Introduction to the Hunter Property: Physical Site Description and History

Located on Northwest Hill in Williamstown, Massachusetts, the Hunter property encompasses two hundred and sixteen acres of land including the highest elevation of Northwest Hill, plus a disputed parcel of twenty-two acres of land. The Hunter Property runs north from Northwest Hill Road over forested, hilly terrain, widening as the distance from the road increases. It is abutted by the Vermont state border and five neighbors: the Crawford/Goldstein's, the Masons, the Wests, the Teigtens and Hopkins Memorial Forest (Figure 1). All fairly large, these properties are diverse in use, from the conserved land of Hopkins Forest to the land farmed by the Masons to the residential use of land by Crawford/Goldstein. With these diverse yet light uses of the land, the Hunter property and its four neighboring properties are bound together with an overall feeling of rural peacefulness. It is a decidedly picturesque area of Williamstown, its isolation and rural nature created by lack of intensive development and mountainous geography, with gorgeous views in all directions.

Not only are the views from Northwest Hill stunning, but the hill itself, and the Hunter property, are themselves visible to the inhabitants of a large viewshed. This means that due to its height, Northwest Hill can be seen from a great distance in many directions. For instance, when leaving Williamstown, it is the backdrop to farmland and forest on the left side of Route Seven into Vermont. To approach Northwest Hill more closely driving a vehicle, one must take Northwest Hill Road from either Pownal, Vermont to the northwest or, more steeply uphill, from Williamstown in the southeast. Lined with trees and stone walls and built from New England clay, Northwest Hill Road is a designated Scenic Road, meaning that its characteristic dirt base, the stone walls that

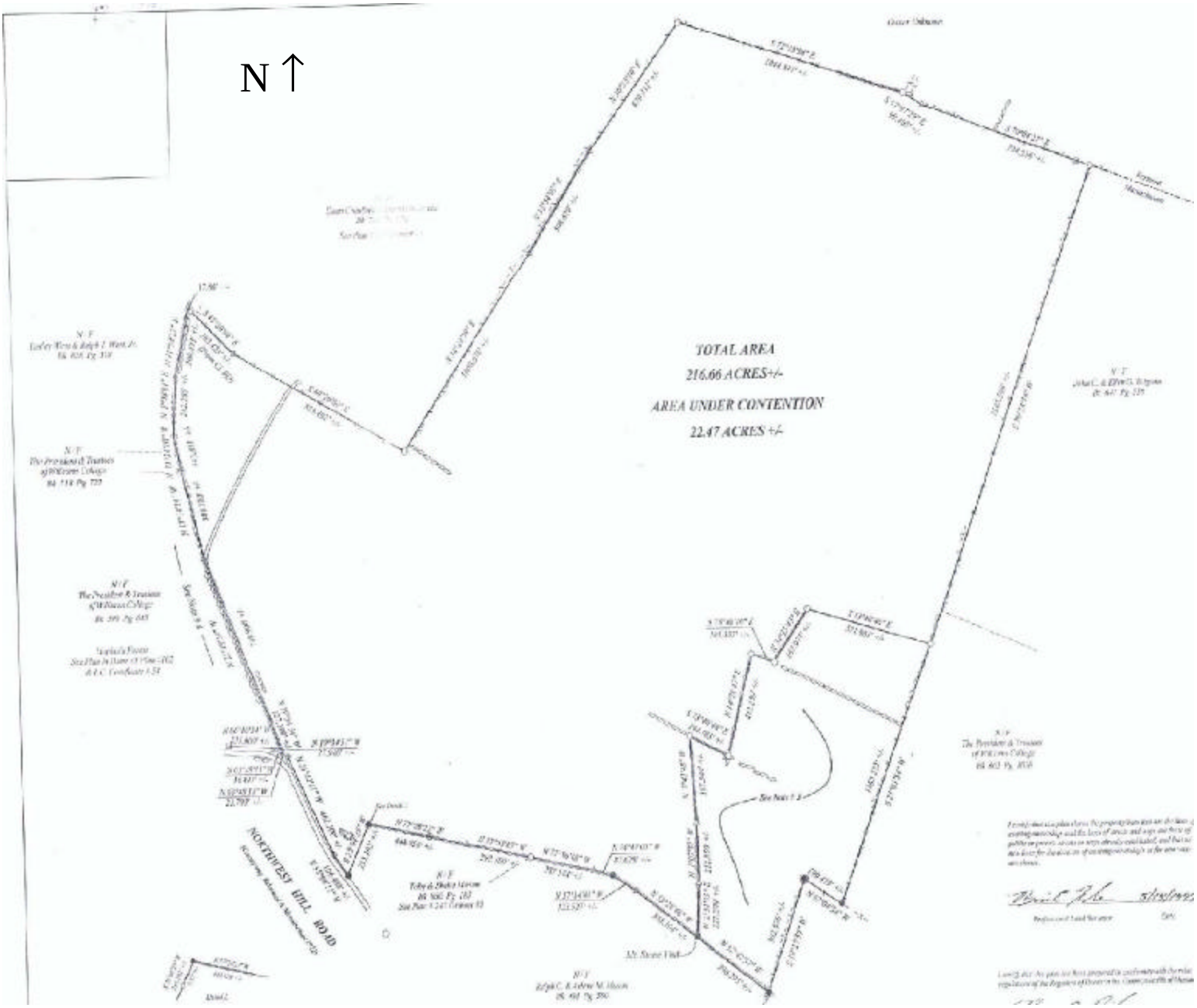


Figure 1. Abutters of the Hunter property on Northwest Hill

follow it in some places and the arch of trees above it cannot be altered. Northwest Hill Road was once the principle route taken by travelers from Williamstown to Pownal, Vermont, and its existence facilitated strong ties between the Northwest Hill farming community and the town of Pownal. If one approaches the Hunter Property from Williamstown, one passes first beneath the arched trees of Hopkins Forest, then emerges into the open farmland of the Mason property. One finds the Hunter property on the right side of the road, just at the edge of the Masons' field. The only currently existing entrance to the Hunter property is a small dirt road, which could almost be called a path, that winds it way up the highest elevation of the property at 1215 feet.

The peak of Northwest Hill is a moon shaped crest that curves across the majority of the Hunter property. The property slopes down in all directions from this crest, most steeply toward the northeastern portion of the property where rocky protrusions jut out from the ground. These ledges occur at numerous points along the crest of the hill as well. The southeastern portion of the property can be considered its most level area, yet throughout the entire property there is at least a slight slope down from the crest. As it covers the top of Northwest Hill, the Hunter property is also one peak of the local Birch Brook and Hoosic River watershed. After rainfall, water drains off the property down through the Hopkins Forest into Birch Book, and from there into the Hoosic River, or directly into the Hoosic River down the steep incline at the back of the property.

Most of the site is part of a high perched ground water table. During the spring when the most water is present, ground water is only about twenty-four inches underneath the surface of the soil. With such a high ground water level, it is not surprising that there are wetlands within the Hunter property. There are wetlands near the

road and Crawford/Goldstein property as well as isolated wetland up on the crest of Northwest Hill. While the wetlands near the Crawford/Goldstein property automatically fall under the Massachusetts State Wetland Protection Act because they are attached to a stream, the isolated wetlands on the crest must be determined as such by the Williamstown Conservation Commission. In order to qualify as protected wetlands, these isolated wetlands would have to be classified as vernal pools, attaining an area of 1/4 acre at some point during the year. All the wetlands on the property have dry seasons during which they can scarcely be distinguished from the surrounding forest without good knowledge of the wetlands plants found in the Berkshires.

Although the Hunter property was logged thirty-five years ago, removing most of the valuable tree species, it is predominantly in a latter stage of post agricultural succession. The trees are mature, and numerous species can be observed, indicating that the forest has not yet reached the latest stage of succession, when one or a few tree species would dominate. Within the Hunter property, the most common tree species are red maples, musclewood, striped maple, black cherry and poplar. While most species are found throughout the property, the poplars are concentrated along the crest of the hill. Also along the crest there are stands of birch trees and one particularly large stand of spruce. There is an edge effect on species along Northwest Hill Road, meaning that the disturbance caused by open space has allowed far more underbrush to grow here than deeper into the property. The smaller scrub species decrease in number as distance from the road increases so that far away from the road the understory of the forest is fairly free from brush and undergrowth.

A variety of animal species take advantage of the Hunter property forest including deer, foxes, bear and numerous bird and insect species. Although they are presently the Hunter property's sole inhabitants, at one time animals were not the only mobile species that made use of the Hunter property. Evidence of past use by humans can be found not only in the growth of the forest, but in human alterations to the landscape. There are stone walls which wind their way across parts of the Hunter property, as well as a small number of housing foundations located in the southeast corner of the property next to Northwest Hill Road and the Mason's property.

The first European inhabitants of Northwest Hill arrived not long after the first successful European settlement of Williamstown. This stable settlement was proceeded by a series of attempts to settle the area made between 1751 and 1752 by thirteen settlers led by Nehemiah Smedly and William and Josiah Hosford. They originally tried to establish homesteads in the area, which was then known as West Hoosic, but were forcibly expelled by local Native Americans at least once. It took about a decade before settlement in the area became assured, and by 1764 Northwest Hill Road was built, creating an accessible route from Williamstown to Bennington and Pownal (Brooks, 1974). Northwest Hill Road quickly became the principle route in between Williamstown and Vermont, at the same time opening up some of the most fertile farmland in Williamstown to agriculture. A year later, in 1765, the first official town meeting of Williamstown convened and the settlement became incorporated into the Massachusetts Bay Colony as Williamstown.

The decades following the official establishment of Williamstown were a time of great population growth. From 1770 through 1780, not only was there rapid expansion of

the population, but farmland was quickly developed bringing about a boom in agriculture before the Revolutionary War. The town, through a rudimentary form of modern zoning, gave out farmland. The upper elevations of hills around Williamstown, such as Northwest Hill, were divided into 100-acre parcels of land while lower elevations were split into smaller fifty-acre land parcels (Brooks, 1974). The farming population of Williamstown headed in force in to the Revolutionary War. In 1777, 165 Williamstown residents fought for America against the British in the Battle at Walloomsac, they made up a full ten percent of all American forces involved in the Battle. One-hundred of these Williamstown volunteers were from the northern part of town, a good number were from Northwest Hill itself, and some of their descendents can still be found living in the area.

By the early 1800s, Williamstown's population was concentrated in the southern and western parts of the town. The western part of town encompassed Northwest Hill, Buxton Brook, Bee Hill, Scott Hill and Treadwell Hollow. Northwest Hill was in essence a separate community from the rest of Williamstown; it had closer social and familial ties to Pownal which were facilitated by Northwest Hill Road (Brooks, 1974). The residents of Northwest Hill were subsistence farmers with deep connection to their land, a connection that was passed down to their children. For instance, the occupants of the Moon lot (down the road from the Hunter property) did not sell their land until long after it was surrounded completely by the Hopkins Forest holding well into the 20th century. The community on Northwest Hill even had its own schoolhouse, which was located very close to where the Hunter property is today. The schoolhouse ran classes for all different age groups of children until late in the 19th century. It was repaired for use in 1872 and was finally closed and sold in 1904. During the 1800s, the Northwest Hill

community's tightest bond to Williamstown was a religious bond. Trains of carriages could be seen winding their way into town every Sunday. These pious farmers were probably in attendance when minister Walter King died from apoplexy while preaching on December 1, 1815.

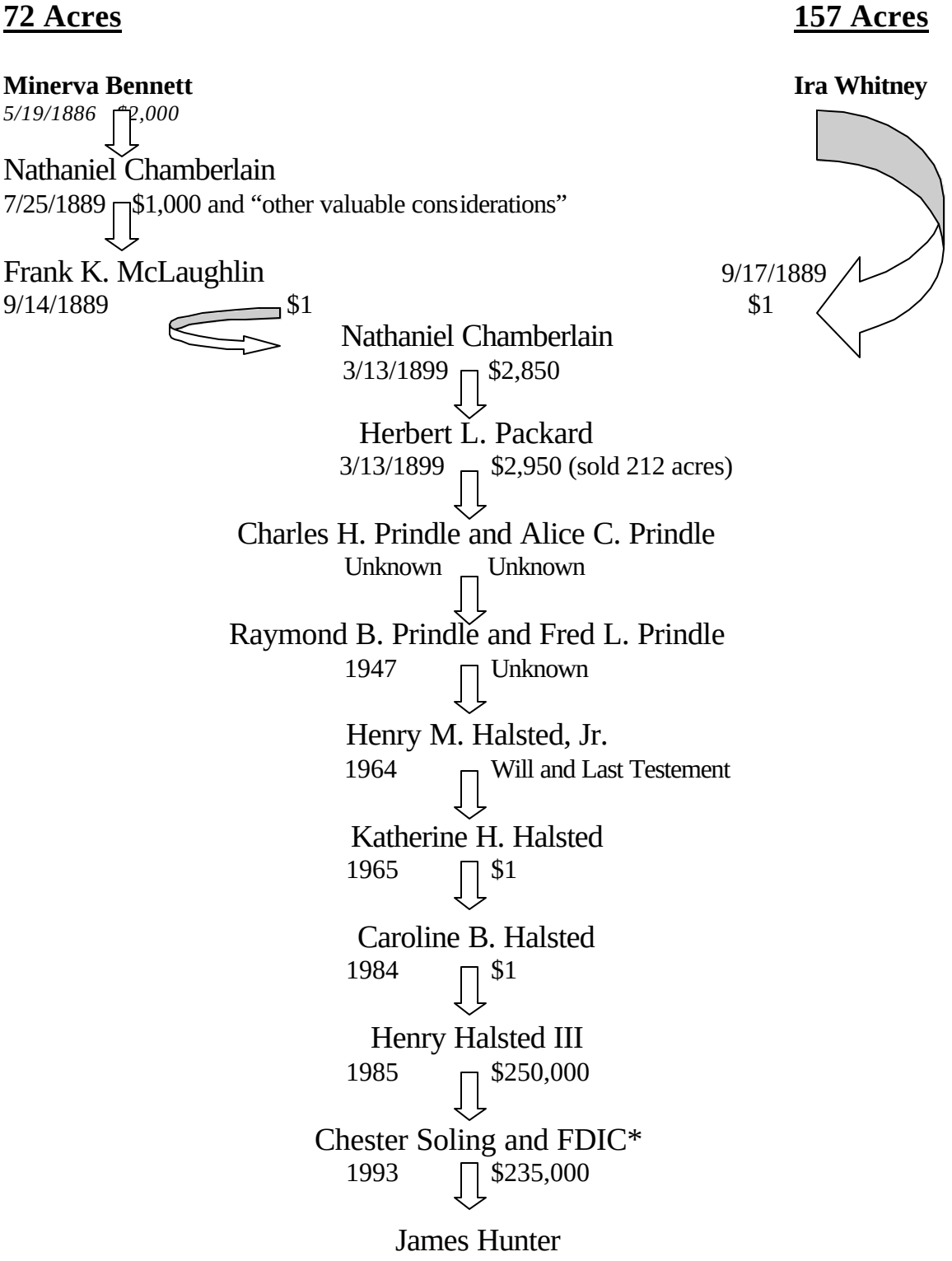
Northwest Hill supported profitable agriculture well into the 19th century. Still, the peak of farming in Williamstown was during the 1830s, when 70 percent of all land was cleared for farming. To understand how drastically different this must have been, it is necessary to compare the percent of cleared land to how much open space there is in Williamstown today. There has actually been a complete reversal of the ratio of cleared land to forested land, and today in Williamstown only 30 percent of all land is cleared. While the decline in farmland truly began around 1843, reconversion to forest accelerated in the late 1880s with a rapid decrease in subsistence farming (Brooks, 1974). What had once been successful subsistence farming was no longer profitable; land was bought up by wealthy individuals and consolidated into farms where owners sold produce for economic gain, rather than living directly off of the land as subsistence farmers had. This shift from subsistence to profit driven farming on Northwest Hill is reflected in the demographic trends of the period. There was shifting population density in Williamstown from the west to the east and from the south to the north. In the late 1880s, Northwest Hill went from having 13 percent of the Williamstown population to having only 4 percent of total population. This decrease in population contributed to the demise of the Northwest Hill community, especially since Northwest Hill's growth stagnated completely from 1904 until 1943.

Consolidation of the land on Northwest Hill was accomplished through the hands of a few individuals, including Nathaniel Chamberlain whose land eventually became the Hunter property and Amos Lawrence Hopkins whose land would become the Hopkins Memorial Forest. Hopkins' consolidation of land was the largest property holding on Northwest Hill, and one of the largest property holdings in Williamstown. By 1910, his farm was 1626 acres in size and employed dozens of laborers (Art, 1994). But the period of large farming enterprises on Northwest Hill was rather short-lived, and farming was becoming less and less viable in New England as a whole. The Hopkins family deeded their land to Williams College in 1933 and the College in turn passed the land over to the United States Forestry Service. The property was operated as an U.S. Forestry Experiment Station from 1934 until 1968, when it was turned back over to Williams College (Art, 1994). The use of the Hopkins property by the Forestry Service was perhaps the greatest force of change during the first half of the 20th century on Northwest Hill. The Hopkins land was either used for experimental growth of tree species or left to itself beginning in 1934, thus began the process of reforestation. Not only was the original acreage allowed to return to forest, but also the College continued to buy up land periodically, until the Forest reached approximately 2400 acres, what it is today (Art, 1994). Since the Hopkins land covered such a large portion of the area, this shift truly altered the physical appearance of Northwest Hill, especially since other land was also going through reforestation at the same time as it too had been left to lie fallow (Brooks, 1974).

One of the properties that went through a process of reforestation on Northwest Hill was what we now know as the Hunter property. Originally smaller plots of land, the

Hunter property was consolidated into the holding it is today around the turn of the century by Nathaniel Chamberlain. Apparently he was a debt collector or a shrewd businessman because much of the land he bought was purchased for very little. The earliest legible deeds of ownership of land are from 1886, when part of the land was sold by Minerva Bennett to Nathaniel Chamberlain for $2,000, who in turn sold it to Frank McLaughlin (Table 1). In 1889, Nathaniel Chamberlain bought the land back from Frank McLaughlin for only one dollar, and purchased a neighboring piece of property from Ira Whitney for a dollar as well. This is where his somewhat suspicious business dealings are evident, especially since he bought land all over Williamstown for similar prices. Ten years later, Chamberlain sold the land for an enormous profit- $2,850 -to Herbert L. Packard, who appears to be a sort of middle man as he sold the land the same day to the Prindle family for a one hundred dollar profit. At this time, in 1899, the property was 212 acres in area. Any discrepancies between this amount of land and the present acreage of 216 acres (plus the disputed 22-acre parcel) can be attributed to changing methods of surveying. The conflict today over a surveyor's path on the disputed area tells how easily this has happened. The property remained in the hands of the Prindle family and their descendents until 1947 when it was sold to Henry M. Halsted. The Halsted family lived in the Mid-West, so we assume the land was allowed to lie fallow, indicating that this is the period during which the property began to reconvert to forest as is evidenced by the stage of succession in which it is presently. Various members of the Halsted family owned the property until 1985 when Chester Soling purchased it for $250,000 dollars. After it had been left to itself for years, Chester Soling was the first individual to seriously consider subdividing the property.

Table 1. Historical ownership of the Northwest Hill Road property currently proposed for sub-division by James Hunter and John Umlauf.



* Note: The FDIC held Mr. Soling's mortgage valued at $285,300. When Mr. Soling went bankrupt, the FDIC claimed the property. Mr. Hunter bought the land at foreclosure

Beginning in the late 1980s, Chester Soling developed a plan to subdivide his property on Northwest Hill. His original intention to divide the property into forty lots led him to hire engineers to run percolation tests on the entire property. He hired experts to create a map of wetlands on the property as well. His plans to develop were not realized though, since the recession of the late 1980s caused a severe crash in real estate value in the northeast. Instead of continuing with development, Soling found he had a paucity of potential buyers and declared bankruptcy in 1993. When Soling went bankrupt, the FDIC claimed the property since it held his mortgage, which was valued at $285,300. The FDIC sold the property at auction to James Hunter for $235,000.

Initially, James Hunter planned to build a private residence on the property. He liked the location and isolation, and adored the views, but soon both he and his wife began to feel that it might be better for their family, especially for their two teenage daughters, to live closer to town. So when a piece of property became available further down Northwest Hill, Hunter bought it and built his house there instead of on the crest of Northwest Hill. About a year and a half ago, with the help of John Umlauf, Hunter decided to develop the property. He hired Guntlow & Associates to run new percolation tests on the property, as new regulations on percolation tests had passed since the Soling tests. He also began to think about possible development plans. These plans were contingent on two main constraints: possible economic return from the development and Williamstown zoning regulations. The Planning Board indicated to Mr. Hunter that a ten-lot subdivision was the maximum he could develop. Economic concerns suggested that developing less than three lots would give him unsatisfactory economic return. From

the information at hand, Umlauf and Hunter determined that the ideal development would be five lots with no major road into the property.

There was one significant issue with this plan though; Hunter owns only 593 feet of frontage along Northwest Hill Road. According the Williamstown By-Laws, this will allow him to build only three lots without the creation of a road built to town specifications. In order to develop four lots, Hunter will need seven additional feet of frontage and if he wants to develop his desired number of five lots, he needs 157 more feet of frontage. As was mentioned earlier, there is a 22.47-acre parcel of land in contention between Hunter and Williams College. Williams College has been using the land for monitoring projects, but a surveying error may have occurred years ago, meaning that this parcel of land actually belongs to Hunter. If it does belong to Hunter, there is the possibility of trading this land to the College in return for frontage along Northwest Hill Road, as the College owns the frontage adjacent to the Hunter property. Hunter would also agree to conservation easements over undeveloped parts of his property in this scenario. While no agreements between Hunter and Williams College have been reached, discussions are currently ongoing. Helen Ouellette, Vice President for Administration at Williams, believes the land exchange would be mutually beneficial. Williams would obtain the title to land where research projects are taking place, and Hunter and Umlauf would create an economically profitable subdivision with only five lots as opposed to possibly eight lots if a road to Williamstown town specifications were required (Helen Ouellette, personal communication, 13 December, 1999).

Policy and Regulations Relevant to the Proposed Subdivision on Northwest Hill Road

Although Jim Hunter and John Umlauf could have grandiose plans for the property on top of Northwest Hill Rd., the policy and regulation surrounding subdivision development limit their propositions. Several different bodies of legislation regulate residential development in Williamstown, including the Zoning By-Laws (ZBL), the Massachusetts Wetlands Protection Act, and the Williamstown Subdivision Rules and Regulations. The purpose of these three sets of rules is to protect the wellbeing of the people of Williamstown and to preserve the natural beauty of the town. To accomplish this goal, The ZBL, the Wetlands Act, and the Subdivision Regulations determine where a subdivision can occur, how the land can be developed, and how great the impact will be on the town. We are concerned with how these restrictions have affected other subdivisions in town and how they will affect the subdivision on NW Hill Rd.

According to the ZBL, all property in Williamstown is located within specific zones, and each of these zones has unique regulations concerning development. In Williamstown, there are 11 different zones: Rural Residence 1, Rural Residence 2, Rural Residence 3, General Residence 1, General Residence 2, Limited Business, Tourist Business, Village Business, Planned Business, Business Campus, And Limited Industrial. The Hunter property is located in two different zones: Rural Residence 1 (RR1) and Rural Residence 2 (RR2). Most of the property is in RR2, but the land at the top of the ridge in the center of the property is in RR1. The property is in two different zones due

to the difference in elevation between most of the property and the land on the ridge. According to the ZBL, RR1 is a zone in which residential development is restricted to protect the rural character of the area by allowing typical rural uses and single-family homes. RR1, however, if only for rural usage under 1150' in elevation. RR2 was created for rural areas from 1150' to 1300' in elevation.

The town distinguishes between the two zones based on elevation because there are special concerns associated with upland areas. At higher elevations, clearing of forest and the creation of impervious surfaces (through construction or paving) have a greater impact on water flow and erosion because higher elevations tend to have steeper slopes. Development may increase the volume and speed of runoff, leading to increased erosion. Also, Williamstown is concerned about preserving the natural beauty of the town, so the restrictions on high elevation developments keeps the tops of the mountains from being clear-cut or too highly developed. No development at all is allowed at elevations over 1300' feet. The top of Northwest Hill, however, is at only 1215', so this restriction does not have any impact on the Hunter subdivision.

Many of the uses allowed in RR1 and RR2 are very similar (Table 2). In order to preserve the rural character of these zones, two or multiple family dwellings are not permitted. Major residential developments, which are developments with more than eight houses (major residential developments will be explained in more detail later in the paper), are only allowed with a special permit. Minor lane developments are smaller than Major residential developments, but they are not allowed in RR1, and only with a special permit in RR2 (Minor lane residential developments will also be explained later). Hunter and Umlauf have decided to propose a subdivision plan that does not require a road like a

Major or Minor lane residential development, so he is not currently concerned with the regulations surrounding these types of development. But, these regulations are important because Hunter and Umlauf had to consider them during the beginning planning stages as they decided on the magnitude of the new housing development project.

Table 2. Uses allowed in RR1 and RR2 (Town of Williamstown ZBL, 1999 edition)

Type of Use	*RR1*	*RR2*
Single family dwelling	Yes	Yes
Two family dwelling	No	No
Major residential development	PB	PB
Minor lane residential development	No	PB
Conservation areas for water, plants and wildlife	Yes	Yes
Agriculture	Yes	Yes, except for pigs on a parcel < 5 acres

Key (Town of Williamstown ZBL, 1999 edition)

Yes	A use permitted as a matter of right.
No	A prohibited use.
PB	A use allowable on special permit from the Planning Board.
BA	A use allowable on a special permit from the Board of Appeals.

Conservation areas are allowed in either zone, so there would be no problem with Hunter and Umlauf decide to sell the land for conservation.

Although the allowed uses in the two zones are fairly similar, there are additional restrictions in RR1. These restrictions serve to prevent erosion in these areas that tend to have steeper slopes. Additional restrictions in RR1: a) Construction cannot make more than 5% of the total area impervious to water (Williamstown ZBL, 1999). This restriction serves to reduce erosion. To prevent huge amounts of runoff, storm water has to be able to soak into the ground. If the ground in made impervious through

construction, the water will run off in greater amounts and at greater speed, causing more damage to vegetation and degradation of watersheds. b) There cannot be any unretained slopes greater than 25%. All slopes shall be vegetated or otherwise protected in such a manner as to prevent erosion both during construction and in long-term use (Williamstown ZBL, 1999). This restriction serves to further prevent erosion due to changes in the environment in the course of construction. c) No special permit may be granted for increasing peak rates of runoff, as is otherwise authorized at 70-5.3B (Williamstown ZBL, 1990). 70-5.3B states that storm water conditions must resemble preexisting conditions. According to the ZBL, an increase in runoff peak is allowed by special permit in most zones, but not in RR1.

Developments in both RR1 and RR2 are subject to intensity regulations. These regulations are less concerned with protection against erosion, but have more influence on preserving the rural character of the outskirts of town and preserving the beauty of the mountaintops. According to the Williamstown ZBL, in all districts, buildings cannot exceed 35' or 2 ½ stories in height, but height modifications are allowed. In all districts except Village Business and RR1, building height may increase to 45' with a special permit from the Zoning Board of Appeals. This, however, does not apply to single and two family dwellings (Williamstown ZBL, 1999). These height restrictions will determine the size of the homes to be built on the property on NW Hill Rd., and will affect the subdivision plan proposed by Umlauf. The ZBL also has restrictions concerning the allowable size of building lots and the amount of road frontage required for each lot (Table 3).

Table 3. Dimensional schedule for RR1 and RR2 (Town of Williamstown ZBL, 1999 edition).

District	*Minimum Lot Area Allowed*	*Minimum Frontage Required*
RR1	5 acres	300’
RR2	2.5 acres	150’

Having minimum lot areas and minimum frontage restrictions keep development spread out. The increased lot area and increased frontage required for RR1 will automatically allow fewer houses to be built in that zone, protecting the beauty of the upland areas and reducing environmentally damaging construction.

Hunter and Umlauf have to be concerned with all of these development standards in the ZBL, and also how to get around the standards if necessary. According to the ZBL, if developers decide to develop a parcel of land, they need to follow all of the restrictions set forth in the ZBL. In order to get a building permit, they need to prove that they followed all of the restrictions, usually by engineering analysis. The Planning Board issues the building permit, but if any aspects of the plan for the development change, the developers have to come back with the new plan and get it approved. If the developer has to ask for a special permit, he submits the request to the Zoning Board. Applicants must submit technical analyses necessary for the Zoning Board to make the decision. This may include traffic impact analyses, analyses of air or water quality effects, and identification of any toxic or hazardous materials involved and substances to be emitted. Also, they may have to submit a description of precautions, handling practices, monitoring and recovery systems proposed, and hazard prevention plans (paraphrased from Town of Williamstown ZBL, 1999 edition).

Now, keeping all of these restrictions and regulations in mind, Hunter and Umlauf had to decide which kind of subdivision they wanted to propose for the Hunter property. Different kinds of subdivisions have different amounts of legislation involved, so the bigger the subdivision, the more regulations a developer has to consider. In Williamstown, there are two main types of subdivisions that developers propose. The first option is the Major residential development (Table 4). This option poses a problem for the developer because it requires a special permit from the Planning Board. Therefore, this option was already less desirable for the developers of the Hunter property, as it slows down the development process. To get this permit, the owner must submit a detailed plan to the Planning Board, which must include Wetlands and groundwater recharge mapping. A wetland expert can determine the wetlands, and the groundwater recharge can be determined by percolation test on the property.
The plan must also document traffic impacts, water service adequacy, sewage service adequacy, on-site disposal adequacy, and disturbance to plants and animals (Town of Williamstown ZBL, 1999 edition).

Table 4. Possibilities for residential development (Town of Williamstown ZBL, 1999 edition).

Major Residential Development	*Vs.*	*Flexible Development*
Requires special permit from Planning Board		No special permit required
Must submit a plan conforming to requirements for preliminary subdivision plans		Owner does not divide parcel into more that 8 lots
Maximum number of lots must conform to zoning, subdivision and health codes		Minimum lot size reduced to half
Planning Board must determine that the development will be beneficial to the town		Individual lot frontage reduced to 2/3 length, as long as average frontage meets minimum requirements. 20% of the land must be conserved from building No further lot development shall be allowed

In order for the special permit to be given, the Planning Board must find that the development will be beneficial to the town. Some of the questions that the Board focuses on are: does the proposed development preserve natural resources? Does the proposed development preserve views (through open space) from roadways? Are the sites to be developed away from fragile environments? Does the proposed development affect the major road from which it extends? How does the development serve Williamstown's housing needs? (Town of Williamstown ZBL, 1999 edition).

Despite the problems involved in developing a Major residential development, there are some benefits to using this option. It allows a greater maximum number of lots, based on zoning, subdivision, and health codes. In essence it allows more development than is allowed with the Flexible development option, especially on a piece of property as large as the Hunter property.

The Flexible development option (Table 4) has benefits for the developer of any piece of property in Williamstown for a number of reasons. This option does not require a special permit, the acquisition of which is a time consuming and expensive process. It has two major limitations; no more than eight lots can be developed on the property, and 20% of the land must be preserved in perpetuity from further development (Town of Williamstown ZBL, 1999 edition). Both of these restrictions may actually be beneficial, as more isolated lots sell for more money on the market, especially if they are in scenic locations, as are the lots on Northwest Hill.

Using the flexible development option is also beneficial to the developer because the minimum lot size can be reduced to one-half of that required for a Major development in the same zone (Williamstown ZBL, 1999). The individual frontage requirements are allowed to be 2/3 the required frontage of 150' in RR2, as long as the average frontage is still 150'(Williamstown ZBL, 1999). This adds flexibility to development plans.

The developers have two options concerning the method of access to the subdivision that they decide to create. The developers can build a road according to town specifications as stated in Chapter 170, Subdivision Rules and Regulations, or they can get a special permit from the Planning Board to build a minor lane. The Board will determine if the minor lane better serves the town than a road built to town specifications. A minor lane may be beneficial to the town for several reasons: a) because it decreases the number of driveways into town streets, b) because it provides protection for the natural environment because it is less environmentally damaging than a road, and c) because it encourages residential clustering, and encourages open space due to this clustering (Town of Williamstown ZBL, 1999 edition). Minor lanes are limiting to

developers in that lots may be no larger than two times the district minimum (in RR2), the frontage created by the minor lane may not be used for more than three lots, and minor lanes shall not be maintained by the town (Town of Williamstown ZBL, 1999 edition). Hunter and Umlauf have another concern relevant to access to the property because Northwest Hill Road is a scenic road. According to lawyer Don Dubendorf, this means that developers cannot have trees along the road cut down or have ancient stone or wooden fences removed, but that they do have absolute right of access to the property.

Developers also have to be concerned about providing utilities for the subdivision. Each development must be served by town water or a private source approved by the Board of Health or the Department of Environmental Protection (DEP). Each lot must be either attached to the public sewage system or a private septic system approved by the Board of Health or the DEP. For developments, such as the one proposed on the Hunter property, that are not connected to town water or sewer systems, installation of septic systems and wells are a major consideration. There are regulations concerning locations of these systems, and engineers will have to determine which locations on the property are suitable, resulting in extra costs to the developers.

In addition, developers have to worry about complying with wetland restrictions in both the Zoning Bylaws and the Massachusetts Wetland and Rivers Protection Act. According to the ZBL, developers have to be concerned about being within the Floodplain district. This district overlays the town zones, and was created to increase public safety and reduce public emergencies, such as those resulting from water quality, pollution, and contamination. All development activities within this district must be in compliance with Wetland Protection Act (Town of Williamstown ZBL, 1999 edition).

Developers also have to be concerned with the Confined Aquifer district. This district was created to protect confined aquifer from planned waste disposal or accidental contamination, and to preserve public water supply by limiting the activity in this district (Town of Williamstown ZBL, 1999 edition). The third district that developers need to be concerned with is the Wellhead Protection district. This district was created to preserve drinking water supply and natural resources and to prevent their contamination by limiting use and activity (Town of Williamstown ZBL, 1999 edition). Fortunately for Hunter and Umlauf, the Hunter property is not within any of these districts.

In addition to the ZBL and the Massachusetts Wetland and Rivers Protections Acts, the NW Hill subdivision is also regulated by the Subdivision Rules and Regulations. According to the Rules, there are three types of subdivisions in Williamstown (Table 5). We feel that the Hunter/Umlauf subdivision qualifies as a Dispersed Subdivision.

Table 5. Subdivisions in Williamstown (Chapter 170, Williamstown Subdivision Rules and Regulations).

Village Subdivision	*Gathering Subdivision*	*Dispersed Subdivision*
Appropriate within densely developed areas	Intermediate between village and dispersed: low overall density, but clustered lots	Large lots and long frontages
Small lots and small frontages	Closed drainage, but sidewalks required only in certain cases	Drainage may be open
Drainage systems will be closed and sidewalks installed, granite curbs installed	May require curbing, but road edge may sometimes be a grass berm	Streets without curbs or berms, sidewalks in special circumstances

The Subdivision Rules also distinguish between “basic” subdivisions and “hillside” subdivisions. Therefore, the Hunter/Umlauf subdivision would be a Dispersed Hillside Subdivision. The objective of this type of subdivision is to disperse buildings into a hillside environment with minimal visual impact or environmental damage (Chapter 170, Williamstown Subdivision Rules and Regulations). Locations appropriate for this type of subdivision are where the land is mostly steep or at high elevation and the site is not appropriate for more concentrated development (Chapter 170, Williamstown Subdivision Rules and Regulations). The roads have to have a special narrow hillside design, normally with no berm, curb, or sidewalks, with graded shoulders and open drainage (Chapter 170, Williamstown Subdivision Rules and Regulations). The road has to curve to fit the side of the hill and coincide with topographical characteristics and tree preservation. It must also be visually unobtrusive, and serve to conceal the development (Chapter 170, Williamstown Subdivision Rules and Regulations). This type of subdivision has flexible setback restrictions to allow buildings to be built in locations that minimize visual impact. Open spaces must be used for visual screening and resource protection (Chapter 170, Williamstown Subdivision Rules and Regulations).

This type of subdivision has many good qualities that make it more favorable than other types of subdivisions. Roads will be located to protect views from public roads. Also, it protects existing lanes, stone walls, tree rows, and traces of historic development. It allows strategic usage of open space for buffering.

A developer seeking approval of his project plan has to submit a multitude of plans and statements to the Town Clerk, and the plans are then subsequently distributed to the Panning Administrator, Conservation Commission, Building Inspector, Police and

Fire Departments, and the Department of Public Works. The developer has to submit a narrative statement of the project approach, stating which type of subdivision is being proposed. He has to submit the definitive plan which has to be prepared by a engineer and a land surveyor, and must contain information about zoning districts, abutters, streets, monuments, and location of lots (Chapter 170, Williamstown Subdivision Rules and Regulations). The developer has to submit street plans and profiles, and a locus plan. According to 70-8.2B(1) of Chapter 70, Zoning, "a locus plan of the premises in question plus all land within three hundred feet of the property boundaries must be submitted, showing streets, water bodies, property lines, property ownership, zoning district boundaries and use of land and any buildings thereon. Information compiled from Williamstown Assessor's maps is sufficient to satisfy this requirement." The developer has to submit drainage plans with water table data and soil data, as well as plans for water acquisition if the property cannot be connected to public water, estimates for utilities, and an erosion control plan including drainage, slope stabilization, and sediment basins. He has to submit an environmental analysis, which evaluates the impact on ground and surface water, effects on wildlife habitats and plants, erosion control, and vegetal cover (Chapter 170, Williamstown Subdivision Rules and Regulations). The developer also submits construction details and a statement of all waivers of the regulations that are being sought (Chapter 170, Williamstown Subdivision Rules and Regulations). Also, the developer has to submit a Performance guaranty, stating that he will complete all improvements required by regulation. Completion of these improvements may be secured by bond or deposit, and the amount is determined by the Planning Board. (Chapter 170, Williamstown Subdivision Rules and Regulations). In addition, the

developer has to submit to the Planning Board evidence of ownership and statements of easements or deed restrictions (Chapter 170, Williamstown Subdivision Rules and Regulations).

As will be mentioned later, the developers of the Hunter property have the option to conserve some or all of the property under a conservation easement. This would involve a Land Trust. In Williamstown, we have the Rural Lands Foundation (RLF) land trust. Land trusts usually acquire land, put conservation easements/restrictions over land, and then sell it. According to Leslie Reed-Evans of the RLF, they do not usually hold land titles due to management issues. Land trusts also negotiate deals with landowners. For example, they might raise money from contributors, then buy land at a bargain price and hold the land temporarily until a conservationist owner buys it with the conservation easement. Conservation easements limit development on the land, or can prohibit development completely. The land trust organizes the easement and monitors the property. Limited development may mean that the development is intended to minimally impact the landscape. For example, the RLF in Williamstown supported the 44-acre Reynolds project on Oblong Rd. in south Williamstown. The RLF was interested in the whole property, but did not have to money to buy it, so they first sold on five acre house lot, then used that money to put a down payment on the rest of the property. After they bought the land, they put a conservation restriction on it, and subdivided portions of it to create two more house lots. They used natural barriers to isolate the lots from each other and from the road. The three house lots on this property were scattered along the edges due to the parcel shape, but in a more favorable situation the lots would be clustered to minimize environmental destruction and visual impact.

Description of Options for Development of the Hunter Property on Northwest Hill Road

We analyzed five different options that Hunter and Umlauf can take into consideration for development of the property. These five options span the range of all possibilities that would be economically feasible and that do not involve extensive amounts of regulation. Through this analysis, we noted the costs and benefits to society of each option. We are looking at 11 different aspects that are either costs or benefits depending on the option. These aspects are: habitat destruction, visual impact, wetlands impact, tax roll impact, traffic, septic impact, water impact, impact on neighbors, need for a road or driveway, benefit to people buying houses, and the need for the disputed parcel of land. We are not quantifying the costs and benefits to Hunter and Umlauf, because we do not have access to the numerical values necessary for that type of analysis. However, we present a qualitative series of private economic costs relevant to each option. Our societal cost-benefit analysis is qualitative, and is measured in relation to the "no build" option.

We should also acknowledge that references are made to conservation easements in the following discussion. We believe the people with the most power and incentive to utilize easements are the potential buyers of the lots. Since Northwest Hill is an attractive area, restrictions on future development give home owners the security that no new neighbors will be moving into their backyards. Possibilities exist for the developers, neighbors, the Town of Williamstown, conservation groups, or Williams College to pursue easements, but we believe the group with the most to gain and the best

opportunity to utilize benefits from easements are those people who purchase lots in the Hunter development.

No build

The "no build" option (Appendix 1) means that no development will occur on the property. This option is not very feasible in this particular instance because Hunter and Umlauf are determined to have some kind of development on the property. Also, if Hunter and Umlauf decide not to build, and then sell the property, the next owner will probably build on it unless there is some sort of conservation easement. For the conservation easement option to have economic benefit to Hunter and Umlauf, the property will have to be purchased by the RLF, and they do not have the money to purchase the property. Although Hunter and Umlauf are not considering the "no build" option, it is still important to us in this analysis as a baseline to which we will compare all of the other options.

No development has many societal benefits, and few costs. It means no habitat destruction or vegetation fragmentation. It means no visual impact on motorists on Rt. 7 or Northwest Hill Rd., or on neighbors and abutters. There will be no concern about destruction of wetlands or and increase in erosion due to alteration of ground permeability or deforestation. There will not be any increase in traffic, like there will be if more homes were built. There will be no need for septic systems or wells, so there will be no impact on ground water, and there will be no need for a road or driveway into the property. There will be no negative impact on neighbors because there will be no increase in traffic, no visual impact, no increase in light or noise pollution. Also, Hunter and Umlauf will not have to acquire the disputed parcel for increased frontage.

However, “no build” does have a few costs. The town will not have an increase in tax revenue. Townspeople who want to buy houses on Northwest Hill Rd. will not have scenic lots to choose from. Also, unless the RLF can buy the land, Umlauf and Hunter will not have an economic gain if they do not develop the land.

Eight Scattered Lots

At the opposite end of the option spectrum from no development is a subdivision with eight house lots (Appendix 2). Eight is the maximum number of lots that we are going to evaluate, because Hunter and Umlauf are not considering more than eight lots. If the subdivision has more than eight lots, it becomes a Major residential development, and will require many more restrictions and regulations, resulting in more money, time, and effort from the developers, lawyers, and engineers. In the eight-lot subdivision, the lots will be spaced around the property, with five lots following the ridge up the center of the property. The average lot size will be 27 acres, although it will be possible to have a wide range of areas among the eight lots. Although Hunter and Umlauf would prefer to build a five-lot subdivision, they have considered an eight-lot subdivision due to issues with road frontage. The Hunter property has 593 feet of road frontage, which is enough road frontage for the creation of three lots, according to the ZBL. Developers need seven more feet for four lots, or 157 feet for five lots. Because Hunter and Umlauf want to build more than three house lots, they need more road frontage. If they do not get the additional road frontage they will have to build a new road to make additional frontage. This will require Hunter and Umlauf to create eight lots to cover the cost of the road and make a profit. The road will have to be built to town specifications, paved and 30’ wide,

in contrast to the dirt driveway that can be built for a three or five lot subdivision. An eight-lot subdivision with a road will have many costs to society, with few benefits.

There will be a high level of habitat destruction. Trees will have to be cut down for the eight house clearings and for the 30' wide road, and to create views from each of the houses out over the valley and of the mountains, increasing the market values of the lots. Not only would this deforestation affect the animals that make their homes in the trees that will be cut down, but it will push out larger animals that use the Hunter property as a feeding ground or as part of their mating territory. According to the Crawford/Goldstein family, there is a bear that lives on the Hunter property. Large mammals such as bears need large areas of old forest in order to find shelter and food. Deforestation would fragment this territory, and disrupt the movement of animals across the property. Deforestation will also affect the kinds of plants that are found on the property. Now the forest is a mid-aged forest with some fairly large trees. If lots are cleared, edge species will move in, and reduce the concentration of forest vegetation on the property.

An eight-lot subdivision will have a high visual impact on people near the property. The crest of NW Hill is visible from Rt. 7, so motorists will see the subdivision as they drive by. The subdivision will be especially visibly obtrusive from Northwest Hill Rd. The new road leading to the subdivision will be wide and paved, contrasting greatly to Northwest Hill Rd, an old New England dirt road. Instead of blending into the landscape, this new road will be ugly and out of place. Also, the neighbors will be highly visually impacted by an eight-lot development. With more houses on the property, there is a greater chance that houses will be built close to the edge of the property, and closer to

the neighbors. The neighbors will be better able to see the houses from their homes, and will be more impacted by light pollution, especially in the winter when there are no leaves, by an eight lot development than by a smaller development.

An eight-lot subdivision will have a moderate impact on wetlands. Just due to the number of houses that will be built, it will be impossible to keep the wetland near the crest of the hill from being impacted. Because it will be impossible to avoid harming this wetland, the developers may have to replicate the wetland somewhere else on the property, depending on the classification of the wetland according to the Massachusetts Wetland and Rivers Protection Act. Fortunately, the wetland near the Crawford/Goldstein residence will probably not be affected because there are no plans to build a house in that area of the property. However, storm water runoff will be greatly increased in volume and speed in the eight-lot subdivision due to the large areas of impervious surfaces created by the houses and the road. Also, because more trees will be cut down, there will be less vegetation to soak up water and slow runoff speed. Increased water volume and speed will lead to increased erosion, perhaps leading to problems for the future homeowners and for the Crawford-Goldstein family, and will lead to increased sedimentation in nearby streams and rivers.

The eight-lot subdivision will have a high impact on traffic, in comparison to the "no build" option and the smaller subdivisions. Eight new houses will greatly increase the volume of traffic on the dirt road, especially if the homeowners are families, as is expected by Hunter and Umlauf. The estimated increase of use of a road is 10 trips per house per day, with a round trip counting as two trips. This 10 trip estimate may include two adults making round trips to work, one trip by an adult and one trip by a teenager in

the evening, plus occasional service vehicle trips or visitor trips. This number will obviously fluctuate due to day of the week, or month of the year, but will ultimately result in a significant increase in annual traffic flow. Increased traffic has many negative impacts associated with it. Traffic will be an inconvenience for others using the road, and will increase visual and noise pollution for the neighbors. Northwest Hill Rd. is already a highly eroded dirt road, and increased traffic will cause even more damage. Increased traffic will increase dust, adversely affecting the forest plant species bordering the road.

An eight-lot subdivision will have a high impact on groundwater due to septic systems and wells. Because the property is beyond town sewage and water, there will have to be private septic systems and private wells built for each house. Because the groundwater is relatively close to the surface, the developers may have to build an aboveground septic system in order to have the required 4' distance between the bottom of the system and the top of the groundwater. The engineers may be able to combine some of the eight systems to create larger leach fields, decreasing visual impact, but this would not decrease the amount of sewage dispensed into the soil. Also, with combined leach fields, the engineers will have to pipe the sewage longer distances, increasing environmental impact. An eight-lot subdivision, in contrast to a smaller subdivision, is more likely to have a house uphill from the Crawford-Goldstein home. The family is concerned that a septic system will be built too close to their property and will contaminate their well. Their well may also be negatively impacted by the construction of eight new wells all tapping into the same water. Wells also have a negative

environmental impact because they have to be dug deeply into the soil to reach their source water.

All of these negative impacts add up to major negative impacts on the neighbors. In addition to visual impact, noise pollution, light pollution, increased traffic, increased dust from the road, greater runoff, and maybe septic leakage, the neighbors will also have greater concern about crime. The Crawford/Goldstein family is concerned that if Hunter and Umlauf build a large, wealthy development, more criminals will be attracted to the area and the chance of robbery will increase.

Building a large subdivision also has negative impacts for Hunter and Umlauf, the developers. An eight lot development requires a road built to town specifications, which we be a hassle because it will require more engineering, more adherence to regulations, and more time and money.

There are a few benefits associated with building a large subdivision on Northwest Hill Rd. Hunter and Umlauf will not have to worry about acquiring the disputed parcel of land because they can create road frontage on his new road. Williamstown will get a moderate benefit from the tax increase. To estimate the value of this tax benefit, we estimated the value of the property, which would be around $3 million after house construction, and multiplied it by the property tax rate, which is 2.5% of the property value. Therefore, the tax money increase would be about $75,000 for an eight-lot subdivision. But, we need to consider the impact that eight new families will have on the school system. Depending on the number of children in each family, the town may have a money net loss or net gain. The greatest benefits from the eight-lot subdivision will be to Hunter, Umlauf, and the people purchasing the houses. Hunter and

Umlauf will make the most economic profit from the largest subdivision. Townspeople considering buying the houses will benefit from more houses to choose from. The owners who finally purchase the houses will benefit from purchasing a new home that they like, and may be positively affected by the size of the subdivision. The people that purchase the houses will likely be people who want neighbors, and will benefit from having seven other homes nearby.

Five Scattered Lots

Subdivision of the Hunter property into five building lots is another of our proposed solutions (Appendix 3). This development plan is contingent upon resolution of the dispute between Hunter and Williams College. If Hunter is found to own the 22.47-acre disputed parcel, he proposes trading the land to Williams in exchange for road frontage along Northwest Hill Road. Currently, Hunter owns 593 feet of land abutting Northwest Hill Road. Since the Williamstown sub-division regulations require 150 feet of road frontage for each house, Hunter has enough frontage to build three houses. As stated earlier, in order to build five houses, Hunter must either build a new road that accesses the sub-division, or obtain 157 additional feet of road frontage in a land swap with Williams College.

The five homes constructed under this plan will be scattered throughout the property. Efforts will be made to place houses in locations where septic leaching fields will be shared and the leaching will not negatively influence the ground water of any homes down gradient. Privacy of each house will be protected as a result of existing trees. Each house will have a view of the mountains, therefore increasing the attractiveness of the site to potential buyers and the sale price of each lot. Houses

constructed along the ridge of the property will have a view of the Berkshires cleared to the north or northeast, while houses constructed farther down the hill will have a view of the Mason Farm fields and the Taconic Mountains to the southwest.

The development of a five-house subdivision will lead to moderate habitat destruction. A large driveway with five fingers will be created, five lots with views will be cleared, and at least two above ground leach fields will be constructed. The existing contiguous habitat will be reduced, but we suggest maintaining enough undeveloped land between houses to facilitate the movement of native wildlife between habitat areas. With the development of three houses on the ridge and two below the ridge, the entire eastern section of the property will remain wooded. We suggest Hunter and Umlauf explore the possibility of creating a conservation easement on the eastern portion of the property and granting the title of the easement to Williams College. The benefits of this are twofold. First, buyers of the five lots are protected from further development. Second, Williams College will have control of more land bordering Hopkins Memorial Forest to conduct forestry studies and experiments.

With three houses on the ridge and two houses partway up the hill, the development can be seen from both Northwest Hill Road (southwest) and the section of U.S. Route 7 near the dog track in Pownal, VT (northeast). While moderately visible from both directions, neither will be a highly offensive visual impact. If all houses were built on the ridge, they would be closer together, and therefore more trees would be removed from one area. We believe this would lead to a great visual impact. By spacing the houses out and orienting the views in different directions, we believe the visual impacts will be reduced.

This development plan would have very minor, if any, impact on wetlands. The wetland area at the top of the property will not be disturbed, and we doubt the wetland area near the Crawford/Goldstein property would be impacted. If for some reason the driveway, site clearing, or leach fields threaten the lower wetland area, we believe a minor replication project will be fairly straightforward and will not create a substantial hindrance to development. That said, one objective of this proposal is to avoid any wetland impacts.

Increases to traffic volume along Northwest Hill Road, in Williamstown, and in the broader community will be moderate. If we estimate each house presents ten round-trips per day, construction of five new homes on Northwest Hill would create 50 more trips each day along the road. Since Northwest Hill Road is a scenic, unpaved road, we believe the impacts due to dust, noise, and structural stability of the road will be greater than if the development was located along a paved road.

Septic systems are an important consideration when evaluating this development plan. The goal of this design is to have one common septic system shared by the three houses on the ridge, and another separate system for the two houses built at lower elevations. Since the leach areas will have to be at least partially above ground (due to the four-foot distance between the bottom of the leach field and the top of the ground water required by Williamstown), we believe communal leach fields will help reduce impacts to the site. Fewer trees will be cleared, and less alteration will occur to the ground if leach fields are shared. The presence of five individual areas creates more problems. There is a greater area of terrain covered by leach fields which increases the probability of ground water contamination down-gradient. Further, the costs and

environmental damage associated with five small leach fields is greater than two larger areas.

In this development situation, each individual house will have its own well. The wells on the ridge will likely be much deeper than the wells farther down the hill as increased depth is necessary to access groundwater. Unless there is a shortage of groundwater in the area, we predict less environmental impacts associated with the 5-lot subdivision than the 8-lot subdivision.

The clearing and development of five lots will have moderate impacts on neighbors. With three houses on the ridge and two at lower elevation, we hope to minimize direct impact on all neighbors. No house will be situated in close proximity to the Crawford/Goldstein property, so their concerns about groundwater and light pollution should be alleviated. All neighbors along Northwest Hill Road and Bulkley St. will be impacted by additional traffic, but this is a consequence of any sub-division. A dirt driveway as opposed to a paved road will help maintain the scenic atmosphere of the area.

The disputed parcel of land is critical for this proposal. Mr. Hunter must obtain additional frontage along Northwest Hill Rd. for this project to be a success. If frontage is not received, the project may not occur as planned. A road conforming to Williamstown town specifications is necessary for five homes with the existing frontage. If Williams College grants Mr. Hunter and Mr. Umlauf the land required for road frontage, we suggest Williams College be given an easement on the land to ensure no future alterations will occur.

We do not foresee the benefit to the Williamstown tax roll as too great. Revenue from five additional homes on valuable lots will undoubtedly add to the tax roll, this will likely be an amount less than the $75,000 we estimated for the 8-lot subdivision.

Three Scattered Lots

Another possible development layout for Northwest Hill is scattering three lots on the property. This arrangement permits a great degree of isolation and privacy for the landowners in both visual and spatial terms. It also simplifies somewhat the development process. Additional frontage beyond what is already possessed by the developers is not needed for the development to proceed, which reduces the urgency and importance of the possible land swap of the disputed land for frontage with Williams College.

Developing the property into only three scattered lots (Appendix 4) permits great flexibility in the development process, since one can afford to be more selective in choosing sites. A three-lot development will be designed to optimize the attractive features of Northwest Hill. It is preferable to build an entrance road to the subdivision rather than constructing three driveways to access Northwest Hill Road. Although the trend along the rest of the road has been to have the driveway of each home exit directly onto Northwest Hill road, constructing such a system here will make this section of the road seem uncomfortably packed with houses given its current rural character. Therefore an entrance road, not built to town specifications, but rather constructed to tastefully blend in with the local character will be built. From this road, the three driveways will branch off, taking the residents into the secluded locations of their homes.

The seclusion and spatial separation of the houses from one another permitted by this development option mean that the visual impact of the new development on its

surroundings will be only a moderate one. The houses themselves can be spaced such that only in winter, if then, they are visible only to the owners themselves. Some selective clear-cutting to provide views from the houses will occur, and this may, depending on the extent and specific location of the clearing, be visible from locations in the valley such as Route 7 near the Vermont border, as the Shadowbrook Farm is. The new entrance road will be a noticeable, though hopefully minimally intrusive, addition to the appearance of Northwest Hill Road itself.

A development consisting of only three lots will have only a minimal impact on either the tax rolls or Northwest Hill Road traffic. It should be noted, however, that any increase in the population of Northwest Hill will have a magnified impact on the state of the road due to its being a dirt road rather than a paved one. But with only three lots on the hill, even with this consideration the impact will be small. Three lots simply does not suggest the introduction of enough people into the area to have any more than a small impact. Thus those currently living on Northwest Hill Road should notice only the smallest of alterations to the current state of their neighborhood.

Septic systems will be somewhat noticeable under this development option. Due to the percolation characteristics of Northwest Hill and the location of its water table, some above ground or mound septic systems may be needed. Also, the scattered nature of the lots means that the septic system will occupy a substantial amount of land. Either three separate septic systems will be needed, or extensive piping systems to connect the lots to a common septic field. The lots' spatial isolation requires a more extensive septic system than might be expected from so small a development. Water systems for the

houses, however, do not face this problem, as the houses will have their own wells anyway. We anticipate three wells will have a low impact on groundwater.

The impact of a scattered three-lot plan will have a substantial impact on the local ecology. It is true that the lots can be arranged under this option such that they will not encroach at all onto the wet areas of the hill. However, the forest fragmentation caused by the houses themselves, access roads, and view clear-cutting is extensive. The scattered nature of this plan will prevent contiguous forest from being preserved. As habitat for plants and animals, the fragmented forest is far less valuable than a contiguous forest of the same (or even slightly smaller area) would be.

Our placement of the three lots seeks to minimize any wetlands impacts. If any impacts do occur, we propose a replication project in a nearby area.

Three Clustered Lots with Commonly Owned Land and Conservation Easement

A variation on the three scattered lots, this option clusters three ten-acre lots centrally within the Hunter property (Appendix 5). The three lots will be adjacent to one another; homes will be situated in a manner that separates them through both distance and buffers of trees. Since each lot is only ten acres in area, the three clustered lots will be surrounded by approximately one hundred and ninety acres of land, each of the houses having an equal share in this common property. The lots will share a common dirt driveway that extends a short distance into the property before splitting off into three private driveways. Compared to other options this short driveway will locate the lots near Northwest Hill Road, but they will be separated from the road by a generous swath of trees. Preserving roadside trees is a requirement for land development along a Scenic Road such as Northwest Hill Road. By locating the properties near the road, the back of

the property will be untouched and most of the property will be free of development. With a conservation easement through Williamstown Rural Lands Foundation or Williamstown itself, the property will be kept in conservation for the three buyers of the properties.

This option does have precedents, and in particular finds inspiration in a similar project pursued not long ago in Williamstown. Three Williams College graduates purchased property near Mount Hope Farm where they divided the road frontage into three lots while holding a large piece of forest that backs their properties in common. They keep this common piece of property in conservation and have the peace of mind of knowing that they will never see development behind their homes. The three prospective buyers of the Hunter development would have this peace of mind as well, a guarantee that the land they purchase will maintain its rural character for years to come. But what other impacts will this option have on the surrounding Northwest Hill area and community?

Of all the options presented, besides the no build option, this option holds the most potential for preserving forest, and for preserving it in a way that does the least damage to plant and animal species. This option, which holds the majority of the land in conservation and has the least number of lots, protects the greatest acreage of land. On the surface it may seem that the three scattered lot option protects as much habitat as this option, that is not the reality of the matter. Having three lots spread out means having three long driveways to locate the houses at a great distance from one another, which will dissect the land into smaller sections of habitat. It is the lack of habitat fragmentation

that makes having three clustered lots a better choice for preserving species than any other option.

Having three clustered lots towards the frontage on Northwest Hill Road means that a substantial area of contiguous forest is left standing on the Hunter Property. The physical boundary of the forest left standing is expanded by adjacent protected properties, including the conserved land of the Hopkins memorial Forest. Why is it better to have forest rather than a few smaller separated pieces of forested land, even if the two possibilities have the same total acreage? Ecologically, the theory of island biogeography shows that as land is fragmented into smaller and smaller pieces, species are lost in proportion to the loss of acreage per piece of land. In other words, not only will a large piece of forest create living space and a migration corridor for large animals such as bears, but other species will be preserved more fully as well. While small areas of disturbance tend to benefit any habitat, the number of species and the quantity of individuals within species will be greater where there is habitat unbroken by roads, fields or other large disruptions. Finally, as this option leaves the majority of the property forested including the crest of Northwest Hill, the existence of protected habitat also protects the watershed into which water from the Hunter property drains.

In Massachusetts, a developer has to worry most about disturbing habitats that fall under the jurisdiction of the Massachusetts Wetlands Act. Wetlands are sensitive and unique environments, and this is what is reflected in the law. In the case of the Hunter property, the option of developing three clustered lots renders virtually no damage to the two isolated wetlands. As the three lots will be centrally clustered within the property, construction of driveways, lots and eventually houses will not occur anywhere in the

vicinity of the crest wetland or the wetland near the Crawford/Goldstein property. This is beneficial to the developers' cost considerations, as wetland will not have to be reconstructed, and is obviously beneficial to society which reaps the benefits of maintaining an intact wetland.

The three clustered lot subdivision has less of a visual impact than the eight-lot or five-lot developments. By clustering the three lots, visual impact is significantly reduced for two populations: the neighbors, and drivers along Route 7 into Vermont. As the lots will be clustered within the center of the property, both the Crawford/Goldsteins and the Masons (who will be affected by other options) will be screened from the new lots by an ample amount of land. This arrangement of development will prevent visual impact on the neighbors even during winter months when the leaves are gone from the trees. Most likely these three lots will not even be visible from Route 7 due to the topography of the site, but in the event that they are visible, their proximity to one another will lower the overall impact. Drivers would see one cleared area rather than three or more, which would have a profoundly better effect on the viewshed.

The three lots will be far from the periphery of most of the property except directly along Northwest Hill Road where they may be visible during the winter months, as they will not be set far back into the property. This is certainly the most negative visual impact created by this option. Yet, they will be set back substantially enough so that during summer months, when the leaves are out, they will be almost invisible to those that pass by. Legally, the lots cannot be too close to Northwest Hill Road because of its status as a Scenic Road. The nature of the driveway these lots will share will contribute to this option's unobtrusiveness. Having three lots allows for a small, dirt

driveway which will blend well into Northwest Hill Road, especially when compared to the paved, thirty foot wide road that would be required for an eight lot development. All things considered, this option offers only moderate negative visual impacts to the Northwest Hill area.

This option will have a fairly short common driveway splitting into the driveways of the three properties. The driveway will be made of dirt, permeable to water and narrow relative to other roads. Its impact on habitat will be minimal, as it will not be very long, and its impact on run-off will be minimal as well because the driveway surface will be dirt and permeable. Visually, the driveway will not look out of place extending from Northwest Hill Road, whereas a road to town specifications would not fit in with the scenic road.

As already stated, the average household is going to add ten trips by car to Northwest Hill daily. Of course, this average will vary depending on the number of members of the household using vehicles as more users generally mean more trips. It will be affected by the age of family members. Driving patterns will also be affected by what a particular day brings to each family; a school day versus a weekend day for example will have widely varying numbers of trips by car. But sticking to the average of ten trips per household, it means that three new households on Northwest Hill Road will produce an overall increase of thirty new trips per day. The traffic impacts do not differ between this option and the option calling for three lots scattered throughout the property; it is simply number of households that affect traffic, not the configuration of these households. Relative to the other options and the number of households already

established on Northwest Hill Road, the option of three clustered lots will have a low impact on traffic.

This option will most likely not add significantly large amounts of money to the town tax rolls, nor will it have a large impact on use of the town's educational system, where most drains on a town's budget tend to take place. The impact of this option on the town's tax rolls does not differ much from the impact any of the other options. Total property value, however, once houses have been built on the three lots, will arguably be less than the total property value of the eight-lot or five lot options. The value of three small clustered lots with common property in conservation should not be much less than three large lots not under conservation. This is because town assessors value land out of conservation as having the greater share of the entire property's value, in essence making each ten acre lot with ownership in conserved land worth more than ten acre lot without the conservation land attached. This option does differ from the options with more lots in its impact on the Williamstown school district. Three households will have fewer children than five or eight households. Thus, in comparison with the other options, the three clustered lots or the three scattered lots will have a relatively small effect upon the town's budget expenditures.

Clustering three lots, instead of having them spread out, is highly advantageous when it comes to septic and water systems. Since the Hunter property is beyond the reach of both town sewage and water systems, the developer will have to build septic systems and drill wells for each of the lots on the property. There are enough sites that passed percolation tests on the property so that for any of the options, engineers can provide a separate septic system for each lot. Yet having fewer lots, and having them in

close proximity to one another, reduces both costs for the developer and possible negative effects on neighbors' septic systems and groundwater. With three clustered lots, one leach field can be built as a septic system for all three lots. This lessens the possibility of contamination of neighbors' wells, as might happen with a greater number of leach fields Having a greater number of leach fields will mean that some fields necessarily have to be located closer to neighboring properties due to the results of the percolation tests. The three lot clustered option also lowers the risk of untreated wastes leaking as they flow from homes to leach field, as would happen more easily if the lots were spread out and still sharing a septic system. As for the issue of well water, having lots close together and centrally located within the conserved property means that their impact on neighboring wells is lessened by distance. They should have a very low impact, if at all, on the water reserves used by neighboring wells. Also since this option means the addition of only three homes to the Northwest Hill area, rather than a greater number, the impact of three homes on the water supply should be slight.

With three lots clustered and centralized, surrounded by conserved land, the effects of this option on the existing neighbors to the Hunter property should not be great as compared to other options, as previous discussion indicates. This option means less visual impact on the neighbors from their homes and land because it leaves a buffer of forest in between the Hunter lots and neighboring land. It means less impact on neighbors' septic systems and wells, since the new septic systems and wells added by development will be spatially distant from the neighbors' homes. Like the other three-lot option, this option means less traffic will be added to scenic Northwest Hill Road than would be added by eight or five lots. Some other concerns of neighbors include the

possibility of noise and light pollution from new homes. By buffering neighbors from the three lots with the conserved forest land, the development's noise effects during and after construction will be lessened, as will be the light pollution on Northwest Hill that will result from addition of new homes. Finally, the people who live on Northwest Hill do so for its rural character and isolation. People enjoy their privacy, their separation from traffic, downtown and too many other people. Residents of Northwest Hill enjoy being in the middle of nature, they appreciate seeing animals which live within the habitat created by the Hopkins Forest and the Hunter property and they like to be able to see the stars at night. A carefully buffered development like this option will preserve the look and feel of Northwest Hill as it presently exists, with only moderate visual effects upon people whom drive by and with only low traffic effects upon Northwest Hill Road.

As this development involves only three lots, the Hunter property already has enough frontage for the development of this option. Since the frontage is adequate for putting three lots onto the property, legal negotiations and trading land with Williams College in order to make development proceed becomes needless. The disputed piece of land is not needed for three lots to be developed on the property; therefore, the disputed land is a non-issue. Development is sped up with this option because it can proceed before the legal battle over the disputed piece of land has been settled. Even though the piece of disputed land is far less relevant in a three lot development, its ownership will eventually still need to be settled since the buyers of the three lots will have to know how much common land they are purchasing with their private lots.

In conclusion, we can see all the impacts in matrix form on table 6. Please note that all considerations are weighted against the no build option.

Table 6. Impacts of Each Alternative

	Habitat Destruction	Visual Impact	Wetlands	Traffic	Septic	Water	Neighbors	Disputed Land Importance	Tax Benefit
8 Lots	High	High	Mod	High	High	High	High	No	Mod
5 Lots with Frontage	Mod	Mod	Low	Mod	Mod	Mod	Mod	Yes	Low
3 Lots Scattered	Mod	Mod	None	Low	Mod	Low	Low	No	Low
3 Lots Clustered	Low	Mod	None	Low	Low	Low	Low	No	Low
No Build	None	None	None	None	None	None	None	No	None

Private Economic Considerations

All five of our possible sub-division solutions for the Hunter property on Northwest Hill have economic benefits and costs. Since this development is a capital venture for Hunter and Umlauf, it is essential for them to evaluate all private benefits and costs associated with each alternative. However, since our group does not have access to private accounts, it is not appropriate for us to perform a private benefit-cost analysis. Additionally, we feel that our matrix (table 7) examining levels of costs associated with each alternative offers a more complete and accurate analysis than a Planning Balance Sheet as described in McAllister (1980). While we lack quantitative data necessary for detailed benefit-cost analysis or a Planning Balance Sheet, we can offer a compelling qualitative analysis focusing on private benefits and costs.

There exist six major areas within the subdivision that will account for the majority of the private costs: legal fees, architecture and site planning, construction (bulldozing, clear-cutting, and site preparation), utilities, road/driveway construction, and real estate fees and commissions. The profits from selling the land serve as the predominant private benefit in this sub-division. We argue here that it is desirable to sell the land in an expedient fashion. Hunter and Umlauf have both indicated to us their intent to sell the lots in a timely manner and recoup their investments.

We must stipulate that benefits and costs included in this qualitative analysis are *future* benefits and costs. All previous expenses including purchase of the property from Mr. Soling, percolation tests, and investment of time by Hunter and Umlauf are not relevant for this analysis.

Table 7. Economic Cost Considerations

	Architecture and Site Planning	Bulldozing, Clearing, Site Preparation	Utilities	Road or Driveway	Legal Fees	Estimated Time Frame for Sale
8 Lots	High	High	High	Road	High	Long
5 Lots with Road Frontage	Moderate	Moderate	Moderate	Driveway	Moderate	Moderate
3 Lots Scattered	Moderate	Moderate	Moderate	Driveway	Low	Moderate
3 Lots Clustered	Low	Moderate	Moderate	Driveway	Low	Short
No Build	None	None	None	None	None	Unknown

When comparing and contrasting alternatives, returns to scale become important. We must be careful not to suggest the 8-lot sub-division will incur 2.67 times the expense of a 3-lot subdivision in all instances. This is by no means the case. In many circumstances, the expense related to the first lot will be the greatest and each additional lot will incur lower costs. This concept is referred to as increasing returns to scale. In many instances, we will see the costs associated with the eight-lot subdivision are not considerably greater than costs associated with the five-lot subdivision. When the costs for the eight-lot subdivision are 2.67 times as great as for the 3-lot subdivision, the returns to scale are constant. If the costs for an eight-lot subdivision are more than 2.67 times the costs for a three-lot subdivision, the returns to scale are decreasing. These are important considerations when contrasting the costs associated with each proposal.

First, we will examine the private costs associated with each alternative. We will then progress to evaluate the private benefit from each alternative and the expected period of time associated with sale of each parcel.

Since the Hunter property lies on a hill, construction will be more difficult and costly than if the property were on flat ground. Due to the steep gradient of the terrain, engineering becomes critical to successful development. Important engineering goals of the Northwest Hill sub-division are to determine adequate sites for homes, design the road/driveway, and to determine the best method to access groundwater and dispose of sewage. Engineering costs are one area where we believe substantial savings can be incurred through implementation of the 3-lot clustered alternative.

Construction of three homes scattered on the ridge, five homes on the ridge, or eight homes all will involve high engineering costs. If the property is divided into eight

parcels, Hunter and Umlauf will need to build a road that meets Williamstown town specifications. Design and planning of such a road presents a considerable expense which none of the other alternatives require. In contrast, designing a driveway (either with fingers or a cul-de-sac) will be much less expensive. However, if the parcel is sub-divided into three or five lots scattered throughout the property, the driveway will remain an engineering challenge. The ridge is at approximately 1150' and the driveway will likely have to traverse across the terrain to reach the top. Since the majority of the challenge and expense will be associated with extending the driveway to reach the ridge, the added planning cost of a five-fingered driveway will likely not excessively exceed the planning cost of a three-fingered driveway.

If three homes are built in a cluster near Northwest Hill Rd. or partially up the hill, driveway engineering costs will be greatly reduced. The difficulty of reaching the ridge will be eliminated, and the three-fingered driveway will not have to navigate through steep terrain.

The majority of the engineering costs will be a function of the road or driveway designed. However, additional site planning costs must be evaluated. Since the property will not be connected to town water and sewer, design of septic systems, leach fields, and wells is extremely important. There exists little doubt that the option with three houses clustered together below the ridge will incur the lowest costs. All three homes will share a common leach field, and the quantity of piping necessary to reach the leach field will be minimal since houses are close together. Moreover, since the homes will be at a low elevation, the depth of the wells will likely be much shallower than if the houses are set on the ridge.

All options involving homes scattered throughout the property will incur much greater engineering costs with respect to sewer and water. Multiple leach fields or extensive piping will be necessary since the houses will be spread out. In either case, the sewage system will be much more complex than if houses are clustered together. Additionally, homes constructed at higher elevations will likely require much deeper wells.

We expect the total engineering costs for sewer and water increase with each additional home. However, the costs associated with eight homes might not be substantially greater than the costs for three homes or five homes. If the eight homes are in close proximity to one another, fewer leach fields will be necessary. In contrast, if three or five homes are scattered throughout the property, each home might require a separate leach field. While these costs are difficult to forecast, there is little doubt that the expense associated with designing sewer and water systems for three clustered homes will be much less than for three, five, or eight lots scattered throughout the property.

Finally, the no build solution will incur zero site planning costs. The parcel will remain exactly as it lies today, and no engineering costs will arise.

The costs associated with site construction largely parallel the costs associated with architecture and site design. With regard to site clearing and preparation for house construction, we should anticipate close to constant returns to scale. The greater the number of houses, the more work and man-hours necessary. While some sites may be more difficult and expensive to prepare (due to factors including slope of the site, number of trees, presence of rocks or other obstacles, etc), there is little reason to expect increasing returns to scale. However, we should note that the probability of encountering

impediments to preparation is greater at the higher elevations. It is thus reasonable to expect a lower per site cost of preparation for the three clustered homes than for the three scattered, five scattered, or eight homes.

In this section, we must analyze construction of a road or driveway. As we alluded to previously, construction of a road to town specifications will be the most expensive of any form of access to the property. Therefore, the 8-lot alternative carries the greatest price tag with respect to access from Northwest Hill Rd. The costs associated with clear-cutting and bulldozing a driveway to the ridge for either the 5-lot option or the 3-lot scattered option will be similar. The main expense will derive from the portion of the driveway that extends from Northwest Hill Rd. to the ridge of the property. Adding two additional fingers for the 5-lot proposal will not lead to substantially higher costs than the 3-lot proposal.

Due to the simplistic nature of the driveway for the 3 clustered houses, construction will be much easier than for any of the other options. There will exist a great opportunity for cost saving with this approach as clear-cutting, bulldozing, and length of the driveway will all be greatly reduced. The no build option will incur zero costs associated with construction of a driveway or road.

Hunter and Umlauf have proposed laying all utility wires underground so not to add a “eye-sore” to the properties. Costs associated with utilities should demonstrate increasing returns to scale. Whether a road or a driveway is built, utility wires will have to reach the ridge. Aside from the cost of the wires and labor, there is little reason to believe the costs associated with laying eight sets of wires will be much more expensive than laying three sets of wires. One trench will be dug along the road or driveway

regardless of how many homes are built. Therefore, we can suggest the cost of laying utilities along the road/driveway will be similar for three scattered lots, five scattered lots, and eight lots. The costs will be reduced for three clustered lots since the wires will not extend as far from Northwest Hill Rd. and the associated trench will not be as long.

In addition to electric and telephone utilities, the costs associated with sewer and water must be evaluated. As we previously argued, the costs of designing septic systems and wells will be much greater for homes located at high elevations and scattered from one another. We expect a parallel to the design costs when evaluating the construction costs. Establishment of sewer and water for the three-lot clustered proposal will be much lower than for the other alternatives involving scattered homes and homes built along the ridge. Leaving the property intact and not constructing any homes will not require any costs associated with utilities.

In most cases, when a sub-division is proposed, legal council is retained. Lawyers aid with acquisition and transfer of property, application of local and state regulations, and in the case of the Hunter property, a lawyer is necessary for the process of determining ownership of the disputed parcel of land.

Legal fees will undoubtedly be lowest for the no build option. The only time a lawyer would be necessary would be if Williams College and Mr. Hunter decide to determine who owns the disputed land, and if Mr. Hunter sells all or part of his property. Because no development would occur under this option, legal council would not be necessary for all facets of the sub-division process.

The other four options, all of which include some form of development, require more extensive legal council. With respect to legal fees, we believe constant returns to scale will be exhibited.

Costs associated with real estate predominantly include commissions at sale. Since the commission charged by a realtor is typically a percentage of the sale price, these fees depend upon the total revenue from each of the five options. The commission percentage will be constant across all development options, so this is not an economic cost that should influence planning and site design.

Once a road or driveway has been constructed, utilities laid, and building lots cleared, the final step towards completion of the sub-division is sale of the lots. From our discussions with Mr. Hunter and Mr. Umlauf, they have indicated to us that they would like to sell the property in a timely manner. Therefore, in the following argument, we will hold the state of the real estate market as constant. There appears to be no desire from Mr. Hunter or Mr. Umlauf to hold onto any of the lots as "speculation" lots and hope the value of the real estate market increases in Williamstown. We thus conclude that there exists an opportunity cost to Mr. Hunter and Mr. Umlauf of having their financial and human resources tied to the Northwest Hill property once the lots are for sale.

Since we are not real estate professionals, it is difficult to offer an accurate prediction regarding which proposed alternative will lead to the most timely sale of all the lots. Clearly more sales are required with the 8-lot and 5-lot sub-division than either of the 3-lot sub-divisions. However, the fewer the number of total lots, the greater the price of each individual lot. For instance, three lots scattered about the ridge will each

sell for a higher price than if five lots were scattered about the ridge. Because we have two variables in this equation (number of lots and price of lots) it becomes difficult to forecast what the market will support. Are people willing to pay for a large lot with only two other neighbors, or is the current market more supportive of eight smaller lots with a cheaper price tag?

With fewer lots, the sale of each lot brings in greater revenue to the developers and allows them to recoup their expenses in a more timely manner. However, if there is limited demand for large, expensive lots, it will take longer for each to sell.

Conclusions and Recommendations

The development of Northwest Hill is a more complex situation than it first appears. The most salient point that derives from a comparison of the development options previously set forth is that the more extensive development options carry far more baggage with them than the simpler ones. Although a development of a larger size will produce more revenue than a smaller one, by proposing a larger development, one becomes committed to a more lengthy and costly process. As shown by table 7, the time from subdivision to sale increases with higher degrees of development. Extensive development means that, in this case, there will be a significantly longer time before the developer can consider the project closed.

The eight-lot option is by far the least efficient of the subdivision plans, as it requires a road built to town specifications to access the lot. This road will not match well the character of the surrounding areas. In addition, the cost associated with its construction is such that it may not even be a profitable design to pursue. The cost of constructing and maintaining the road will all but cancel out the potential extra profits

from the extra lots. This option also requires much more careful preparation and planning for the structure of the development. While the area is large enough that eight lots will hardly seem cramped to the residents, more care must be taken to reduce the impact of the residents on one another since an undesirable feeling of proximity could be present in a development of this size were it not planned with extreme care.

This would not be an issue except that much of the appeal of Northwest Hill is its secluded, natural, scenic state. It may be assumed that most of the people interested in living in such an area will be far more conscious of unwanted impacts on them. The concerns of the current neighbors to the property illustrate this well. So aesthetic issues which might not be a major factor in the average development must be given more weight here.

In terms of general construction and planning costs, the simpler developments also come out looking more feasible. Obviously, the smaller a development is, the less land must be cleared to build there, the less houses need to be planned, and less construction actually needs to take place. This makes the project more contained and less of a prolonged drain on the focus of the developer. Clustering the lots has the added benefit of creating the potential for overlapping the view clearcuts. This is ecologically beneficial as it preserves forest, and economically beneficial as it reduces the construction work needed for the site.

The clustered three-lot option has another economic benefit; it decreases the amount of extraneous road needed to service the houses. In general, scattering the lots ensures that a greater length of road (or, alternatively, longer driveways) is necessary to enable people to access their homes. Since the road will not be publicly maintained, this

puts an added financial drain on the developer and the residents, who incur the extraneous cost. This cost can be minimized by clustering the houses, which requires the maintenance of less road and shorter driveways, which is much easier than in the scattered option.

Another difficulty with the road under a scattered plan is the grade needed to ascend the hill. Driving directly up the side of the hill to access homes on the crest will not be safe for many vehicles during the winter or early spring. This means that the road will need to wind it's way up the hill, and possibly even switchback. While this would make for an attractive approach to the houses, it increases even more the cost of maintaining the road. Clustering simplifies the entire road-building process by permitting the most efficient use of the road.

The spread-out options are alike in that they all tend to cover large amounts of the hillside, leaving only a few fragmented sections of the forest untouched. In an ecological sense, this is a less efficient way to structure the forest, as the fragmented sections have much less ecological value as fragments than they would if they were part of a contiguous whole. The clustered option, with its corollary of commonly held land, not only preserves a more ecologically viable forest plot, but by its being communally held ensures that it will remain in that state far into the future.

The desirability of the communally preserved land is obvious. Neighbors have a general desire, as evidenced by those currently living on Northwest Hill, to preserve (or at least control) their surroundings. They wish to keep things in generally the state they were in when they decided to live there in the first place, with the exception of whatever improvements they decided to make. The communal land structure actually gives them

the means to do this on a long-term basis. As previously mentioned, several alumni of Williams College recently embarked on such a program in the Mt. Hope Farm area that appears to have been highly successful. Although the communal land idea may seem a little strange at first glance, it seems to be both a workable and sustainable situation. The key advantage is that it gives the future owners some aspect of control over more land than they would be able to have by themselves.

Our analysis shows that adjusting the size and scattering of the lots for development on this property significantly alter many features of the development's construction, character, and, most likely, the way it will be received by the rest of the Williamstown community (especially those living in the vicinity of Northwest Hill). Each of the four development options presented here, as well as the "no build" option, has a set of consequences attached to it, and it is up to the developers to decide which outcomes are most harmonious with their goals for the property. That said, certain development options seem far less efficient in terms of achieving general goals of development than do others. An ideal subdivision has several basic goals it strives towards. First, it must be profitable for the developer, otherwise there is no reason to proceed with it. Second, it should attempt to maintain the character of the region in which it is set. This is good for relations with local neighbors and prevents a swell of resentment towards housing projects which could adversely impact future designs. The development should highlight the attractiveness of the region in which it stands without dominating the landscape to the point where it adversely impacts the area for others. This is especially vital in Williamstown, where so much of the local beauty derives from the undeveloped, rural character of the surrounding mountains. There are other areas of the

country where edifices of all types have been built far up the sides of mountains, which truly diminishes the beauty of the area, making it much harder for attractive building projects to take place in the future. Finally, the development should be efficient, with the efforts on the part of its developers being funneled as directly into the project as possible, with a minimum of wasted space or money. That is, every section of a completed development should be in the state it is because it was desired to be that way, not because there was no other choice for it.

Northwest Hill offers a unique opportunity to create a development which satisfies these criteria to an exceptionally high degree. The future residents of the development can be given the chance to appreciate all that which makes the hill special to those who now live there without seriously dimming the attractiveness of the immediate area, and in addition have virtually no adverse impacts whatsoever (and possibly even a net positive one, depending on the size of the tax roll addition) on the rest of the town.

Several of the options discussed here have some visible defects in terms of the above criteria. The "no build" option, though it is the most attractive to the community at large and certainly the best at preserving the area's character, fails on two accounts. First, it is impractical. For its current owners to make any sort of profit from the land, a necessary condition of its use, another buyer would have to be found. And for the land to be preserved without development, this buyer would need to be purchasing the land, for a sizable sum of money, for the express purpose of conserving it. In terms of local conservation, however, groups such as the RLF consider many other areas of the town to be far more ecologically important. So Northwest Hill seems well-suited as a place to

introduce people to the scenic nature of Williamstown. And by pursuing the "no build" option, this possibility would also be eliminated.

The eight-lot option is also inefficient. The expense associated with constructing a paved road to town specifications is excessive. Added to the clash in character arising from a paved road branching off of Northwest Hill road at this point, one wonders whether this project would be worthwhile even were it the only development option available for the property. It has the potential to become the type of project whose presence will be greatly resented by those now living in the area as well as causing some discomfort to those who would eventually occupy it. Also, to achieve this less than desirable result more time and effort would have to be spent than on any other of the development options. Therefore, the eight-lot development does not appear a very strong choice.

The three lot scattered option's main problem is efficiency. It creates somewhat less revenue than the larger development options, but requires the construction of a driveway which is proportionately rather long. That is, there is a higher percentage of unused, extraneous entrance road under this option than any of the others. This becomes a larger problem when one considers that the road will need to reach the crest of the hill (and must wind to do so due to the grade of the hill). It will present more of a hardship in terms of road construction and maintenance for the developer and future residents than any other option, as in the one case it will require the worst ratio of revenue to construction costs of any project save possibly the eight lot option and will require a greater individual contribution from the future residents to maintain the road in the future.

Neither the five lot option nor the clustered three lot option has a glaring disadvantage to it. Nonetheless, they are distinguished by four characteristics. First, the reaction of neighbors, and, through them, the community as a whole varies with the option. The five lot option adds more traffic to the road, takes up more of the hillside, causes more potential problems for wells, septic fields, and local disruption both during and after construction. Second, the clustered three lot option is easier to build. It requires less construction, less clearing, less time to sell, and eliminates the urgent need to resolve the negotiations over the disputed property. Third, the clustered three lot option has a more desirable time frame; the project can be completed more quickly since all the lots will be sold faster. Finally, it is a more desirable setup for the future residents of the development, as they will have the ability to preserve their surroundings in the condition they wish to live in.

All of these considerations must be balanced against the size of the economic profit which the developers envision. It remains for the developers to determine how their desired profit size relates to the ideal development for Northwest Hill.

Acknowledgements

We would like to thank the following people for information, insight, and feedback that contributed to the preparation of our presentation and our final analysis paper: Hank Art, Roger Bolton, Dean Crawford and Darra Goldstein, Don Dubendorf, the engineers from Guntlow and Associates, Paul Harsch, Jim Hunter, Helen Ouellette, Leslie Reed-Evans, Sheafe Satterthwaite, and John Umlauf.

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