale or resale price is regulated to be occupied by households with annual incomes less than 100% of the median annual household income for Nantucket County as determined by the most recent calculation of the U.S. Department of Housing and Urban Development.”

- Nantucket Bylaw § 139-2. Subsection A

These housing units in Nantucket are currently priced at about \$430,000. By Massachusetts law, housing must also cost less than 30 percent of a household’s gross income to be considered affordable. At this time, there are not many options available. Many of the residents in need of affordable housing cannot find a permanent home, and the available rentals are still too expensive. The lack of housing is expected to only become more of an issue over the coming years with even less land available for development. The members of Housing Nantucket must constantly work to improve their methods and plans for the future of the residents on the island. Our goal is to help Housing Nantucket by identifying green building techniques and to determine suitable parcels of land that these techniques may be applied to. In order to fulfill these duties, our group was required to understand detailed aspects of Nantucket. Information that was useful to our project included current residential data, local interest in affordable housing, and laws that controlled use of the land.

After arriving on the island, our group collected more data for the project. Some ways we did this included reading more town bylaws, researching different green building techniques, and interviewing Nantucket residents. There are many complexities that underlie the construction of any form of housing. To help ourselves understand some of the building methods, we traveled to a couple of different sites to see what they had done to make the buildings green. We were able to see the Wisdom Way Solar Village in Greenfield, MA along with traveling to Martha’s

Vineyard to see the recent development, Jenney Way. Through interviews and discussions with people at both sites, as well as interviewing Nantucket residents who were involved in green building, we were able to study what makes a home so energy efficient and cost effective. While living on the island, we also visited several town offices to learn more about affordable housing.

A few of the offices that we visited included the Assessor's Office, the Nantucket Planning & Economic Development Commission, the Historic District Commission, and the Nantucket Health Department. We approached these offices with questions that arose while we were finding suitable parcels. Another office that we were in contact with was the Nantucket G.I.S. Department. We contacted Nathan Porter, the town GIS Coordinator, before our arrival on Nantucket to discuss some of our data and what other maps he may have had that would help us.

In order to organize any data that was collected in regards to parcels, it was necessary to utilize Geographic Information Systems (GIS) software. This program allowed us to overlay different criteria on one map, making it easier to find desirable areas. It was also be important to utilize existing maps that the department had created. By studying the restrictions and availabilities, we compiled a list of criteria that made up a suitable parcel. Once a potential parcel was determined, we visited the land to survey and verify its characteristics. Upon our project's completion we presented a comprehensive list of suitable land to Housing Nantucket that they may use in the near and distant future. By studying more literature and researching various aspects of land on Nantucket, we aimed to help Housing Nantucket to further develop their green building techniques and find more areas to build homes.

2 Background

It is a well known fact that affordable housing in the United States is a major concern. This issue first became a nationwide dilemma during the beginning of The Great Depression which left many people without jobs, without homes, or living in overcrowded housing situations. This dismal era led the country to implement housing programs (Yang, n.d.).

One of the first pieces of housing legislations was the Housing Act of 1937, which created a federal public housing agency known today as the United States Housing Authority. This housing agency was created to lend money to states and communities to construct and provide housing for low-income people (HUD, 2007). Since then, many other housing agencies and organizations have been formed to help the housing situation of their state, or local communities.

Today, all states in the USA have created their own organizations and policies to assist people with housing needs, especially in Massachusetts, which is the third most expensive state in which to buy a house (Ryan, 2002, p.10). Despite the effort Massachusetts puts into these programs, there are communities within the state that have a greater need in creating affordable housing. One such place is Nantucket. Over the years, Nantucket has become one of the most expensive places to live, due in large part to its rising housing costs. It has become clear that Nantucket is in need of more affordable housing units for its residents. Over the course of this review, the past and present efforts in creating affordable housing in Nantucket will be presented, including the policies and laws, politics, and the land use criteria that relates to affordable housing.

2.1 The Affordable Housing Problem

There are many families in Massachusetts who cannot afford adequate housing, especially in these hard economic times. The main contributor to this problem is that the housing prices continue to increase at a faster rate than the household income increases, as shown in Figure 1. The increasing housing prices have become such a large problem that one-quarter of renters in Massachusetts have received some form of housing assistance (Gumble, Romney, and Healey, 2005). As this trend continues, more and more people will find it increasingly difficult to find and obtain housing they can afford.

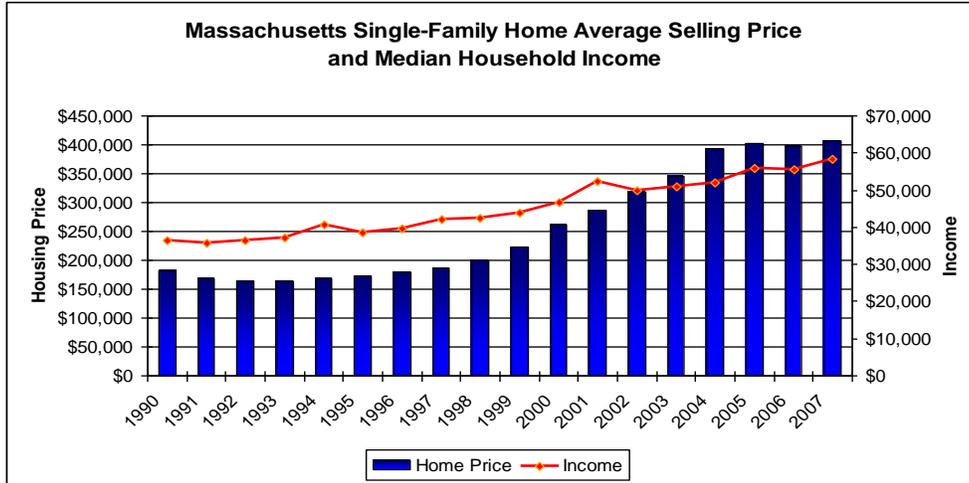


Figure 1: Massachusetts Single-Family Home Average Selling Price and Median Household Income
 (Source: Massachusetts Association of Realtors and the U.S. Census Bureau)

Similar to the Commonwealth of Massachusetts, the Nantucket affordable housing crisis resulted from the increasing housing costs. But unlike Massachusetts, Nantucket has two other contributing factors to this problem. The increasing land cost and the increasing population both play a part in this affordable housing issue. As more people move to the island, the demand for housing rises. This increase in demand increases housing prices. The increasing housing prices mean fewer Nantucket residents can afford a place to live. As shown in Figure 2 and 3, the land costs and housing costs dramatically increased throughout the 1990s as did the population represented in Figure 4.

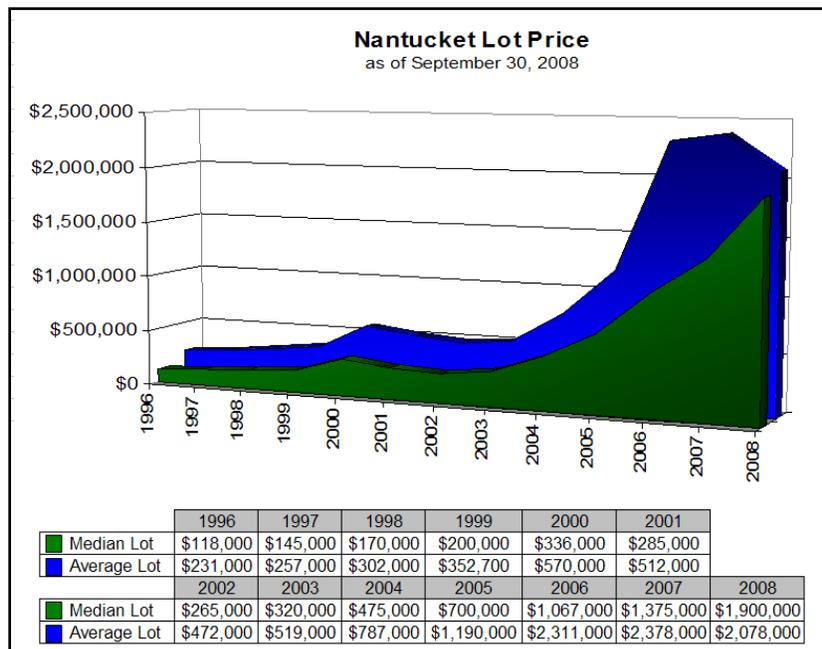


Figure 2: Nantucket Lot Price (Source: LINK Nantucket and Nantucket Comparable Sales)

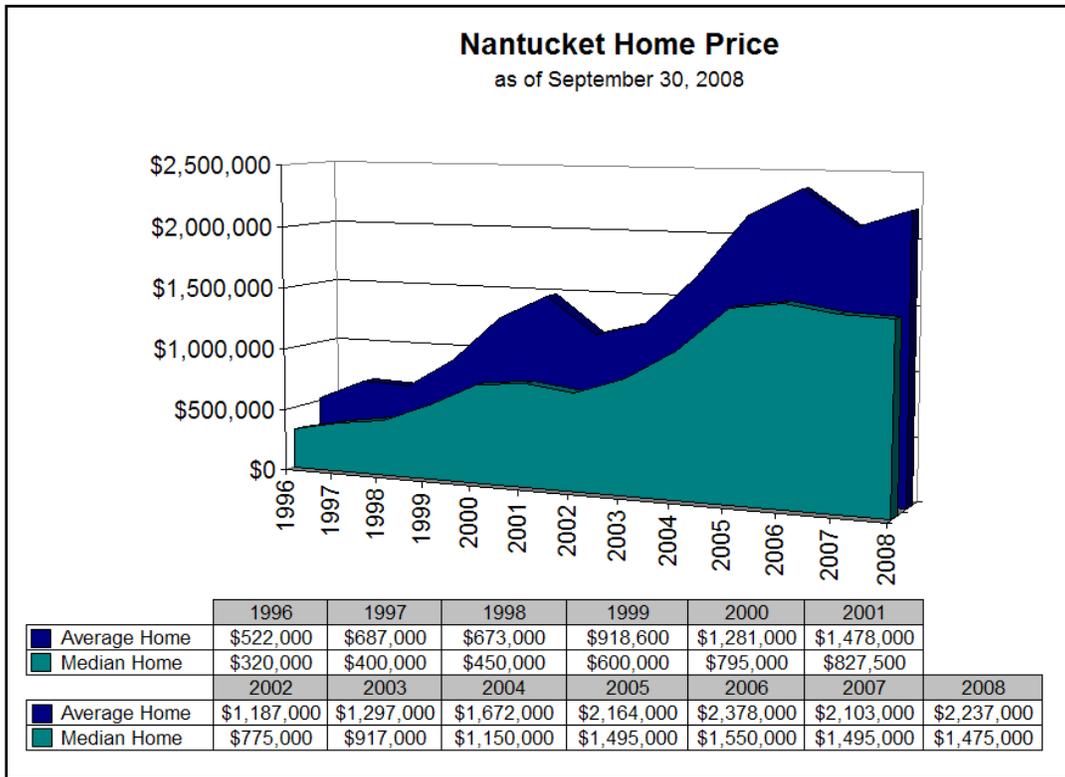


Figure 3: Nantucket Home Price (Source: LINK Nantucket and Nantucket Comparable Sale)

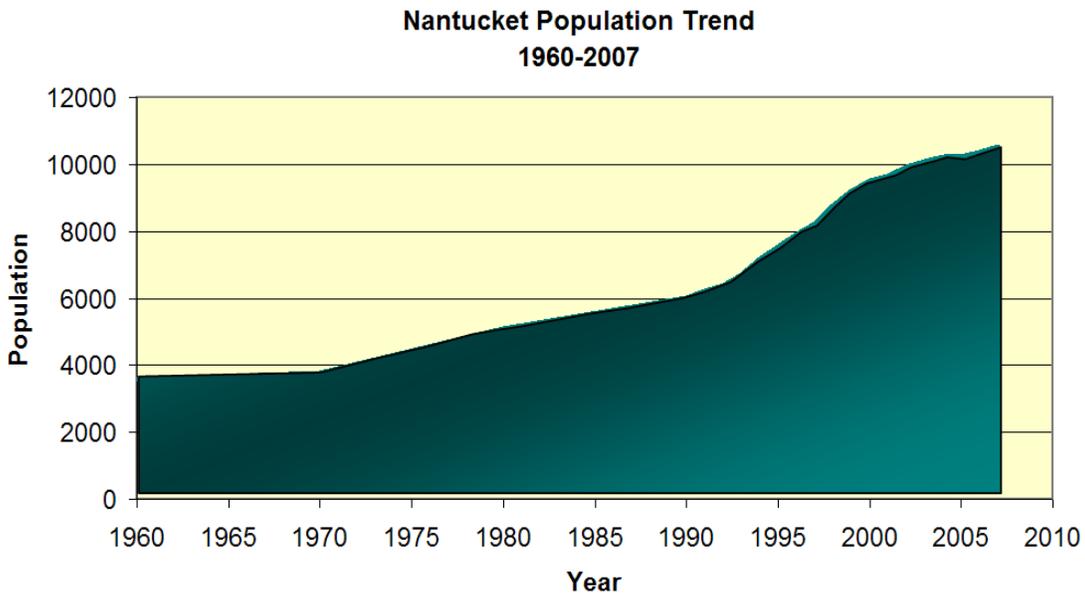


Figure 4: Nantucket Population trend for 1960 to 2007 (Source: U.S. Census Bureau).

The average gross household income on Nantucket today is about \$81,000 (Housing Nantucket). While this is a relatively high number compared to the rest of Massachusetts, many residents of Nantucket cannot afford the housing prices, especially when the average house cost is almost

\$1.5 Million. The following figure (Figure 5) shows the affordable price of a home for the different ranges of household income. For a family earning the average household income, the affordable home price is between \$300,000 and \$350,000, significantly below the average home cost on Nantucket today.

NANTUCKET	
<i>Household Income</i>	<i>Affordable Home Price</i>
\$50,000-\$59,999	\$180,000- \$225,000
\$60,000-\$74,999	\$225,000- \$299,999
\$75,000-\$99,999*	\$300,000- \$350,000

Figure 5: Affordable Home Price for Household Income (Ryan, 2002)

Although the housing prices didn't skyrocket until the 1990s, the housing problem on Nantucket started getting the public's attention around the 1980s. Local newspapers started to mention the high cost of summer housing in the area and the unsuccessful attempt of residents obtaining year-round housing at an affordable price (Cooper 1983). Because many vacationers are willing and able to pay more money for summer housing, many residents on Nantucket are forced to move out during the summer months. This constant act of people moving in and out has been known as the "Nantucket Shuffle".

2.1.1 Overview of Land on Nantucket

Another difficulty in providing more affordable housing on the island of Nantucket is the lack of available land to place new homes. The total area of Nantucket is 105.3 sq mi (67,392 acres), with 47.8 sq mi (30,592 acres) of actual land (Nantucket, Massachusetts). The entire island was first named a national historic landmark in December of 1966. In 1970 it was declared a historic district. Over 400 of the island homes were built between 1750 and 1850. More than half of the land on Nantucket is protected (Figure 6) to preserve the wildlife, the land itself, and the historic properties of the island (Town of Nantucket, 2007).

Overview of Nantucket Land Use in 2007

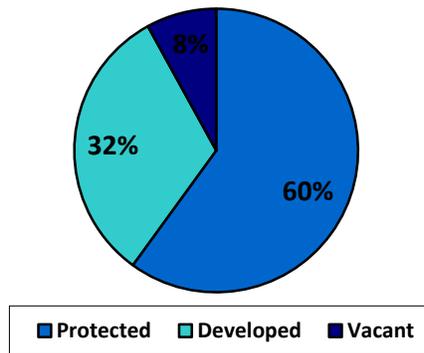


Figure 6: Nantucket Land Usage in 2007 (Town of Nantucket, 2007).

The Massachusetts Department of Environmental Management (DEM) has declared three “highly scenic” areas on the island: “The entire rim of Madaket Harbor and beyond including Eel Point, North Point, and Jackson Point as well as Muskeget and Tuckernuck Islands. The entire north and east rim of Nantucket Harbor including the barrier beaches, Coskata-Coatue Wildlife Refuge; and a large swath of land north of Siasconset and south of Sesachacha Pond stretching west into the Moorlands region” (Town of Nantucket, 2007). See Figure 7 for General locations of these places on the island.

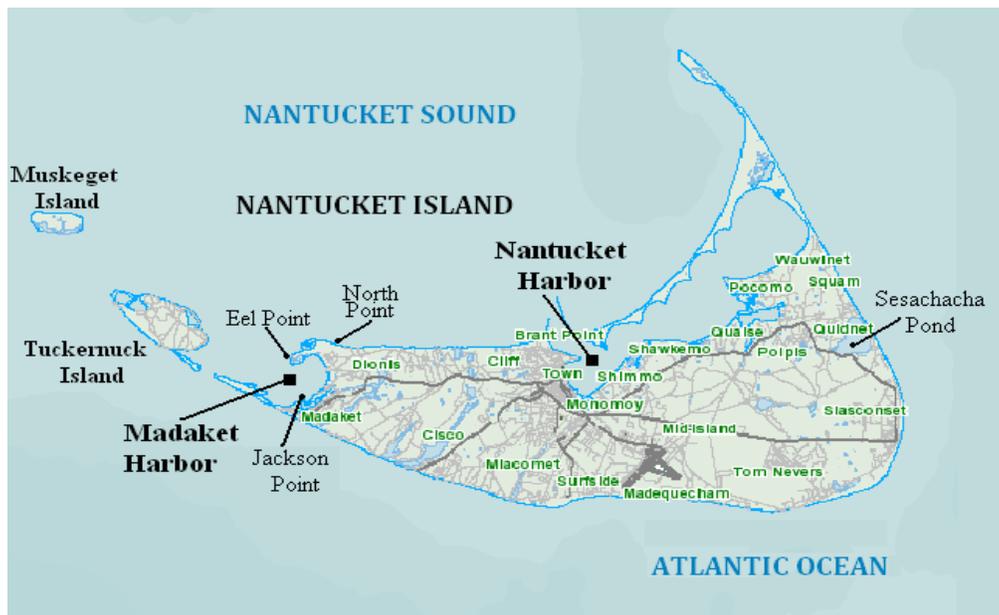


Figure 7: Map of scenic Nantucket areas. (Original map from: <http://thebestlittlemaponnantucket.com/CongdonColeman20/index.php>).

There are several thousand acres owned by the town of Nantucket, as well as other

various organizations. The town owns 724 parcels containing 2,136.26 acres and the Land Bank owns 661 parcels containing 2,524.83 acres. The Nantucket Wildlife Refuge owns 24 acres. More notably, the Nantucket Conservation Foundation owns 448 parcels, containing 8,667.53 acres and valued at almost \$2 million. Conservation groups own quite a bit more of the land, making it difficult for development of the land. In 2007, 60% of Nantucket was reserved for open space and 32% was already developed, leaving only 8% of the land left for future developments. While 88.1% of the previously developed areas are classified for residential use, the historic properties will make redevelopment of preexisting buildings difficult to achieve (Town of Nantucket, 2007).

2.2 Legislation, Policies, and Programs

By studying various state and local regulations, it is possible to see different aspects of what goes into providing affordable housing to those who need it. There are many different regulations that are involved, both at the state and local levels. Some of them relate to each other, while some of the local laws are completely controlled by the town. This is the case for municipalities all across the state.

2.2.1 State Legislation and Policies

On top of the standard building codes and land regulations, there are rules that control several aspects of constructing an affordable unit. An example is Massachusetts Chapter 40B. This law controls the number of houses in a new development that must be offered at an affordable rate, among other things (MA Law, 2008). Without fully understanding all of the relevant documents, it would be rather difficult to achieve any goals that we have set.

There are several state laws that promote affordable housing and also some local regulations that contribute to this cause. If a resident is paying less than 30 percent of their gross income for all housing costs, the housing is considered “affordable” in Massachusetts. One of the major contributors to housing in Massachusetts is the controversial MA Chapter 40B, also known as the “Anti-Snob Zoning Act.” This legislation contains four sections, Sec. 20-23, that sets regulations for municipalities, ensuring that at least 10% of the available housing is affordable (MA Law, 2008). This law also makes it easier for developers to obtain building permits, especially if the municipality does not currently meet the 10% requirement (Stanley, 1-3).

Although state bylaws must be adhered to, the Zoning Board of Appeals (ZBA) reserves the right to overrule local bylaws (Netter, 2003). The ZBA is also the committee that is in charge of reviewing and issuing permits for development (Netter, 2003). Yet another committee that has control over affordable housing is the Housing Appeals Committee (HAC). HAC keeps an eye on municipalities that unreasonably exclude affordable housing units from newer developments. They also have the power to order the ZBA to approve a permit even if they overrule zoning or other bylaws (Netter, 2003). These exceptions are only made when the percentage of affordable housing in a community is less than 10 percent. If the municipality does not meet the minimum standards for Chapter 40B, a permit can be granted without consent of current residents. Sometimes the permits are granted, but the development still has trouble moving along due to resistance by town members.

2.2.1.1 Development Opposition

There are current homeowners that do not agree with Chapter 40B or with the groups that try to help it. A prime example of this is a development that was scheduled to begin in 2002. That February, the Amherst ZBA approved a 26-unit rental development named Butternut Farm. The proposal was from HAP, Inc, a regional housing partnership designed to help low to mid-income families with housing issues. Immediately after the zoning approval, neighbors of the lot took the case to Land court to repeal the permits. The neighbors argued that the town already met the required 10 percent quota required by Chapter 40B. In August 2003, the Land Court upheld the zoning decision, and the neighbors were swift to appeal again. The Appeals court also sided with the ZBA.

They were persistent and took the case to the regional Supreme Judicial Court. The protest finally came to a close in June 2007, when the SJC ruled in favor of the Amherst ZBA. The claims that the neighbors had made was that the new affordable housing would depreciate the price of their homes and ruin the neighborhood. The Supreme Court decided that this was not good evidence as it was only the opinions of the land owners. These people that did not want a new development of affordable housing near them managed to postpone construction for nearly four years. This cost HAP, Inc. about \$200,000 between the court fees and cost of carrying the land that they wanted to build on. Even though the neighbors lost their case, they still managed to cripple the construction of a new development. This kind of situation can hurt organizations that are trying to help low to mid-income families (Verrilli, 2008).

The same kind of issue has been seen before on Nantucket as well. A recently constructed 40B development known as Abrem Quarry went through over six years of legislation before it was approved. This site provided 28 units on 3.6 acres of land, with eight homes classified as affordable. The other 20 houses could have been sold at market rate, but the developers sold them for about \$480,000. This is about half of what they could have been sold for. The town's ZBA had given unanimous approval in April of 2001, but the neighbors of the site were not pleased with the decision. They felt that the buildings were too dense and also did not agree with some of the conditions of the ZBA's approval. We are currently looking into what some of these conditions were. The rest of the process was very similar to the Amherst situation in regards to appeals. The site was eventually approved and began construction in early 2007 (Brace, 2006). Fortunately, the amount of opposition that builders have been facing has been slightly decreasing, as seen in Table 1.

Over the last few years, the housing market has been on a slight decline. Since affordable housing is a market driven field, the number of developments being proposed has also been declining. Fortunately, for the builders, the number of appeals filed by people opposing these developments has also decreased. These data are represented in Figure 8.

Type of Appeal	# of Projects		Type of Appellant			
			Abutter	Municipal	Both	Dev
Appeal of Local Approval Only	51	61%	45	4	1	1
Appeal of HAC Decision						
- HAC Decision Only	26	31%	1	23	2	0
- HAC Decision and Other	2	2%	1	1	0	0
- Both ZBA and HAC Decision	5	6%	3	0	2	0
Totals	84	100%	50	28	5	1

Table 1: Summary of Types of Appeals (Verrilli, 2008)

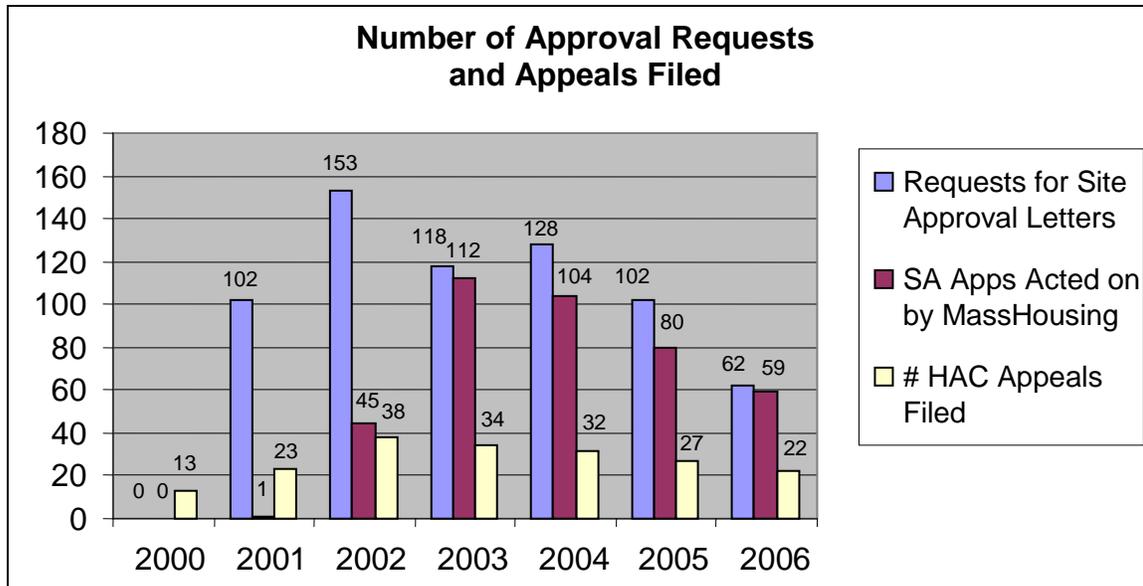


Figure 8: Approval Requests and Appeals Filed (Heudorfer, 2007)

2.2.1.2 Housing Support

Over the last several years, there has been a growing approval in MA Chapter 40B and affordable housing. Although it is difficult to find specific examples, it is clear that there has been a trend that shows more acceptances among the population. By looking at Table 2, one can see that the percentage of approvals, have been on a steady increase (Krefetz, 2008).

Another point of interest that could be a factor in this trend is the education about affordable housing and its policies. Over the past several years, officials have learned more about the demand for affordable housing and how to accommodate it. As shown above, more permits have been granted in the more recent years. Although, most have been granted “with conditions”, it is still a positive trend that housing organizations are glad to be seeing.

Zoning Board Decisions on CP Applications (1970s Vs. 1990s)		
	1970-1979	1990-1999
Denied	40%	20%
Granted with Conditions	39%	53%
Granted	21%	27%
# of Applications	122	175

Table 2: Zoning Board Decisions 1970’s vs. 1990’s (Krefetz, 2008)

On Nantucket, an example of this is a development that is being proposed along South Shore Rd. The development has been proposed to the town, and the planning board replied with a document

stating that it would be allowed but with certain changes. These differences included restricting the number of units on one parcel, maintaining some of the current foliage, and keeping with the traditional style of Nantucket architecture (Kopko 2008). At the state level, the conditions that are generally applied on the permits included landscape features, parking arrangements, the type of lighting and so forth (Krefetz, 2008). There have been many groups across the state that have been working to help the affordable housing issue start the trend mentioned before.

2.2.2 State Programs

Massachusetts has put into effect various pieces of legislation to assist in creating and maintaining affordable housing. One is the Massachusetts Community Preservation Act (CPA) which was created in the year 2000 to help communities in preserving open space, creating affordable housing, and preserving historical sites. “Municipalities that adopt the CPA levy a property tax surcharge of up to 3% and become eligible for a state match of up to 100% of the revenue collected” (Dillemuth 2006). In regards to the community housing projects, the CPA helps create housing for families earning up to 100% or less of the household median income.

Another organization committed to providing affordable housing is the Massachusetts Housing Partnership (MHP). This non-profit organization was created in 1985 intending to increase the state’s housing production and to find solutions for affordable housing. This year, MHP partnered with other local non-profit organizations to help finance 156 rental apartments in the Boston area by committing \$8.6 million towards the projects. All these new and refurbished units will be affordable to low-income families earning between \$23,166 and \$46,332 in the Boston area. Also, MHP had recently named Nantucket as one of its recipients of a Production Support Program grant to support Nantucket’s housing development. This program “uses funds from Bank of America to provide non-profit and community-based organizations” with funding to further development projects (MHP, 2002). Including Nantucket and the other 32 communities who have received this grant, the total amount the MHP rewarded was \$4 Million.

2.2.3 Nantucket Legislation and Policies

Besides laws that govern the entire state, each municipality has its own local laws that deal with housing issues. For Nantucket, one of the main documents is known as Chapter 139: Zoning. This law controls nearly every aspect of housing development on the island. This includes controls on things like vehicle parking lots, landscaping, or even “roofline articulation.”

Although our studies are primarily on affordable housing, it is also necessary to understand the different types of regulations that exist on the island.

There are aspects of Ch.139 that could help us, but also areas that we need to approach with open minds and may require close review. Among regulation that requires certain amounts of open space, or the dimensions allowed for a driveway, there are also portions that reference having to build homes with the Nantucket life-style in mind. The document specifically cites that the Historic District Commission must approve of new housing development for building placement, materials being used, and the architecture of the buildings. Although there are many regulations that slow developments, there are also sections that could very well help us out.

A type of planning that may be of interest for our project is what is known as cluster zoning. This form of construction goes against the idea of traditional zoning where there is a certain amount of land for each unit. Instead the buildings are clustered, hence the name, and take up as little space as possible. This reduces the amount of roads and utility routes that are required, thus reducing maintenance cost, also. The extra land that would have been built on if it were a traditional zoning decision is shared among the community and left as open space (Meadows, 1999). Chapter 139 already deals with this form of zoning. In Nantucket the open space mentioned, must be either turned over to the town for conservation, or may be given to a not-for-profit organization that will also preserve the property. These have just been a couple of examples of the legislation involved with Nantucket zoning regulations. We have gradually been working to understand some of the bylaws, but there is plenty more that must be read while we continue on with the project.

2.2.4 Nantucket Programs

Nantucket adopted the Community Preservation Act in 2001, and became the first in Massachusetts to do so (Lancaster, 2006). Since then, the CPA has funded several projects on Nantucket, including 21 housing projects, which has totaled over \$2.5 million, as shown in Figure 9.

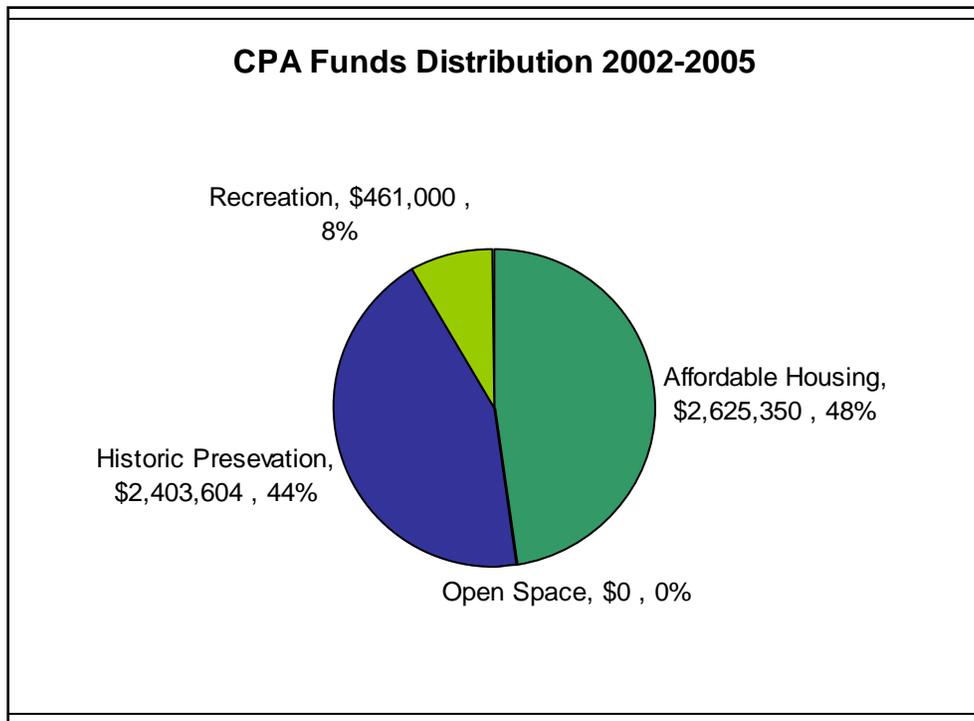


Figure 9: CPA Funds Distribution 2002-2005 (CPA)

A well known organization in Nantucket that the CPA has worked with is Housing Nantucket. Housing Nantucket is a small, non-profit organization, which started in 1994 in response to many residents leaving the island because of the housing costs. They are committed to offering the residents of Nantucket sustainable and affordable housing. The main focus areas of this organization are educating the community about housing, providing rental services, and providing assistance and information about homeownership. Housing Nantucket has worked with many housing organizations to implement its mission in creating and refurbishing houses for the lower-income families on the island (Housing Nantucket, n.d.).

In the past, Housing Nantucket has received funding from the CPA to execute their housing projects. One project the CPA funded is transporting two Nantucket homes. These unwanted homes were donated to Housing Nantucket for their House Recycling Program. The unwanted homes are transported from the donators land to property owned by Housing Nantucket. These houses are then renovated and rented out to year-round residents (Housing Nantucket, n.d.).

The CPA also works with many other organizations on housing projects. They have funded affordable housing projects for the Nantucket Human Services Center, Inc., the

Nantucket Behavioral Health Services, and for the Nantucket Boys and Girls Club. Most of these projects are to renovate or to create additions for the employee housing units of these organizations. To date, the Massachusetts Community Preservation Act has given Nantucket \$2,625,350 for affordable housing projects (CPA).

The Town of Nantucket has tried other ways to meet the affordable housing crisis on the island:

- In 1985, bylaw changes were made to allow the construction of duplexes to provide small affordable units. These duplexes also have deed restrictions which require the occupants to be year-round residents. This ensures the occupants that the rent will not radically rise during summer months and will remain a stable housing facility.
- In 1986, the town sold a former nursing home for \$1 to Nantucket Community Services. This organization created and provided the island with 22 affordable rental units for senior citizens.
- Also in 1986, Nantucket allowed a developer to convert a former school into 28 housing units for the elderly. Twelve of these units were reserved for low and moderate income occupants. (Longcope, 1988)

Even though Nantucket has created housing developments and programs to provide more affordable housing, it is still a problem today.

In addition to CPA and MHP funded housing, Nantucket has also provided over 100 units of state-qualified 40B housing. This includes many housing units for the elderly and family rental units. Also, the school department had designed and built affordable housing units for school faculty and staff. Another program currently in use is the Nantucket Housing Needs Covenant program. This program allows residents with two residential dwellings on their property to sell one of their dwellings to create an affordable housing unit (Ryan, p.19). To date, the Nantucket Housing Needs Covenant program has completed 37 transactions in this Needs Covenant Program.

2.3 Planning and Developing Affordable Housing

“It is believed that reducing the cost of housing can solve a significant part of housing problems all over the world” (Ziara, Mohamed M & Ayyub, Bilal M, 1999). The problem is how to make housing affordable. Before an affordable home can even be built, the developers must make sure the land is appropriate to build on. A plot of land with solid ground is ideal.

Otherwise there will be extra foundation costs, increasing the construction costs immediately. Before the house is planned developers must also consider political, physical, social, and economic constraints of the potential development area. The surrounding areas will need to be assessed to determine what type of area the home is being built in, especially if it is not just one home, but an entire development. Urban-based developments involve more options and constraints than rural-based developments.

2.3.1 Making Housing More Affordable

There are many factors that contribute to the cost of a home. Several solutions to these factors have been discovered over time. Some of the biggest costs reducing techniques are: new design and construction techniques, use of local building materials, wiser land use, and management and financial programs (Ziara, Mohamed M & Ayyub, Bilal M, 1999). The size and shape of a home are major contributors to the construction and design costs, for example, a rectangular room would be easier to construct than a room with curved walls. Local building materials are much cheaper than imported materials. On Nantucket, it is difficult to avoid importing materials, but any available local materials should be used for construction purposes whenever possible. An affordable home must also be located with accessibility in mind. If a family is able to purchase the home at an affordable rate, but later unable to make their payments due to other home-related expenses, it should not really be considered affordable.

2.3.2 Affordable Green Buildings

While determining how houses can be built affordably, it is also important to consider the continuous costs that add up during the year. One method to help keep energy costs down is to live in a green home, or make a current home greener. Green homes can help cut energy costs by utilizing “proper insulation, energy efficient appliances, ... skylights and high performance windows” (Affordable green housing, 2006). Homes not built to be green can still become green by using energy efficient light bulbs and appliances, and by replacing older windows with energy saving glass.

Green homes are helpful in more ways than just energy efficiency. Some green housing units are built with carpets, paints, wall coverings, and adhesives that contain fewer potentially harmful chemicals that are known to cause lung and eye irritation (Affordable green housing, 2006). This can improve the overall quality of life residents experience in their time at home.

One agency that promotes green building methods is the U.S. Green Building Council, “a non-profit organization committee to expanding sustainable building practices” (U.S. Green Building Council, 2008). One program they implement is the Leadership in Energy and Environmental Design (LEED) Rating System, which is a tool to promote and measure the scale of green and sustainable buildings. One branch of this system is LEED for Homes, which incorporates criteria to make homes more efficient to reduce energy and water consumption, thus reducing utility bills.

2.3.3 Sun Exposure

Adequate sun exposure to a land parcel can help with energy costs. Through passive solar techniques as described in section 4.2, a home can be nearly energy efficient. To utilize this solar energy, the land parcel must have an abundance of sun exposure to the south. The housing development must also incorporate a design to utilize the sun, by creating a building with numerous windows on the south facing side to obtain this solar energy. Figure 10 shows how an overhang will allow less sun during the summer, and more during the winter.

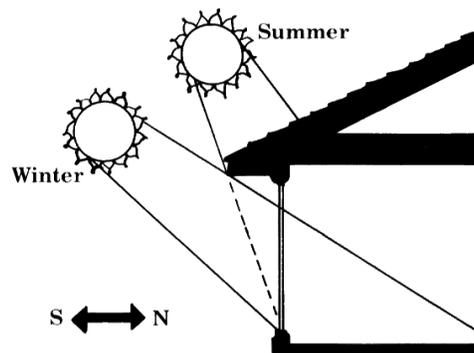


Figure 10: Passive Solar During Summer and Winter (Paul, 2008)

2.3.4 Landscaping

Proper and well executive landscaping can provide numerous positive effects on one's home. Not only is landscaping aesthetically pleasing, it can reduce energy consumption and produce other environmental benefits.

2.3.4.1 Energy Savings

During the winter months, the cold “winds increase the rate of air exchange between the interior and exterior of a house, lowering the house's interior temperature and thereby increasing the heating demand” (Niemiera, 2007). Properly placed trees and shrubs can create a windbreak,

which lessens the force of the wind against a house. As shown in Figure 11, the wind's path is altered due to the obstacles of the shrubs and tree, which reduces the effect the wind has on the home.

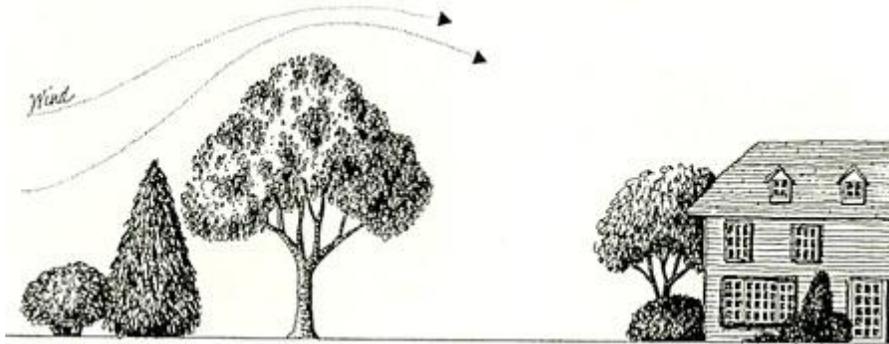


Figure 11: Windbreak (Niemiera, 2007)

This windbreak will reduce the wind speed and lessen the “air exchange between the interior and exterior” of the house (Niemiera, 2007). This will reduce the amount of heat loss and save on energy expenses. For land parcels that are large enough to accommodate full sized trees, this is one recommendation that can help with reducing heating costs. For smaller land parcels, planting shrubs close to a house will also decrease wind speed and decrease the heat loss from the walls of the house.

Throughout the summer, a tree planted on the south and west sides of a house will have a cooling effect. The trees absorb the sun's heat and provide shading to reduce the solar radiation upon a house. This cooling of the house will help with ease the need of air-conditioners, reducing the amount of energy used.

2.3.4.2 Other Benefits

Besides the energy savings trees and other shrubs can provide to a house, the appropriate landscaping can reduce air and water pollution. It can also help prevent erosions and conserve soil, as stated in the *Innovative Land Use Planning Techniques: A Handbook for Sustainable Developments*, as prepared by the New Hampshire Department of Environmental Services, also known as N.H.D.E.S.

2.3.5 Innovative Septic / Composting Toilets

An innovative way to save energy and water at the same is to use non-flushing toilets. One such toilet we researched was the composting toilet. A composting toilet is:

...any system that converts human waste into an organic compost and usable soil, through the natural breakdown of organic matter into its essential minerals. Micro and macro organisms do this over time, working through various stages of oxidation and sometimes localized pockets of anaerobic breakdown. (Composting toilet, n.d.)

When “sized and operated properly, a composting toilet breaks down 10 to 30 percent of its original volume” (Oikos: Green Building Source, n.d.).

There are two main ways the composting toilets work. One version separates the urine and feces, while the other leaves them combined. The urine separating toilets compost more quickly than the others due to the controlled amount of moisture in the composter (Composting toilet, n.d.).

In order to prevent the toilet from becoming odorous, most systems use quick drying techniques, to avoid the production of smells, and fans to remove any smells that arise. If the toilet is correctly installed and operated, there shouldn't be any smell present.

Another advantage to these toilets is their ability to continue functioning during droughts, or other times when the water supply may be shut off. They can also compost more than just human waste. The toilets can act as a composter for other products such as food scraps, hair, yard clippings, paper, and cardboard (Composting toilet, n.d.; Composting Toilet World, 2007).

Composting toilets are not allowed as a substitute for a septic system by some health departments. In these cases a septic system is still considered necessary to treat the greywater. The water left behind from showers, dishwashers, and any other waste water that was not used in a toilet or garbage grinders (Lindstrom, 2000). While this water decomposes much faster than blackwater, toilet wastewater, some health departments still feel the need for a septic system (Composting toilet, n.d.).

3 Methodology

It is evident from the data presented above that there is an urgent and growing need for more affordable housing units on Nantucket. Without more housing units, many people will be left without stable, affordable housing situations. The purpose of this project was to help Housing Nantucket evaluate strategies and options for expanding the availability of affordable housing on Nantucket. In order to accomplish this goal, we completed the following two

objectives, which were (1) to identify parcels of land that were suitable for affordable housing, and (2) to examine innovative methods of building construction and land use for those parcels.

To achieve these objectives, we completed the following tasks:

- Conducted interviews with the members of the town committees involved in creating affordable housing.
- Extended our literature review about innovative building techniques, land use and affordable housing.
- Created GIS maps and compiled a list of available parcels of land.
- Surveyed the potential land parcels.
- Explored case studies from other communities about innovative land and building techniques.

3.1 Identifying Suitable Parcels of Land

Our first primary objective was to identify parcels of land that could be suitable for affordable housing. In order to accomplish this task we created a list of criteria that defined what appropriate parcels are. We developed this list based on information gathered through our literature review about ideal locations and by interviewing the staff of Housing Nantucket as well as other local government offices such as the Nantucket Planning and Economic Development Commission. We then assessed the available parcels of land to determine whether they were suitable for the development of affordable housing using additional criteria created from information gained through our interviews. This was necessary for criteria that could not be accurately assessed using the GIS software.

3.1.1 Interviews

Some of the key people we sought interviews about the land parcels and policies with were Andrew Vorce and Susan Witte from the Planning Office, John Brescher from the Zoning Board of Appeals, and Deborah Dilworth from the Nantucket Assessor's Office. The Planning Office and Zoning Board of Appeals provided us with more insight on the local laws and regulations relevant to the creation of affordable housing. The Nantucket Assessor's Office provided us with more specific information and data on the land parcels we had investigated, more specifically, information on the Land Use Codes used to classify the parcels of land. This

information helped us narrow down our list of parcels by allowing us to focus on the certain land parcels whose Land Use Codes permitted residential developments. For our interview protocol regarding these interviews, see Appendix B.

3.1.2 GIS Mapping

GIS, or Geographic Information System, maps are highly useful in overlaying various types of geographic data, such as particular zones, wetlands, and street locations. These maps have assisted us in narrowing our list of available parcels. We met with Nathan Porter, the GIS Coordinator on Nantucket, shortly after our arrival on the island. He was very accommodating, providing us with a disk containing different GIS overlays and data tables, and also a brief tutorial of how we could use the software in ways specific to our project. With the use of data tables that Mr. Porter gave us, we were able to overlay several maps at one time. This made it possible to find vacant parcels that met certain criteria. The following our finalized list of GIS criteria. Each parcel must:

- Have a Total Building value of \$0 (to ensure vacant land)
- Be located within the sewer district
- Have either one of the following Land Use Codes:
 - 1300 (vacant residential land)
 - 1307 (conservation restriction but will expire at one point in time)
 - 3900 (vacant commercial land)
 - 9300 (town or county vacant)
- Be removed if it:
 - Contained Conservation Land
 - Intersected with the Airport Overlay
 - Intersected with the Building Overlay
 - Intersected with the Driveway Overlay
 - Intersected with the Wetland Overlay
 - Intersected with the Parking Overlay
 - Intersected with the Playground Overlay
 - Intersected with the Sports Overlay
 - Intersected with State Land

We used our ArcView GIS software in order to narrow down the list of potential parcels with the aforementioned criteria. See Figure 12 for an example of a GIS map with overlays for parcels, buildings, wetlands, sewer district.

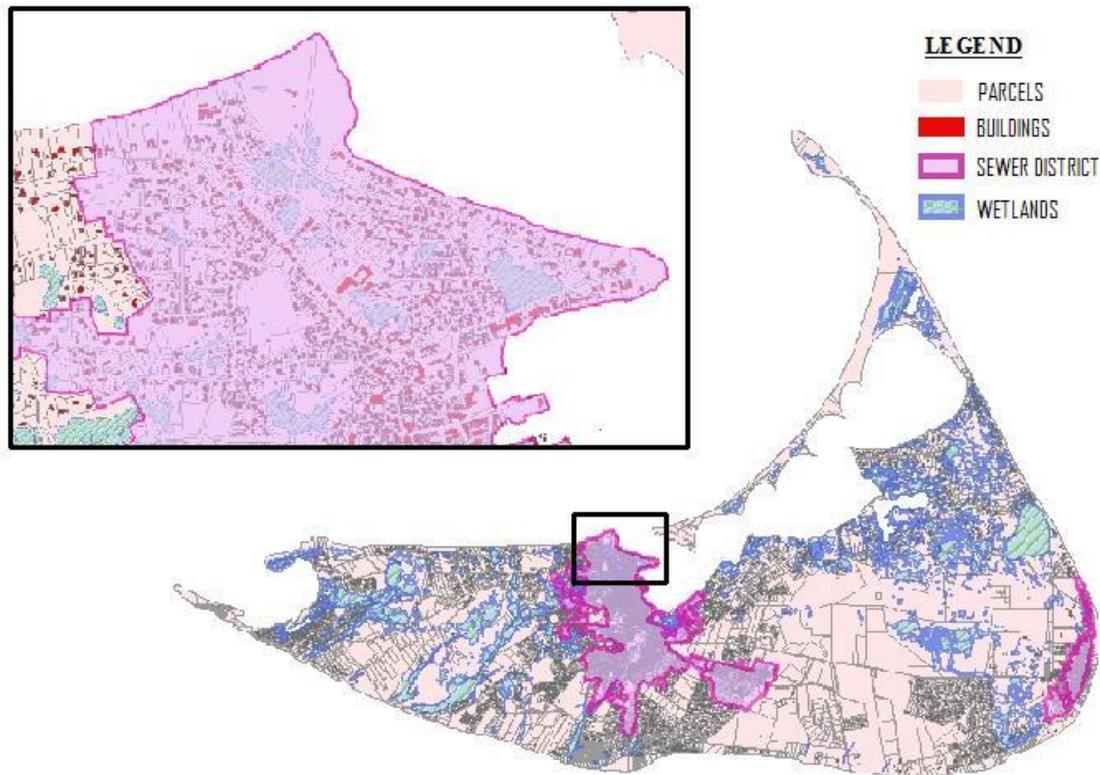


Figure 12: Sample GIS Map (made from GIS data provided by Nathan Porter)

After we narrowed down our parcel list using GIS, we sought consult from our liaison, Aaron Marcavitch. He was able to review our list, and reduced it from 208 parcels, to eighty-four parcel parcels of interest. From these eighty-four parcels, Mr. Marcavitch deemed twenty-five parcels most suitable, which comprise sixteen different sites that can potentially be used for affordable housing development. After further investigation into the eighty-four parcels, we found four additional parcels that met our criteria and seemed appropriate for future developments, totaling the number of recommended sites to twenty.

3.1.3 Surveying the Land

Once we had effectively narrowed our list of parcels, we visited them to verify that they met our criteria. Some additional criteria we looked for were if the parcels of land were located in close proximity to existing sidewalks, bike paths, amenities, and if the parcel had adequate sun

exposure that was not blocked by vegetation. We created these criteria through the interviews mentioned in section 3.1.1 and through research we conducted. There was also a possibility that the GIS maps we worked with may have been incomplete due to unforeseen circumstances. There was a possibility that there might have been unrecorded wetland areas, protected animals inhabiting some of the parcels on the list, or a parcel thought to be vacant could have contained a dwelling, or some other, unexpected structure. These confirmations with the parcels of land helped finalize our final recommendations in regards to the narrowed list of suitable parcels.

3.2 Identifying Green Building Techniques

Many communities in the United States have implemented innovative land use practices to facilitate affordable housing developments. The second objective of this project was to investigate what these other communities have done regarding land use methods and building techniques and see how Nantucket could apply these practices into their own housing developments. In order for us to have accomplished this, we investigated public opinion with regard to current land use policies on Nantucket, interviewed town officials on their ideas for innovative land use practices, and furthered our literature review by exploring how these other communities implemented their land use and building techniques.

3.2.1 Current Land Use and Building Techniques

We conducted many interviews with the town officials and other non-profit organizations to clarify our understanding of current land use policies and practices and to gain knowledge of their opinions and ideas of what improvements can be done regarding land use and green building techniques. These interviews followed the interview protocol found in Appendix B.

We interviewed several people in the Planning Office, including Andrew Vorce, the Planning Director, and Susan Witte, the Housing Planner. We interviewed Andrew Vorce and Susan Witte about site evaluation, their opinions on current building restrictions, and future plans for development in the Town and Country Overlay Districts. We also asked them what obstacles they had faced in this planning process and how they resolved these barriers. This gave us insight into where the Planning Office has been concentrating its efforts regarding current land use methods, and where we could focus our efforts in identifying innovative approaches to land use and building construction.

The key informants we interviewed are summarized below in Table 3.

Interviewee	Position/Organization	Interview Topics
Aaron Marcavitch	Executive Director, Housing Nantucket	Miscellaneous topics on housing and land
Susan Bennett Witte	Housing Planner, Nantucket Planning Office	Current Planning Board reforms, housing concerns and plans
Andrew Vorce, AICP	Planning Director, Nantucket Planning Office	Current reforms being planned with land and housing, public opinion
Steve Blashfield	Architect, Chip Webster and Associates	“Green” land criteria, LEEDs scale
John Brescher	ZBA Administrator, Zoning Board of Appeals	Zoning requirements for development and 40B
Richard Ray	Health Director, Nantucket Health Department	Health concerns and regulations regarding new developments
Mark Voigt	HDC Administrator, Historic District Commission	Historic District Commission’s regulations regarding housing
Maryanne Worth	Coordinator, Council for Human Services	Publics opinion regarding housing developments
Nathan Porter	GIS Coordinator, Information Technology & GIS Department of Nantucket	GIS Maps
Deborah Dilworth	Assessor, Nantucket Assessor’s Office	Information and data on specific land parcels
Penny Dey	Board of Directors, Housing Nantucket Real Estate Broker, Atlantic East Real Estate	Data on Housing Sales and Transactions
Anne Perkins	Director of Home Ownership Programs, Rural Development Incorporated	Green affordable housing developments, affordable green technology
Wendy Forbes	Home Ownership Program Assistant, Rural Developed Incorporated	Green affordable housing developments, affordable green technology
Christine Flynn	Economic Development & Affordable Housing Planner, Martha’s Vineyard Commission	How Martha’s Vineyard is addressing their affordable housing problems
Mark London	Executive Director, Martha’s Vineyard Commission	Jenney’s Way, the Green Affordable Housing project on Martha’s Vineyard

Table 3: Interviews and Topics

We also gained information on what Nantucket was planning for future land use and affordable housing reforms. The Nantucket Planning Board created a draft of the 2009 Master Plan. This document was available for public viewing between September 30, 2008 and December 1, 2008, which allowed us to read through the two topics that relate to our project,

Chapter 2: Land Use, and Chapter 3: Housing. We attended the public hearing that took place on November 17, 2008 in order to gain insight on the public's response to this plan.

3.2.3 Identifying Best Green and Land Use Practices

To examine land use methods, we expanded our literature review to identify innovative land use techniques. Through this literature review, we researched different green techniques that we hadn't focused on during our preliminary studies, such as passive and active solar, composting toilets, and innovative landscaping methods. Another approach we used to determine innovative methods was conducting case studies on locations comparable to Nantucket. Some of these studies included the Wisdom Way Solar Village in Greenfield, Massachusetts, the Jenney Way development in Martha's Vineyard, Massachusetts, and we also looked into the house on Clarendon Street which Housing Nantucket was in the process of building. Our plan was to find methods from these examples that could be adapted to Nantucket. In order to learn more about them, we contacted the people who conducted or oversaw the project of each of these case studies.

The first site we visited was the Wisdom Way Solar Village. We met with two representatives from Rural Development Incorporated, a company that partnered with local builders in Greenfield to create this development. Wendy Forbes the Home Ownership Programs Director, and Anne Perkins, the Home Ownership Programs Assistant, were able to meet with us to discuss how the Solar Village was created. They were also able to take us on a tour of one of the units. Figure 13 shows one of the duplexes that comprise the Solar Village.



Figure 13: Duplex in Wisdom Way Solar Village, Greenfield, MA

The second site we were able to visit was the Jenney Way development. Our initial contact on Martha's Vineyard was Philippe Jordi, the Executive Director of the Island Housing Trust, who was unfortunately off-island during our trip. He redirected us to the Martha's Vineyard Commission, who was able to tell us what kind of innovative land use methods they had adopted into their housing plans. We contacted these people through an initial email explaining who we were, what our purpose was, and to determine if they would be available for an interview. After our arrival on Martha's Vineyard, we were able to meet with Christine Flynn, the Economic Development and Affordable Housing Planner, and Mark London, the Executive Director for the Martha's Vineyard Commission. They were able to connect us to another source, David Vigneault, the Executive Director for the Dukes County Regional Housing Authority. Christine Flynn was also able to arrange a tour of the Jenney Way Development. Figure 14 shows an affordable unit which was equipped with solar panels.



Figure 14: Affordable House in Jenney Way, Martha's Vineyard

Through these communities' experiences regarding innovative land use, we compiled a list of possible practices Housing Nantucket would be able to use in developing affordable housing.

We also needed information regarding the current housing situation, and the depth of the problem. For us to determine this, we interviewed Maryanne Worth, the coordinator of the Council for Human Services on Nantucket. As part of the Council for Human Services, the public service department of the Town of Nantucket, Maryanne Worth has information regarding the public's opinion and concerns on various topics related to human needs, including housing. Through her, we were able to look through past surveys which included the topic of housing, and gain knowledge on the public's opinions and concerns with housing issues surrounding the low and moderate income families on the island.

3.3 Organizing Data

After the data had been collected regarding developable land parcels and land use criteria, we created a checklist grid in Microsoft Excel. A sample of this is shown below in Figure 15.

Site	Map Lot	Address	Zone	Existing Roads	Town Water	Sewer District	Parcel Size (Acres)	Sidewalk/Bike Path	Walkability	Distance from Stop and Shop (Miles)	Distance from Schools (Miles)	Town Owned
1												
2												
3												
4												
5												

Figure 15: Land Parcel Checklist Example

This land parcel checklist helped us narrow down which land parcels were best suited for affordable housing developments and how to rank them based on how many criteria the parcel contained.

After the interviews were conducted we transcribed the taped interview within three business days. We then asked the interviewee to review the transcript for errors and for their consent to quote them, if applicable.

3.4 Presenting Results

After we collected the data and inspected the sixteen potential sites, we created a binder that contained an aerial picture of the parcel(s) that the site was comprised of, an on-site picture of each individual parcel, and the following information:

- Address
- Current Owner(s)
- Owner's Address
- Most Recent Date of Sale
- Most Recent Sale Price
- Book and Page Number in Registry of Deeds
- Current Land Value
- Lot Size
- Land Use Code
- Land Use Description
- Land Classification

- Zone
- Available Utilities

With the permission of our sponsor, we have included a copy of this parcel book in Appendix D.

We will also present the GIS map used to identify these parcels of land to Housing Nantucket and will make it available to interested parties. This will be used as a visual of where the parcels are located. For our second objective of identifying green building techniques, we analyzed the data collected from our interviews and ideas we discovered in other communities. We used this information to create a list of recommended green building practices that would be suitable for Housing Nantucket. On Wednesday, December 17, 2008, we presented our findings and other recommendations we felt relevant to the goal of our project to our sponsor, Housing Nantucket, as well as other possible organizations and members of the community that were interested or involved in our findings.

4 Results and Analysis

The main objectives of this project were to discover vacant land parcels on Nantucket Island that would best be suited for affordable housing developments and identify green building practices that these developments can implement. Through information gathered by interviews, case studies and background research, we identified the appropriate criteria that the vacant land parcels must meet in order to accommodate affordable housing. We have also identified green practices that can be implemented in affordable housing units to reduce energy costs and water usage.

4.1 Land Parcels

Location is the key to creating affordable housing developments. Where the parcels are located has a great impact on the residents of the home and also on the building technologies used for the development as various zoning districts may restrict the use of some of the green technologies we have identified.

4.1.1 Criteria

The criteria we have developed from interviews and research, takes into account the needs of low and moderate income residents who require affordable housing and the costs for the developer and town. With the criteria we have created, each parcel of land should:

- Be located in the town's sewer district
- Have a building value of \$0 (Be vacant)
- Not contain or border wetlands
- Be labeled with one of the following land use codes
 - 1300 (vacant residential land)
 - 1307 (temporary conservation restriction)
 - 3900 (vacant commercial land)
 - 9300 (town or county vacant)
- Have access to town water
- Be located on existing roads
- Have access to sidewalks and/or bike paths
- Be in close proximity to services

- Have appropriate sun exposure

Our rationale for these criteria is as follows. The parcels located in the sewer district will be less expensive to develop. Being in the sewer district means the process and costs of installing a septic system have been removed. In the long term, this will save the future residents of these homes money on septic system maintenance. If the parcel is not vacant, then it is less likely to be for sale in the near future. Also, depending on the size of any preexisting structures, there could be additional costs to the development process should the structure need to be torn down. Due to the restrictions surrounding development near wetlands, we removed any parcels that contain or border wetlands. By avoiding wetlands, the planning process will be smoother; the obstacle of planning around the wetland has already been removed. This would also cause less impact to the environment. Wetlands are essential to the habitat of many creatures on the island and also to the water supply. Another important requirement that was added for cost purposes was access to town water. Without this, there is another large expense required for the creation of the well that each house will need. Having access to town water will assist in easing the construction costs. To ease cost for the developer and town, the parcel must be linked to existing roads, sidewalks and/or bike paths. If this criterion was not met, roads and sidewalks would have to be created. In this situation the town would have to use more of its money for the maintenance of these new roads and sidewalks and it would cost the developer time and money to create them. Many of the people in need of affordable housing do not have their own transportation and need to be located near common amenities and public transportation lines. Being in a walk-able location reduces vehicle dependence, which reduces automobile emissions and pollution. To determine the walkability of a location, and where amenities are located in relation to each land parcel, we have used WalkScore.com, which takes the address of the land parcels and finds the distance to common amenities, such as grocery stores and schools. The rating from WalkScore.com is as follows:

- 90-100: Walkers' Paradise
- 70-89: Very Walkable
- 50-69: Somewhat Walkable
- 25-49: Car-Dependent
- 0-24: Driving Only

Parcels with a rating of 70-100 would make an ideal location for a development as they are in close proximity to common services and reduce vehicle dependency. However, with the lack of available land near common amenities and in the sewer district, not all suggested parcels were able to meet all the aforementioned criteria.

4.1.2 Analysis of GIS Maps

According to the GIS data we have obtained, there are currently 13,256 land parcels that make up Nantucket. From the criteria we have developed, as mentioned in the previous section, and criteria we felt necessary to use to narrow down the parcels, we were able to find 208 preliminary parcels that have met our criteria. Each of these 208 parcels, which are shown in yellow in Figure 16, was found by inputting the following attributes into GIS:

- Each parcel had to be contained within the current sewer district.
- Each parcel had to have a Total Building value of \$0 (to ensure vacant land)
- Each parcel had to have a Land Use Code of:
 - 1300 (vacant residential land)
 - 1307 (conservation restriction but will expire at one point in time)
 - 3900 (vacant commercial land)
 - 9300 (town or county vacant)
- Each parcel was removed if it:
 - Contained Conservation Land
 - Intersected with the Airport Overlay
 - Intersected with the Building Overlay
 - Intersected with the Driveway Overlay
 - Intersected with the Wetland Overlay
 - Intersected with the Parking Overlay
 - Intersected with the Playground Overlay
 - Intersected with the Sports Overlay
 - Intersected with State Land

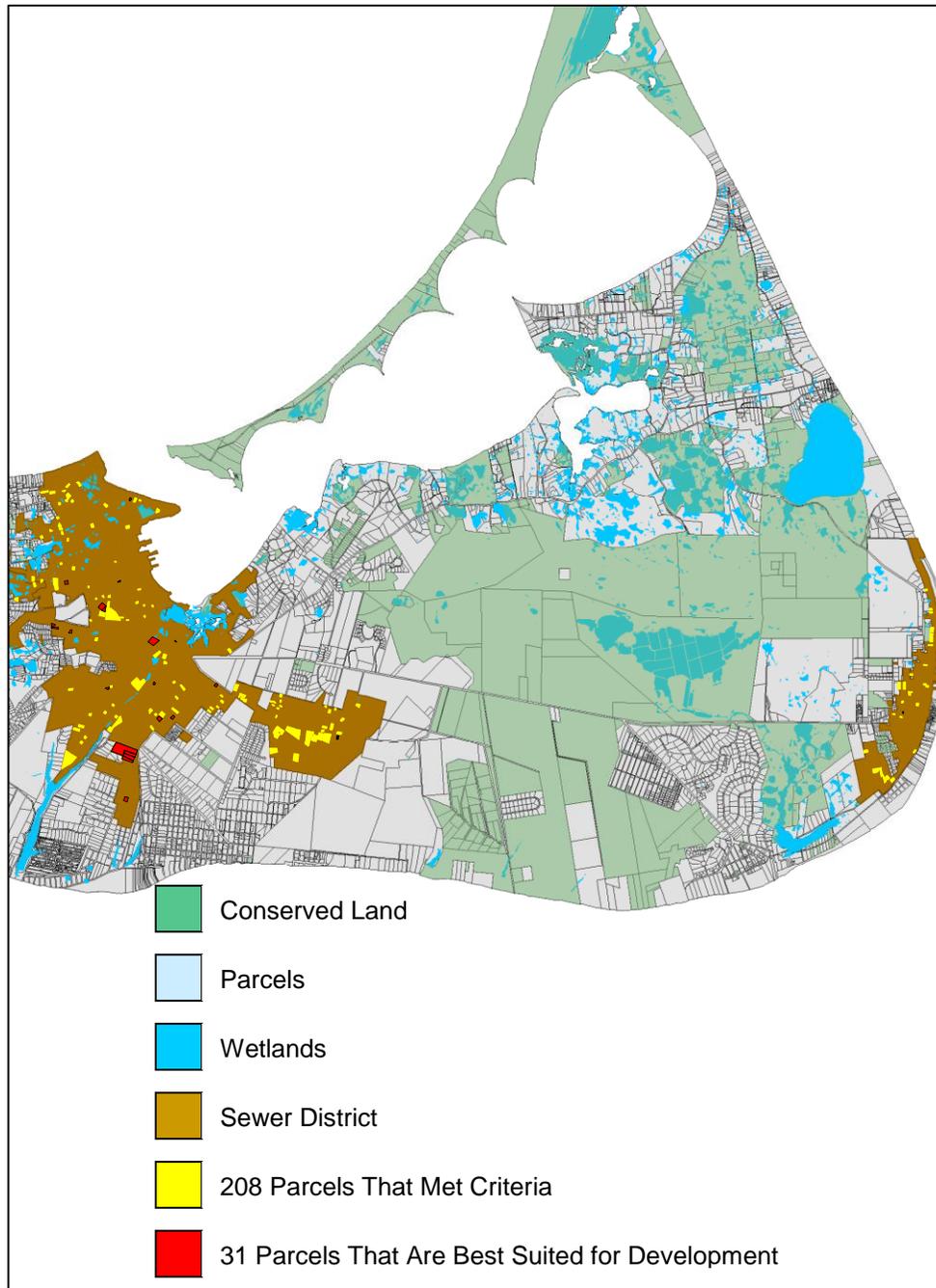


Figure 16: GIS Map

There are two regions on the island where these parcels are located, due to the two sewer districts that we used as a criterion to narrow down the parcels. After consulting our sponsor, Aaron Marcavitch, with this preliminary list of parcels, we have concluded that there are thirty-one parcels that are best suited for future development sites, as shown in red on the above figure.

4.1.3 Appropriate Land Parcels for Affordable Housing Developments

From the parcel criteria we have created as shown above and from the GIS Maps, we have created a list of suitable land parcels, which are summarized from most recommended to least recommended in Figure 17 below. For a profile on each of these sites, see Appendix D: Parcel Book.

Site	Map Lot	Address	Zone	Existing Roads	Town Water	Sewer District	Parcel Size (Acres)	Sidewalk/Bike Path	Walkability	Distance from Stop and Shop (Miles)	Distance from Schools (Miles)	Town Owned
1	55.4.4 57	39 PROSPECT ST	R1	X	X	X	0.535 acres	X	69	0.69	0.6	X
	55.4.4 81	37 PROSPECT ST	R1	X	X	X	1.605 acres	X	72	0.69	0.6	X
2	55.4.1 188	W DOVER ST	ROH	X	X	X	0.255 acres		80	0.48	0.57	X
3	68 46.3	129 OLD SOUTH RD	RC2	X	X	X	0.205 acres	X	35	1.7	1.93	X
	68 46.2	127 OLD SOUTH RD	RC2	X	X	X	0.205 acres	X	35	1.7	1.93	X
4	55 266	51 SPARKS AV	RC	X	X	X	2.759 acres	X	65	0.13	0.3	
5	68 246	21 OLD SOUTH RD	RC2M	X	X	X	0.426 acres	X	40	0.54	0.85	
6	67 784	6 RUGGED RD	R2	X	X	X	0.539 acres	X	37	0.6	0.75	
7	67 173	61 FAIRGROUNDS RD	R10	X	X	X	0.90 acres	X	37	0.62	0.74	
8	67 115.2	3 THIRTY ACRES LN	RC2M	X	X	X	0.303 acres	X	37	0.62	0.48	
9	67 336	3 S SHORE RD	LUG2	X	X	X	7.36 acres	X	20	0.96	0.97	
	67 336.9	5 S SHORE RD	LUG2	X	X	X	1.837 acres	X	17	0.98	1.01	
	67 336.8	7 S SHORE RD	LUG2	X	X	X	1.837 acres	X	15	1.01	1.04	
	67 336.7	9 S SHORE RD	LUG2	X	X	X	1.838 acres	X	12	1.03	1.06	
10	67 125	24 ALLENS LN	R10	X	X	X	0.24 acres		45	0.32	0.43	
11	55 287.1	6 DAVES ST	RC2M	X	X	X	0.12 acres		57	0.11	0.46	
12	29 131	38 N BEACH ST	LC	X	X	X	0.118 acres	X	69	1.38	0.81	
	29 131.1	40 N BEACH ST	LC	X	X	X	0.115 acres	X	66	1.38	0.81	
	29 132	42 N BEACH ST	LC	X	X	X	0.245 acres	X	66	1.38	0.81	
13	41 183	2 WINN ST	R1	X	X	X	0.765 acres		42	1.07	0.77	
14	80 173	3 FOLGER AV	LUG1	X	X	X	1.00 acres		8	1.38	1.42	
15	68 101	14 PINE TREE RD	RC2	X	X	X	0.32 acres		38	1.55	1.86	
16	29 139	37 WALSH ST	R1	X	X	X	0.295 acres		60	1.37	1.25	
17	56 24	14 ROBERTS LN	R2	X			0.479 acres		32	0.87	0.62	
18	56 14.4	7 HUSSEY FARM RD	R2	X			0.57 acres		23	1	0.69	
19	56 14.2	3 HUSSEY FARM RD	R2	X			0.46 acres		26	1.02	0.71	
20	73.4.2 1194	31C NEW SIAS ST	R1	X	X	X	0.11 acres	X	23	6.51	7.1	
	73.4.2 120	31B NEW SIAS ST	R1	X	X	X	0.11 acres	X	23	6.51	7.1	
	73.4.2 119.3	7 W SANKATY RD	R1	X	X	X	0.11 acres		23	6.52	7.1	
	73.4.2 119.1	11 W SANKATY RD	R1	X	X	X	0.11 acres		23	6.53	7.1	
	73.4.2 119.2	9 W SANKATY RD	R1	X	X	X	0.11 acres		23	6.53	7.1	

Figure 17: Suggested Parcel List

4.2 Green Technology

Green technology incorporated in affordable housing has many benefits. Green technologies conserve energy, which then decreases home heating expenses. This is ideal for any household, especially those living in affordable units. The following results were developed after seven weeks of research, interviews, and two visits to locations we felt were comparable to Nantucket.

4.2.1 Windows

An interesting factor in building a home, especially here in the northern states is the design of the windows that are used. Before going to the Wisdom Way Solar Village, we had not discussed the windows that were being used in affordable and/or green homes. After taking a trip to Greenfield, MA to see the Solar Village, we quickly learned that there was plenty of research that was done before choosing windows for their houses.

One of the main points about windows we had discussed is that not all windows are created equal. Although it sounds a bit cliché, many people don't realize that most windows in the United States are technically designed more for a house in the southern half of the country. In a region where the sun is usually bearing down on a house and shining in anywhere there is a window, there is high demand for windows that will help keep some of the solar radiation outside. These windows have a coating on them that keep that radiation outside and many people don't know about this difference. In February 2008, Anne Perkins, who we spoke with, traveled to Orlando, FL to attend the International Builders' Show. She talked to as many window companies as possible, all who had focused their marketing on warmer climates, developing windows that had low Solar Heat Gain Coefficients (SHGC) and had not lowered the u-value of their windows (Solar, 2008).

Rural Development, Inc. was looking for windows with a higher SHGC, but at the same time a higher U-value. This would allow the houses to absorb the solar radiation but would also be very well insulated for colder temperatures. When they realized that there wasn't anything on the market they wanted, they chose to work closely with Paradigm, a window supplier whom they have bought many of their windows from. They began to develop a window that would lower the U-value from 0.28 to 0.26 while increasing the Solar Heat Gain Coefficient from 0.29 to 0.36. This will allow more heat to enter the home and will work to retain the heat. As you can see in Figure 18, the window on the left, the new window, does not allow heat to escape as much as the older one, on the right. This is an infrared photo taken from the inside of RDI's Colrain house on a day that the interior temperature was about 68 degrees and the outside temperature was about 54 degrees. For the windows on the East, North, and West facing sides of their homes, RDI has chosen to use a window with an even lower U-value of 0.18. Since the windows on these sides of the home do not receive much solar radiation, they do not need to worry about allowing the solar to enter the home. Instead, they can simply use a window that

will insulate the home very well. In the end, any advancement that will help their houses to retain heat and energy is a positive step and will result in lower housing costs. This will in turn make the homes even more affordable for the residents.

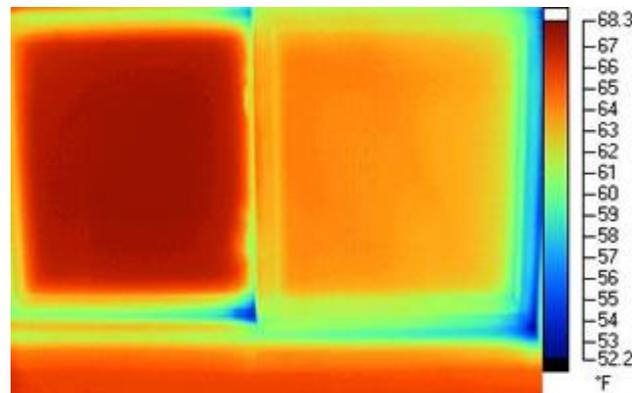


Figure 18: Window Temperatures at Colrain House (Courtesy of RDI)

4.2.2 Passive Solar

An aspect of building green affordable housing that is strongly connected to the topic of windows is passive solar. Passive solar refers to using the sunlight as an energy source without the use of an active system, such as solar panels. In order to gain the most out of passive solar, you must have high quality windows that are designed for the type of climate that you live in, which was discussed in the previous section. The orientation of the building on the land and its design are also important when maximizing the use of passive solar energy.

All three of the developments that we focused on the most for our case studies had oriented the houses to receive the most out of passive solar radiation. This means that one of the longer sides of the house was facing the south, since we are in the northern hemisphere and the sun is always in the southern half of the sky.

Sometimes this can be a rather simple task. In the case of the Clarendon Street house on Nantucket, the house was simply placed on the lot at an angle and the surrounding landscape including the driveway just filled in around it. For the Wisdom Way Solar Village, which is a subdivision, there had to be a little bit more thought about the layout of the different driveways and sidewalks. Each house was oriented to face the south, which meant that some of the homes had to have longer, curved driveways and sidewalks, instead of the conventional, straight ones. Sometimes this can actually be a design benefit though, as it seemed to give the development a bit of character.

The Jenney Way houses on Martha's Vineyard also incorporated passive solar into their design, but managed to conserve the rural feel of the homes by keeping many of the trees that are found all through the development. The taller trees were placed just far enough away from the houses that they do not interfere with the sunlight that shines on the homes. This allows the homes to use both passive and active solar for the whole year, which will help them to keep energy costs to a minimum. This is just an example of how the orientation and placement of a home can help with energy efficiency, but still maintain a relatively rural feel.

Designing a building with passive solar in mind can greatly enhance the amount of energy that a home can conserve. Using ideas such as skylights that allow the sun to shine right down into a room can help in a number of ways. It allows heat to enter the house, reducing heating costs, and can also allow more light to enter a room, reducing electricity costs. The development at Jenney Way on Martha's Vineyard uses skylights in each of its houses. Although we did not see any examples of them, there are also some homes that will use an overhang on the southern facing roof that will be strategically built for passive solar. The idea is to make it the right length of overhang to allow the sun to hit the windows and enter the home during the winter, when the sun sits lower in the sky. The overhang will also block the sun with the roof during the summer, when the sun is higher in the sky. There are many other ideas that an architect can be creative with when planning a house to include passive solar radiation.

4.2.3 Solar Panels

Solar panels are constantly gaining interest from housing developers and are being used more and more in the affordable housing market. While we were at the Solar Village we were able to see how the different systems, electric and hot water, work together and some of the methods they used for their house. We were also to see solar panels at both the Jenney Way and Clarendon Street developments.

The Wisdom Way Solar Village demonstrated how both kinds of solar panels, photovoltaic and hot water can be used to create a home that will use very little electricity from the grid, as shown in Figure 19. Certainly this development was created with solar power as a main focus, but there were plenty of building techniques that we could learn from. It was certainly the largest display of solar usage that anybody in our research group had ever seen in person, and only two of the ten duplexes have been built. The design of the homes even included a smaller photovoltaic solar panel that is responsible for running the pump that moves the fluid in

the solar hot water system. You can also see in the figure that there were many windows on the southern side of the homes to allow as much passive solar to enter the homes as possible.



Figure 19: Wisdom Way Solar Village Duplex

Every aspect of the design was a demonstration that it is possible to use both passive and active systems at a level that is very cost effective, both for the developers and certainly the home owners. At both the Wisdom Way and Clarendon sites, the solar hot water systems cost about 10,000 dollars. For the photovoltaic system at Wisdom Way, the total cost for a 2 bedroom and a 3 bedroom cost about \$21,000 and \$24,000 respectively. In terms of how much energy cost could be saved, this is not an extreme amount. If you take a look at Figure 20, you will see that it is possible to have a home that produces nearly as much energy as it consumes. With the “Green Communities” bill that was passed by Massachusetts legislation, homeowners will soon be able to build up any credit they receive by producing more energy than they consume. This means that theoretically, a homeowner could save their credit during the summer and use that to pay for their energy bills during the winter. This would mean a net yearly energy bill that would be close to zero. That is goal of the Solar Village, to build a “Near Zero Net Energy Home.”

The Jenney Way development on Martha’s Vineyard was another site that incorporated solar technologies into some of its homes. This site only has solar panels on about a quarter of

its homes. Although not nearly on the same scale as the Solar Village, the solar panels were used to add energy efficiency to a set of well built homes. The houses that did have the solar panels on them were also LEED Platinum Certified. This was the first time in MA that an affordable home received this distinction.

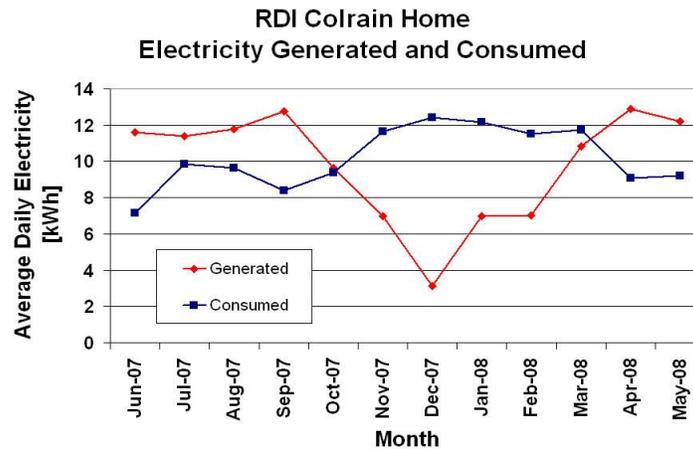


Figure 20: RDI Colrain Home Energy

Our sponsor, Housing Nantucket, is in the process of constructing its first home to use solar power. The home on Clarendon Street in the Tom Nevers area of Nantucket will use solar hot water panels that will provide hot water to the family that lives there. There will also be pipes that run through the floor boards that will contain the fluid from the solar panels. This will help to heat the home, reducing the cost to heat it during the cooler months. One of the interesting factors about the solar panels on this home is how the design of the building nearly hides the solar panels. The restrictions of the Historic District Commission stated that the solar panel should not be in plain view and not visible from the main road. The house is designed with a dormer on the second floor which gives the roof less of a rake. The solar panels will be mounted on the roof of the dormer, which will make it difficult to see if you are standing relatively close to the house.

Each of these developments uses solar panels in a different manner, but they all have a common purpose. All of them are built to provide residents with housing that is affordable to build, live in, and heat. Even after adding the solar panels, the resulting cost of building these homes was not much more than if they were built without them. The Clarendon house cost around \$215 per square foot to build. The average cost for Housing Nantucket is usually around \$250 per square foot. This means that it was actually cheaper to build a home with solar panels

on it. Some of the cost was saved by building on town land, but much of the cost was covered by grants from both the state and federal level. Most developments can get some sort of grant that will cover many of the expenses that are involved with building a home using these solar panels. The Wisdom Way Solar Village had an ending cost of also about \$215 per square foot. This development was larger than the one on Nantucket though because of the difference in development costs on the island. Overall, these buildings don't cost much more and end up saving many dollars in regards to the heating and electricity bills.

4.2.4 Sustainable Materials

The materials that a house is constructed out of are a very important contributor to cost savings. A house must be well constructed and sturdy to ensure that it will last for as long as possible. We were able to tour a few different developments to see how they were built and what kinds of materials went into these homes. The main focus of these developers in choosing material was to use items that were either made of recyclables or were very eco-friendly to produce.

Some of the recycled products that were used included insulation, flooring, and even some of the siding on the homes. The insulation that was used for the Wisdom Way Solar Village was a material called cellulose from the company National Fiber in Belchertown, MA. This product consists mainly of out-dated newspapers that are broken up into smaller pieces that are used as insulation. It is naturally fire resistant, much greener than fiberglass, and yields a higher R-value for insulation than fiberglass does because of newspaper's interlocking fibers. RDI informed us that the only insulation that they will use for their homes is cellulose, since they have discovered how well it works.

The siding used on the homes at the Solar Village also deserves some attention. It is siding that is made of fiber cement, which uses items such as saw dust that is mixed with cement and other materials. This creates a siding that is actually cheaper than vinyl or wood siding, and will last much longer than traditional wood siding. There were some pieces of trim on these homes that were vinyl due to the availability, but fiber cement siding was used wherever it was feasible.

Some of the recycled materials used at another site, Jenney Way on Martha's Vineyard, have a bit of an interesting story behind them. The developers on Martha's Vineyard try to recycle as much material from older houses as they can. If there is any good building material in

a home that is about to get demolished, they will strip out the good supplies, usually wood, before it is destroyed. The wood used for the main floors in the Jenney's Way houses is entirely wood floors that had been stripped from other homes. The main contributors of this wood were two homes that belonged to celebrities. One was from a New York Times reporter, and the other was from a National Football League correspondent, who had homes on the island. Housing Nantucket has not used this method of recycling just building materials from homes that are being knocked down, but they have been in discussion with Habitat for Humanity about beginning this approach.

The materials that are used for green housing are not always recycled. Some of the wood that was used on the Wisdom Way houses was what is known as oriented strand board, OSB. This type of board is generally used in place of traditional plywood because it is a greener material. The way that plywood is made requires high quality trees. OSB is made in such a way that allows the creators to use smaller trees or trees that would have otherwise been scrap material. Since trees are something that is always in discussion to be conserved, this is certainly a material that gets credit in the green building world.

As we were able to see by touring these developments, there are many different kinds of materials on the market. It would be difficult to say that any one of them was truly better than the others. We had the opportunity to view three different houses that used three different approaches in regards to materials. All of them were very well built, well insulated, and affordable homes.

4.3 Analysis of Interviews

We have compiled data collected from several interviews during our seven weeks on Nantucket. Through these interviews we have been able to gather information about the current state of the affordable housing problem on the island and how it is being handled. The following sections are our interpretation of this data.

4.3.1 Assessment of Current Housing Situation

After arriving on Nantucket we were able to get a clearer picture of where the housing situation currently stands on the island. We learned that part of the reason there is so much resistance to building new housing units, is the abundance of available rental units. With the current economic downturn the monthly rent has come down for many of the available rental

units. However, rentals are not the answer to this situation. During our interview with Richard Ray, the Health Director for the Nantucket Department of Health, the suggestion that there were enough rental units with lowered rents was brought up and he responded with,

“I don’t think that is a valid argument because it is not going to stay that way, it’s going to change and it’s a rental unit, it’s not a buy situation. There is no rent control; you are not guaranteed that the price won’t go back up next year, so that is not a particularly good excuse why we don’t have low income housing, though it is an interesting comment.” (Ray, 2008)

Another problem with renting on Nantucket is that many units, though reduced in price, are still too expensive for residents making less than 80% of the area median income. In another interview, Maryanne Worth, the Human Services Coordinator for the NP&EDC, said, “They are not affordable. I mean when is \$1700 for one bedroom affordable,” (Worth, 2008) in response to a comment about many rental units being available. She also informed us about the increasing numbers of residents facing evictions and foreclosures. There are many residents who are forced to live paycheck-to-paycheck. Should something go wrong, such as their car breaking down or a sudden, unexpected hospital bill, they may have to choose between feeding their family, paying bills, and the unforeseen expense. For those who rely on each month’s salary to get to provide for their family, this forces them into a very difficult situation. Based on this information, it is safe to say there is a definite need for more affordable housing.

4.3.2 Better Collaboration among Housing Groups

During our time on the island, and after our interviews, we realized how many different groups there are on the island, with a shared purpose in mind: assisting the people of Nantucket into affordable housing, and subsequently helping them continue to stay in housing. Some of the many housing organizations we encountered or heard reference to were Housing Nantucket, formerly The Nantucket Housing Office, The Nantucket Housing Authority, Habitat for Humanity Nantucket, and the Nantucket Interfaith Council. Something we noticed, and which was mentioned repeatedly through our interviews, was that there is currently very little communication and collaboration between all of these groups. After asking six of our eleven interviewees about communication between the housing groups on Nantucket, four agreed that there needed to be better communication between the many housing organizations. In one of our first interviews the comment was made, “I feel it would be better if all these agencies were

melted under one umbrella” (Dilworth, 2008). Another comment made was, “There needs to be a regular meeting of a housing partnership. There is strength in numbers and it is the only way you can go after grants” (Worth, 2008). They all have different approaches to the same problem, but might stand a better chance at making progress with this serious affordable housing problem if they formed a united front and worked collaboratively on tasks such as writing grant requests and planning future housing developments.

We were fortunate enough to make a trip to Martha’s Vineyard during the course of our project. While there, we learned that there are approximately twenty different housing organizations spread over the six towns on the island. Some of these groups are specific to a town or group of people, while others are in place for the entirety of Martha’s Vineyard. Despite how many different groups there are, and how widespread they are on the island, they seem to maintain clear communications, and have made clear progress in the battle to create more affordable housing. One of their six towns has already met the 10% minimum affordable housing requirement.

One of the methods they use to sustain their continual progress is to delegate specific tasks to each of the three major housing groups on the island. The Island Affordable Housing Fund takes charge of all major fundraising for affordable housing programs, the Island Housing Trust is in charge of developing and planning, and the Dukes County Regional Housing Authority (DCRHA) manages the rental programs, homebuyer assistance, and program advocacy.

During our meeting with David Vigneault, Executive Director of the DCRHA, we learned about an interesting way they occasionally acquire new land for affordable housing units. In an attempt to branch out in finding new ways to obtain land, they have been working with the Martha’s Vineyard Land Bank. While the Land Bank is in the process of buying or receiving a donation of land, the DCRHA can ask them for a piece of this land on which they can build affordable housing. With the approval of both the Land Bank and the seller or donor, a portion of the land, often with a preexisting structure, is given to the DCRHA. Any preexisting structures serve as further incentive for the Land Bank, as they most likely do not wish to have a building on their conserved property. This partnership has resulted in six or seven acquisitions since its conception.

4.3.3 Scattered Developments

A frequently recurring response we received in our interviews was a desire to see affordably housing more interspersed. All seven interviewees with whom we discussed this topic agreed that scattered site development would be ideal. "...It is best to have what I call, and what other people call...scattered sites. Have the affordable houses spread out through the community" (Voigt, 2008). There is lack of desire in seeing large groups of housing that is obviously built for lower income residents. This inclination is most likely a result of two main factors. First, we believe that because "affordable housing" tends to create a negative image. By having affordable homes scattered among market rate ones, it is more difficult to tell which houses are affordable, and which are smaller, market rate homes. The second reason we believe Nantucketers want more scattered affordable developments, is to prevent an area or neighborhood from being associated with affordable housing. For example, after its development, Miacomet Village was associated with low-income residents. This is a stereotype we wish to avoid. Many of the residents on Nantucket in need of affordable housing are not low-income households. Housing Nantucket works to supply affordable homes to families earning up to 150% of the area median income. We do not want any of the future inhabitants of affordable housing, regardless of their income, to worry about being labeled as low-income residents.

5 Conclusions

After gathering the necessary information and data regarding land parcels on Nantucket, we have concluded that there are sixteen suitable sites in which affordable housing units can be constructed. However, there is no guarantee that Housing Nantucket will be able to obtain the suggested land parcels to expand the availability of affordable housing units.

As ways to best use the suggested land parcels, we have found several practices Housing Nantucket can implement while planning and creating new affordable housing units. Innovative methods of land use and green building practices are two areas we have researched and felt could be easily implemented in affordable housing developments. In regards to land use, implementing sustainable landscaping and proper positioning of a house to attain maximum sun exposure are two methods to create energy efficient homes. Of the many green building techniques used in housing today, we have identified several green practices that are appropriate for affordable housing developments. These practices are to use recycled and sustainable materials, solar technologies, low U-value windows, and proper insulation. By using innovative land and building techniques, Housing Nantucket has the potential to create new developments that conserve energy and water, which results in reduced utility bills for the residents, while also being sensitive to the environment.

While there is a misconception that green buildings are more costly to build than traditional housing units, we have shown that this is not the case by providing examples from the case studies we have examined. As a non-profit organization, Housing Nantucket relies heavily on outside funding for their development projects. If or when they incorporate green technologies into their housing units, they can receive funding from organizations that promote green and environmentally friendly homes. This funding would reduce the construction cost of the new affordable housing units they plan to build.

Throughout the course of our investigation into green affordable housing on Nantucket, we have met with several key informants about the affordable housing issue on the island. These interviews and meetings left us with an impression that too little has been done in the past about the housing affordability problem which has resulted in the dilemma today. From the information gathered through interviews and case studies, we have compiled several recommendations that Housing Nantucket and other organizations on Nantucket can implement to help decrease the

affordable housing issue that afflicts the island. These recommendations can be found in the following section.

6 Recommendations

After seven weeks of preliminary research completed at Worcester Polytechnic Institute, and an additional seven weeks of research and interviewing conducted on Nantucket, we have developed a number of recommendations for our sponsor, Housing Nantucket.

6.1 Recommended Land

From the data we have collected through our interviews, case studies, and research, we have created a list of criteria that an ideal parcel would have in order to accommodate affordable housing developments. However, due to the lack of available land on the island, not all the suggested land parcels met all the criteria we set forth. Despite this obstacle, one criterion that we focused closely on to narrow down the parcels was the location.

6.1.1 Ideal Locations

Location is an essential determinant of the affordability of a house, both in the short term and long term plans for a home. While parcels in town tend to be more expensive than the parcels that are located more mid-island, the mid-island properties may lack some of the essentials, such as access to town water and sewer, which will greatly increase construction costs. We recommend that whenever feasible, Housing Nantucket build within the Town Overlay District (TOD) as opposed to the Country Overlay District (COD). Within this area there is access to water, sewer, and amenities. Another advantage to building within the TOD is the decreased risk of opposition to any future developments proposed within this overlay district by the NP&EDC, who favor growth within the TOD, and not in the COD. However, as we sense further developing of the mid-island area in the future, we also recommend that when an opportunity for housing construction arises in mid-island it not be ignored. There is a great need for housing in any location that Housing Nantucket might acquire.

6.1.2 Recommended Parcels

Based on the location recommendations above, we have determined that there are sixteen sites that would be the best places to explore future developments. These suggested sites are found in the booklet we have created for Housing Nantucket which is located in Appendix D.

Our recommendation regarding this list of parcels is summarized in Figure 21.

Site	Map Lot	Address	Zone	Existing Roads			Parcel Size (Acres)	Sewer District	Sidewalk/Bike Path	Walkability	Distance from Stop and Shop (Miles)	Distance from Schools (Miles)	Town Owned
				Town Water	Sewer District	Parcel Size (Acres)							
1	55.4.4 57	39 PROSPECT ST	R1	X	X	X	0.535 acres	X	69	0.69	0.6	X	
	55.4.4 81	37 PROSPECT ST	R1	X	X	X	1.605 acres	X	72	0.69	0.6	X	
2	55.4.1 188	W DOVER ST	ROH	X	X	X	0.255 acres		80	0.48	0.57	X	
3	68 46.3	129 OLD SOUTH RD	RC2	X	X	X	0.205 acres	X	35	1.7	1.93	X	
	68 46.2	127 OLD SOUTH RD	RC2	X	X	X	0.205 acres	X	35	1.7	1.93	X	
4	55 266	51 SPARKS AV	RC	X	X	X	2.759 acres	X	65	0.13	0.3		
5	68 246	21 OLD SOUTH RD	RC2M	X	X	X	0.426 acres	X	40	0.54	0.85		
6	67 784	6 RUGGED RD	R2	X	X	X	0.539 acres	X	37	0.6	0.75		
7	67 173	61 FAIRGROUNDS RD	R10	X	X	X	0.90 acres	X	37	0.62	0.74		
8	67 115.2	3 THIRTY ACRES LN	RC2M	X	X	X	0.303 acres	X	37	0.62	0.48		
9	67 336	3 S SHORE RD	LUG2	X	X	X	7.36 acres	X	20	0.96	0.97		
	67 336.9	5 S SHORE RD	LUG2	X	X	X	1.837 acres	X	17	0.98	1.01		
	67 336.8	7 S SHORE RD	LUG2	X	X	X	1.837 acres	X	15	1.01	1.04		
	67 336.7	9 S SHORE RD	LUG2	X	X	X	1.838 acres	X	12	1.03	1.06		
10	67 125	24 ALLENS LN	R10	X	X	X	0.24 acres		45	0.32	0.43		
11	55 287.1	6 DAVES ST	RC2M	X	X	X	0.12 acres		57	0.11	0.46		
12	29 131	38 N BEACH ST	LC	X	X	X	0.118 acres	X	69	1.38	0.81		
	29 131.1	40 N BEACH ST	LC	X	X	X	0.115 acres	X	66	1.38	0.81		
	29 132	42 N BEACH ST	LC	X	X	X	0.245 acres	X	66	1.38	0.81		
13	41 183	2 WINN ST	R1	X	X	X	0.765 acres		42	1.07	0.77		
14	80 173	3 FOLGER AV	LUG1	X	X	X	1.00 acres		8	1.38	1.42		
15	68 101	14 PINE TREE RD	RC2	X	X	X	0.32 acres		38	1.55	1.86		
16	29 139	37 WALSH ST	R1	X	X	X	0.295 acres		60	1.37	1.25		
17	56 24	14 ROBERTS LN	R2	X			0.479 acres		32	0.87	0.62		
18	56 14.4	7 HUSSEY FARM RD	R2	X			0.57 acres		23	1	0.69		
19	56 14.2	3 HUSSEY FARM RD	R2	X			0.46 acres		26	1.02	0.71		
20	73.4.2 1194	31C NEW SIAS ST	R1	X	X	X	0.11 acres	X	23	6.51	7.1		
	73.4.2 120	31B NEW SIAS ST	R1	X	X	X	0.11 acres	X	23	6.51	7.1		
	73.4.2 119.3	7 W SANKATY RD	R1	X	X	X	0.11 acres		23	6.52	7.1		
	73.4.2 119.1	11 W SANKATY RD	R1	X	X	X	0.11 acres		23	6.53	7.1		
	73.4.2 119.2	9 W SANKATY RD	R1	X	X	X	0.11 acres		23	6.53	7.1		

Figure 21: Recommended Parcel List

6.2 Green Recommendations

The second objective of our project was to examine potential innovative techniques that Housing Nantucket could implement to make any future projects as sustainable and green as possible. After our research focused on green building techniques, and our visits to the Wisdom Way Solar Village in Greenfield, Massachusetts, and the Jenney Way development in Edgartown, Martha’s Vineyard, we have been able to determine some techniques which we feel Housing Nantucket can successfully execute.

6.2.1 Passive Solar

While the location of a parcel is extremely important, the positioning of the buildings on that parcel is also of high importance. In order to take advantage of any potential solar energy, we recommend that Housing Nantucket continue to face any future houses they create towards

the south. This southern exposure will provide maximum sun exposure for the solar panels. This will also maximize the effectiveness of passive solar energy intake when the houses are equipped with many windows on their southern facing side.

6.2.2 Innovative Landscaping

Another technique we recommend for Housing Nantucket to utilize is the implementation of windbreaks. By planting native trees and shrubbery at the appropriate places relative to a house, the wind's force is diminished. This will cause less wind impact on the house structurally, as well as make it less likely for the wind to take away heat from the house, keeping it more energy efficient. The windbreaks can also create more pleasant aesthetics around the house, which could help draw attention away from the negative image often associated with affordable housing. One more benefit, with the use of trees, would be the stabilization added to the soil. The island of Nantucket is eroding, and planting more trees with strong roots, can delay, if not prevent, further erosion of the beaches.

6.2.3 Innovative Materials

Building materials determine the cost of a home's construction. Our first recommendation involving building materials would be to use recycled materials whenever possible. Using materials, such as the flooring components, from gutted houses is not only a way to save money during construction, by avoiding more imported materials, but will also aid in the struggle to preserve the historic quality that Nantucketers are concerned about safeguarding. We also recommend that Housing Nantucket continue to use ReddiForm ICF, the concrete-filled Styrofoam blocks that were used in the Clarendon house. This method ensures a sturdily built, well-insulated house, and has approximately the same cost as a traditional house; we see no reason for them to stop using this method.

6.2.4 Greener Heat

Energy efficiency is also an important factor for a sustainable, green building. We recommend that Housing Nantucket continue to look towards passive solar. This is the least costly approach currently available that we have come across. By using windows that absorb the sun's rays, instead of deflecting them, the house will retain more heat in the winter, thus keeping the heating bills down. We also recommend the continued use of solar panels, for as long as

their use is feasible. They should not be used if their cost will have too much of a negative impact on the building costs. While the use of the solar panels can significantly reduce energy costs, the units themselves are still exceedingly expensive, and should be used only as long as the benefit outweighs the cost.

6.3 Other Recommendations

The overall goal of this project was to help Housing Nantucket evaluate strategies and options for expanding the availability of affordable housing on Nantucket. The remaining recommendations we would like to present to Housing Nantucket are not covered by either of our project objectives, but we still feel that they pertain to our project's goal.

6.3.1 Creating Affordable Housing as a United Front

Although we were only able to spend one day on Martha's Vineyard, we were inspired by many of their techniques. We highly recommend Housing Nantucket reach out as much as possible to the many other housing groups on Nantucket. As mentioned in the results section of our report, the housing situation is at a crisis level. The best way to improve this problem is by creating a united front against the affordable housing problem. On that note, another recommendation we have regarding this is the creation of three dominant organizations among the housing groups. We recommend the creation of three main focus groups: one focused on fundraising efforts, a second focused on the development of new housing units, and a third group to assume a management role. These groups could either be formed out of the existing housing efforts on the island, or could be started with a fresh set of eyes to help solve the problem. The role of fundraiser, however, would be best served by a non-profit group. It might also help to improve communications between all of the groups, if the three principal housing groups, and any other interested groups, came together in one building.

6.3.2 Collaboration with Conservation Groups

Another recommendation we would like to make based on information we collected while on Martha's Vineyard involves collaboration with conservation groups. The DCRHA works with the Martha's Vineyard Land Bank, and we feel it would be a beneficial partnership to both the conservation groups and Housing Nantucket. Working together and sharing parcels of land for both conservation and housing purposes could result in more mutual gains for both the housing and conservation organizations. It is important for us to acknowledge that this

partnership will not provide a steady flow of land; in Martha's Vineyard's partnership there have only been six or seven times throughout the years that they have successfully received land from the Land Bank. However, with the housing situation at a crisis level, any possible ways to obtain developable land should be investigated. Therefore, we recommend that Housing Nantucket attempt to work with the Land Bank and other conservation groups as another way of securing land parcels.

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Appendix A: Sponsor Description

Housing Nantucket is a small, private, non-profit organization committed to offering the residents of Nantucket sustainable and affordable housing. This organization started in 1994 as a result of the many residents leaving the island due to the increasing price of housing. As shown in Figure A, the home and land prices started to increase during the early 1990s, driving many of the local residents off the island to seek more affordable housing. Community members concerned with this flood of departing residents decided to form an organization focused on affordable housing development, which is known today as Housing Nantucket. The mission statement of Housing Nantucket is to create “sustainable community housing opportunities for Nantucket” (Housing Nantucket, 2008).

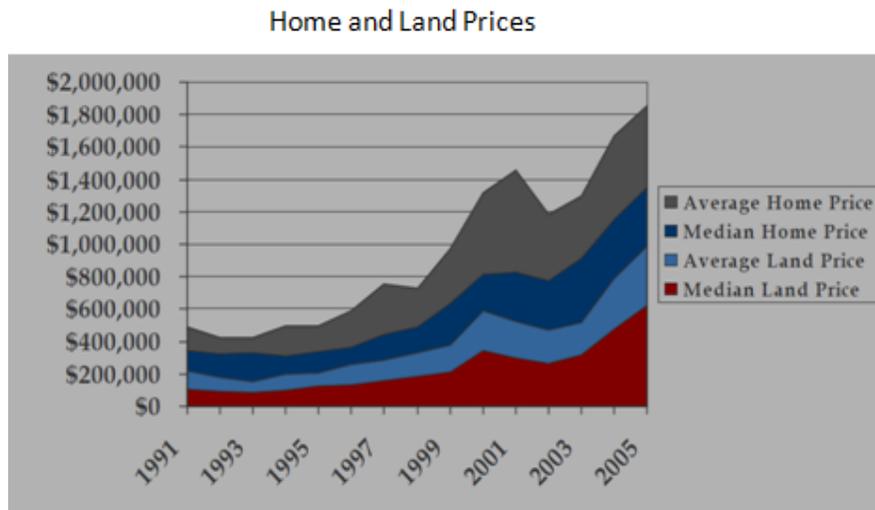


Figure 22: Home and Land Prices (Housing Nantucket, *Nantucket Housing Needs Covenant Program* (PowerPoint Slides))

Currently, Housing Nantucket employs two staff members, Aaron Marcavitch, the executive director, and Anne PM Kuszpa, the director of programs. There is also a board of directors consisting of seven members who are active members of the community. Ken Beaugrand, one of the Directors, is on the Community Preservation Committee and is also the principal broker for the Nantucket Real Estate Co., one of the largest agencies on the island. Penny Dey and Norman Chaleki, two more Directors of the Board, are also members of the Nantucket Planning and Economic Development Commission

Housing Nantucket has developed over the years from being an organization mainly focused on affordable housing development, to broader focuses including homeownership, rental services, and education and technical assistance.

Housing Development

Many of the developments this organization is involved with include recycling unused houses. The material from these houses is used to build new homes at a lower cost. Surprisingly, there has been an overabundance of donated houses, and the major issue is that there is not enough land on which to place them. With over 40% of land under preservation restrictions (“About Nantucket”, UMASS Boston) and only 8-9% of land being considered buildable (Housing Nantucket, 2008), finding suitable land has been a major issue in creating reasonably priced housing units in which low to moderate income families can afford to live.

Rental Service and Homeownership

Since 1994, Housing Nantucket has developed 24 housing units and refurbished many other units for the rental program by reusing and transporting old-unwanted homes. These rental units are available to people on the island that have low to moderate incomes. The rental units have a lottery system for selection that Housing Nantucket closely monitors. For people that feel they can afford it or that make a little more money, there is also the chance to own a home with the help of Housing Nantucket.

The Nantucket Housings Needs Covenant, or NHNC, is one of the organization’s main programs for homeownership. This program came about after much discussion in the town about the creation of such a program, and the recommendation by the Comprehensive Community Plan. The Housing Authority agreed to sponsor the program, but later decided to let a separate organization operate it. Housing Nantucket stepped in as the program’s administrator. The units involved in the NHNC program are available at an affordable rate for the island residents with a low to moderate income. This program is targeted toward offering the middle class population of the island permanent housing. There have already been more than 37 new homeowners on Nantucket thanks to the NHNC.

Another way that the organization helps island residents become homeowners is by finding available parcels to build new homes. Although this is a difficult process, due to the lack of existing vacant land as mentioned before, there are still some existing areas that have not been

developed yet. Once Housing Nantucket has acquired a piece of land they can build on, they will accept applications for the home that will be on it. The Board will review the applicants and determine who is best suited for that house, depending on whether they can prove that they make below 150% of the area median income. Once a decision is made, the new owners can move in. So far, they have created more than 35 permanent, affordable homes on Nantucket (Housing Nantucket, 2008).

Educational and Technical Assistance

Through its Education and Advocacy program Housing Nantucket reaches out to work with different community-based groups on the island, such as the Community School. The program is in place to help educate potential homebuyers about "buying a home, financing, legal issues, and home maintenance". Currently, they are attempting to expand this nine-hour program into a "year-round education program for landlords, tenants, homebuyers, and those interested in improving their financial health" (Plum Nantucket). Also through the education program, staff members meet with the local government to provide technical assistance and to discuss options of affordable housing and the development of housing. These education programs are taught by Aaron Marcavitch, and any other professionals on the island who are willing to volunteer. Penny Dey, a Board member and realtor, and Jessie Glidden, an attorney, are a couple of the volunteers who have helped with the programs. These programs also provide helpful information to both the local government and the islanders.

Resources

Being a non-profit organization, Housing Nantucket relies on donations, grants, and the money received from the fees of their programs and other services they offer. Approximately 60% of their income comes from their rental units, and the rest come from donations and grants. These donations and grants come from many sources. For example, The Bank of America Foundation and Tupancy Harris Foundation of 1984 both contribute to the funding of Housing Nantucket. This money funds the housing projects they work on and the programs they provide the community to educate and assist them with the process of home buying. The donations don't always have to be monetary. They accept donations of houses, building materials, furnishings, and appliances that all help towards creating a comfortable living environment (Housing Nantucket, 2008).

Housing Nantucket uses many resources to generate innovative ideas for building construction and land use. They work closely with local, state, and federal organizations to create and develop plans for affordable housing. On a local scale, they work with Habitat for Humanity/Nantucket and the Nantucket Planning and Economic Development Commission. Also they work with the local banks to provide better financing options for the people of Nantucket who need financial assistance.

Appendix B: Interview Protocol

We initially contacted each of our interviewees through an email, explaining who we are as a group, what are project involved, why we wanted to interview them, and what topics we planned to interview them on. If they agreed to an interview, we scheduled it accordingly, whether it was a phone interview or an in-person meeting. At the beginning of each interview with the people on the island, we presented our disclaimer, which was the following:

We are students at Worcester Polytechnic Institute working on a project with Housing Nantucket about affordable housing and land parcels. We would like to interview you about (place appropriate topic here). If you feel uncomfortable during this interview, you may stop it at any time and choose not to answer any of the following questions. With your permission, we would like to record this interview so we can refer back to it when we write our report. From this recording we will transcribe the interview and, if you request, send it back to you for verification before using it in our report.

Do we have your permission to record this interview?

Do we have your permission to quote you in our report? We can send you the quote we would like to use and have you verify that it is correct before we us it in our report.

For the interviews with the other communities about innovative land use, we presented the following disclaimer before the interview. Before interviewing these groups, we gave them some background information on what our project was and why we wanted to interview them. We then gave them the following disclaimer:

We are students at Worcester Polytechnic Institute working on a project with Housing Nantucket, a non-profit organization in Nantucket, Massachusetts, whose goal is to create affordable and sustainable housing for year-round residents of the island. We are working with them on a project about the land parcels used for affordable housing developments. We would like to interview you about (place appropriate topic here). If you feel uncomfortable during this interview, you may stop it at any time

and choose not to answer any of the following questions. With your permission, we would like to record this interview so we can refer back to it when we write our report. From this recording we will transcribe the interview and, if you request, send it back to you for verification before using it in our report.

Do we have your permission to record this interview?

Do we have your permission to quote you in our report? We can send you the quote we would like to use and have you verify that it is correct before we use it in our report.

After each interview, we transcribed the interview recording (if applicable) and/or notes and sent the interviewee a copy via email to have them verify if the transcribed data was indeed correct.

Appendix C: Interview Transcripts

C-1 Interview with Penny Dey

Date: November 6, 2008

Time: 2:00pm

Location: Atlantic East Real Estate Office

Attendees:

Penny Dey
Haley Connelley
Matthew Henry
Kristen Hughes

Key:

Q- Interviewer
A- Interviewee

Q: Do we have your permission to record this interview?

A: Yes

Q: Would it be alright to quote you in our report?

A: Yes

Q: In recent years the cost for the average lot has been pretty much the same price as the average home price, and in 2007 the lot price was actually higher than the average home price. Why is the cost for a parcel of land increasing so much?

A: There is less land available than houses and some high end sales that have skewed the data.

Q: Is the price higher because the demand higher for an open parcel of land and that they're in short supply? It doesn't seem like they are in much of a short supply as more vacant parcels of land have been going on the market. Currently, there are around 120 vacant land parcels on the market, according to one of the charts you sent.

A: The land for sale and the land that's selling has always been a smaller sector of the overall market because there is less of it. Half the island is conservation, about 35% is developed, 15% is up for grabs.

Q: Have land parcels been selling more than homes?

A: The number of sales relates to the number of listings. The number of land sales is lower than the number of house sales.

Q: In one of the graphs and charts you emailed us, it says there are 120 vacant land parcels on the market, do you have the listing of these parcels of land, or know where we can get them?

A: LINK Nantucket, can give us access.

Q: How do you feel about the affordable housing situation on the island? Do you think there is enough being done, or that it should be a new approach to decrease the problem?

A: There is a lot more being done now than there was 10 years ago. Had we done more 10 or 20 years ago we wouldn't be in this situation now. There has been historically an awareness of the problem, but there hasn't been a political will to tackle the problem until recently. But with every decade that passes, it becomes more difficult.

Large supporter of using the market, which is primarily driven by second or third homeowners. Harnessing the market similar to what the Land Bank did. A Transfer fee on the sale of all property here, with certain exemptions, which is paid for by the buyer. 2% the Land Bank fee which goes into a fund that is used to buy up open space for the benefit of the community. There are some people who feel that the Land Bank has done a remarkable job since it formed in 1984, but that it may be reaching the end game in terms of viable parcels that meet the criteria that can be used as recreation for the community. We have a bill at the State House in Boston. The Community Housing Bank, which would put a 1% transfer fee on the seller of any property on Nantucket that sells over \$2 Million, so the first two million is exempt. This would go into a fund that would help with affordable housing initiatives in the community. Harness this market that made it unaffordable for working class people and use this market to leverage funds to help solve the problem. I moved here 33 years ago and people were saying the same thing then about affordable housing as they are today. There is a project off of Surfside Road, the Housing Authority Project, it is federally and state funded. This is affordable housing for people that have to be under a certain income level. Because it is funded by state and federal money, there are requirements there that Housing Nantucket does not have. We are more flexible and are more nimble. So there are views of affordable housing that can be negative as well. One of the things Housing Nantucket has tried to do is to scattered site housing, to put housing throughout the island, not all at one location, as much as they are able to. The problem is so large on Nantucket that it is not going to be solved with one solution. There is a Habitat for Humanity chapter on the island, I think they have built 3-4 houses. The town agreed to buy the 2 Fairgrounds property, largely due to the housing potential there.

There is Affordable Housing, which has state and federal subsidies, and then there is housing for Nantucket people, which is largely comprised of people that are making, by an off-island standard, a very good living. People making 100,000 a year is borderline low, affordable, on Nantucket.

Q: Do you think there should be more affordable housing units built?

A: I'm a large supporter of scattered sight affordable housing. It needs to be integrated into a variety of neighborhoods.

Q: As a realtor, do you have a preference on where these developments should be built? Where on the island do you think affordable housing developments would be most affective? Should they be built in the town or country overlay districts?

A: Any place where there is infrastructure, water, sewer, transportation, anything that discourages auto dependency. So really anything up close to town or in the Mid-Island area. Unfortunately, town itself is still very expensive. It has a dense and urban character. You should look into the Urban Land Institute report online at ReMainNantucket.org. There is an industrial use property right on the water that is not being used anymore, maybe the town could buy it and turn it into affordable housing.

Q: Can someone acquire the land from the Land Bank owns for affordable housing purposes?

A: This land is for open space and conservation under the enabling legislation. It is to be used for community use and passive recreation; housing is not in their mandate. The Land Bank is created by a special act of the state legislature and it has worked well. But people are reluctant to be flexible about the Land Bank. It's easy for us to say that the Land Bank works

and let's model something after it. The Land Bank is generally supporting the housing bank bill.

Q: Can someone, or Housing Nantucket, somehow acquire the Town owned land for housing development?

A: Some of the town owned land is found in Madaket. The tiny little pieces themselves are not buildable lots, they wouldn't meet the requirements for septic and wells, and other board of health regulations to be a buildable lot. The 2 Fairgrounds is an obvious thing, it was purchased, I forget how many years ago, largely with the intent of doing affordable housing there. It was sold to those of us who supported it at a town meeting, by promoting housing for islanders.

Habitat and Housing Nantucket has been active in acquiring town owned land. Sometimes that land has gone to the Housing Authority which then gets turned over to Housing Nantucket. We have a property in Tom Nevers, on *Clarendon* Street that's under construction. That's the only way, really, to have land gifted or long term leases because the market is beyond any non-profit affordability.

Q: Do you know how many homes are on the market that are affordable to low and moderate income people? Anything below \$500,000.

A: The only way we would track that would be the Housing Needs Covenant houses because they have their own category. Aaron Marcavitch can help you with that. It's interesting because, affordable houses, similar to seasonal rentals, those type of rentals are in really high demand and are in very low supply. As a result, the market takes care of itself. We, the real estate brokers, rarely get those listings, because the owners by word of mouth and by the internet, can rent those types of rentals directly without having to pay us a broker's fee. Which is great because it keeps the cost down. Similar to affordable housing, it's not coming through a real estate office. It may be someone who rented a cottage from an owner, who lived also on the main house on the property, and then they decided to put a Housing Needs Covenant on the cottage so the person can buy it, that would not be brokered, but it would show up in our statistics.

The definition of affordable varies on who the occupant or who the buyer is. The Housing Needs Covenant is about \$463,000. This will change as the interest rate changes and the median income changes. The Housing Needs Covenant houses can be tracked through our listing service, so I could tell you what the percentage of those are of the total, but that is the only designated affordable housing, other than the free market. There are free market transfers. One could say anything under \$500,000 is affordable by virtue of the price. But that is not defined by its own separate category.

Q: How would we reference the data you gave us? Should we reference LINK Nantucket and Nantucket Comparable Sales, for Atlantic East Real Estate as it was prepared by you?

A: Reference LINK Nantucket and Nantucket Comparable Sales Service.

Edited by Penny Dey on 11/12/08

C-2 Interview with Deborah Dilworth

Date: November 12, 2008

Time: 2:00pm

Location: Nantucket Assessor's Office

Attendees:

Deborah Dilworth
Haley Connelley
Matthew Henry
Kristen Hughes

Key:

Q- Interviewer
A- Interviewee

Q: Do we have your permission to record this interview?

A: Yes

Q: Would it be alright to quote you in our report? We can email you the quote we would like to use and then later you can give us the permission to use it or not.

A: Yes

Q: What is the difference between a Title and a Deed for a piece of land?

A: Title is what you own, and the deed is the instrument we are transferring into your possession. The deed is the legal document, and the title is what you own and how you own it; do you own it with somebody else, a joint tenant, husband and wife.

Q: What is a lien and how do they prevent development on a land parcel?

A: A lien is a notice that there is money owed. A tax lien is the most common. If your taxes remain unpaid after a certain amount of time, the tax collector will put a lien against the property and record it in the registry of deeds. It's basically putting people on notice. If you look at a particular deed, there is an encumbrance, something against it; a lien would be like a liability.

Q: What does the following Land Class mean?

A: R: Residential
O: Open Space
C: Commercial
I: Industrial
S: Special
E: Exempt

Q: As part of our project we need to go through a list of vacant land parcels and narrow down the results. We came across a list of land codes and are wondering what they mean and if any of them restrict residential developments.

A: I go by the four digit numeric code. These codes are developed by the commissioner of revenue. They basically use the first three numbers to classify all land state wide. Then the fourth number, we've been taking the liberty to extend it. The most common one would be 1300, vacant residential land.

Use Code	Use Desc	Land Class
0	JUNKYARD M00	

0	AC LND IMP M00		
0	VAC 40B		
0	PARK LOT M00		
0	TEL REL TW M00		
0	COMM WHS M00		
0	PASTURE M00		
0	TENNIS ODR M00		
0	LUMBER YRD M00		
0	DOCKYARD M00		
0	CONS REST M00		
130	PRI RES	R	
136	CONS RES M00	R	
995	CONDO MAIN	R	
1063	ACC WF	R	
1068	IMP HOST	R	
1300	RES ACLNDV M00	R	Vacant residential land. Vacant land with an excellent water view. Not a direct water front.
1302	VACANTEXVW	R	
1303	VACANT WF	R	Water Front vacant land. Subject to a conservation restriction. The owner has put a lien on it to say that it will never be built upon. You may see properties with 1306 with houses on it. Which is not uncommon. An owner may have 100 acres, built on 10 of it, and have the remaining 90 put into a permanent conservation restriction. We will put the 10 as a single family class code and the other 90 as 1305 or 1306 use code.
1306	CON REST N M00	R	Conservation restriction but will expire at one point in time
1307	LTD REST	R	Vacant land, with combined two parcels. 1308 we call the house parcel. Because a lot of the lots were undersized when zoning came into effect in 1972. Overtime we had tax payers come in and have to pay two different bills, we don't make opinions if it's buildable or not, that's a zoning question. If they produce enough evidence, then we will merge the two parcels for tax purposes. The eight at the end, that runs universal through all of our land use codes, if you see an eight at the end of a land use code then it includes another parcel.
1308	VAC HOST	R	
1310	RES ACLNPO M00	R	Unbuildable
1320	RES ACLNUD M00	R	Unbuildable
1323	UNB WF	R	Unbuildable with a water front
1325	GREENBELT	R	This is the buffer zone in cluster developments.
1328	UNBLD HOST	R	Unbuildable Only 17 parcels now. In order to be considered open space, it has to be at least 10 times what zoning requires and retained in an open condition. A lot of the open space
2010	OPEN SPACE	O	

			is at Coatue (arm of Nantucket with all the points on it).
2013	OP SP WF	O	
3100	RTL OIL ST	C	Anything beginning with a 3 is all of the commercial class. The only code that we should look at is 3900.
3400	OFFICE BLD M94	C	
3772	AGRIC P RE	C	
			Vacant Commercial Land. A lot of the vacant commercial land has been dedicated to housing. Whether it's affordable or not. Some of these lands are out near the airport. When we did some zoning changes a few years ago, a lot of apartments popped up out there. We have a big complex, Park Circle, that isn't restricted in any way, the developer just decided to make them affordable. Those were built on commercial land.
3900	DEVEL LAND	C	
3910	POT DEVEL	C	
3920	UNDEV LAND	C	
4030	ACCLND MFG	I	Vacant Industrial, not much industrial land on the island. Anything starting with a 7 is classified as a farm. These are treated differently than other parcels. We have to value them based on what the Farmland Advisory Commission or the State established every year. Example, Bartlett Farm, the land value is low; because they are classified as a farm and they do get tax benefits.
7120	TR CRP VEG	S	
7130	FIELD CRPS	S	
7220	NONPRWETLD	S	
8050	61B GOLF	S	Land Use 8 is classified as recreation property. Typically, everything in that class now is a golf course. 9000's are all exempt from taxation. Depending on what type of exempt vacant land, we've expanded the land use codes. Recently we modified a lot of these codes.
9000	US GOVT VACANT		
9100	SOL DEPT CONS & REC	E	
9110	SOL DIV OF FISH & WILDLIFE MUNICIPAL OR COUNTY	E	
9300	VACANT		Town or County Vacant
9301	MUNICIPAL CEMETERY		
9302	MUNICIPAL VACANT WF		Water Front
9320	MUNICIPAL CONSERVATION		
9351	MUN PUB SAFETY VAC		
9380	ENTERPRISE VACANT MUNICIPAL		
9390	ENTERPRISE IMP		
9460	EDUCATIONAL VACANT		
9500	CHARITABLE VACANT		A charitable vacant could be owned by the Conservation Foundation

9530 CHARITABLE CEMETERIES
9620 RELIGIOUS OTHER
9721 TRANS AUTH VACANT
9730 HOUSING AUTH VACANT
9910 LANDBANK VACANT

Anything the Land Banks owns and the Conservation Commission is off limits.

Q: We also have some questions about the current affordable housing situation. How do you feel about the affordable housing situation on the island? Do you think there is enough being done, or that it should be a new approach to decrease the problem?

A: I think that they have made a dent in it. We have a lot of agencies. I feel it would be better if all these agencies were melted under one umbrella. They all done great work. Habitat for Humanity, I think they are working on their 3rd or 4th house. We have a Nantucket Housing Office that's been instrumental in getting people to create affordable condo units. We have an inventory of about 20+ affordable units. We classify those, too. We have a special land use code for affordable condominiums. Those are permanently restricted.

Q: So you see an issue with the construction on the island being more in the mid-island?

A: My personal feeling is that it should be interspersed. I hate to see a cluster of just affordable units.

Q: Do you think there should be more affordable housing units built? Where?

A: I wish there was a way to have a housing stock that didn't have to be restricted. Like the development out by the airport, they're not restricted for their resale value. It's hard enough to get money for a down-payment, and then if the market comes back, you are restricted on how much you can make. As long as people have a dialogue about it, then it's good.

C-3 Interview with Steven Blashfield

Date: November 14, 2008

Time: 10:00am

Location: Chip Webster & Associates Office

Attendees:

Steven Blashfield

Haley Connelley

Matthew Henry

Kristen Hughes

Key:

Q- Interviewer

A- Interviewee

Q: Do we have your permission to record this interview?

A: Yes

Q: Would it be alright to quote you in our report? We can email you the quote we would like to use and then later you can give us the permission to use it or not.

A: Yes

Q: Do you know what goes into a site evaluation of a parcel of land before you decide to build on it for a green building? Are there any particulars?

Q: As far as site selection. You know it's an interesting thing when you're dealing with housing. I think that site selection is not something you get to do a lot of in the vision I'm in. Most people come to you with a parcel and say "I own this piece of land or I bought this piece of land, and I want to build a house on it." A lot of times, I think that's generally true in housing for architecture, a large part is that people come to you with a parcel already decided on so it's not a situation where you're selecting parcels by choice for green standards. That being said, you know you obviously try to take the parcel that you have and use it as effectively as possible. So that might mean placing the building on an area on the lot that aren't more sensitive to the ecosystem and thinking about solar orientation, or things along those lines that are significant. So that is the part that I tend to think about site issues; more how you use what you have provided that looking at it holistically and saying "this would be the best area for development."

Q: We have looked at some of the LEEDs criteria for green homes and have come up with a list of the criteria we are looking for in a parcel of land for affordable housing developments. We would like your input and see if we are on the right tract and if there is anything we should add.

A: I think generally, this is pretty much taken from the LEEDs. They hit the general criteria fairly well. It's definitely green, more sustainable, and better to build in areas that are already established for infrastructure than areas that aren't. You know, like the areas that are closer to other services. So on Nantucket, that means, its areas that are between the airport and town; something along those lines. So I think that's generally the right approach. Infill development as opposed to expansive development. The problem on Nantucket, there is not a great amount of infill opportunities left. That sort of generated the more expansive development at some level. I do think there are areas on the island that are more appropriate. There are other areas that are dense, have some density to them.

Q: One of the criteria we found is to try to build a building on a greyfield or brownfield site. Do you know if there has been any previous development on this type of site on Nantucket?

A: There are a couple of places that I think I see that are brownfield type areas. One is the old power plant location in town. That has been cleared. It's basically next to the big gas storage tanks by the grocery store. That's an area that gets talked about a lot. What do they do with it because it's definitely a contaminated site. It has potential for some community function, for housing, probably not. By in large, there is not a lot of industry on Nantucket, so there is not a lot of contaminated properties, in the sense that they are talking about. You know that park they put in by the airport? That was an excavated site that they were going to build a building on, but it never went forward. It was a big hole in the ground for years, then they turned into a park. It's not housing, but it's an example when they reclaimed the property that was otherwise reused, if you will.

Q: Do you know if there are any other green affordable housing projects that are happening in the area, or in Massachusetts?

A: I'm sure there is stuff happening in other areas of Massachusetts, but I'm not that familiar with it. The big thing that has gone on here, other than the work of the Housing Authority itself, is trying to create housing. You know, there is Habitat for Humanity, which has done a house; we are currently working on the design for their second house. That is relatively small scale. The bigger issue is that there have been 40B developments. Which are essentially a way to ensure that there is affordable housing by allowing them to be exempt from zoning regulations and increase density. I don't think anyone has approached them from a sustainability model, per se, but I think that is something that can be encouraged. As part as the planning process goes, if they worked more in depth in taking that on. But I don't think anyone are specifically approaching it from that standpoint.

Q: Have you had any opposition with Historic District Commission regarding green developments, such as solar panels?

A: Historic District Commission is an interesting case study in itself. Specially, no, I have not had any major fights with them over green initiatives, per se. We did design the Small Friends building, which is perusing LEED certification. We put solar panels on that project and they didn't give us any real problems with that at all. I know that there have been problems with people trying to do that stuff in town. I think the bigger thing that's probably coming locally is that in reality, the more cost effective approach to renewable energy is wind power and the regulations that currently exist on Nantucket are prohibited to wind power in general. The size requirements, the lot size requirements, exempt most normal residential lots on the island from using wind power. I can see that being more of an issue. I think that would be an issue with the HDC. People are opposed to putting individual, residential wind turbines up, in a higher frequency. The solar panels, I think they have gotten some level of exception with, as long as they aren't right on the front of the building, facing the street. Which certainly effects people who live on the south facing sides of the street. For other people, probably not so much, unless you are in the core district.

Q: About the affordable housing situation, do you think there is enough being done, or that it should be a new approach to decrease the problem?

A: I think that they have definitely made improvements in the last 10 years. Ten years ago, there was no higher density at all, which I think was a major issue that was creating affordable housing problems because there were no options that were single family residents. With the

increase costs of the single family residents, it made it unsustainable. What actually happened a lot is that there used to be the people who used to live in town and they had apartments in those houses. The value of those houses got up so high, that they became prominent vacation properties, that people bought the houses and took the apartment house and made them back into single family residents that are only used 4-6 weeks out of the year. Then there were no more in-town apartments. That actually created the housing problem that was needed to be established by other options. Generally, it's still an issue. I don't think it's by any means solved because the cost of living, particularly housing on the island, has always been a problem. I think there have been steps in the right direction, but I wouldn't go so far and say that it has been completely successful. They had tried some things that haven't worked that well or haven't been as effective. They had a building cap for awhile. They declared a residential building cap on new home construction because of the concern of how much was going on. Then they tried to establish, it's actually where the Nantucket Housing Needs Covenant came from, where they tried to establish a covenant system to have people sign on to the covenant and get exempted or jump up in the line for the permit application process. And the problem with that, that I saw, is that it was essentially forcing the people who needed affordable housing, to pay for the affordable housing, as opposed to the community taking on the responsibility for affordable housing as a whole. Which I think, is really a bigger community responsibility. Because they benefited so much the increased property values, which also kind of created the problem at the same time. That's where the improvement option is; more investment by the town in general.

Q: So you see an issue with the construction on the island being more in the mid-island? So you think they should be somewhere else? Closer to town?

A: I think it's just the nature of the growth. Obviously the more density you can create the better from the standpoint of sustainability. I don't see if being a particular problem. It's almost not too far out.

Q: Do you think we should add anything else to our list of criteria? Are there any particular resources we should look at?

A: I think that one thing that they don't take into account, especially when if you're doing more housing developments as opposed to individual house construction, like the Housing Authority doing the house in Tom Nevers, that's just one property, if there actually doing the who neighborhood I think that taking on the responsibility of the flip side, if you can't be necessary close to serves, then adding in services as part of the scope of the job. So if you can create a setting of where there are public services that are in the area in which you are building then that could offset the need to be necessarily close to the services where there are.

A thing that I was going to say was that I think that one of the problems from my prospective on Nantucket are the zoning regulations as a whole are flawed for how they encourage development on the island. I think they intentionally under-zoned the outer areas to try to prevent development, but what they done is also prevent the communities of the island becoming communities of themselves. So Tom Nevers is just a bunch of houses. There could have been services that were associated within it or other things going on. If they rethought how they were zoning the areas before, they could be creating higher density areas where there is already density, by zoning more appropriately to the density that already exist, as opposed to having large lot density with a bunch of small lot development. I think they created a problem at some level by layering onto Nantucket what's a more traditional zoning

pattern for the rest of America, which doesn't work as well for Nantucket as it does for lots of areas where you are trying to separate from each other. I don't think that needs to be as true on Nantucket, because we don't have heavy industry or things you don't want to put next to your house. I think that's a definite area for improvement or focus. You know looking at the affordable housing problem as a whole, that sort of adds to it too.

Q: I found a lot of inconsistencies with the zoning on the master plan website. We are actually looking into that on Monday.

A: Another thing is frankly, the town hasn't always had a consistent vision on where it's heading, you know, for certain things. I think there is a consistent consensus in the community of controlling growth effectively. But the question is how do they do that effectively and cost detriment in other ways. That's what I was thinking with affordable housing, is that they spent more time on controlling growth then figuring out affordable housing. I think that they are realizing that somewhere they were spending too much time with controlling growth and not enough time with affordable housing. That's where the problems come out of because they weren't planning ahead.

Q: Do you think people on the island for the most part are okay with more affordable housing or more developments going up that are more dense?

A: I think generally that there are a good subset of people who don't like the idea of dense housing, especially when it comes into their neighborhood. I know the Rugged Road property that has the 40B, that was a big issue. The Compass Road was also a big issue, because they are proposing a 40B, you know a high density development. Anything like that, people are sensitive about. Infill lots, like the Tom Nevers property now, in a lot of ways is more effective for Nantucket for two reasons: one, it doesn't identify people as belonging to affordable housing by putting them into a development that is associated with affordable housing. Then it also integrates the affordable housing and creates more diversity in the community at the same time. I think you have to be sensitive to that balance of creating diversity, and building effectively and sustainably.

C-4 Interview with Andrew Vorce and Susan Witte

Date: November 14, 2008

Time: 2:00pm

Location: Nantucket Planning & Economic Development Commission

Attendees:

Andrew Vorce
Susan Witte
Haley Connelley
Matthew Henry
Kristen Hughes

Key:

A – Andrew Vorce
S – Susan Witte
H – Haley Connelley
M – Matthew Henry
K- Kristen Hughes

H: Do we have your permission to record this interview?

A & S: Yes.

H: Would it be alright to quote you in our report? We can email you the quote we would like to use and then later you can give us the permission to use it or not.

A & S: Yes.

H: What goes into a site evaluation of a parcel of land that can be used for a home? Are there certain criteria you look for?

A: Yes. We split the island into two districts. Town and country. Town is where we're supposed to encourage growth. Country is where we're not. [points to map] Generally this area in yellow, if you don't pay attention to all the squiggles, the yellow is the area here that's the town district. Even those outlying areas are in yellow they are actually not in part of town, they are actually little village areas but they are still considered out in the country. Why have we created the town district? That's where we have town water, town sewer, that's where we have built bike paths, that's where the bus route goes, so there are options for transportation. And generally that's where the higher density zoning district is and there are already houses there, let's concentrate our building in those locations. When you get to the outlying areas you have issues with septic, you have issues with wells; you have all the other stuff. And of course you don't want to build in wetlands and we don't want to build in all those other areas that we want to avoid.

H: If there happens to be more villages built on the country overlay, would you consider expanding the bus lines to those villages?

A: Um, we have bus lines that do go to them, but it's a seasonal service only. What that means for affordable housing is that you're going to have to have a car out there, you're going to be isolated, you're going to have to drive kids to school, or adults places. Overall, our principle is we want to encourage that activity closer in existing neighborhoods where we can.

H: We have read on the Master Plan website and have looked at the past survey from the 2006 census on land use regulations and housing. Is that the most current survey you have now, or have there been other one's since then?

A: 2006 is the most recent.

H: Have there been many people coming to the Planning Board meetings and voicing their opinions about the Master Plan?

A: No, they love it, they think it's perfect, so we haven't heard anything. That's how I'm going to interpret that. They may be busy with other things, like the economic collapse.

S: *Monday night, the 17th.*

A: That is our first public hearing. Please come to that.

M: We are planning on it.

S: *Six o'clock.*

A: Six o'clock, yeah. What you should know, maybe Susan can give you a copy of this, but the Selectman just approved our Housing Action Plan at their last meeting.

S: *Yeah, I can do that.*

A: Just with that one correction of 20 units.

S: *I changed it already.*

H: On Question 3 of the 2006 census about Housing, 39% of people said the "Town should adjust its laws (zoning, taxes, etc.) to provide incentives for the private sector to provide housing." Are there any tax changes being done to implement incentives for housing?

A: You know tax changes is something that we actually don't control. And probably with our current pending fiscal problem, \$2.2 million short, it's something that's not going to be supported right now. The only place that I know of is Provincetown where that have actually implemented this and I don't know how successful it's been. They actually give, I think, 100% tax waiver if you rent to people within a certain income limit.

S: *Income tax and real estate tax or just real estate tax?*

A: Just real estate.

S: *They could do that and that would be really huge. We would have people crawling all over the island to build houses.*

A: Right, but. That might be a good area to look at and give a call, "how has it been successful?", "what has it cost in lost revenue, or whatever it is?" But I think... the short is answer is no, we haven't looked at that.

S: *And like "how many units did they get for people who said that they were doing it because they were under the tax waiver?", and then "what was the tax that was waived?", and "how did that work for the number of units that it produced, if any?"*

A: Enforcement is an issue. I mean, that's one thing that I would, you know, if someone says "yea, I'm renting to some low-income person and they move out, now what? What do you do?" How do you account for that? I'd be interested to know, so if you could let us know.

S: *Did they deed restrict the property? Did they make it, how, you know, was it 80% area median income, or 50? Renovations can only be a 15 year deed restriction, and construction has to be 30 year deed restriction for affordable in order to count toward any of the quotas. In this term, quota is a good word and getting the quotas that we have to have.*

A: Are you all from Massachusetts?

M, K, AND H: Yes.

A: You all are? Okay, so you know 40B and you know of 40B law?

M, K, AND H: Yes.

H: Are there any plans to have incentives for developers to implement green technology in new buildings? For example, using solar panels, and like the Clarendon Housing, using foam blocks and concrete, to make a home more energy efficient.

A: We certainly encourage that, but I think our main priority would always be to get housing constructed. So, that wouldn't be a barrier, but it would be something we would like to see happen. Nothing that forces that issue, I would say. Right?

S: *Right. I guess just that the fact that if someone is going to be a non-profit developer or even a for-profit developer, but to ask for extra density for inclusionary housing, then they might be interested in making it unique enough that they would want to do that. But I don't think the Planning Office could implement any regulation that says, "we'll give preference to".*

A: You know where we might do that is in through an RFP process like when we looked for a developer for 2 Fairgrounds here. That could be, you know, in addition to design and affordability, that might be another principle that might give someone a competition edge. Do you know what RFP stands for? Request for proposal. I always use these things and then I wondering if people know what they mean.

H: Are there any other incentives the Planning Board is looking into for these private sectors to build houses?

A: Ok. 40B applications. The town has basically signed on to its first application as a LIT, local initiative program. That has an advantage for the developer in that it that it gives them a shorten time frame and it also gives them some protection from lawsuits. If it's a LIT it tends to be in a stronger position to fight off potential lawsuits.

S: *From neighbors who don't want it.*

M: Opposition.

A: Right. We have outlined some of our zoning, potential zoning changes in the bylaw. Density bonuses is the main thing that I think we can use to provide an incentive. We know that our existing density bonuses aren't enough. People aren't using them. If people aren't saying "we want to use it" and they been on the books for 20 years, it tells us it's not working. Accessory apartments is one of the provisions that we think probably has too many conditions on it and it's also limited, if you build it then you can't build a second dwelling. A second dwelling has no conditions on it. So given the choice, which one are you going to do? One that is smaller and less desirable and has more conditions or the one that doesn't? I think the choice is pretty clear. So that explains why that one isn't used. If we do allow that what we will probably hear is "now your allowing three dwellings per lot" which is technically true, but again there may be ways to get around that.

S: *Get around the opposition to it, or?*

A: Yeah, come up with an overall limit on the number of bedrooms that would make it a wash, or something. I don't know. Or just say "yeah we mean three, get over it".

S: *We mean three. Turn on a lot of public relations to sell the concept. I was just hearing you say how the density bonuses have been available for 20 years but not a lot of people have been utilizing them, do you think it's because they are not aware of them?*

A: No. We talk about that, we encourage developers. We have our initial conversations, most developers say "I don't want it, it gives our development a stigma, it gives our subdivision a stigma. It's a high end subdivision we don't want an affordable housing thing, even though we get an extra lot".

S: *NIMBY, not in my back yard.*

A: We made town land available for private developers that's huge in a place like this which doesn't have a lot of land. We are doing a project now which is kind of interesting. We are piecing together tax title properties, which is essentially land that was abandoned by developers. With a paper street, with an area of a street that was laid out and was never built, and by combining one parcel, that paper street, and another parcel we can get one lot that is big enough to build a 2 bedroom house on. We won't be building it ourselves, we will be issuing, saying "whoever wants to build this, it's available, here are the restrictions, we'll give it to you for a dollar," or whatever it is. Probably for Habitat for Humanity, or something like that. So, the key to answer that question is, the town isn't in the landlord business or is not in the developer business, but we try to make it available for someone who wants to do this, to step up.

M: Do you have any sort of outline of proposed changes, that you might be willing to give us?

A: What, the zoning bylaw?

M: Yeah, some of the changes that we were just discussing.

A: Have we outlined that in the Housing Plan?

S: *No. Only under the Implementation Strategies where it's as vague as it can be. It's as vague as it needs to be to comply with the State requirements, they didn't ask for specifics. They just said what are we going to do, and we talked about the making the accessory units more attractive for people to build by removing the restriction on no second dwelling if you have an accessory apartment. Accessory apartment would either be attached to your home already or something that is attached to your home.*

A: Yeah, like the little unit you build, you build a little addition out, or something like that.

S: *And the density bonuses we talked about. Those are the things the town can do to implement this.*

A: Yea, I think you guy should look at accessory apartments and tell us what you think. Maybe you can give us some good idea. And if it's good we can bring it to a Town Meeting. And if the Town Meeting thinks it's bad we'll just say "Those people in Worcester gave it to us, I don't know." [laughter] If it's good, we'll take the credit. [laughter]. But I think that might be a good exercise. Take a look at that and the bylaw. Do you have the zoning bylaw? Do you have that section?

H: Yea, it's online. Section 139.

A: Ok. But take a look at that and think about all the restrictions in there. I'd like to hear it from you guys what you think. And another thing about accessory apartments, if you think about it this ways, right now it's a one size fits all. You know, an accessory apartment can be anywhere. Should it be everywhere? Or should it be in certain areas only?

S: *And would an accessory apartment have to be affordable if the cottage was affordable? Could be three dwellings, and the one attached to your house may be that's the one that you want to reserve for who you choose to rent it to. Because as you might be aware all the affordable houses to be counted on the inventory list, which is the chief objective of mine and this office, they have to conform with affirmative marketing plan requirements from Housing and Urban Development, which mean making it available to everybody. Putting it out there on HUD's website, DHDC's website. They might not want just anybody in their house, so to speak, but they not mind if it were on the perimeter.*

H: The next question is from Question 6 from the census that asked if Nantucket should continue to purchase open space. A large number, 89%, answered yes. With nearly 50% of the island already conserved or restricted, is there a need to continue purchasing open space?

A: Well. In the Open Space Plan, which was recently finalized as well, we determined, and you may have seen this in the plan, 60% of the land is either publicly owned or in open space, so it's not tax producing, 32% is developed, 8% is vacant. We're calling for more strategic acquisitions of land. And there have been some recent purchases by the Land Bank that had quite a bit of criticism. There is land up here on Old South Road, which is in the Town District, you know, water, sewer, it's close to jobs, and close to everything, but yet, the Land Bank bought it. So, what we're suggesting in the Master... And the other thing is, you have to look from 1990, when the last Master Plan was created to now, and in 1990, there wasn't a lot of open space. A lot of the island was open to development. People at the time said "open space has to be our major priority at this time." We are at the opinion that the goal identified in 1990 has done a great job on that. We have purchased all this land set up this huge capacity to build it, Land Bank and Land Council, and on and on.

S: *Madaket Land Trust, 'Sconset Land Trust. There has been a slew of them.*

M: Conservation Foundation.

A: Exactly. And so all of these groups are all invested in that, and that's good, but we are proposing a shift in our Master Plan this year to have housing be our main goal. We understand that the majority of people want to see open space be continued to be purchased. I think we are losing something if we don't focus on the needs of the human community here, and that's sort of what we're saying, and the Planning Board has agreed to that and even the Board of Selectmen has included it in their goals. There will still be such capacity built to continue open space purchases and it will continue on and on. But we are trying to shift and get more resources, more capacity, that's Susan brand new hire as a Housing Planner to use more resources to make housing actually happen.

S: *And it takes money. Do you have a report from your recent trip to Beacon Hill, where that bill 1773 is?*

A: The Housing Bill. Have you looked at that at all? The proposed Housing Bill.

H: We heard of it.

S: *It's been years they've been talking about doing it.*

A: That would be to assess a surtax on properties that sell over \$2.5 million.

M: Yeah, that has been mentioned to us before.

A: And that has not passed and has been opposed by realtors quite strongly. Did not pass the last session. In the current economy, there is a less and less of an appetite for that. Because people aren't, I don't think they are paying attention either that it's properties over \$2.5 million, it's not the average person's property.

S: *And in of the realtor group, nationally, it's one of the largest lobbies. And in Massachusetts the realtor group opposed a transfer tax on law 1773 and the reasons they opposed it are all bogus.*

A: It's on principle basically, I mean a lot of it, right.

S: *Yea, they're saying "we oppose transfer tax on properties transferred in the given year to subsidize services whose benefits will be enjoyed by the entire community". That's not the case. We're doing it for affordable housing not the entire community. So, you know if you were a professor and a student wrote this, this sort of argument, you would say "No. Go back*

to the drawing board.” It’s a community wide responsibility, it should be paid for by the entire community. We’re a completely different community. We’re summer heavy, with lots of wealthy people. Why shouldn’t they contribute? They pay the same tax rate for residential property.

A: Which ours is the second or third lowest in the state. It’s about 2.62 per thousand or 2.67.

H: I noticed that.

S: *The tax would subvert the voter approval process inherent and in proposition 2.5% override. The voters aren’t the one who’d be paying it, unless they bought a \$2.5 million house and moved here to live full time.*

A: And the voters would have to approve the final and I think that’s what the majority has always said anyway. And this has received overwhelming support from town meeting. This is part of the thing with the State is we’re asking the State to give us permission to do it. We’re not asking the State for money. We’re not saying “Hey, Commonwealth of Mass, can you send us some of your dollars?” We’re...

S: *Looking to be self sufficient.*

A: Yea. So, it’s a kind of an interesting argument when you say Massachusetts has home rule authority, what was voted in 1965, and yet. Here is something that we’re trying to do. It will only affect people here, it won’t anywhere else.

S: *I can give you some of this stuff. My accessory unit file. I have a list of the units that are two units that are not house and cottage, but they don’t know which ones are actually duplexes, but they can figure it out.*

H: After these Public Hearings, does the Planning Board edit the plan and release it to the public again? Or does it go straight to a vote at the next town meeting?

A: We’ll do an edit of the plan. I think its schedule for final vote in January; end of January. And from there, final vote in January, reviewed by the Regional Planning Commission, which is also us, in February, then it will go to town meeting vote in April.

H: We also have some questions about the current affordable housing situation. Do you think there is enough being done, or that there should be a new approach to the problem?

A: Well, here’s what is clear to me. There’s been, in my 16 years of being here, there is way too much talk and not enough action. There’s been study after study. There’s no more need for anymore studies now. We got it. We have John Ryan’s report which just came out which identifies clearly how many units and what percentage affordability level, what size and everything else. We know very clearly that we don’t come close to meeting 10%, which is state wide goal. We know very clearly that if we couldn’t produce a half a percent of our need per year, that should be the minimum goal and that’s 20 units per year and that’s exactly what we’re calling for now.

S: *Those are 20 units that qualify under affirmative marketing to everybody, so a lot of Housing Nantucket stuff isn’t that way. It’s under 80% area median income, its deed restricted for 30 years on new construction, with the deed restriction that’s approved by DHCD, or 15 year deed restriction on renovated housing.*

A: So, and I think part of this... I don’t know who else is on your interview list. Did you interview the Nantucket Housing Authority?

H: We haven’t done that yet.

A: The test for building housing needs to be that it’s needed and it needs to be built. Not “well, I don’t like that kind of housing and I wouldn’t want to live there”. We seem to have

committees who say they're worried about housing and wants to see it build, yet that's the argument all the time. "I don't want to live in a duplex. I don't want to live in blah blah blah." And that is just wrong. People that don't have houses of their own will want a roof over their heads. And that's what the focus needs to be. And it's been kind of this, I don't know, like "we're a charity, I love my charity work and if I build one house, look what I done", and that is not enough.

S: *I mean people that are poor would just assume to have the crust rather than a fancy cheese sandwich with the crust cut off. (24:43)*

A: If you're hungry and want something to eat, you don't set the highest standards ever. And remember if you look at the population closely, too, I mean, it's not only wealthy people here. A service economy you're going to generate the need for low paying jobs. And we have a population that is, um, we have immigrant population, we have people who perform those services and they need a place to live here as well.

S: *That's safe and stable.*

A: It doesn't have to be a single family house. I don't know about you, I grew up in a two family house, so, I don't have any problem with that, it's fine. In a neighborhood with a two family house...

M: **What about something, almost in the form of apartments. Do you see that coming up anytime soon on the island?**

A: Well I do. We made great strides in getting the bylaw changed to allow 4 unit buildings. That was a major step, what was it, eight years ago? And there was an instant response to that. Of all the problems where we made changes to the bylaw, that was where we saw immediate response. And there's an example right up the street here, it's called Anchor Village, it has four units, four attached units. I think that we probably, one of the goals is to make multifamily housing of some kind allowable by right. Right now it requires a special permit. But one of our goals is to change it and move it to by-right so that it's allowed in certain areas. Again, reduce the...

S: *And would that be the Town Overlay District?*

A: It's Town Overlay District, and will probably be individual commercial zones within that. Like the neighborhood commercial zone, mid-island commercial zone.

S: *Those nodes that are on the Master Plan. You seen them?*

H: Yeah.

ANDREW: And the other key to that is reducing the parking requirement at least, certainly in the downtown district. You say you can build it, but you can't provide the parking on site, then that is an automatic way for people to be opposed to something.

H: **Do you feel there is enough clear communication going on throughout the different town departments and the other organizations that relate to and provide affordable housing?**

A: No, and that's why Susan was hired. Especially on the public side of things because, remember public organizations and private organizations have different requirements on how they operate. Private organizations, including non-profits, can work completely behind the scenes, under the radar, they don't have any public reporting required other than their annual report, but it's not a level of transparencies, especially when tax dollars and public money is involved. That's why we now have a housing planner to start getting that information more coordinated. Especially when we're offering town land, public resources to people.

S: *So because the town land is the component of their non-profit, charitable housing doesn't mean that the transparency goes away.*

H: So you see an issue with the construction on the island being more in the mid-island?

A: No. We encourage... Across from the airport, I don't know if you saw it, there is a mixed-development going on. Stores and commercial space on the lower floor and apartments up above.

S: *I can run you out there afterwards if you haven't seen it.*

M: You took us through there.

S: *No, I took you by the Rugged Road one. Did I take you out by the airport?*

K: I don't think it was by the airport, it was by Bayberry or something.

A: Well, have Susan take you out there because you'll see that is the kind of housing that we think has promise for affordability. Everyone would like a single family house, which means is the most expensive type of house to build. These are apartments over a store. Not everyone wants to live in that, right. So it's going to have to price itself accordingly because not everyone is going to want to be there. But at the same time it's totally functional and attractive. We actually got our... Nantucket is the 8th highest in Massachusetts in terms of smart growth. The state does the little score card on communities and because we gotten this because we do a couple of things, we both protect open space, but also allow high density, and different housing options that standard suburban and rural communities don't. But housing is our clear area where we got to pick up.

H: You said earlier that there needs to be 10% of affordable housing available on the island, what is the percentage now?

A: Well, here's how it's calculated, it's 10% of your year round housing units and that runs from a decennial census, ok. So, in 2000 there were 4,040 housing units used for year round purposes, so what we need to provide, what is it, 404. We are at 3%, which is about 127, something like that.

S: *We had a net loss of 20 units this year, despite the fact that I added 20-something. We are at a net loss of 20 because there were other properties that have been qualified, but because the proper deed restriction wasn't ever drawn up or agreed to, then they had to fall off the list. I think we are down to 104 now. I needed them off the list right away so that we could start a more realistic phase to build on.*

A: The next decennial census will be coming up and by 2011 we will know. There's been a lot of new construction between 2000 and 2010. So we'll probably be even that much further behind. So, Susan just got a lot of work to do. She needs all the help she can get.

H: That's all the questions I had. Anything to add?

K: No.

A: So what communities are you all from?

M: I'm from Southwick, Mass. It's in Western Mass.

H: I'm from Shelburne Falls, Mass. It's a small town in Western Mass.

K: I'm from Groton.

A: Groton, Mass?

K: Yeah.

A: Ok. Groton had a couple of 40B's, haven't they?

K: I think so. I don't really know what happens in my town. But I do remember seeing a lot of developments going up a few years ago, so they might have been 40B's.

A: You know, there actually a big case recently settled in Groton. It was a 40B development. The Housing Appeals Committee, which is a state wide committee, ordered the town of Groton turn over some of its land to make this 40B work.

M: Is that because they were under the 10%?

A: Yes. And, because there was site lineage issue somewhere along a road, Groton sued and won the case and they basically said “you at the Housing Appeals Committee have no authority to order anything to happen that’s a collateral issue around housing.” So big win for the town of Groton there.

K: But a loss for affordable housing.

S: *And the site line issue was an issue they highlighted in one of the seminars I went to. It was ... on paper it sounds good but in reality it was really nitpicky. It was sort of like, and if you look left and look right, because the way the road curved, you couldn’t see the cars coming and that was where the driveway was going to be. Instead of putting up a “Slow, Curve” sign 200 yards down at the end of the road, maybe with a blinking caution light, to address the problem and move forward, they just used that as an excuse to fight it. The HAC, the housing committee, is the legal arm of the DHCD, they are all under the same building.*

A: But 40B is just, it’s a law that is just so criticized and a lot of the, especially the suburban legislatures do not like it at all.

K: When we were researching beforehand, there was a comment from our town representative and he didn’t approve of 40B.

M: Because it’s more of the smaller towns, the ones that don’t meet the 10%, are they the one’s are arguing it? Not so much the people who already meet it.

A: Yup. And I think the problem with that is there is nothing that has said you as a town should take responsibility for this, should take the responsibility for providing housing, and can on its own. 40B is only there if you don’t do it. And a few towns actually immediately, said “well of course we got to do this”. Lincoln, Mass, which is a high income town, is actually one of the first to meet its 10% requirement. That made it immune. Once you make 10%, you don’t need any more 40B’s. Once you reach that target, and you see a developer, you can say “see you later, we’re all set here.” Instead of fighting it, just get it to 10%. Use your resources, make it happen. There are ways to be proactive about it.

M: Is there something for town’s that don’t meet 10%, that at least if they’re showing that they are trying to, they don’t get hurt so bad?

A: That’s that meeting the 0.5%. That is what that goal of 20 units came from. That’s the 0.5% of your total need. If it’s a small town, say they have 1,000, then you only have to build 5 per year.

M: I don’t think there is anything else.

A: Okay. So what’s your end product, what’s your outcome going to be? Are you going to have a report after this?

H: Yeah, we are writing a report and going to create a booklet on the parcels of all the vacant land parcels that can be used for affordable housing developments.

A: Okay. So you’re looking across the island for what might be good parcels.

M: At least, fairly suitable ones, there are a lot of smaller parcels that might not be so good.

A: Well, water and sewer is going to be a critical issue. Once you get under 40,000 sq/ft, which is just short of an acre, you’re into, you’re impacting bedrooms and things like that. Because under Title 5, unless you have water and sewer available, unless you have one or the other, that would work too.

M: That's another issue we've been running into. We've been hearing about the sewer issue; how the bedroom is interpreted. Is there something on the books that outlines what is meant by a two bedroom...?

A: Apparently the health inspector ...

M: 'Cause some people interpret it differently.

S: *I always thought a bedroom had to have a window and a closet. And that was what the municipality needed to be counting, so builder use to build things with large libraries that had windows, but no closet, but obviously people are going to furnish it and use it as a bedroom. It's a two bedroom house because you have a two bedroom septic, but there's six other rooms and the next thing you know, they're all doing laundry, they're all using the bathrooms, and sewage is bubbling up on the front lawn and it's a health hazard. So that's why the Health Department got involved and said a bedroom is anything that can be used as a bedroom.*

A: Yea, they said any room other than the living room, kitchen or the dining room.

M: So studies are classified as bedrooms.

A: For septic purposes, yeah. But that's yet another reason find areas that have sewer, at least sewer present. You can do... Title 5 restricts lots that have neither. And what you need is about 10,000 sq/ft per bedroom. And 40,000 is considered the minimum lot size for that.

S: *So if you have public water, then you don't have to go by the 10,000 sq/ft per bedroom?*

A: Correct.

S: *It can go by what your land can perk at?*

A: Correct.

S: *Oh, good. I learned that today.*

M: There's something else that we've been studying, it's kind of a funny topic, but there's composting toilets. How would the Title 5 be affect if somebody proposed that onto their development.

A: You know, that is a good question for the Health Officer. I don't, from a zoning standpoint, it doesn't matter, and there are a lot of lots that are completely buildable under zoning, but completely undevelopable under the health regulations. This is one of the things, too, there is a lot of town land at various locations that is not buildable.

S: *Because of Title 5 bathroom provisions, so it would be great to have composting toilets, but the other thing is it's not just brown water that's a concern for the health, or it's the surrounding soil and its drain-ability, but it's the greywater, its dishwashing and bathing. Just regular water water. The neighborhood I live in is just clay.*

A: Oh right, you have water but no sewer.

S: *I have water but no sewer. I'd love to have sewer, but it's so far away, it would be cost prohibited at the moment.*

A: It's supposed to come to that area.

S: *That would be great.*

A: Stand by.

H: So the town is planning on expanding the sewer district?

A: Yes, it's called a Comprehensive Waste Management Plan, CWMP. It may be online, under the DPW.

S: *I have a map of it in my housing plan.*

A: I don't think the Health Department does, but there are outlined needs areas where the sewer is eventually going to go to. You'll see that in there. These are big ticket items. A new sewer

plan is being build right now, a \$42 million sewer plan, so to handle all these potential areas. We're way ahead. Nantucket is way ahead. The Cape is like, they're terrible. Falmouth is looking at \$50 billion in construction. polluting all there embayments. And there is one group of cranks that keep voting it down. We had one group of cranks. But sewer treatment is key, especially when we're trying to achieve certain densities.

M: What kind of things did you do, like with the Abrems Quarry development, did you have issues with the Health Department there?

A: Abrems Quarry, they actually expanded the sewer and water to that. Their original permit was for 56 units, but neighbors sued, and the sewer district was proposed somewhere during that lawsuit. So it had been approved, because we knew sewer was going to come there.

S: *Can I just add. It can cost anywhere from \$13,000 to \$30,000 to replace your septic if it had failed. And that's a lot of money.*

A: The only difference with this development is that there is more density there then the houses surrounding it.

M: We went to other developments, and you really couldn't tell the difference between the affordable and market rate houses.

A: Exactly.

M: Well I think that's all we had today.

H: Thank you.

K: Thank you.

A: You're welcome. Glad to meet you.

C-5 Interview with John Brescher

Date: November 17, 2008

Time: 10:00am

Location: Nantucket Planning & Economic Development Commission

Attendees:

John Brescher
Haley Connelley
Matthew Henry
Kristen Hughes

Key:

Q- Interviewer
A- Interviewee

Q: We came up with a list of zoning codes that we emailed you earlier. We just want to know what each of them mean. There are a lot of things that repeat themselves.

A: They sure do. Ok. Oh, yeah. Basically, this is just a list of all the zoning codes, and if you look behind you, that is where they all are. Basically it designates parts of the island by either the types of use allowed or the lot size, and by doing so they restrict the lot size, or the setbacks, how close any building can be to the road, the actual size of the house and things like that. As a disclaimer I guess, we don't deal with affordable housing all that much. Are you familiar at all with Chapter 40B?

Q: Yes.

A: That is where we come in. How familiar are you with it?

Q: Pretty familiar. We know that it controls that a town has to have 10% affordable housing.

A: Ok. The Zoning Board of Appeals is the jurisdiction for all 40B applications. Whenever Nantucket gets a 40B application, it has to go through the ZBA to get approved. In doing so, they figure well, or I assume that the legislation intended that the ZBA can just grant whatever waivers are necessary so that you can increase the density, if you need waivers for setbacks, if you need to modify frontage, whatever, the ZBA has the authority to grant those waivers, and that is why it will go through the ZBA. All of the other boards, planning and what have you. I think there have only been two 40B applications on the island so it is not really a familiar process for us. We actually had one withdrawn just, gosh 7 or 8 months ago, and that too was over where the other 40B is, off of South Shore Road near Abrems Quarry.

Q: What kind of zoning districts would be focused on for new housing developments? Are there certain ones that should be built in?

A: Interestingly enough, both of the 40B developments aren't all that far away from each other, granted nothing on Nantucket is all that far away from each other. I can't remember the zoning district off the top of my head, but thank goodness the map is here. I believe that is LUG1, and the other one looks to be LUG2. So those seem to be the more popular or more prevalent zones for developments here. Mainly because you don't have any commercial uses in those, those are just residential. Granted with a 40B, you can incorporate some commercial, a minor commercial use, into the development.

Q: So each of these districts have restrictions on what size you can build and things like that?

A: But with a 40B application, if somebody is really hell-bent on building it and they are willing to work with the ZBA, they can probably get waivers to make the development fit to the building regulations.

Q: For the residential zoning code, there is a R1 and a R2, what is the difference between the two?

A: Sconset and just regular, that is all that is. We are not that advanced.

Q: Are there any zoning bylaws changes that are currently in the works?

A: Not really, the person you would really want to talk to is Andrew Vorce. He is really the one that proposes bylaw changes. Not to my knowledge, we are not changing anything.

Q: For the affordable housing situation, do you think there is enough being done, or do you think there should be a new approach to the situation?

A: I don't think there is enough being done. Obviously, if you look at the numbers, we are in a staggering deficit for affordable housing. The big joke is that affordable housing on Nantucket is an oxymoron. So I don't think really enough is being done. I don't know what more could be done at this point. It is difficult to try to strong arm developers and say hey, can you build here. I don't think the town should really be taking on the responsibility of creating the affordable units, or doing more than what they are.

Q: Do you feel there is enough communication for different departments and organizations that are working on affordable housing?

A: I am not that familiar with it because I only work with the 40B's that come through the office and like I said, I think we have only had 3 ever, so we don't deal with it all that much unfortunately.

Q: Did any of those 40B applications, I know there were a lot of complaints by the neighbors. Did any of those end up going to the HAC?

A: I don't know if any went to the HAC or not, I think one did. For instance, the first one ultimately took six years because of the litigation.

Q: That's Abrems Quarry?

A: That's the one, yeah. I am pretty sure that one went to the HAC. The other one, Rugged Scott, which is just up the road, may have but I don't think that one was nearly as contentious. Like I said there was one that was recently withdrawn, but I think they are going to come back.

Q: We just wanted to know what the difference was between the different zones like LUG1, LUG2, and LUG3. Are there different restrictions on each one?

A: Between LUG1 and LUG2, it is just minimum lot size. For LUG1 it is 40,000 square feet for a minimum, where LUG2 is 80,000. They both have the same front yard setbacks. There is a difference in the side and back yard setbacks. LUG1 only requires 10 ft side and rear yard setbacks; LUG2 requires 15 feet. In LUG1 you are only allowed to have 100 feet of frontage; LUG 2 is allowed 150 feet. And the ground cover ratio for LUG1 is 7% and for LUG 2 it is 4%.

Q: How is the ground cover ratio calculated? Is that something that is important?

A: It is. Basically it is the foot print of the building on the property. Basically as long as it has a roof over it, it qualifies for ground cover. Things like porches or decks that are not covered, don't qualify for ground cover. It is basically to preserve open space.

Q: So it is the ratio of the footprint of a house to the lot size?

A: Yeah. So, real simple, if you had a 100,000 square foot lot, and let's just be ridiculous, and you had a 25% ground cover ratio, your house couldn't be more than 25,000 square feet.

Q: Do you have a list or a sheet with information on these codes that you could give us?

A: Would something like this help? Or are you looking for something more.

Q: I think that would be fine. That would probably cover most of everything for restrictions.

A: That should pretty much cover it. The difficulty is that I don't think there is much in the zoning bylaw that would mention much about affordable housing. It will talk about, well you can't have a Laundromat on this site or something, which doesn't really go with what you are looking for. I can give you some of the pages that will have the permitted uses, I don't know if that would help you.

Q: We have been reading through most of the bylaw just online.

A: Good reading material, huh. Like I said, I hate to give you a cop out answer, but under Chapter 40B the ZBA can override regulations. So in theory, you could put it anywhere, granted the neighbors would like you much, but you still could.

Q: I don't understand why people hate 40B's so much. Do you think that it is mostly the density?

A: I think so. I think people are concerned that it will drive down their property values. For some people, they lived on a very secluded road and all of a sudden 30 houses are going in and they complain about all of the light and noise and all of the cars. You can complain about anything here. As I am sure you have come across with your research, there is a strong sense of NIMBY here, I am sure you have noticed that.

Q: One of the other groups is working with wind power, so they are getting a lot of that, too.

A: You might as well have another group working on a correctional facility, too.

Q: I think that is all that I had for today.

A: Ok, so would you like a copy of this paper? Would that help you guys?

Q: Sure, that would be great. Thank you.

A: Alright, thank you. I will copy this for you right now then.

C-6 Interview with Mark Voigt

Date: November 20, 2008

Time: 2:00pm

Location: Historic District Commission

Attendees:

Mark Voigt

Haley Connelley

Matthew Henry

Kristen Hughes

Key:

Mark Voigt – MV

Matthew Henry – MH

Haley Connelley – H

Kristen Hughes – K

MH: When did you first become involved with the HDC?

MV: Before I start there, I want to say thank you for explaining that. I think that is really important and I think you get probably a lot more participation from not just you guys but from those who interview those who supposedly have professional opinion. They would probably get a little more cooperation and participation if people were told those things ahead of time, i.e. sometimes newspapers and those sorts of things. All I really care about is that things are understood correctly. Anyway, ask me the introductory thing again.

MH: When did you become part of the HDC?

MV: Oh, about 9 years ago, I moved here from St Petersburg, FL to take the administrative position for the HDC.

MH: Since that time have the regulations changed much, in the way that the HDC handles applications?

MV: Not much. It has changed in a few different ways; I don't know all of the ways at this particular point. On a regular basis we meet, every week essentially, barring holidays throughout the year. We average about 48 meetings a year. In those meetings we have the opportunity to change things and discuss issues that are coming up; what are the trends that might be occurring. Usually once a year we try to wait and organize all those things and have a whole discussion. So we have the opportunity to update things on a regular basis, but we have been doing this for over 50 years, so we've got things pretty well situated, but as you know change is the only constant, yet we're able to adapt to that reasonably quickly.

MH: What are the HDC's regulations on housing developments? We weren't sure if you had a guide-list, but now that you have given us this book.

MV: Our guide-book, just so you have a better understanding of it, it's set up for residential construction. That's not always easily understood. People think sometimes it's geared for every type of construction. They might have a special project like the Coast Guard, or the school, big projects that we're not geared up for that. They didn't exist the same way that they are brought in today, like the new public safety complex that the fire and the police want to build. That wasn't like that on Nantucket historically, so we have to look at how these are being combined for today. So this guide-book is set up essentially for residential, although it does have some components for commercial properties and outlying areas, and it has grown from a thin pamphlet, over the years, to a 192 page book now. It is interesting because even

with 192 pages I still get the comments that it is not adequate. Then my first question is, "Have you read it?" Then usually that goes away. So the key is that you have to actually read what is put in place. Read that question again because I don't know if I answered all of it.

MH: We were curious what the HDC's regulations on new housing developments were.

MV: So, the housing developments, we do look at if you are coming in with a complete development. So there would be a different aspect there. One would be is that you are looking at the overall layout because you have a large lot of land and you want to chop it up into smaller pieces. As opposed to, sort of, you have this land that is already divided up into lots that is in variable forms and they just get developed haphazardly over time. Where as more of a housing development, a good example would be Naushop, have you been to Naushop?

MH: We've been out to Abrems Quarry and a couple others.

MV: Alright, let's take Abrems Quarry. It's a 40B, but essential let's assume that it is not. Let's just assume that it is a housing development. So all of those, particularly those, were built in like six months. So, not that compact of a time frame but something similar to that, just imagine over the span of 10 years. Naushop is another one that is built but it is just a market development and you go in and make this big loop, and it is just one house after another. That is a housing development that looks traditional in its form and its architectural features, but its layout is nothing traditional like Nantucket. With housing developments, we try to get in there as early as possible, but unfortunately the zoning and planning laws and boards that review those early on end up dictating it and end up, I think, as a disservice to actually making them traditional. We go in and I think we end up sort of fixing it because we only fix it from a building standpoint. You still know that it is a modern development because of its layout, but at least their forms are traditional looking. I think we get 80% to the way of what we want to achieve and there is just nothing you can do if the layout is a modern layout.

MH: So the HDC regulates designs for new developments all over the island?

MV: Yes. Exterior architectural features on structures and structures would be an assemblage of manmade materials or natural material affected by man.

MH: Do all new developments on the island need permission from the HDC?

MV: Yes.

MH: How open is the HDC to allowing residential developments with alternative energy systems like solar panels?

MV: Well, as I told the other group, as much as I will try to keep it the same. The HDC's mission is to protect historic structures. Whenever you see these topical discussions take on a new life or become more prevalent in everyone's mind, the approach is sort of, why do you guys make it so tough on us, we are trying to do a good thing and you're making it tough on us, and why can't you just accept it, this is the way it's going to be. And that is not our mission. It's not something that we do. It is sort of like asking a cook to be the maid or something like that. They are totally different functions of what they actually do. Ours is to try to integrate those into buildings the best way that they can and to preserve the architecture. We have a unique situation here on Nantucket; we're a flagship historic district, one of the first in MA and one of the first in the United States, one of the largest. I think we have the highest, hands down the highest volume of applications of any district. We're 10 times more than the next closest district in MA as far as volume we handle. We have more meetings, more discussion, all of those things. We've hit just about every issue that you can

hit in my mind. That doesn't mean that there won't be something else, but we definitely have a lot of experience. Essentially what we are looking at, and this comes from also, the national trust for historic preservation, another national and state preservation group. In the 70's it was interesting because we had the same issues with energy and so forth. The statement comes out, or the program is that, the most energy efficient building is the building that you keep. The greenest building is the building that you restore and keep. The big part of the equation that we haven't looked at is how much energy went into building a particular building. Buildings can be rehabilitated, you know, they're just boxes, so if you continue to just throw them away, that's not any good. Everybody says, I hope this analogy works, but if you're moving and you want some cardboard boxes, you don't go out and buy them brand new generally. I mean if you are like me, we try to go and get them from the store or something like that, and we fill them up with all of our stuff and move. If they are still in decent shape we try to give them to someone else if they are moving, and they can use them. In a real superficial way, that is sort of how buildings are. Buildings can adapt, can change, and can be upgraded. To keep all of this stuff out of our landfill and to maximize the utilization of our resources, that is what should happen. So, you take an old warehouse that used to be textile manufacturing or shoe manufacturing or something like that, and you look at all of the examples and you evaluate it and they go back in and make it energy efficient and put in today's standard for utilities and everything else, and you have got a wonderful set up in itself. They have always filled up. They have always been successful. There might be one or two that you might find, but generally they are a success. The reason is that apparently they kept a lot of the tradition that people like and updated them to include modern amenities. You will find scores of projects throughout the United States like that. Our issue is that, I think, we need to bring those two groups together. We can't have a group dominate. We can't have alternative energy all of a sudden become the dominant force and all of a sudden everybody change the architecture on Nantucket to say, "Oh now we are just going to give you carte blanche and say you can do whatever you want with your house." The studies have shown that if you actually just add extra insulation, and you fix whatever isn't running right and you update your boilers and you make them more efficient and change light-bulbs, you'll save more than if you change out windows. That is one of the big features is replacement windows. The joke among preservationists is, "Yeah, the reason they call them replacement windows is because you replace them once and you're going to replace them again, and you're going to replace them again." If you have old windows, say like in this house, the windows might already be 150 to 200 years old, so they've last 150 to 200 years. Is that reason to get rid of them? I can show you a window upstairs that you wouldn't be able to tell that it was that old. I mean I kept thinking for a while that it was a brand new window. To say that you don't have to maintain something, I think, is the difference. We definitely emphasize maintenance, to try to keep up the structure because they will last so much longer and be much better equipped to be renovated in the future. Sometimes it is not as exciting. People like when something has that newness to it. If you go into a place that has just been restored, there are plenty of places in Worcester that have just been redone, like the theater downtown. I was just there a couple of months ago for a meeting, and that is a really old theater. They just restored it. They got tax credits and all kinds of things, but the fact that they didn't tear that down and have it rebuilt. This kind of goes back to the whole preservation mindset. Take the supreme-court decision and what led up to saving Grand

Central Station in New York. That was proposed to be demolished. Have any of you ever been to Grand Central?

MH: No.

MV: If you ever get the chance you should try. If you are going into New York you can get there from all of these different trains that are modern trains, and the still all end up at Grand Central Station. It is a fantastic space. You go inside and it is huge. You can just imagine that all being filled with trains at some time. What was even more fantastic than that was Penn Central Station and that is gone. What replaced it? Madison Square Garden, which they are getting ready to knock down again. There is no longevity to some of those structures. Penn Central was built; it could have lasted I would say the acropolis. It was built like a Greek temple; therefore it could have lasted many more years. Architectural salvage companies made a living off of all the stuff that came out of there, because it was so desired. Anyway, I guess my point is that we have been practicing green building. We have been practicing energy efficient buildings, but in a much more holistic stand-point than a point of sale view, where you just install a new solar panel or you install some other sort of energy generating equipment like a windmill. All of those things can work with preservation projects, but we think it is really important, especially here and in any other historic district, to hold on to the historic aspects of any building that you have in the district.

MH: We know the height regulations of the buildings are 30 feet. Well, that's part of the zoning bylaw.

MV: It's both. It's a tightened-fast bylaw; I mean that everybody gets the same haircut. We don't look at it that way. We look at the context, so there were buildings in town, and we have advocated that if you look at the Point Breeze Hotel, and that was way over. It was like 50 feet, but that was the context. They rebuilt a building that used to exist on the site and they could document that it was that height. We supported it and when they came in with the application and that is what we wanted. We wouldn't have wanted something that was only 30 feet in height, but technically because it is a zoning bylaw that had to go and ask them for relief. It certainly helps them that we have already signed off and said "yes, this fits". The guy did want to build a second building on the site and wanted to get the same height, but we said no. It doesn't fit the context of putting another building of that height in that area.

MH: We have talked to a few people that feel that in the near future that it might be beneficial to increase some of the height restrictions around the downtown area and have kind of a gradual step. Do you see that happening?

MV: If that is what people want. We can live with it. I think we just have to be careful because again many times what they think is addressing the problem is going to address the problem. The question would be why, what would it get you? What does it offer you to put a building out of scale? Once you start to get to that point some of the issues that come up is once you pass three stories, you have to put elevators in all of these buildings. You are talking about a different construction type; it has to be much more resistant to fire, which means that it would have to be out of concrete or steel. Now all of a sudden we are really changing the building forms from the way that we have built them over the years. Not that you couldn't. You could build a house out of concrete and Styrofoam and all of these other things right now, but most of them don't. They know how to be a carpenter as opposed to just pouring forms and so forth. I would ask, what is the benefit? I think that is how we gauge everything. If it is worth the benefit, then I would say, well then it is worth considering.

MH: In regards to the 40B developments for example, a more dense development. Were there any special regulations made for a development like that?

MV: Well the 40B in particular, it is also called Comprehensive Permitting. That means you go to the Zoning Board where you usually ask for all of these variances, instead of bouncing around to the Planning Board, Historic District Commission, or ConCom, Conservation Commission. They basically say it is a streamlined process. They say that all of your plans and issues end up as a permitting process that is controlled by the ZBA. The ZBA can then add components. They will say if this is Hyannis and they want to do a 40B, they wouldn't necessarily be in the historic district. They certainly don't want a 40B approved without review to the guidelines. So what they will do is tell the 40B developer that they must comply with our book. We don't technically have it in our jurisdiction but they still need to comply with our rules. For 40B's it is best to have what I call, and what other people call, as scattered sites. Have the affordable houses spread out through the community. It works out generally in other communities if you just let the scattered site availability be there. The 40B just needs some work. That's my opinion on that.

MH: What happens when someone starts working on their house without getting a permit for it?

MV: Well, not too many good things, that's for sure. They would be in violation of the HDC Law, they would be in violation of the building law, and it depends on if there were laws that they cross the threshold, like if they have ConCom issues that would be a problem. If they started building it too close to the lot line, now they've got ZBA problems. That is just bad all the way around.

MH: We just had some questions about the current housing situation. How do you feel about the current situation, do you think there is enough being done?

MV: Well, you know, there is a lot that has changed in the last six months maybe even more so in the last couple of months. We are seeing families that are leaving and it isn't necessarily because of affordable housing. It has to do with jobs. Jobs are more important than affordable housing. The second point then is could you stay in a house if you didn't have a job. The rents here have traditionally been very high for first of all the square footage that you get and that is the Nantucket factor. Six months ago I would say yeah it is in adequate, and difficult. Lately you can't rent it affordable unless you are rich. You can't rent it affordable if you have built in the last year because you yourself are trying to pay your mortgage. If you have an older house, you can afford to rent it for a bit cheaper provided you haven't had to put a lot of money into it for improvements. Before you could show up on the island and pick up a hammer and be hired. Now there are just not any jobs for the people here to do. We attracted so many and now it has shrank. Some people bought their house a while ago, and it is paid off, and they can survive through it. It constantly changes and you can't think that one answer is ever going to be right. Six months ago we were in a desperate need for affordable housing; we are not in as bad of a need for affordable housing now.

MH: I think that is about all I had today.

MV: Well I have probably talked a little too much today. It obviously isn't for a lack of thinking about it. I'm sympathetic to these things and I've talked about some of these things around here. Some people think they have the answer to everything, but it is a very complicated issue. You need to get everybody involved and some people abuse certain things.

MH: Something I just thought about. I don't know if you know about Miacomet Village? Somebody the other day made a comment about it that the lottery system for getting

into there had the income cut-off level too low. So, people on island couldn't get into it and they actually brought a bunch of people in from off-island. It was open state wide.

MV: It does have to be open to the state. That is the problem, that it does take state funds and federal funds so you can't restrict it. That was done far enough before I got here so I guess I don't know too much about that. Okay, let's assume that did happen. Basically what that is telling you is that people here make more than that, and their cost of living is more than that. So their income is more than that, so the cost should be a little more than that. Is that any worse than, ok, let's take the market rate approach. The lucrative job here attracts somebody from off island to come here, and they buy or pay for a market rate house. You've just brought somebody in from off island, and that happens all the time. So, the fact that you brought somebody in under a program like that really mirrored how it happens in the private sector, exactly the same way. Some people think the government should run like a business, but it doesn't and it is only when it serves their purpose. I always think it is hilarious when I hear that, "We need to run this like a business." And I am like if you only knew how a business ran, I have been in both. I have been in private business and I have been, obviously, in this job. I am always amazed by how people think a private business runs. They think it is very efficient and only makes money. Businesses go out of business a heck of a lot more than governments. I think that governments that have problems, and have problems financing, it's because they all of a sudden start running like a business, instead of like a government. Businesses fail probably more than they succeed, but you only see the ones that succeed.

MH: Okay. Thank you for your time today.

C-7 Interview with Anne Perkins and Wendy Forbes

Date: November 24, 2008

Time: 2:00pm

Location: Rural Development, Inc

Attendees:

Anne Perkins

Wendy Forbes

Haley Connelley

Matthew Henry

Key:

Wendy Forbes = W

Anne Perkins = A

Haley Connelly = H

Matthew Henry = M

H: Will it be alright to quote you in our report or use it for an appendix?

A: Yes

H: What goes into the process of designing one of these homes?

A: Well, when you say one of these homes, we should step back a bit. We got involved in building green affordable homes in about 2000, when we began to build energy star homes. Up until we started building the Solar Village, we were building all single, scattered site houses around Franklin County. So what goes in to building a single home on a single lot, or sometimes a couple of homes on a couple of continuous lots, is very different than building a sub-division, which is what the Wisdom Way Solar Village is. The planning process is, is, really quite different. So, I guess what I mean to say, is that there are shades of green. Nick Grabby wrote a great article actually this morning on the front of this morning's Hampshire Gazette, in which he quotes, oh, who's our columnist at the New York Times, Tom Friedman, and him talking about the fact that the word green has almost lost all meaning. You know, I was sitting there last night and WGBY, is offering green subscriptions to WGBY, I mean come on. I can give you some money to belong to WGBY, what is green about that? Now it's just really become an overused term. So, what I have talked about in the past is shades of green, and, you know I think when we started with the energy star homes program, that to me is a very minimal level of green. We've built over 60 energy star homes that really we, you know, somewhere around 2003 or 2004 we began to add photovoltaics to our homes through grant funding, the solar electric systems, and then a couple of years ago, we decided we were able to move it forward and build a near zero net energy building in Colrain, and that was really a prototype of what we're building in the village. And one way to talk about this, you know Haley; just stop me if I'm giving you too much information.

H: That's Ok

A: One way of thinking about homes is HERS scores, are you familiar with that at all?

H: No.

A: It is a scale, and we can give you a chart, but if you start at 150 and come down all the way to zero. A zero net energy home is a home that uses no other fuel than what it is creating for heat and electricity. It doesn't really have to be connected to the grid in that sense. Most American homes are between 150-130. A home built to today's building code gets a HERS

score of 100. In order to be an Energy Star home, you have to get down, so this is the lower the better, you have to get down to 85. RDI has not had a home over a HERS score of 65 in the last couple of years and that is a home that does not have photovoltaics. It is a regular good quality building that many people out there in this country would consider very green. That's 65. We got one yesterday, or Friday, that's a score of 21. So that shows you, we are just so far down that scale in order to get to a near zero net energy building, and the one in Colrain was a 21.

W: And actually, because the building code requirement now is a HERS score of 100, you can look at the score as a percentage of what a built to code would be. So our house in Colrain is 21 percent energy use of what a code built home would be using.

A: Or 79 percent better than a code built home. So, that said, where on that scale do you want us to answer. Do you want us to talk about the Colrain House and the Wisdom Way Solar Village Houses?

H: Yes, that would be nice.

A: That's where you want us to talk. Because, those are going to be more expensive.

H: **Well, in Nantucket a lot of people want to do scattered affordable homes to integrate it with other homes, so I'm not sure what other houses you have already built besides the Colrain and the Wisdom Way, but we also are very interested in the solar panels on the houses. The person we have been working with has also been playing with the idea of building a solar village, so he would like to look at this as sort of a model of what he would like to do.**

W: So he wants to go as extreme as possible with the energy savings?

H: Yes.

A: So, where you want to start is not with the solar panels on the roof. You want to start from the foundation up and build a home that is so energy efficient, that adding active solar, which is the photovoltaics and the solar hot water system, makes economic sense. Without the photovoltaics, we probably would have gotten a score of around a 40-45, ok because it does tend to bring it down about 20. And we know that actually in Colrain, although, well we don't actually know that. Rob modeled the house as a three bedroom and said that it would get a HERS value of about 50 actually, without the active solar. So in terms of the whole development process, it's really huge when you do something like the Wisdom Way Solar Village which is a subdivision and it is mixed income and mixed ability. Some people wouldn't consider the ability as a green feature, but I do; the fact that all of the units are visit able by people in wheelchairs. And, two of them are actually going to be accessible rentals, completely accessible to people with disabilities. We are going to continue to own those, the rest will be homeownership, two of those are being sold to people with whatever income and five of them are being sold to moderate income, and 11 are being sold to people with lower income. So the way we started the development process was by having what is known as an integrated design team. Are you familiar with that at all?

H: No.

A: Well, you will hear it in the green building world. Basically we got together the architect, the civil engineer, the mechanical engineer, and sometimes there would be more than one people from those companies. We also included the trades' people, the electrician, and the heating contractor, the carpenters that would actually be building the home, and we involved potential buyers. So, you get everybody in a room and the first thing you do is: here is the land we managed to find, how do we want to divide it up? You know, the way we wanted to

divide it up, and what is the reality with the town zoning regulations, and that really ended up driving us so that what we have is actually in the end a very kind of traditional subdivision, with a big wide road, and a cul-de-sac. This is not what we wanted to do. We initially wanted; we knew we had to come in here, because this access was dangerous, it's a very busy corner. We also knew all along we wanted to keep this as open space if we could just aesthetically, there's a cemetery right here, and you'll see it all, and there is a road here, and a road here. You know, we had a bunch of different ideas of coming in here and just parking, and having a little simple road that ran around with houses in a circle and having a nice big green space in the circle and the town wouldn't allow that. We wanted to have a 10 foot wide road and they wouldn't allow that. The fire chief felt that it wasn't going to be safe. We wanted to do more of a cluster, but we just couldn't do it. So all the homes had to have the traditional setback of 25 feet, 30 feet in the backyard, but they could have 10 feet on either side. So they're very close side to side, so that we could have open space. At one point we talked about doing triplexes, well that would have led us to the ZBA, duplexes led us to the planning board and we knew the planning board was more amenable to the project than the ZBA. So the planning process was arduous, in terms of just, everything we wanted to do with the site and we got hit in the face and got stopped. And in the end, there were people on the integrated design team who kind of fell off. One person in particular, he just felt like if we were doing something this traditional, he did really want to be involved. So that can happen, you know. Then the second part of it, once we did know we were doing duplexes, was the architectural design, the design of the actual buildings and that too, the potential buyers were involved. They had meetings, and they made sketches, people came up with what they wanted. So you'll be able to see today, you know you of course can't go into number 37, right?

W: Oh, is that because they just did the floors?

A: Yup, the floors just got finished, so the one that is most finished, you'll be able to look in through the windows, and you'll be able to go into the three bedroom side, which is fairly far along, it's dry walled. One of the ways we keep cost down is to have our homebuyers do sweat equity. So, the homebuyers pick the paint color and do the painting of the dry wall and the trim, and we pay for the materials, we pay for the paint. We are actually using a no VOC paint, which, it looks nice.

W: It's a great paint.

A: And were you there the other day when I started sweeping the Marmoleum, I couldn't stand it cause it was so dirty, you know guys sometimes, and I was just waiting and I started sweeping it, and just sweeping it, it felt so different than vinyl, I couldn't believe it. So Marmoleum is actually a brand name for linoleum, which is a green product. So we use as many green products as we can. So the Marmoleum, the siding is Hardy Panel, what else, the wood floor is wood that is grown locally. Four counties of Western Massachusetts, a bunch of timber harvesters got together and created a Massachusetts Woodland Cooperative, and they're managing their forests according to Forest Stewardship Council standards, which is the highest standard for sustainable forests, and then they harvest them, and mill them and make flooring, and we're very excited to be able to do that.

W: Can I just open the door and have her stick her head in?

A: You can go into the kitchen. Jim just told me that he was there and I said he couldn't be in there. He was in the kitchen doing the electric. So you'll be able to see the linoleum, and the cabinets that we use are all plywood, but they're standard in the sense that they're not

particle board. They are higher quality, they are not low VOC, or no VOC, but they do have some green stamp on them but it doesn't amount to anything as far as I know. And that's part of really one of the issues that I kind of alluded to, and I'm thinking of responding to this article in the gazette this morning, and just saying I'm so glad you pointed this out because without standards, anybody can say what they are doing is green, and there is, you know, and industry green standard that the cabinets are following because they all want to be in on it, but they don't have the stamp on it that I trust. Have you heard of LEED, and the US Green Building Council, did you go to the conference this last week in Boston?

H: The person we have been working with, actually, went there. He brought back a bunch of booklets for us.

A: Wendy was there for a whole day, and I was there for, a very short time, talking about greening affordable housing. That's, you know, what I do. The US Green Building Council, which ran Green Build, created this program called LEED. LEED for Homes is specific to one or two family, maybe even up to four family, homes. You have to meet certain standards in order to get LEED certification, and kind of the biggest one is the Energy Efficiency, but there are others as well. So know, you might want to ask some questions, or do you have something to say?

W: Well, I'm thinking it might be helpful to know what made the site appealing, why it was a site that made sense for this project. You know as far as the soils, and obviously the solar orientation, to the proximity to downtown, to the transportation services, all of those kinds of things.

A: That was all part of it too. You know, being able to catch the bus, being on public water, sewer and natural gas, drainage, very sandy soils, very flat site, and very protected. The only open to the road, is here and here, because there are houses and barns in here, and there's an apartment complex here, and a cemetery here, so it's very protected and yet there are virtually no trees on the site. There were some fruit trees that were not in very good shape, that we had to ultimately take down, because they were pretty much all right here in the curve. We planted some new ones here, you'll see those today. And just the solar orientation, the sun comes in beautifully there.

H: **Has the solar village gotten any neighbor opposition, or a NIMBY mentality?**

A: Very little in this situation. We did build this house right here [between village and street], and initially these people were pretty unhappy that there were going to be all these people in his back yard. We had a public meeting, we invited neighbors, we sent out a mailing to all the abutters, and they came and complained. And don't you know it, the people we built this beautiful green home for with 3 kW of photovoltaics, but we sat down with those people outside of that meeting and came to an understanding, you know, but everyone else was fine with it. I think part of it was because of this big apartment complex.

W: And we did have to do a fence in front of this house.

A: Well, that was part of the agreement to buy land from them, but we did pay for their fence, although it's not very pretty. We had to put three different pieces of land together, so it was a pretty complicated deal, but we were able to do it. We have had NIMBY'ism in other locations more than this particular one. You know, one time we had the bulldozers come and the neighbors came out and cried, so we definitely have experiences a lot of NIMBY'ism in our past but not this particular project.

W: We have also been successful in getting a lot of good publicity for it. So there's a lot of excitement about it.

A: I would say that the mayor was very supportive in the beginning, and that's critical. That you get your mayor or your chief officers, you know, selectmen, or whatever, because if she hadn't wanted it we never would have gotten the funding.

H: **Since it is a rural area, where there special considerations to incorporate into the design that might not apply to non-rural areas?**

A: Very much so. To us this is an extremely dense development. To any of the urbanists, this is like, what is our per acre, one unit per; I mean the whole thing is 20 units, and the whole thing is just about 5 acres, so we're not quite 4 units per acre. And the green community, supposedly, you can't get any money from them unless you're at least 6 units per acre. And they expect you to go up, you know. So that is what I would say is the biggest one right there, that from an urban stand point this is not a dense development. To a rural perspective, this is a very dense development.

H: **Do you build any 40B houses?**

A: We have not gotten involved in 40B; we try to avoid it like the plague because it is so unpopular. And I know, I mean the Cape and Nantucket, they wouldn't have any affordable housing without it, but we have managed to avoid it here. Excuse me. I will say my predecessor did one 40B project.

W: I wasn't here for the planning process; I came in about 3 months before we broke ground on the first house.

H: **I was just asking her before she left, so this is the entire cost of the solar village here?**

A: Yes.

H: **Ok, so how much would each unit cost?**

A: Well, the cost was close to \$300,000 each, 290 or something, I mean I don't worry about the cost of each individual unit, in the sense because, we just lump all twenty units together and came up with logical sale prices that work in our budget.

W: We did have a per square foot cost that came out to about \$160 per square foot, just for the buildings, and then the total development cost was about \$216 per square foot.

A: Because we had to put in a subdivision road, and tie in with the sewer and water, and the electric and all those kinds of expenses.

H: **So what kind of building materials do you use, I know you went over it a little bit earlier with the linoleum. Are there any other kinds of materials that you use, do you use recycled materials for the homes as well?**

A: The main recycled material is cellulose, because that's made from paper, and that's made down in Belchertown, at National Fiber. That is what we use completely now for our insulation, our walls and ceiling. Things like OSB, are you familiar with that, or Oriented Strand Board, it replaces plywood. That is considered a green product in that it is able to use crappy trees. Plywood, you know, you have to have a half decent tree, so you're able to use lower quality trees and of course trees are a big sustainability issue. I mentioned the flooring, we are using a very low VOC water based, polyurethane on the floors, and we're using the linoleum in the kitchen and bathrooms. We're using hardy panels, which is a fiber cement board, so we try to reduce the amount of vinyl, vinyl being a product that is very toxic to manufacture and to get rid of at the end of its life.

W: And it's made with petroleum.

A: Well, actually so is fiber cement, because it's cement. Apparently it's actually more intensive in the carbon it emits than vinyl, but it's made up completely of saw dust and cement and at the end of its life you can just crumble it up and throw it away.

W: I think the shingles have some sort of recycled material in them.

A: Yeah, not too much. I guess I was talking about the vinyl, the windows have vinyl frames and vinyl sash, some of this trim that you see is a vinyl or PVC product, I think the little white batons are, but there is a bit of a mix. The windows we should really talk about a bit, I think they're very special. Even though they are vinyl, we managed to get different types of windows on different sides of the homes.

W: I can tell you more about those when we go over there too.

H: **How much did all of the solar panels cost for each home? Were they very expensive to do these?**

A: Always think in terms of what kind of solar panel are you asking about. There's solar panels that create electricity, and there's solar panels that create hot water, that's what you are seeing here. These create electricity, and these create hot water. So they really have completely different purposes. I do understand that there may be some photovoltaics solar panels that make hot water, but I haven't seen them yet. I just want to point out something so you know what you're looking at: 1,2,3,4,5..1,2,3,4,5,6, so you can see there is an extra row of photovoltaics panels on this side over the other side. This is because this is a three bedroom home, and the other is a two bedroom home. Presumably more people will be living here and there is a higher need for electric use. Same thing happens with the solar hot water panels. Three of them serve the three bedroom side and two of them serve the two bedroom side, and those tiny little panels are photovoltaics and they run a pump that pumps the liquid down to the basement and back in the solar hot water panels. It's not water, it's actually glycol. What happens is as the sun hits these photovoltaics panels, they create DC electricity, which in the big panels, because you want to be able to use it in the home for all of your AC equipment, you will see in the basement, an inverter, which takes the DC and turns it to AC. These little ones here stay as DC because the pump is able to run on DC, so that has no inverter involved.

W: I have some information here on the costs. Ann pointed out to me earlier that we were able to get really good pricing on these because we worked with the same supplier/installer for a very long time and he's also committed to helping the affordable housing.

H: **I also read online that you renovated a lot of the town center buildings for affordable rental units, and it says also that it creates economic benefits. How does it create these benefits?**

A: Well, I have to speak pretty peripherally about this because that's a different department. It's not my homeownership department that Wendy and I work in, but by renovating buildings in downtown Turners Falls, that were just empty or had been burnt out by creating affordable housing in them, you're creating good homes for workers. Of course a person could work in the industrial park, or anywhere around. So in that sense, if you don't have decent housing for your workers, you won't have a decent economy.

W: And I think cleaning up those buildings also went a long way toward changing Turners Falls' feeling about itself as a community, it was a really run down community, there had been a lot of crime, drug crime and sort of teen gangs, and I think just having those buildings not being empty shells, it looked like people cared about them and it has really changed a lot in the town and now there's a whole move to get more artist in and just a lot more excitement and I'm sure those buildings have a lot to do with that.

A: So you're writing up a report for a class at WPI, are you also sharing this report with the Nantucket affordable housing group?

H: This is our junior year project that counts for three classes at WPI, and we are working with Housing Nantucket, a non-profit on the island.

A: So you are actually living down there?

H: Yes.

A: Oh, how fun. Now doesn't John Abrams build on Nantucket or is he on the Cape. It's actually Martha's Vineyard.

W: What's the name of his company?

A: South Mountain?

W: South Mountain maybe, he's a very well respected builder and I think he is on Martha's Vineyard.

M: We are actually probably going to Martha's Vineyard next week sometime to see their housing situation.

A: And are you going to John Abrams' project, it has something like 7 Platinum LEED certified affordable homes. He is certainly somebody you should connect with, because I know island construction is somewhat different than here.

W: So what are your guys' majors?

M: We are both ME.

A: Oh. Having realized this I think there is a whole other piece of information for you, because we work with Steven Winter Associates. An absolutely critical part of doing a near zero net energy home is the mechanical engineering, it's just absolutely critical. We just lean on these people and they work with the DOE Working with America Program. The US DOE has been promoting a zero net energy construction all through America and the Building America program has been helping people such as ourselves. I mentioned that we have built a near zero net energy home in Colrain. What the mechanical engineers did was they went in, figured out what kind of research they wanted to do on the home and they went in and put something like 30 or 50 different monitors in there and it all got sent out on the phone line, because Colrain doesn't have cable, to a computer in CT and they used it to monitor how much energy was created by the photovoltaics, how much hot water was generated by the solar hot water, how much was used for the heat and hot water. They used these big complicated charts that as ME's you would understand, but I just look at the bottom line that says that 96% of the kW that were used, were generated by photovoltaics. That's huge, 96%, I can relate to that. All the other numbers on that chart are Greek to me.

W: And it has been the mechanical engineers that have really figured out how to integrate the different systems to make them work the most efficiently and get the most out of them.

A: That goes back to what I said about, you don't start by putting photovoltaics on the roof. You start by lowering your heat load. So you figure out what makes sense. There is a crying need for people that are studying this stuff and that are interested in this type of study. I'm serving on Gov. Patrick's Zero Net Energy Buildings Committee. The idea is that we want to get all buildings in MA to be zero net energy by the year 2030. We're not going to get there without qualified engineers working with builders and architects. Well, Wendy is going to take you over to the village. Give her a minute to get a couple of things from the computer.

C-8 Interview with Maryanne Worth

Date: December 2, 2008

Time: 3:00pm

Location: Nantucket Planning & Economic Development Commission

Attendees:

Maryanne Worth

Matthew Henry

Kristen Hughes

Key:

Maryanne Worth = MW

Matthew Henry = MH

Kristen Hughes = K

MW: Well, I am the coordinator for the Council for Human Services which is a department of the Town. Basically my job is I provide the safety net for the people who live and work here. It means that I do a lot of direct services, enrolling people in insurance, prescription programs, fuel assistance, food stamps, you name it; I probably do it. I also have two committees. One is my Council for Human Services and the other committee is a Contract Review Committee. I am a department of the Town. The Contract Review Committee is kind of an interesting committee. The Town is very generous and gives out a certain amount of dollars every year to Health and Human Services. The Contract Review Committee reviews those budget requests for the RFP's and then they make their recommendations to the finance department and the Board of Selectmen every year. So, based on what their recommendations are; last year they gave \$331,000 out to different health and human services like the hospital, family and children social service agencies. In 2006, I did a very extensive community survey that 1 out of households responded to, it is on the town website. It has a specific section on rentals in there that you might want to take a look at and also about housing in general. It also had four questions, basically what do people love about Nantucket? What do they hate about Nantucket? And that is also on there. I can also loan you the hard copy if you want instead of pulling it offline. You are welcome to borrow this. There is a section in here on housing and it just kind of talks about the questions what do you dislike the most about Nantucket and it categorizes all of the responses. There is a lot about housing and things in here. You are welcome to borrow this as long as I get it back.

MH: Ok, thank you.

MW: I think you will find it interesting. It really addresses the affordable housing issue as a whole and it looks at it more comprehensively. In that survey, 11% of the folks said that they didn't have enough money for food, that's a national average, so it's telling me that people are paying very high rent, there is a high cost of housing here, and not having enough money for basic things like food, or utilities, or whatever. For the most part, my job; most people think in Human Services; what do you think of? You probably think about homeless people, being in Worcester where there's lots of them, we have them here, and yes that is part of my job. Or the illegal immigrants, which we do have here, and I do see them, but for the most part my clients are the people that live and work here. There are teachers, there are bank tellers, there are store clerks, you know, they are the people really keeping this community alive. We've had a huge exodus going on. You talk about erosion

of a community or losing a sense of our community and that has happened tremendously in the last five years. People are leaving in droves. I've never been able to prove that, but my survey did show that. My survey did show that basically the families with three or four kids have left, they are not here. You know, the families with one or two are still here, but they are still struggling. So, it does affect our whole community. With the economic times being so critical at this point, there is more of a mass exodus going on and I really wonder what it going to happen to our community, whether we can even save it. It is quickly becoming a gated community. The high price of everything is pricing everybody way out. When you think about it, all of our children graduating high school, unless their parents have land or whatever to build on, they can't come back here. It is very sad. I have two sons, 30 and 28. Once they go off to college or whatever and come back and want to live here, they can't afford a million dollar home, you know that yourselves. It is very tragic what is happening to our community, because as I said, it affects every detail of our community. It is just one piece but it kind of has a ripple effect with everything else that goes on.

MH: What do you think is driving the high cost of the houses?

MW: I think it has been steadily going up and up, and I have to say I think initially it's the greed that Nantucketers have. It is a tourist destination, there are a lot of trophy homes here, what we call trophy homes, the big giant houses and we are finding that those folks are bringing in all of their stuff and they are building these big commercial kitchens so they are not using our restaurants. They are bringing in their own wait staff, cook staff, their landscapers, everything. They are not using any of the local folks, and if something goes wrong, they will bring in their plumber to fix their house, or whatever. Construction is on its way down. We will eventually be built out, which I am sure Aaron has talked about. So it is not going to last forever and again, I am seeing a huge decline in that this year with people coming to me worried about the winter, worried about fuel assistance, worrying about the economy and stuff like that. You can't even think about buying into the housing market. I am also seeing families that have mortgages that are 3 or \$4,000. In order to make that mortgage payment, these families are working 2 or 3 jobs, so you have a dad that is working 3 jobs and a mom that is working 2 jobs. So consequently they don't see their kids. It wasn't until, probably the end of last year or the beginning of this year that I have been telling folks to leave. Young families are saying, "What is the quality of life?" I mean you don't see your kids, you are working for what, you are struggling to make ends meet, and all it takes is for one thing to go wrong in that family's situation. Think about it you if your car breaks down, you need your car to get to work, or you have a truck and that breaks down. Say that's going to cost \$1000 to repair. Well, you need to make that mortgage payment in two days, so it's either, do you put food on the table? Do you make the mortgage payment? Or, do you fix the car so you can get to work and continue working? One little thing, people live from paycheck to paycheck here. One thing goes wrong here and it just throws people right off the deep end and ends up into foreclosure, which I am seeing a lot of. There are a lot of hard times going on. So my recommendation to folks is to go somewhere where they are not paying so much for everything. Somewhere they can live and buy a reasonable house for under \$500,000 and live well.

MH: Recently some of the rental prices have come down, as has the whole housing market, but I imagine these rentals are still out of a lot of peoples' reach, correct?

MW: Yes. You think about our senior citizens for example, they get the same social security check that everyone does in the nation, which is about \$800 on an average. But they live on Nantucket, where they are paying \$5 for a loaf of bread and \$10 for coffee, and living on tea and toast because they can't afford anything else. Granted they live in big houses, that are falling down around them, and have credit card debt up the yin-yang, and it is just very tragic. It is very, very sad. These people that were born and raised here and maybe not have so much family here, but they have a house that is worth millions of houses, even though it may be decrepit, or whatever on the tax books. They don't want to leave their home, and they just can't seem to get out of that whole. It's a very unusual situation. And it's not; I think here, we are ahead of the curve compared to the Cape, which is just now starting to be in a major crisis themselves. I have always said to the Cape folks, "You are really nothing but a big Nantucket." Like I said, it's not going to be one thing that solves this, or tries to fix this. It's going to take a lot of different little solutions. I am hoping that it is not going to be too late. I honestly believe that in 5 to 10 years from now, they will not have school here and we will not have a hospital here, it will just be a clinic. I honestly think that is where this community is headed, which is sad. Very sad for someone who has lived here for 35 years, to watch the community really go down the tubes. Being a small community, there are pros and cons to that. It is great that it is a close knit community, because everybody knows everybody, and when there is somebody in trouble, the community really seems to rally around that. In a bigger city, you don't see that; you could care less that your neighbor is dying of cancer or not, sometimes you don't even know your neighbor. Then again, along with the cons of that is everybody knows everybody, so you never know who you are talking to and you have to be careful who you are talking to about who, because it might be a relative or something. It's really interesting, and the gossip, you know the gossip that goes around. It's more emphasized here, which I am sure you guys have already figured out.

MH: **With the economic problem, do you see an issue with the trend of moving toward mid-island for common shopping.**

MW: That's not really happening, and I think that; let me just say this. I think that there are a lot of movements afoot to revitalize downtown, which I think can happen it will just take time, and will take money, which is the number one issue. I don't think being out of town is a bad thing of having stores out of town or getting the traffic or the congestion out of town, like going to the Stop and Shop and going to the whole mid-island, making it more of a walk-able neighborhood and having people have more of a downtown feel but in the mid-island section; and I think that is wrong. I think one thing you talk about; I am actually going to give you a paper I wrote about housing. I think there is a lot we can do. I think that it is just going to take a lot of money; it's going to take some changes with state and federal changes, like changes in laws, changes in zoning and things like that. Like I said I think we need to explore all of those options. I think that there could be tax exemptions for people that do the right thing, that do affordable housing. I think that there could be a housing bank or a housing trust, which I think that Aaron's organization tried to do and has failed three years in a row because it never got out of the conference committee. I think we need to try that again. I think there could also be simple things like if someone wants to do affordable housing here, just putting some rules or regulations in place to just expedite that process so that they are not jumping through all of the hoops, because that costs more money. I can give you a good example. I am part of a project that is doing a Human

Service Center that will house 20 of our Health and Human Service agencies and will have 14 units of affordable housing on 2.5 acres of town owned land, along with a small heritage center that will be like a small museum that will house; we found a significant number of native American artifacts, and also the fact that it is a historic treasure piece of property, national treasure. We had to go through all of the regulatory agencies, and we had to go back to the HDC 3 or 4 times, because they wanted us to move a window just one inch, so our architect had to do a whole new set of drawing and so forth. That all cost time and money; \$100,000 later we got through the HDC process when it probably could have been \$30,000. So I think that something like that to expedite going through the regulatory boards would be an incentive for someone who is building affordable housing, who is willing to do the right thing and wanting to do the right thing, but not being so stringent. Another thing too, is being on town owned land we were held to much higher standards than just buying a piece of property anywhere. We spent \$100,000 on archeological surveys, we spent another \$40,000 on endangered plant species, and we are not through yet. That is a heck of a lot of money; that could build a house really. I think inclusionary zoning bylaws which the planning department has done a really good job of doing; looking at different sections of the island and increasing density and decreasing lot size and think there is still more work that can be done on that. I think that what Aaron is doing is good and I think there needs to be more of it; some sort of housing education, we have very little of that. I think we need to invest in that to help the families navigate the complicated home-buying system and also to prevent foreclosure. I think there needs to be more education on that, especially around this time, given the economic times and what is happening with jobs and everything. I think also looking at creative ideas of how to create public and private partnerships. That one thing that I don't think the town looks at very long. You might have someone who really wants to do the right thing and make affordable housing and all they get is grief. So, kind of embracing that and making that a priority. I think kind of generating some other capital for affordable housing, so whether it be the housing trust fund or whether it be the housing bank bill or having a tax credit or looking at the town being able to have bonds. Another thing to that I would like to see is that, we have this first down-payment homebuyer's assistance program which I think Aaron manages, is kind of recycling that and making it continuous so that the people that do use it have to give back to that. Also, like what the employers do over in Hyannis. The employers for this non-profit, they kick in \$1000-2000, and what happens is these are little bits of subsidies where the employers help them pay maybe first and last, or their down-payment of their rentals or whatever and it is a very innovative and creative program that is working very well for Hyannis. Did you contact the housing assistance appropriation over there, have you talked to them?

MH: No.

MW: They are a wonderful group. They are our regional housing office and they have a lot of creative and ingenious programs over there. I can actually give you the contact information for someone over there.

MH: Aaron mentioned them yesterday; we just haven't contacted them yet.

MW: And also, just you know, like there could be rehab loans made available to folks for if they wanted to create an accessory apartment or something. There are just tons of things out there, I don't think it's going to be just one thing to finally create affordable housing on

Nantucket; it's going to be a whole bunch of things. I think that we just need to look at every one of them. It will be interesting to see what your report says.

MH: We have heard a couple of people saying that there doesn't need to be more units built, because there are plenty of them out there that are going up for rent recently. Do you think that more affordable units should be built?

MW: They are not affordable. I mean when is \$1700 for one bedroom affordable. Think about it. That's why I have this paper. It tells you what you need to make in order live and work here and also what you need to make so you can afford rentals and things. I also have a lot of resources and information on a lot of things, if you need them. There is an excellent website called Out of Reach that gives Nantucket statistics.

MH: You have kind of touched base on these, but one of the questions that I had was are there certain things or topics that people come in here complaining about more than others?

MW: In regards to housing?

MH: Yes.

MW: Yeah. I deal with a lot. I deal with folks that are being evicted. I think the biggest issue for folks is not being able to pay the first and last and security. If you think about it you might get a rental for say \$1500. Where are you going to come up with \$4500? That is what it takes. We do have a rental assistance program that is run through the Interfaith Council. Our council of churches is the Interfaith Council; they run two programs. One is the food pantry and the other is the rental assistance program. Basically what they do is they give people up to \$3000 and it is for emergency use only. It helps people sometimes buy into these rents. It also will sometimes give \$100 or \$200 every month to the landlord to help as a subsidy of their rent. It's is a onetime deal so you can't go back once the \$3000 is used up. Also, a lot of education like budget counseling and management. They don't just hand over the money unless they think the person really can get back on their feet and really maintain that. So there is a lot to it. The apartments are inspected to make sure that they are habitable. The money goes right to the landlord; it doesn't go to the tenant. It is a great program; something created out of necessity. People come to me and I get at least 5 or 6 calls a day about housing. They are either looking for a place to live, or different situation that people get in to about housing. Whether it be inhabitable housing or their washing machine has been broken for months asking what should I do, and it is hard because there is no one who can really place people in housing. I have so much on my plate right now that I can't be devoted just to that. Pretty much what this job entails, well it's not a 9-5 job and it functions pretty much on a crisis basis. People walk in with situations like my heat was turned off or my electricity was turned off, what do I do? Or, I am being evicted and I have to leave by Friday, where do I go? I also deal with a lot of the homeless people; we don't have a shelter here. We have a huge problem with drugs and alcohol here. We only have one sober house and it is not even a half way house. It is what is known as a ¾ house. People go away to rehab and come back and can't get in. You have to be dry for six months before you can get into that house, so it is not very effective. That is another one of our missing areas of need that we need to have a place and the shelter. In the winter when I send people off for the shelter, it is usually a first come first serve basis so not all the time if I ship them over to Hyannis are they guaranteed to get in. The doors open at 2:30 and it's like a lottery, you just line up and it is first come first serve. If you get in, you get in, if you don't, you don't. It is tough.

MH: It seems like there are a lot of housing groups on the island, do you would think it would help if they worked together more? Do you see a lack of communication between the groups?

MW: Big time. Aaron has had a little quarterly housing group get together with all of the entities working with housing, like Habitat, Human Services, to the church group, to the Housing Planner, and I honestly believe that is all part of this coming together. There needs to be a regular meeting of a housing partnership. There is strength in numbers and it is the only way you can go after grants. We have all of these entities that are all vying for some DHCD fund and it is like putting a square peg in a round hole. If they all work together they are all going to get a piece of what they want out of it. That doesn't happen here and I think it is the main reason; there is no communication among everyone, and we are not working together. I will tell you what the bottom line or the problem is about that, is turf wars, or turf issues. It is all about money. I have that in my Human Services world, I have agencies that have similar goals and motives, and do you think I can get them to work together, no. Some of them won't even talk to each other. It is very interesting and people don't realize the importance, especially now, that we all need to work together and help each other, and that should definitely be a priority. A good partnership should include the environmental conservation folks. That way you look at it in totality. I am a firm believer in healthy communities, and it is not just meaning a community without disease. It has to have social justice, shelter, food, a decent legal system, all those things. You can't just leave one of them out. Especially with conservation and the land people. For instance, our Land Bank has a couple of houses. They are not supposed to be owning houses, but they do. They should create some affordable housing out of those houses and turn them over to some housing partnership. People don't work together or think that way and like I said it is all about the turf issues, which I hate. I really do. That has always been my mantra that we all need to work together. I think what I like to bring forward is that you have got to put those personality differences aside; otherwise it is not for the greater good of our community. We want our community to be a vibrant, wonderful place to live and it's going away and do we want to save it? Then we all need to come together and work together.

MH: There has to be plenty of people in the community that other people probably wouldn't think would be coming to you correct?

MW: Yes. Which is nice, granted my office is here in this garage, but the good news is that it is a back room deal. The confidentiality and the nature of this business is really important to me, and it is really great. I have seen a lot of town employees that would never come to see me, but it is only because of where I am. I am able to help a lot more.

MH: That shows pretty well how bad the economy is when some of those people come in here needing assistance.

MW: They have been; they have been for years. A couple of years ago when the fuel assistance eligible criteria was up, I qualified a lawyer here for fuel assistance. It goes to show you that no one is exempt, and what I can say is that it just takes one thing to go wrong in your life at this point and it can just destroy you. You can lose your home, you can lose your job; I mean you just lose everything.

MH: From our research we have noticed that there are mixed feelings about 40B developments, how do you feel about them? Do you think they have helped the community?

MW: I think it has helped out tremendously. I think it's all about neighborhoods and it's all about having certain areas that allow density and having certain areas with the three acre lots. I think it is important to use inclusionary zoning to make it balanced, and there are areas that will have higher density, where 40B's should be built, and there will be areas where you don't want a 40B built. I think what has happened is the few complaints about 40B's are the NIMBY people. The people that come here maybe one month out of the year, have their house way down on beach. There are people that are only here part time, that are not direct abutters that complain about developments. It is people like that, I think, that are complaining about the 40B's. I think it has given a lot of families that could not afford a home here the opportunity to live here. It is pretty exciting. I can think of one family in particular, who lost everything in a fire, and she lived in her car for six months. Had three kids, and single mom, who was able to by lotto, get one of those homes. She has lived in the low-income housing authority, after being on the waitlist for 18 years. There are stories like that. You are always going to get the haves and have not's. In Worcester I don't think you see that that often. Like I said, I look forward to what you have to say in your report. I think it's good to have a fresh set of eyes.

MH: Ok, thank you for your time today.

C-9 Interview with Richard Ray

Date: December 3, 2008

Time: 1:00pm

Location: Department of Health

Attendees:

Richard Ray

Haley Connelley

Matthew Henry

Kristen Hughes

Key:

Richard Ray = R

Haley Connelley = H

Matthew Henry = M

Kristen Hughes = K

H: We would like to know what the health regulations are for new developments, primarily about septic systems.

R: Obviously, if you have town sewer running to a property, that's probably the best concept, the best approach that you could have to any of this, town water and town sewer. That negates any issue in regards to septic system, lot size and bedroom count, and that sort of thing. However, if the property in question is not served by either town water or sewer, you are stuck with a well and a septic system. On Nantucket, as in most of MA, you have a regulation under Title 5, the septic system regulations of MA, which states that you can have one bedroom for every 10,000 square feet of property area. This is a rather formidable obstacle to get beyond of you are looking at affordable housing. That can be remediated to an extent by using alternative design, septic system technology, which takes the nutrient loading out of the affluent. Nutrients are probably the worst thing that we could have going into our ground water at this point, particularly on Nantucket because, although not necessarily affecting the ground water all that much, it may indeed affect the coastal waters and that's our big concern. So, if you want to get more bedrooms on a piece of property than is normally allowed with a traditional septic system, an alternative design technology will get you there. The drawback to that is the cost of the system itself. They are usually about 50% more costly than a conventional system at the very least. Another drawback out here is the cost of the systems here. An average system on Nantucket, an average septic system for a three or four bedroom house, will cost you somewhere between 35 and 50,000 dollars. Which is cost prohibitive, I believe, to low income housing. It certainly doesn't make the affordability of that house any more comfortable with its occupants. Those by far are the biggest drawbacks to low income housing, on a lot that requires a septic system that you could ever run into down here.

H: Have you had any thoughts about composting toilets with the housing developments.

R: Composting toilets at this point will not gain you additional bedrooms, and that's unfortunate. It's the way the code is written right now. Composting toilets have come a long way in the last four or five years. They have become much more acceptable within most communities in MA for use. Previously a composting toilet was an ungainly beast in a building; people shied away from them; they didn't like the way they looked; they didn't like the way the functioned; they didn't like the end product and what they had to do, shovel it, clean it, move

it out. There are now incinerating toilets, they're not composting, but they're incinerating toilets which require very low maintenance. Composting toilets have been refined now to point where you can empty them maybe once or twice a year at the most. They are much more palatable, desirable; we've got to break through the stigma still attached to composting toilets. People are still convinced that they smell bad, that they look bad, that they are bulky and they are not. So there is an education program that we need to go through with regard to that. But they still will not gain you additional bedrooms, unfortunately.

M: Is that because of the Nantucket codes?

R: It's because of the state code. That may change, but right now no.

H: What are some of the environmental concerns with a septic system, like if one were to break or something?

R: Of a conventional septic system?

H: Yes, a conventional system.

R: The biggest problem with a conventional septic system is maintenance. If you do appropriate maintenance with the system, you are going to have a system that is going to last you for twenty years. It's very simple; you pump it every two years, big deal. Well, it just doesn't seem to happen. As much as we educate our people, and send out flyers and send out letters, we are finding septic systems that haven't been pumped for twenty years. And I say that with some authority because we are now studying and doing an evaluation of all the septic systems surrounding our Nantucket Harbor area, there are 600 of them, and 400 out in the Madaket area. These systems are all being inspected now. We are finding that those system, by in large, are not being maintained particularly well. They have root growth in them, they have dirt and sand that have infiltrated under the lids, and it has really caused the demise of these systems. You have got to teach people also that if they have a lot of kids and do a lot of laundry their system is going to be rather short lived without maintenance. I found that out the hard way, because I recommended to everybody that they have their system pumped every two years. When I built my house, I did not, and in five years my system failed, you learn by experience. That is the single most important thing you can do to maintain your systems, just simply have them pumped. You don't want to put chemicals in there, you don't want to be changing the aerobic and anaerobic qualities of these systems, you just simply want to pump them out, and they will last twenty years.

H: Are there any regions of the island where you can't have a septic system?

R: There are no regulations against septic systems, you can have a septic system anywhere, as long as it will appropriately fit on the lot, and there are no sewers in the area. If the sewer abuts the property, we are going to mandate that you hook to the sewer. But if you need a septic system, you can do that, there are just unfortunately some rather stiff criteria that you have to meet, criteria which really stand in the way of affordable housing. Affordable housing here is difficult in the first place because of the cost of real estate. I heard a comment this morning that I thought was very interesting. We have talked about affordable housing for a number of years here and it has been cost prohibitive, simply because of the cost of real estate. An individual said this morning, "You know we don't need affordable housing here, right now, because if you look in the paper you are going to find an awful lot of rental properties. People are not finding renters for properties that are customarily rented, and those costs are going down on a monthly basis. Rents that were \$1600-\$2000 for a two bedroom small apartment, for a family with one or two kids, is now \$1000-\$1200. It's going down." I don't think that is a valid argument because it is not going to stay that way, it's

going to change and it's a rental unit, it's not a buy situation. There is no rent control; you are not guaranteed that the price won't go back up next year, so that is not a particularly good excuse why we don't have low income housing, though it is an interesting comment.

H: When something is in the sewer district, does it automatically have town water?

R: If there is town water, that takes a great deal of the onus off of the septic system issue because if you have town water, and there is no well on the property, you are not a nitrogen sensitive area, so you can pretty much do what you want on the property. You can put a four/five bedroom complex on a property that without town water, would only handle one or two bedrooms. If it has town water you take it out of that nutrient loading one bedroom for every 10,000 feet window and you place it over where you can do what you want. Unless, and there is a catch to this stuff, unless you are in a well water protection district for the municipal wells. We have a district, and in that district even though you have a lot that's got 20,000 square feet, if you are in that protection area you can still have only one bedroom for every 10,000 square feet. That same lot outside of the well field, with town water, could do five or six bedrooms, however many you could fit on the lot.

H: Do you feel that there should be a different approach to the affordable housing situation or do you think there is enough being done right now?

R: I think there is more productivity with regard to trying to establish more, lower income housing here. How successful it's going to be is still very much up in the air. I don't think anybody can rub a crystal ball, or look at the magic 8 ball, and come up with an answer right now of how successful it's going to be. You are still dealing with property values that are fluctuating right now, when the economy changes and we come out of this recession, and it is a recession, things could swing around. It's still an uphill fight here, very much an uphill fight. Those rentals are short lived and they're short term rentals. It may be a yearlong contract, but that following year when that second contract comes up the owner can simply say hey, the economy has gotten better and I want \$1500 for this. Then you are out of luck. I still see it as an uphill fight and I think it's probably one of the biggest disappointments, and I'll couch that a little bit, but I think it's one of the biggest disappointments that the island has, that we do not have more affordable housing.

H: Do you feel that there is enough collaboration between the housing groups on the island?

R: Yeah, oh yeah. I think we are trying very hard. I think we are stymied by the finances associated with this rock 30 miles out to sea.

H: So, all of the regulations on the septic are under Title 5 if we look online?

R: Yes the state regulation. We have our own code, but in regards to housing and low income housing, it's not going to affect it any more than Title 5. The regulations that we have sort of mirror Title 5 in the sense that we promulgated them here 5 years before Title 5 had. Title 5 utilized our 40,000 square foot regulation, one bedroom for every 10,000 feet, they used the stuff that I wrote here as part of the state code. They just did it 5 years after we did. We recognized that we had a sole source aquifer, two water bodies, Nantucket Harbor and Madaket Harbor, that were being loaded with nutrients, which was ruining the water quality and bulk harvest. If you look at the map, you look at the populous of this island; most of the dwellings are located around Nantucket Harbor and around Madaket. There is 'Sconset and there is Surfside too, but most of it's around Nantucket Harbor and most of it's around Madaket. We wanted to get control of what was going in the ground, ten years ago, so we instituted the 40,000 square foot regulation, which is what we call the one bedroom for every 10,000 foot concept. It's reducing the amount of nutrient loading going into the harbor. The

inspections that we are doing of our septic systems right now around both harbors are also bringing to light failed systems that we are bringing back to compliance, so we are reducing the nutrient loading to both harbors. Unfortunately, it also limits the size of what you can do on a property. Any large piece of property that you could do low income housing on has been developed years ago, or is so cost ineffective, that low income housing is not in the question. You get individuals who put up subdivisions right now that will provide some form of low to moderate housing costs in a number of units, but those units are probably 10% or less of the subdivision. They are very small numbers, they are 5 or 6 units in a 30 or 40 unit subdivision. It really doesn't amount to anything, with regard to what we really need for this island with low income housing.

H: Are the Nantucket regulations available online?

R: Yes they are.

M: Do you see any change taking place in Title 5 any time soon in regard to innovative septic ideas?

R: Traditionally, MA has been a number of years behind with regard to alternative technologies. There are systems that are used out in Michigan, Minnesota, and Rhode Island that are very innovative, may serve Nantucket well with regard to what you folks are talking about, but are not approved by the EP yet. The EP has been a little slow in approving these technologies. They are catching up, but it is going to be a number of years. I don't see them adopting regulations right now that will foster low income housing with respect to the use of septic systems, alternative design or otherwise. They may be able to do something with composting toilets, but you just fight that nasty stigma of a composting toilet. This piece of plastic that doesn't dump anything that you are leaving in it, other than in a container either in your basement or outside the house, causes people to just say, I'm not doing that. It's what it is. The biggest drawback to low income housing, no matter how you look at it, is finding an affordable piece of property to do it on. You have looked in the papers; you have seen what it is like here. It's ludicrous, well define ludicrous. What you are paying \$150,000 for, structures, dwellings, below the Mason Dixon line, you're paying 250 for in the middle states, you're paying 350 for in New England, and you're paying 750 or more out here for it. Vacant pieces of property are hard to find. Something with the size you would need, well, income housing advocates are a little too late. They were here many, many years ago they just weren't allowed enough, greed ruled the island as it still does, and people simply said, "I'm not selling my property at a price that will foster low income housing. Why should I do that when I can some guy from New York who wants to come in and buy a 5 acre tract for 2.3 million dollars?" The biggest drawback is money, no matter how you look at it, on this island. Real positive stuff, huh?

M: Most of the questions that we had were just about the composting toilets and the septic regulations.

R: The septic regulations are a definitive impediment right now to low income housing on this island. They just are and I don't see that changing. We certainly cannot dictate regulations that are less strict than Title 5. Some people can say that we shot ourselves in the foot, by doing what we did with the 1 bedroom for every 10,000 feet, and then the state saying that's a great idea, we're going to do it. For overall environmental protection it is what has to work for us. That's unfortunately again is an impediment to low income housing.

M: One other question that I just thought of, in the codes, is there something that specifies what is a bedroom? I know that on the island there is some misinterpretation, I guess you could say, of what classifies as a bedroom.

R: Misinterpretation, well put. Flagrant, ignoring of the regulations is what I would call it. A bedroom as defined needs an entrance and egress door, one means of artificial light, and a window, and then it becomes a square foot issue. If you are going to put one individual in there, it's a 70 square foot room, 7 x 10. If you are going to put two people in there, that number goes down to 50 square feet per person. So one person gets a 70 square foot room, two people get a 100 square foot room. You need appropriate ceiling height, it has to be 7 feet 8 inches, I believe. There has to be plugs, there has to be appropriate flooring, washable walls, cleanable surfaces. Are we finding that in a lot of places? Interestingly enough, and as anecdotally, I will tell you this because I am a local kid. I grew up here, paid my dues in America for 10 years, when I first took this job here; we did not have appropriate housing here, particularly for the summer. Kids were stuffed in basements with dirt floors; they were living on cots, with their heads up against furnaces. That is gone now. Kids were here then for a good time, you could make enough money to get through the summer and they had fun. Kids got sick of that and they weren't showing up anymore as part of our work force. We had to change that and their biggest complain was the rotten lousy housing they had gotten. They were putting 10, 12, 15 people in a house, that should have an occupancy of about 4. I've been into houses where the living room was turned into a bedroom with seven bunk beds in it. I mean it was just atrocious. Now, what we are finding is very spatial living quarters, well laid out, appropriately addressed with regards to artificial light, ceiling height may not be what it should be, hardwood floors, linoleum floors, nice walls just a nice little apartment. In a basement that is the third apartment on a property and illegal as hell. The living conditions have gotten better, but they haven't gotten any more legal. The legality is just not there because many times it's a third dwelling. We only allow two dwelling units on a property. When you have a duplex, you have your two dwelling units. Next thing you know, you go out there and you have two more dwelling units in the basements. And that is just a situation where people are greedy. So that's another stone in the pot that we face with housing here.

K: Does Nantucket require a septic system if you have composting toilets, to deal with the gray water?

R: Yes. You are still going to have to have a septic tank and a leech facility to deal with that gray water. The state does allow you to use a smaller leech facility and it can be closer to ground water, but you do still need one. That's another drawback. We have tight-tank use where the affluent goes nowhere, it just goes out into a tight-tank, but that requires board permission and state permission before you can start that. We are using that now on the periphery of the island where we are having houses just disappear over the bluff and they haven't got enough area to put a legit system in, so they will move the house back on the property and put in a tight-tank. If they are here or out in Madaket in the harbor area, where they can't get proper water separation, we will also allow them to put in a tight-tank. That tight-tank really sticks it to you because it is seasonal use, six months out of the year. You can only live in that building for six months out of the year. That's great for the people that own these places, because they're all summer residents anyway. The nice thing about composting toilets is it allows you year-round use out of the building, but that seems to be the only benefit we are getting out of this. We are not getting more bedrooms per lot, it is just not happening right

now, and that is the drawback, and that is what you people are looking for, with regard to composting toilets and affordable housing. That could be a concept, but it's not right now because of Title 5 bureaucracy. That may change in a few years, but I don't see it coming as a great panacea in the next 24 months. I would love to see the final report that you come up with for this.

C-10 Interview with Mark London and Christine Flynn

Date: December 4, 2008

Time: 11:00am

Location: Martha's Vineyard Commission

Attendees:

Mark London

Christine Flynn

Haley Connelley

Matthew Henry

Kristen Hughes

Key:

Christine Flynn = C

Mark London = ML

Matthew Henry = MH

Haley Connelley = H

Kristen Hughes = K

MH: First off, why did why did the community decide to implement green technologies into affordable housing practices?

ML: I think before we start, maybe we should ask you a question. Who have you talked to so far, and who else are you planning to talk to?

MH: We've been dealing mostly with people on Nantucket.

ML: But on the Vineyard? Are you going to be meeting with anyone else out here?

MH: The people we were originally planning to meet with are Philippe Jordi and John Abrams, but they are in Boston today, so that was something we were going to ask you at some point today; if there was anybody here today that we could talk to.

C: I can give you a list of people that you might want to talk to just in terms of referencing and to talk to about their programs they have been working on.

MH: Ok. We are for the most part particularly interested in the Jenney Way project, because we know some of those houses are certified as LEED Platinum, and that's something that we were interested in as far as the green stuff goes.

ML: So are you interested in affordable housing in general, or more green building in affordable housing?

MH: Kind of both.

K: For part of our project we have to come up with land parcels that Nantucket can use to further develop their affordable housing on, and we are looking into green methods to bring down energy costs to help make those houses less expensive in general.

MH: So, we are trying to kind of mesh both of those thoughts.

C: That is with a focus on new construction correct?

MH: Yes.

ML: Well, maybe we should explain what we do and what everybody else does as kind of sorting out the island; who does what?

C: Sure. The MV Commission; there are thirteen regional planning agencies in the commonwealth of MA, and the MV Commission is one. We cover the region of Dukes County, which is Martha's Vineyard, the six towns within this municipality; I mean the six towns on island in addition to Elizabeth Islands, and Gosnold. As a regional planning

agency, our charter is to deal with land use planning matters whether it's transportation, affordable housing/economic developments, water quality, but as all of the other regional planning agencies are mandated to assist their municipalities. The unique situation with two of the regional planning agencies, the Cape Cod Commission and the MV Commission, we have two primary functions. One is planning; the second is regulatory review over development. So if you have a residential or commercial project over a certain threshold, our office has the ability to review those projects. The guidelines by which the commission can review a project are much broader than regular zoning regulations or other types of regulations at the town level. The commission can approve a project, approve a project with conditions, or deny a project. If it gets approved, or approved with conditions, it gets kicked back to the town and the local permitting process starts from that end. As part of the planning component, part of my job is to act as a liaison between say, the Department of Housing and Community Development, state or federal agencies, and work with the towns if there are programs at the state level that need to be implemented at the local level. This is in addition to other zoning regulations or other grant programs, or other projects that the towns might be working on and if they need assistance on some level from our office. There are over 20 affordable housing groups on the island. Each town has its own affordable housing committee in addition to, I'm going to say at least 12 other private non-profits. There are groups like Island Elderly Housing and Habitat for Humanity. There are 2 public regional housing authorities on the island. One is for the Aquinnah Wampanoag tribal housing authority; the second is the Dukes County Regional Housing Authority, which is the island. The Wampanoag housing authority is for tribal members only. You will notice that the town of Aquinnah; are you guys familiar with 40B regulations? Ok. The town of Aquinnah has exceeded its 10 percent threshold of designating its affordable housing stock and that's primarily because back in the 90s the tribe did a large housing development. Although it is only for tribal members, it was federally funded it does count for the state's 40B housing inventory, even though Aquinnah residents are not eligible to live in those housing units.

ML: Unless they are tribal members. Also, they are able to achieve the 10 percent because there are not many housing units total in Aquinnah. So, getting 10 percent is much easier.

C: But, for our project, so you have the Aquinnah Regional Housing Authority, you have the Dukes County Regional Housing Authority, and the Dukes County Regional Housing Authority does primarily management and rental, they have a contract with the town to do management or implementing of other programs at the town level. There is a lot of back and forth between the certain agencies that provide services to the town. Primarily it is the Dukes County Regional Housing Authority that works very closely in terms of administering lotteries, income verifications, or other administrative services for the towns.

MH: **So your group works pretty closely with some of the non-profits?**

C: Yes.

MH: **Does this include telling them about available land?**

C: We do. We provide mapping services with the towns as well as the private non-profits to do an inventory of town owned land, or state owned land, or county owned land.

ML: I don't know if they count on us that much for finding parcels.

C: Finding individual parcels, no. But we do have to work with them to begin doing inventories of at least what the town has on its docket. The towns have taken some initiative to look at tax titled land, where people haven't paid their taxes, and whether they can take it by eminent domain. They may then use that for affordable housing. For example, the town of Tisbury

just did that. After about three years it took them to procure the land and to take it to town meeting vote and now they are actually do the development on it. So now they have been able to create ten housing units on two parcels on two lots. That's one instance that the town has initiated to due.

ML: Maybe I can just add two things going back to the question which was what, how the commission first started looking at? In our role as doing development review for developments of regional impact, the commission has long had a policy of inclusionary zoning, of requiring on the residential side, that if there is a development of 10 units or more, or a subdivision of 10 lots or more, that one of those must be designated as under 80% AMI affordable housing. That goes back, how far back does that trace?

C: From the beginning. Because it is mandated.

ML: That has resulted in dozens of units being created and money being generated for affordable housing. So the commission has an affordable housing policy for projects it reviews and we're thinking about maybe modifying that policy. Then, on the green building side, we actually have a public hearing tonight on our energy and green building policy. So we can give you, well it's available on the website. The affordable housing policy presumably is on the website, we can give you a copy of that, the current one anyway. The energy and green building policy is available. So that again, only applies to projects that come through the commission. Basically it's a three step process, well not a process. If it's a small project we ask them to exceed MA building code by 20%, and we ask them to address other green building issues; to address them and tell us how they addressed it. If it's the next level up, if it's a medium sized project, we ask them to meet energy star and to address the green building issues. If it's a pretty substantial sized building, we ask them to be LEED certifiable. Not LEED certified, because we don't want to force people to have to pay the tens of thousands of dollars or whatever it's going to cost to actually go through the certification. They just need to demonstrate to use that they qualify. I think the city of Boston has the same policy; that they ask for certain large projects to be LEED certifiable, but not LEED certified.

C: We can also give you a copy of the commission's enabling legislation that kind of explains the DRI process and the guidelines by which our board can make a decision. As I was saying, part of the commission's legislation, it's very subjective in terms of when evaluating a project it is either a benefit or a detriment. There are several pieces of criteria that the commission must weigh. One of the issues that the commission must address is, "what potential impact will this project have on low and moderate income housing." Since the commissions existence back in the 1970's we have always asked applicants to address some type of an affordable housing component, whether from a commercial end, providing housing for employees or some type of monetary mitigation. That has always been something that the commission has been involved in. Getting back to some of the private and public non-profits, there is the island housing trust which Philippe is the Executive Director of, and the island affordable housing fund and they're all housed over at the Vineyard Housing Office. Is this your first time here on the island?

MH: Yes.

C: What's unique about that group; the Dukes County Regional Housing Authority, the Island Housing Fund, and the Island Housing Trust are all housed in one office. Often times they work very closely with each other to collaborate on various projects. The Island Housing Fund is the fundraising component; they do a lot of fundraising in the summer time. Often

times that money will be given to the housing trust who will actually do project development. The DCRHA will then administer those programs whether it's the income certification or doing the lottery. So it is a three tier process; those three organizations work very closely with one another. Politically over the last 10 years, when I started at the commission back in 1999, affordable housing was just starting to really become an issue. If you were to study land values, from 1999 onward, land values increased over 230%. Over that time there was a strong grass roots effort that started to create the island affordable housing trust. It was really a grass roots effort of concerned citizens saying we really need to address this. With those organizations, they have been able to put political pressure, not political pressure but raising awareness, doing a lot of education and outreach in terms of how the affordable housing issue impacts the economy and how it impacts our community as a whole, in terms of providing housing for teachers, for firemen, for essential workers that add to our community. Just within the last 10 years, when people run for office, whether it's the planning board or its board of selectmen, one of the main issues is "what is your position on affordable housing", like you wouldn't be able to run for one of those positions if you didn't have some sort of formal opinion on it. In that sense it has been very exciting to watch how the towns have become involved in promoting affordable housing and really lending their political support to initiate projects. For example, Edgartown did a 60 unit rental housing project called Pennywise Path. The town of Chilmark is working on developing a 12 unit mixed affordable housing project, rental and homeownership. For a town to begin to take those initiatives is really gratifying to watch, and it's only been in the last 10 years that you really have seen a broad change of how towns are trying to implement affordable housing programs, but are working with the private non-profit sectors and collaborating and providing, you know in terms of working together, also trying to do project very effectively but also to consider things like green design and other energy efficiency concerns.

MH: Has there been an issue in the towns that there has not been enough land to build on? If so, how has the island worked around that?

C: There are issues were there isn't enough land. I think for affordable housing, land is always the issue. And it is always, for affordable housing advocates. If there is an opportunity to find land we'll take it, regardless of where it is. Because, I think the land costs have appreciated so much that if someone is willing to donate land or if there is an opportunity for an affordable housing group to find some land they'll take advantage of it. I think for the Vineyard, in terms of development, to achieve certain density thresholds, wastewater management has become a larger issue as well. You will find for the Vineyard that over 91% of our housing stock is single-family dwelling units. A lot of that has been contingent on zoning, and zoning has not allowed for apartment complexes, multi-family housing, or multi-unit housing. For zoning, and adhering to state regulations, or Title 5 septic systems, that has become a huge constraint on affordable housing groups to build projects, or to more densely develop projects.

ML: There have been several cases in the past few years of efforts to take available parcels of land and use them partially for land conservation and partially for affordable housing. We have a land bank, I don't know if you are aware of the land bank. It is a 2% fee on the real estate sales and that goes as base for acquisition, so there is a pot of money there that is available for open space preservation. The town of Edgartown, when there was a large piece of land that was potentially going to be turned into conservation, and it had an unclear title, the town took that land with funding from land bank, most of it was preserved as open space.

They kept two corners of it for future municipal developments and Pennywise Path, which is what, 60 units?

C: Yes.

ML: Was built on that part of it.

MH: Do you know how big of a lot that was, for the 60 units?

C: It was on a 12 acres parcel, well, Pennywise Path was a 90 acre conservation land preservation, and of the 12 acres the town reserved to use part of it for municipal purposes. That could entail affordable housing, it could entail other municipal needs, so the Pennywise Path project was on 12 acres of land, but the development was actually within 5 acres. I think they tried to have a buffer around the immediate area, along with other parks and playgrounds for the tenants. If you haven't gone, I would recommend checking out Pennywise Path, I'll actually give you guys a list of projects you might want to go see. I will say for where the towns and the private non-profit sectors do have; there is a track record now for ten years in terms of implementing programs kind of working out processes of what works and what doesn't. There has been progress in terms of being able to step back and kind of evaluate, well you know we did this three years ago but if we had to do it over we might do something different. Given the constraints of development there's a greater effort to do collaboration and to work with both the public and private non-profit sector as partners. We are seeing that right now with Bradley Square. It is a 12 unit affordable housing project that is in the town of Oak Bluffs, so the town has supported it as a friendly 40B and they have allocated certain CPC moneys to help provide some sort of funding for the development of the project. The project also had to come before our office; we are the only regulatory agency that has pre-approve over comprehensive permit projects. We review comprehensive permit projects as developments of regional impact. So we review them with regards to the mandate of the Martha's Vineyard Commission. I can provide that legislation and that information with you guys. When you read it though, one thing to keep in mind is that when the board is able to make decisions on projects it again goes back to that benefits/detriment test in terms of traffic, in terms of impacts of municipal services, in terms of affordable housing, in terms of the natural environment, in terms of whether or not the project is consistent with zoning regulations, whether or not a project is consistent with state regulations, so when you get into board of health issues for Title 5 and septic systems, we do review that from the nuts and bolts.

MH: Are there certain building materials that developers use here? Or new innovative ideas that seem to be more prevalent?

C: Yes. Particularly for new construction, affordable housing groups are considering ways to consider energy efficiency as part of their design model. In terms of specific materials I would defer that question to Philippe Jordi and John Abrams, because they actually do the development. They would be able to provide you with a more comprehensive answer than I would be able to. I review the intention of the project and the impacts. Philippe and John would be able to help you out in terms of the materials they are using. When you go to Jenney's Way though, you will see that they did reuse a lot of materials in terms of soft-stripping old homes for reusable materials. So they have been able to recycle materials, but I don't think that answers the question of energy efficient materials. I think from their Jenney's Way designs; their intentions were to make the house as tight as possible in regards to insulation and windows. They'd be able to give you real thorough answers on that though.

MH: Ok. Are most of the land use practices and affordable housing developments having a positive impact on the community?

C: I like to think so. Personally, I believe so. I think especially affordable housing projects that have been well designed and thought out and carefully placed within the neighborhoods, or existing neighborhoods, let's say for example Bradley Square. In terms of the impacts, absolutely, it's been very positive, it's been a relief for the year-round workforce, for people to have a stable home, and just for the overall fabric of our community for preserving and allowing people to stay here and settle here and not have to worry about moving twice a year. One issue I didn't bring up is as a seasonal community, you often hear what we call the island shuffle, where people have to move twice a year, they'll have a winter rental from September to May, and they'll have to move out and move in with maybe five other people in a house or in a garage or some other kind of housing that could be substandard and not ideal, particularly if you are a single parent or just somebody trying to make ends meet. The affordable housing has had an enormous impact on the stability of the community.

MH: Did Martha's Vineyard model any of their committees after other communities?

C: Yes. I think in terms as planners, you always look to utilize the best practices and to keep an open mind to look at how other communities have addressed similar issues. Particularly with the Cape and the Islands because we are truly a seasonal community looking to what Nantucket has done, looking to what Cape Cod has done, but also looking to what other like ski areas have done, like Aspen, CO and other areas in VT and ME. But, yes we do try to model ourselves after other communities, but we also try to take the lead in terms of taking initiative and at least thinking outside of the box of how to address issues and effective problem solving.

ML: The housing groups seem to be pretty well networked in with other housing groups and keep track of what is happening elsewhere.

MH: Currently what is the extent of the affordable housing issue on the Vineyard? Is it a huge out of control thing or is it more under control?

ML: It's pretty far up the list. If you ask people what are the main challenges facing the community, I think housing affordability would be pretty high up there. I don't know if we specifically asked that question in the Island Plan, but probably. There might be some stuff, maybe we should talk about the Island Plan for two minutes. We are doing a plan for the island. We have a housing work group; we also have an energy and solid waste work group. There's a discussion paper that was prepared about a year ago of a brief summary of the situation and they both have a more detailed document that, I'm not sure if the final updated energy one is available, Christine is just in the process of revising the updated housing one. All of this is going to end up in a report next year. We did some surveys and we asked people what are the pressing issues so we can find a copy of the survey for you. You can go online and search Island Plan Survey.

C: Going back to your question in terms of is it an insurmountable problem, it is one of the top issues facing the local community, the towns, and the business community. It's not an insurmountable problem, I think it's not an issue that can be addressed with one solution, there has to be many parts of that. The island is unique in the sense that we have over 20 non-profits working towards addressing those issues and those groups are actively working together to do collaboration and partnership, but also to address different aspects of the housing issue. You have got those who are looking maybe to purchase homeownership, those looking just for a rental, and also you have those that are past the retirement age but are

not ready for a nursing home or some kind of assisted living, so there is independent housing for the elderly community. Looking at those various aspects, those are important to keep in mind, it's kind of one main problem but everyone is chipping away at it from a different perspective.

ML: In the long term I see it, I mean we don't know with the economic crisis, maybe that will change things, but assuming that within 1 or 5 years were back sort of in business again, it remains a long term problem, because Martha's Vineyard has got a very limited size, and the population of the United States is growing and the population of New York, Boston is growing. There isn't a lot of sea-side land available, so there is just going to be more and more pressure on our little island.

MH: Does there seem to be some talk about an issue of "build-out"?

C: Yes. Very much so.

ML: We can possibly give you some projections of the build-out on the island. It is often suggested that the problem for affordable housing is open-space preservation or the problem is that zoning is too restrictive. There is probably an element of truth to that, but I think the real problem is that Martha's Vineyard is the size that it is and that the population of the Northeast is growing and growing. Whether we end up saving a little bit more open space or a little bit less open space, or allow a few more houses to be built or allow a few fewer houses to be built, the demand is great and will continue to be so great, and we have got people that are trying to earn a living on the island competing with people who earn 3, 4, 500 thousand dollars a year in New York or somewhere else whose salaries that far out compete, and can afford housing that far out competes anything that people living year round on the island and having a job here, can earn. That is going to remain the same, and once the economic crisis is through it's going to get worse. We have got a lot of housing that was bought; a lot of housing was built in the 70s and 80s, so young families would come here and set up and when the baby boomers move out or die off, there is going to be even more of a wave, there is a bubble in the population. The baby boomers are still in the working class as teachers and firemen or whatever, but in 10 or 15 years when that group moves out of the work force, and they sell their houses in many cases, it's already a problem. Say a teacher bought a house here in 1970 for \$50,000 or something like that and they'll retire and they will sell that house for \$600,000 and move to Vermont or someplace else. The new person that is going to buy that house for \$600,000 will not be a school teacher. We are already seeing that problem and I think there is going to be a real exaggeration of that in about 10 years or so. There is going to be an acceleration of sort of people selling out and cashing in, moving off the island.

C: The issue will never go away and I don't think the towns will ever fully address the issue, however, I think there has been a transition towards maintaining permanent affordability and creating a pool that is affordable forever. That will be here for the next generations to come. I think maintaining permanent affordability; at least there will be that resource that younger generations will be able to tie into and groups can build upon that.

ML: Related to that, I mean there is the issue of affordable housing, and housing affordability is sort of the broader issue. Affordable housing is often used to refer to the state definition which is under 80% AMI, where housing affordability is the broader issue of how everyone can afford it, even above 80% AMI.

MH: Does Martha's Vineyard have something that covers the affordable housing market between 80% and 150% AMI?

C: The private non-profit sectors have been focusing on that in addition to town projects. The greatest need that the vineyard has identified is between 60-100% AMI. Above 100% there is also a need and groups are looking to address that, but the most critical need is between 60-100%. Getting into those thresholds, when we get funding from either the state or federal agencies, the state or federal government programs only fund those projects that are specifically geared to 80% or less of the AMI. You take groups like the Island Affordable Housing Fund and Housing Trust, they have incorporated to expand their income thresholds up to 150% of the AMI, to allow those who might be earning more and don't qualify for the state or federal programs, but will still qualify to participate in lotteries or their rental program.

MH: So, is that what the Housing Fund is for, is the projects between 80-150% AMI?

C: They are used for those projects, but not at the exclusion of the under 80% AMI projects.

ML: Most of the projects that come through here are mixed, they will have a range and the commission will usually look for a range, but it's dangerous to sort of say that because there is a problem of 80-150% we shouldn't be so tough on projects and shouldn't require it to be under 80. For a developer, it is fairly cheap to provide housing at 150, because it costs a certain amount to build a house. If you sell it, or rent it, to someone earning up to 150% AMI, you are probably going to recover pretty much all of your money. If you have to sell it or rent it to someone earning up to only 80% AMI, you've got to write down that cost somehow. You have got to find a chunk of money that will help write down that cost. The concern that I have is that people are trying to say well we have to be concerned about the middle class; I mean we have a requirement that 10% of a new project should be affordable under 80%. We have had suggestions that that should be changed to be under 150. That would be disastrous. All of our developers will put in 150's instead of 80's, because it's a hell of a lot cheaper for the developers and it's not really addressing the people; we will not get any of the 80's anymore. We have talked in our new policy, about changing the policy where in addition to getting one that's under 80; we also would require one that is between 80 and 150.

C: Have you guys looked at the income thresholds; I am assuming you guys know what the area median income is. Just thought I would ask.

ML: There was one other thought I wanted to add about the thing I raised before about the zoning because as I mentioned some people claim we shouldn't preserve so much open-space or we should just increase zoning, the density allowed; we should just change zoning and you could build a lot more housing; you could build twice as many houses. I am extremely skeptical, I think that the affordable housing cause is being used sometimes as a, I guess ruse is too strong a word, but as a pretext or a justification of developers who want to build more housing and they say just relax the zoning, change the zoning so that instead of having 1 acre zoning, we have 1/2 acre zoning; instead of having where you have 1/2 acre, have 1/4 acre. I am extremely skeptical about it. There is so much demand for housing on Martha's Vineyard, it might bring it down a little bit for a little while; it's so far out of the price range of the working people, much of the housing that it's not going to make a hell of a lot of difference. I think the market, in just a couple years, would adjust itself back to the same level. Let's say that you have a property now, say raw land that sells for \$500,000; if all of a sudden you're allowed to build two houses on it instead of one house, because you're allowed to subdivide it, people would say hey that's great, it's only going to cost \$250,000 we can afford to build an affordable house. It's not going to happen. What's going to happen is that \$500,000 lot is

going to end up costing \$900,000 and it's going to be just as unaffordable. I think part of the reason that prices are higher on Nantucket, part of it might be because it is a little more exclusive, but I think part of it is because in Nantucket you are allowed to build two houses per property. Here, normally, you are only allowed to build one house per property or perhaps, one house and a guest house. Land value is largely related to how many market houses you can build. I think that if you are going to increase the density it has to be tied in to housing affordability. If you are just going to do it across the board; let's talk about the build-out projection on the island. We could potentially build, we now have 18,000 houses and guest houses approximately, and build-out would be possibly 27,000. We are just rechecking all of these numbers. Let's just say that we relaxed the zoning and we said that you could bring that up to 33,000 or something, I think within a few years it would be just as expensive and wouldn't do any good. If you say, we're going to designate some areas and you could double the density on that property provided at least one or both units are affordable. Then maybe you have done something that will help affordability in the long run. The issue that I wanted to throughout is this issue of affordability against the official affordable housing. I am very interested in the idea, we have discussed it a bit around here, but we don't know how to do it, but locking in year-round housing.

MH: For rental units?

ML: For rental or even for homeownership. If there was some way, in addition, this is not instead of affordable housing under 80, subsidized, the whole thing for full fledged affordable housing. If there were some way to gradually, over the next couple of decades, to create a pool of housing on the island that was, maybe not even income restricted. Maybe you don't even have to say that it is 80-150, because there aren't that many people living on the island earning more than 150% if they are here year-round quite frankly. Maybe you would just say year-round housing, I don't know what you would call it, and you would have a pool of year-round housing. Maybe you would give zoning bonuses to developers if they locked in housing as year-round. If you had a 10 unit development, instead of saying well one unit has to be affordable, we said one unit has to be affordable and second unit has to be year-round. We're not telling you how much to charge for it, let the market decide how much to charge for it. Within 10 or 20 years from now, you would have a pool of thousands of housing units and it would end up creating sort of a second market. You would have the wide open market of housing available to the summer time residents that can pay a fortune and be here for just two weeks, and then you would have a second market that's obliged somehow, and I have no idea how you would do it, but obliged somehow to be year-round and people would not pay more than a certain amount because people would know that it had to be occupied year-round. If this worked you would find the average price for a house on Martha's Vineyard would be \$800,000 if it's wide open market in today's market, would be \$500,000 if it was locked into year-round, theoretically.

C: I think this also goes back to the zoning and the limitations of single family residences. We are very limited in terms of not having a huge diversity in our housing stock. You go to cities like Cambridge or Somerville, and you have areas that have highly densely developed neighborhoods, but you have a mix, so you have multi-family housing and single family housing and here it's over 91% single family homes. That in itself creates a problem in terms of not having a great pool for rental housing, or other housing options. The lack of year-round rental housing has been a huge issue for the island.

ML: In general if you want to talk about the relationship between affordable housing and green building, perhaps it's coincidence, but the people that are particularly interested are John Abrams and some of the others. That's probably a particular reason where there's special interest on Martha's Vineyard, maybe the situation is similar in other places, but it is just a small island so the people that you see at an affordable housing meeting are probably going to be the same ones that get up and go off to an environmental green building meeting. They've really tried hard.

MH: Is there any way that people can go and look at the houses, I'm sure that they are all occupied so it would be difficult to go look at one, right?

C: If you just call them and talk with any of the staff, I am quite sure that they wouldn't mind giving you a tour.

ML: Jenney Way has one unit still for sale. One unit was market rate, and the funding of the project was such that the market rate unit was going to subsidize the others, and they have not been able to that unit.

C: We'll make some phone calls and see what we can do for you. Give me one second and I'll make a phone call over there.

MH: We were wondering how the land was acquired for the Jenney Way project.

ML: That was a lot of land; it was a family that just believed in the cause. You would have to check with them whether they sold it, or they donated it, or sold it at a very modest cost. It was an older couple and they were extremely patient because it took a long time for the permitting process. They were willing to hang in there and it was a bit wild. You can see the commission minutes of the meeting if you want. There were some neighbors that were concerned because it was a green space that was going to be lost. It was allowed by a right of zoning as I remember, so it didn't require any variances. Some people came and complained that it was too big, and it was going to ruin their neighborhood. I think when most people see the final product, though, they are quite pleased with the product, I mean it is not very dense and one could argue that they probably have shoehorned in more housing in some sort of way. They felt that was the appropriate amount for that neighborhood, and I think even the critics at the time, feel good about it and are pleased with it.

MH: So there was a decent amount of opposition beforehand then?

ML: There was some, yeah, as is typical for these projects.

MH: Are there anymore green affordable projects in the works right now?

ML: Any affordable housing project, they usually try to be pretty darn green. Two that you might look at are Chilmark Middleline Path, I forget how many units, I think it is also 12 units. They were going after a pretty good level of greenness. They described in their application to the commission what they wanted to do. So you could view that. The other fair sized project on the way is Bridge Housing. It went through the commission a couple years ago and there were lawsuits and a neighbor protesting. It finally got scaled back a little bit. It was one of these deals with the land bank where part of it got put into conservation and part of it was used for affordable housing. For the affordable housing part of it was sort of spread out a bit, and they came in and kind of piped it up a little more, sort of a little compact neighborhood, cluster development.

C: I spoke with David Vigneault and he will meet with you this afternoon, and he will arrange with someone to give you a tour of Jenney Way. An example of cooperation like that, the Fund, the Trust, and Habitat for Humanity all did a smaller project, it was a very small comprehensive permit project on one lot, they did three houses. They did two house moves

and there was one currently on the property. One house went to Habitat for Humanity and two are currently being managed by the Trust Fund and the Dukes County Housing Authority also helped by administering the lotteries and the income certification and the application process. Excuse me; I may have someone to give you a tour.

MH: What kinds of 40B's have been done or are being done now?

ML: Well, Bradley Square when they first started out wasn't going to be a 40B, because it is being done by these entities that are being supported by the town. They didn't want to do a hostile 40B and the first plan they came up with was pretty darn close to zoning. They argued that it met zoning, it would have needed some special permits but they claimed that their first proposal was approvable under zoning without having to go to a 40B. Then they concluded that they would go to a 40B to simplify certain administrative things, but they assured the town that it would be not sort of to contravene zoning. It got approved by the MV Commission over a huge amount of community talk/protest, it went to the ZBA in Oak Bluffs and they modified the scheme and it is now coming back here. My understanding of the new scheme is that it's not even close to meeting zoning, so it clearly will have to be a 40B.

C: The ZBA hasn't made a decision on it yet thought.

ML: No, they haven't made a decision, but they seem favorable to the latest scheme. Other 40B's; Fairwinds was more typical 40B; a private developer that had a piece of land and was doing a project 25% was going to be affordable and it started out and the commission actually shaped the project a lot. Their first application was for 24 units and the number of units got cut down considerably. The number of units in each affordable range, under 80%, 80-150% were increased slightly, there was a mix. Martha's Vineyard is the only place in MA where there is local control over 40B's. Everywhere else it goes to the ZBA for a comprehensive permit, the ZBA could deny it, but it then goes to the HAC and invariably if the project is at all reasonable, the HAC will approve it.

MH: Especially if the town doesn't meet the 10% correct?

ML: Yes. The MV Commission got authority over 40B's. When they set up the Cape Cod Commission, they modeled it on the MV Commission; they specifically exempted 40B projects from the regulations. So, we haven't seen really, really hostile 40B's here.

C: With the exception of one, which we denied.

ML: Which we denied. It just didn't go ahead.

MH: What would you say the difference is between a friendly or a hostile 40B?

C: I can give you an example. When, the project that was denied by the MV Commission, there was a proposal for a golf course and at the same time, the applicant filed for a comprehensive permit to do over 216 housing units and the proposal was to level about 200 acres.

ML: Of significant habitat. It was not considered a serious proposal. Throughout MA though, there have been, I wouldn't say hostile 40B's, but regular 40B's versus a friendly 40B. A regular 40B would be a developer owns a piece of land, meets the minimum regulations of 25% affordable and they can just blow zoning away. They could build something that is much larger than what is normally allowed under the zoning regulations and the town has nothing they can do about it.

C: Well, they can cut it back. And that's up for negotiation and any developer that has had experience with a comprehensive permit project; I'm quite sure that if you talked to them off the record, that before they go to the ZBA, they will quite often inflate the numbers so that if the ZBA does decide to cut back the numbers, they have anticipated that. If you think about

Bridge Housing as a comprehensive permit, they came in and said this is what our zoning is, we don't really want to cut it back and said that it was reasonable and the land could handle this amount of density and the fact that they had the land preservation as part of the overall project they felt it was a nicely designed cluster development. You don't always see that in a comprehensive permit. I think you find that here though. Those who are implementing comprehensive permit projects are mostly affordable housing projects. The majority of the units are going to have some sort of restriction on them, for all of the units.

ML: There is much more than the 25%. They are often sponsored by town entities. They are being put forward by the town affordable housing agencies so they have the support of the town's board of selectmen and citizens. There might be some abutters that complain about the project's impact on their neighborhood. Generally these projects are sort of seen as supported by the towns and community, as opposed to sort of a market driven thing where they are just trying to maximize their profit. Sure they will put in 25% affordable because that is how they can bust open zoning, and they don't have to worry about how well it fits in and they will keep it to a bare minimum. So we don't have those because the towns have got recourse from the MV Commission. Notwithstanding that you would think that would have meant that affordable housing projects don't go ahead. The MV Commission has approved every 40B project, with the exception of that one which we didn't consider a serious project. Every affordable housing project has gone through, but because we have control over it, they pay more attention when the commission tries to shape it to meet other concerns of the island.

C: I think among the affordable housing groups and, I can't obviously speak for them, but I do think any projects that they support, they want to make sure that it fits nicely within an existing neighborhood; they want to minimize any visual impacts, any of the environmental impacts, or traffic impacts to the neighborhood. It's in their benefit and their best interest to make these projects beneficial for the community, so that for those who might be in opposition to it, years after it gets developed and now people are living there, you are putting a face to those neighbors and people who may have been in opposition might step back and say, this was a good project after-all, and maybe some of my fears were not correct.

ML: The difference is, it's a small island, and everybody knows everybody, so they all care about making sure that they are not going to be doing something that will be inappropriate. That would be the same if you are in Nantucket, for locally based projects. The fear is always some sort of off-island developer that comes in just to make money, finds some piece of land somewhere, and will use 40B to build something that is totally inappropriate.

C: Even within the development community for commercial or businesses, these are members of the community. These are members of the business community and the development community and they also partake in these affordable housing projects and they donate a lot of money, they donate materials, they provide a lot of pro-bono time.

MH: They are not going to do something that they don't want themselves.

C: Exactly. Even for private developers outside of the affordable housing projects, I know when we have developers coming in here, the majority of them, not all, but the majority of them are aware of what the commission is looking for but also for their benefit they want to make sure that they are doing something that's a benefit for the community, because it's in their best interest, for their own business and for their own livelihood.

ML: Well I have to get going to a meeting. Nice meeting you, and would it be possible that we get a copy of your report.

MH: Sure.

C: Was there anything else today?

MH: I think that pretty much covers my questions.

C: Ok, great. I will get you some information that you can use for your research.

C-11 Interview with David Vigneault

Date: December 4, 2008

Time: 3:00pm

Location: Dukes County Regional Housing Authority

Attendees:

David Vigneault
Haley Connelley
Matthew Henry
Kristen Hughes

Interview Notes:

- The DCRHA is publically chartered, but not publically funded
- To bring money to housing, the DCRHA has loan and grant programs to bring down the financial load of housing expenses to families.
- Being a resort island, Martha's Vineyard numbers regarding housing and economic data are skewed. The economy on the island looks good on paper, but again, it's a resort economy.
- Compares their housing situation to that of Worcester, Massachusetts.
- Runs the lottery for home ownership programs
- Demo Referral
 - When they cannot accept an unwanted house or are unable to relocate a donated house, they try to recycle the materials of these houses by soft-stripping the homes, such as removing and reusing the wood, doors, etc.
- When talking about the location for affordable housing:
 - "Scatter site works better in rural communities"
- In regards to Nantucket's housing problem:
 - Nantucket had trouble because they had one group doing everything with housing, including the planning, funding, development, and legalities.
 - Problems in Nantucket are easier than Martha's Vineyard because it is only one town.
- To raise money for affordable housing, they had a telethon.
- The DCRHA has a partnership with the Conservation Commission. When the Conservation Commission obtains land, they may offer a section of it to the DCRHA if there is already a development on that section of land.
 - When a conservation organization have found a site they want for conservation, let the own know that the conservation organization is interested in the land, the Land Bank then buys the land, and lets some be developed for housing. The division of the property between the conservation organization and the DCRHA takes place before the sale of the property.
- The DCRHA's rental assistance voucher program supports both the tenants and the landlords.
- Mentioned cluster developments and zoning breaks for affordable housing developments.
- The design of housing should integrate universal design. This integrates physical access to the home, seeks to tweak the building to increase visit-ability.

Appendix D: Parcel Book

POTENTIAL DEVELOPMENT SITES

Housing Nantucket



DATE: 12/17/2008

AUTHORED BY:

Haley Connelley
Matthew Henry
Kristen Hughes

Each of the land parcels were found by inputting the following criteria into GIS:

- Selected if within the current sewer district as determined by the GIS software
- Have a Total Building value of \$0 (to ensure vacant land)
- Have either one of the following Land Use Code:
 - 1300 (vacant residential land)
 - 1307 (conservation restriction but will expire at one point in time)
 - 3900 (vacant commercial land)
 - 9300 (town or county vacant)
- Removed if contained Conservation Land
- Removed if intersected with the Airport Overlay
- Removed if intersected with the Building Overlay
- Removed if intersected with the Driveway Overlay
- Removed if intersected with the Wetland Overlay
- Removed if intersected with the Parking Overlay
- Removed if intersected with the Playground Overlay
- Removed if intersected with the Sports Overlay
- Removed if intersected with State Land

NOTE: The sites in the book are organized by street name. For the list of sites organized from most recommended to least recommended, see chart in the Tables section.



Map Lot: 67 125
Location: 24 ALLENS LN

Owner: METSCH NANCY C
Co-Owner: C/O CRONIER NANCY
Owner Address: 11 HARMONY RD
HUNTINGTON, NY 11743
USA

Last Sale Date: 10/1/1973
Last Sale Price: \$0
Book/Page: 00143/ 309
Land Value: \$430,800

Lot Size: 0.240 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R10
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Within walking distance to common amenities. (0.32 mi from Stop & Shop; within 0.5 mi from schools)
- Has potential to incorporate adequate sun exposure for passive solar

CONS:

- Not linked to existing sidewalks
- Need to clear trees for development



Map Lot: 55 287.1
Location: 6 DAVES ST

Owner: REED ROBERT R TR
Co-Owner: CHAPOMISS VALLEY R T
Owner Address: 11 FIRST WAY
NANTUCKET, MA 02554
USA

Last Sale Date: 3/30/1987
Last Sale Price: \$0
Book/Page: 00271/ 194
Land Value: \$408,100

Lot Size: 0.115 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: RC2M
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Within walking distance to common amenities. (0.11 mi from Stop & Shop; within 0.5 mi from schools)
- Has potential to incorporate adequate sun exposure for passive solar

CONS:

- Not linked to existing sidewalks



Map Lot: 67 173
 Location: 61 FAIRGROUNDS RD
 Owner: LEVESQUE JEANNETTE E
 Co-Owner:
 Owner Address: 164 LINE ST
 FEEDING HILLS, MA 01030
 USA

Last Sale Date:
 Last Sale Price: \$0
 Book/Page: C0005/ 925
 Land Value: \$645,100

Lot Size: 0.900 acres
 Land Use Code: 1300
 Use Description: RES ACLNDV M00
 Land Class: R
 Zone: R10
 Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has potential to incorporate adequate sun exposure for passive solar
- Larger lot, can accommodate several houses
- Across the street from a bikepath

CONS:

- Need to clear trees for development
- Farther from common amenities. (0.62 mi from Stop & Shop; within 0.74 mi from schools)



Map Lot: 80 173
Location: 3 FOLGER AV

Owner: FOSTER BARRY TRUSTEE
Co-Owner: BARNS REALTY FAMILY TRUST
Owner Address: PO BOX 2231
NANTUCKET, MA 02584
USA

Last Sale Date: 12/17/1993
Last Sale Price: \$70,000
Book/Page: 00433/0099
Land Value: \$610,700

Lot Size: 1.000 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: LUG1
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has potential to incorporate adequate sun exposure for passive solar

CONS:

- Need to clear trees for development
- Farther from common amenities. (1.38 mi from Stop & Shop; within 1.42 mi from schools)
- Not linked to existing sidewalks



Map Lot: 56 14.2
Location: 3 HUSSEY FARM RD

Owner: TOPHAM BEVERLY A
Co-Owner:
Owner Address: 22 HUMMOCK POND RD
NANTUCKET, MA 02554
USA

Last Sale Date:
Last Sale Price: \$0
Book/Page: 3076/ 198
Land Value: \$665,100

Lot Size: 0.460 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R2
Utility:



PROS:

- Linked to existing roads
- Has potential to incorporate adequate sun exposure for passive solar. Border of parcel almost parallel to south.

CONS:

- Need to clear trees for development
- Farther from common amenities. (1.02 mi from Stop & Shop; within 0.71 mi from schools)
- Not linked to existing sidewalks
- No access to public water or public sewer



Map Lot: 56 14.4
Location: 7 HUSSEY FARM RD

Owner: TOPHAM ALVIN S
Co-Owner:
Owner Address: 22 HUMMOCK POND RD
NANTUCKET, MA 02554
USA

Last Sale Date:
Last Sale Price: \$48
Book/Page: 40217/1199
Land Value: \$671,800

Lot Size: 0.569 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R2
Utility:



PROS:

- Linked to existing roads
- Has potential to incorporate adequate sun exposure for passive solar. Border of parcel almost parallel to south.

CONS:

- Need to clear trees for development
- Farther from common amenities. (1.00 mi from Stop & Shop; within 0.69 mi from schools)
- Not linked to existing sidewalks
- No access to public water or public sewer



Site 7:

- 38 N Beach St
- 40 N Beach St
- 42 N Beach St

Total Acreage: 0.478 acres
 Total Land Value: \$3,564,700



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Linked to existing sidewalks
- Has potential to incorporate adequate sun exposure for passive solar.

CONS:

- Farther from common amenities. (0.58 mi from Grand Union Family Market; within 0.81 mi from schools)
- Need to clear trees for development

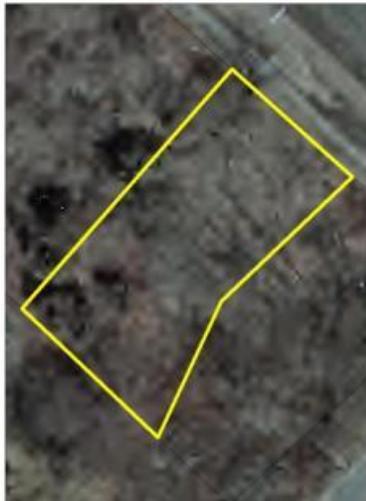


Map Lot: 29 131
Location: 38 N BEACH ST

Owner: GLIDDEN RICHARD J TRUSTEE
Co-Owner: C/O ADANG ANTHONY
Owner Address: PO BOX 69
SARASOTA SPRINGS, NY 12866
USA

Last Sale Date: 9/23/1998
Last Sale Price: \$250,000
Book/Page: 00593/0240
Land Value: \$1,129,800

Lot Size: 0.118 acres
Land Use Code: 1301
Use Description: RES ACLNDV M01
Land Class: R
Zone: LC
Utility: Public Water, Public Sewer



Map Lot: 29 131.1
Location: 40 N BEACH ST

Owner: GLIDDEN RICHARD J TRUSTEE
Co-Owner: C/O ADANG ANTHONY
Owner Address: PO BOX 69
SARASOTA SPRINGS, NY 12866
USA

Last Sale Date: 9/23/1998
Last Sale Price: \$250,000
Book/Page: 00593/0240
Land Value: \$1,128,400

Lot Size: 0.115 acres
Land Use Code: 1302
Use Description: RES ACLNDV M02
Land Class: R
Zone: LC
Utility: Public Water, Public Sewer



Map Lot: 29 132
Location: 42 N BEACH ST

Owner: KAPLAN LORETTA ETAL
Co-Owner:
Owner Address: 586 SOMERSET LN
NORTHFIELD, IL 60093
USA

Last Sale Date: 1/30/1985
Last Sale Price: \$1
Book/Page: 00223/ 343
Land Value: \$1,306,500

Lot Size: 0.245 acres
Land Use Code: 1303
Use Description: RES ACLNDV M03
Land Class: R
Zone: LC
Utility: Public Water, Public Sewer



Site 8:

- 31B New Sias St
- 31C New Sias St
- 7 W Sankaty Rd
- 9 W Sankaty Rd
- 11 W Sankaty Rd

Total Acreage: 0.56 acres

Total Land Value: \$4,656,000



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has potential to incorporate adequate sun exposure for passive solar. Border of parcels almost parallel to south.
- Linked to existing sidewalks

CONS:

- Farther from common amenities. (6.52 mi from Stop & Shop; within 6.8 mi from schools)
- Located outside the Town Overlay District
- Appears to be utilized by owner



Map Lot: 73.4.2 120
Location: 31B NEW SIAS ST

Owner: NOWAK G PHILIP & BARBARA O
Co-Owner:
Owner Address: 923 E CAPITOL ST SE
WASHINGTON, DC 20003
USA

Last Sale Date: 6/19/1986
Last Sale Price: \$68,000
Book/Page: 00251/ 095
Land Value: \$888,000

Lot Size: 0.115 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 73.4.2 1194
Location: 31C NEW SIAS ST

Owner: NOWAK G PHILIP & BARBARA O
Co-Owner:
Owner Address: 923 E CAPITOL ST SE
WASHINGTON, DC 20003
USA

Last Sale Date: 6/19/1986
Last Sale Price: \$68,000
Book/Page: 00251/ 095
Land Value: \$888,000

Lot Size: 0.115 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 73.4.2 119.3
Location: 7 W SANKATY RD

Owner: NOWAK G PHILIP & BARBARA O
Co-Owner:
Owner Address: 923 E CAPITOL ST SE
WASHINGTON, DC 20003
USA

Last Sale Date: 6/19/1986
Last Sale Price: \$68,000
Book/Page: 00251/093
Land Value: \$960,000

Lot Size: 0.110 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 73.4.2 119.2
Location: 9 W SANKATY RD

Owner: NOWAK G PHILIP & BARBARA O
Co-Owner:
Owner Address: 923 E CAPITOL ST SE
WASHINGTON, DC 20003
USA

Last Sale Date: 3/15/1995
Last Sale Price: \$90,000
Book/Page: 00467/0315
Land Value: \$960,000

Lot Size: 0.110 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 73.4.2 119.1
Location: 11 W SANKATY RD

Owner: MANERA JOHN D
Co-Owner:
Owner Address: 1350 JONATHANS TRAIL
VERO BEACH, FL 32963
USA

Last Sale Date: 11/9/2000
Last Sale Price: \$375,000
Book/Page: 00676/0069
Land Value: \$960,000

Lot Size: 0.110 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 68 246
Location: 21 OLD SOUTH RD

Owner: BANKBOSTON N A
Co-Owner: C/O BANK OF AMERICA-WOLFF
Owner Address: 101 N TRYON ST
NC1 001 03 81
CHARLOTTE, NC 28255
USA

Last Sale Date: 11/24/1997
Last Sale Price: \$0
Book/Page: 00483/0345
Land Value: \$918,000

Lot Size: 0.426 acres
Land Use Code: 3900
Use Description: DEVEL LAND
Land Class: C
Zone: RC2M
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to town water and town sewer
- Has potential to incorporate adequate sun exposure for passive solar.
- Linked to existing sidewalks

CONS:

- Farther from common amenities. (1.7 mi from Stop & Shop; within 1.93 mi from schools)

**Site 10:**

- 127 Old South Rd
- 129 Old South Rd

Total Acreage: 0.41 acres

Total Land Value: \$1,148,600

**PROS:**

- Linked to existing roads
- Has access to town water and town sewer
- Has potential to incorporate adequate sun exposure for passive solar.

CONS:

- Farther from common amenities. (1.7 mi from Stop & Shop; within 1.93 mi from schools)
- Not linked to existing sidewalks



Map Lot: 68 46.2
Location: 127 OLD SOUTH RD

Owner: NANTUCKET TOWN OF
Co-Owner:
Owner Address: 16 BROAD STREET
NANTUCKET, MA 02554

Last Sale Date: 1/16/2003
Last Sale Price: \$360,000
Book/Page: C0020605
Land Value: \$574,300

Lot Size: 0.205 acres
Land Use Code: 9300
Use Description: MUNICIPAL OR COUNTY VACANT
Land Class: E
Zone: RC2
Utility: Public Water, Public Sewer



Map Lot: 68 46.3
Location: 129 OLD SOUTH RD

Owner: NANTUCKET TOWN OF
Co-Owner:
Owner Address: 16 BROAD STREET
NANTUCKET, MA 02554

Last Sale Date: 1/16/2003
Last Sale Price: \$360,000
Book/Page: C0020606
Land Value: \$574,300

Lot Size: 0.205 acres
Land Use Code: 9300
Use Description: MUNICIPAL OR COUNTY VACANT
Land Class: E
Zone: RC2
Utility: Public Water, Public Sewer



Map Lot: 68 101
Location: 14 PINE TREE RD

Owner: SCHNEIDER GUENTER E & ULRIKE H
Co-Owner: AGGENSTEINWEG 9
Owner Address: 87657 GOERISRIED
GERMANY, . 00000

Last Sale Date: 1/1/1974
Last Sale Price: \$0
Book/Page: C0007/ 054
Land Value: \$416,900

Lot Size: 0.325 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: RC2
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has potential to incorporate adequate sun exposure for passive solar.

CONS:

- Farther from common amenities. (1.55 mi from Stop & Shop; within 1.86 mi from schools)
- Not linked to existing sidewalks
- Need to clear trees for development



Site 12:

- 37 Prospect St
- 39 Prospect St

Total Acreage: 2.14 acres

Total Land Value: \$2,449,900



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has potential to incorporate adequate sun exposure for passive solar.
- Can accommodate several housing units
- Linked to bikepath

CONS:

- Farther from common amenities. (0.69 mi from Stop & Shop; within 0.6 mi from schools)



Map Lot: 55.4.4 81
Location: 37 PROSPECT ST

Owner: NANTUCKET TOWN OF
Co-Owner:
Owner Address: 16 BROAD ST
NANTUCKET, MA 02554
USA

Last Sale Date:
Last Sale Price: \$0
Book/Page: 00000/ 000
Land Value: \$1,666,900

Lot Size: 1.605 acres
Land Use Code: 9300
Use Description: MUNICIPAL OR COUNTY VACANT
Land Class: E
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 55.4.4 57
Location: 39 PROSPECT ST

Owner: NANTUCKET TOWN OF
Co-Owner: C/O PARK & REC
Owner Address: 2 BATHING BEACH RDD
NANTUCKET, MA 02554
USA

Last Sale Date:
Last Sale Price: \$0
Book/Page: C0004/ 826
Land Value: \$783,000

Lot Size: 0.535 acres
Land Use Code: 9300
Use Description: MUNICIPAL OR COUNTY VACANT
Land Class: E
Zone: R1
Utility: Public Water, Public Sewer



Map Lot: 56 24
Location: 14 ROBERTS LN

Owner: HENRY DAVID C
Co-Owner: UNIT GL 342
Owner Address: 1711 PELICAN GROVE RD
SARASOTA, FL 34231

Last Sale Date: 10/12/2000
Last Sale Price: \$220,000
Book/Page: 00673/0127
Land Value: \$533,000

Lot Size: 0.479 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R2
Utility:



PROS:

- Linked to existing roads
- Has potential to incorporate adequate sun exposure for passive solar; parcel border almost parallel to south.

CONS:

- Farther from common amenities. (0.87 mi from Stop & Shop; within 0.62 mi from schools)
- Not linked to existing sidewalks
- Need to clear trees and brush for development
- Public Sewer and Water not available



Map Lot: 67 784
Location: 6 RUGGED RD

Owner: FEE MATTHEW G TRST
Co-Owner:
Owner Address: 50 CLIFF RD
NANTUCKET, MA 02554

Last Sale Date: 12/27/1995
Last Sale Price: \$70,000
Book/Page: 00491/0328
Land Value: \$598,600

Lot Size: 0.539 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R2
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Linked to sidewalks/bikepaths

CONS:

- Farther from common amenities. (0.6 mi from Stop & Shop; within 0.75 mi from schools)
- Located within dense forestation; need to clear trees for development; can affect the amount of passive solar parcel can obtain



Site 15:

- 3 S Shore Rd
- 5 S Shore Rd
- 7 S Shore Rd
- 9 S Shore Rd

Total Acreage:
Total Land Value:



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Linked to existing sidewalks
- Has potential to incorporate adequate sun exposure for passive solar.
- Large lot, can accommodate several housing units

CONS:

- Farther from common amenities. (0.98 mi from Stop & Shop; within 1.01 mi from schools)
- Need to clear trees and brush for development



Map Lot: 67 336
Location: 3 S SHORE RD

Owner: MCLAUGHLIN PHILIP M & MALCOLM
Co-Owner: ELLEN R TRUSTEES
Owner Address: C/O LAROSA & BILLE
100 CORPORATE PL STE 203
PEABODY, MA 01960
USA

Last Sale Date: 12/21/1993
Last Sale Price: \$0
Book/Page: 00433/0207
Land Value: \$1,191,600

Lot Size: 7.360 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: LUG2
Utility: Public Water, Public Sewer



Map Lot: 67 336.9
Location: 5 S SHORE RD

Owner: MALCOLM ELLEN R ETAL TRUSTEES
Co-Owner: C/O LAROSA & BILLE PC
Owner Address: 100 CORPORATE PL STE 203
PEABODY, MA 01960

Last Sale Date: 12/4/2002
Last Sale Price: \$0
Book/Page: 00789/0297
Land Value: \$640,100

Lot Size: 1.837 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: LUG2
Utility: Public Water, Public Sewer



Map Lot: 67 336.8
Location: 7 S SHORE RD

Owner: MALCOLM ELLEN R ETAL TRUSTEES
Co-Owner: C/O LAROSA & BILLE PC
Owner Address: 100 CORPORATE PL STE 203
PEABODY, MA 01960

Last Sale Date: 12/4/2002
Last Sale Price: \$0
Book/Page: 00789/0297
Land Value: \$640,200

Lot Size: 1.837 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: LUG2
Utility: Public Water, Public Sewer



Map Lot: 67 336.7
Location: 9 S SHORE RD

Owner: MCLAUGHLIN PHILIP M & MALCOLM
Co-Owner: LAROSA & BILLE PC
Owner Address: 100 CORPORATE PL #203
PEABODY, MA 01960
USA

Last Sale Date: 12/21/1993
Last Sale Price: \$0
Book/Page: 00433/0207
Land Value: \$640,300

Lot Size: 1.838 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: LUG2
Utility: Public Water, Public Sewer



Map Lot: 55 266
Location: 51 SPARKS AV

Owner: CRAIG JOAN P TRUSTEE
Co-Owner: PLEASANT ST REAL ESTATE TRUST
Owner Address: PO BOX 689
NANTUCKET, MA 02554
USA

Last Sale Date: 11/29/1995
Last Sale Price: \$0
Book/Page: C0017/ 084
Land Value: \$4,062,500

Lot Size: 2.759 acres
Land Use Code: 3900
Use Description: DEVEL LAND
Land Class: C
Zone: RC
Utility: All Public



PROS:

- Linked to existing roads
- Has access to town water and town sewer
- Across the street from existing sidewalks
- Nearby common amenities. (0.13 mi from Stop & Shop; within 0.3 mi from schools)
- Has potential to incorporate adequate sun exposure for passive solar.
- Large lot, can accommodate several housing units

CONS:

- Need to clear some trees for development



Map Lot: 67 115.2
Location: 3 THIRTY ACRES LN

Owner: RANNEY H FLINT & CHARRON P TR
Co-Owner:
Owner Address: PO BOX 597
NANTUCKET, MA 02554
USA

Last Sale Date: 3/10/1998
Last Sale Price: \$0
Book/Page: 00566/0017
Land Value: \$564,700

Lot Size: 0.303 acres
Land Use Code: 3900
Use Description: DEVEL LAND
Land Class: C
Zone: RC2M
Utility: Town Water, Town Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Linked to existing sidewalks
- Has great potential to incorporate adequate sun exposure for passive solar.

CONS:

- Farther from common amenities. (0.62 mi from Stop & Shop; within 0.48 mi from schools)



Map Lot: 29 139
Location: 37 WALSH ST

Owner: READE ARTHUR I JR TRST
Co-Owner: WALSH TRUST
Owner Address: PO BOX 2669
NANTUCKET, MA 02584

Last Sale Date: 6/15/2004
Last Sale Price: \$1,650,000
Book/Page: 00897/0112
Land Value: \$1,979,600

Lot Size: 0.295 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has potential to incorporate adequate sun exposure for passive solar.

CONS:

- Farther from common amenities. (0.8 mi from Grand Union Family Market; within 1.25 mi from schools)
- Not linked to existing sidewalks
- Need to clear brush for development



Map Lot: 41 183
Location: 2 WINN ST

Owner: MCCRUDDEN CORNELIUS B & ETHEL
Co-Owner:
Owner Address: 108 COLLEGE ST
OLD SAYBROOK, CT 06475
USA

Last Sale Date: 9/1/1973
Last Sale Price: \$0
Book/Page: C0006/ 967
Land Value: \$817,500

Lot Size: 0.765 acres
Land Use Code: 1300
Use Description: RES ACLNDV M00
Land Class: R
Zone: R1
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Has great potential to incorporate adequate sun exposure for passive solar.

CONS:

- Farther from common amenities. (1.07 mi from Stop & Shop; within 0.77 mi from schools)
- Not linked to existing sidewalks
- Need to clear brush for development

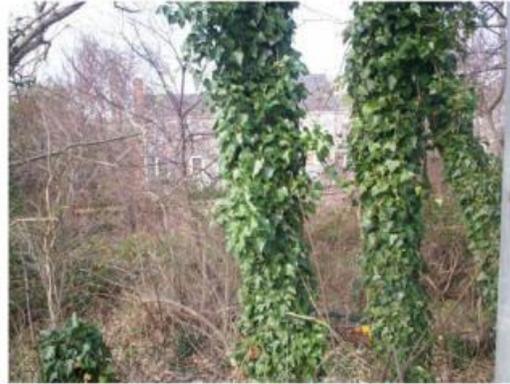


Map Lot: 55.4.1 188
Location: W DOVER ST

Owner: NANTUCKET TOWN OF
Co-Owner:
Owner Address: 16 BROAD ST
NANTUCKET, MA 02554
USA

Last Sale Date:
Last Sale Price: \$0
Book/Page: 00000/ 000
Land Value: \$780,700

Lot Size: 0.255 acres
Land Use Code: 9300
Use Description: MUNICIPAL OR COUNTY VACANT
Land Class: E
Zone: ROH
Utility: Public Water, Public Sewer



PROS:

- Linked to existing roads
- Has access to public water and sewer
- Near common amenities. (0.48 mi from Stop & Shop; within 0.57 mi from schools)
- Has potential to incorporate adequate sun exposure for passive solar.

CONS:

- Not linked to existing sidewalks
- Need to clear trees for development