Hassan Open Space Preserves

Prepared for Hassan Township

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Contents

Introduction ............................................................................................................... 4
Background ................................................................................................................ 5
Value of Open Space Preservation ................................................................................. 5
  Ecological, Recreational and Fiscal Benefits
Fiscal Implications of Open Space Preservation ............................................................... 7
Identifying Priority Open Space for Preservation ............................................................. 9
  Existing Analysis: Park, Trail and Greenway Plan; Comprehensive Plan;
  Rush Creek Trail Master Plan
  Public Participation
Acquisition of the Greenway Corridor ............................................................................ 10
  Importance of Continuity
  Greenway Corridor Overlay District
  Open Space Development Ordinance
  Park Dedication Ordinance
  Conservation Easements
  Land Donation
Open Space Preservation and Residential Development ................................................ 15
  Ecological Impact of Development Outside of the Greenway Corridor
  Residential Development and Land Preservation in the Greenway Corridor
    Conservation Subdivision Design
    Traditional Development with Conservation Easements
    Transfer or Purchase of Development Rights
Open Space Preservation and Residential Development in Agricultural Zones ............ 17
Managing Open Space Preserves .................................................................................. 18
  Natural Resources
  Recreational Amenities
  Existing Open Space in Hassan
Summary of Policies and Best Practices for Preserving Open Space in Hassan .......... 20

Resources

Appendix
  A. Wilder Foundation Report: Economic Value of Open Space
  B. Hanover Greenway Corridor Overlay District Ordinance
  C. Minnetrista Park Dedication Ordinance
  D. Hanover Conservation Subdivision Design Process
  E. Chaska Farmland Protection Ordinance
  F. Carlsbad Open Space Management Plan Template
Introduction

The Town of Hassan recently completed a comprehensive plan update which included a park, trail and greenway plan prepared for the community in 2006. This report seeks to recommend policies and best practices the town can use to promote the preservation of quality open space as development occurs in the community by addressing the following questions:

- Can the Town identify means by which it can measure and evaluate the ‘value’ of open space?
- How can the Town identify means by which it can measure and evaluate the fiscal impacts upon the community to own and manage open space it acquires?
- How can the Town best identify and prioritize opportunities for open space preservation within the framework of the Park, Trail and Greenway Plan as well as the Land Use Plan?
- How can the greenway corridor be acquired so as to ensure its continuity as contemplated in the Park, Trail and Greenway Plan and/or for the proposed Three Rivers Park regional trail?

Although the comprehensive plan includes the delineation of a cohesive, interconnected open space system in Hassan, there have been concerns expressed in the community about the appropriateness, practicality, and extent of the system. This report will also provide information to further the discussion of the following concerns:

- Does open space preservation devalue property?
- Should the greenway be acquired in its entirety by the town?
- Will implementation of the open space plan diminish land owner’s ability to develop their land as they see fit?
- Is the open space plan overly ambitious?

Ultimately, the town needs to make a long term commitment to a vision for their future. Without citizen support, implementation becomes difficult and contentious, if not impossible. It is essential for affected land owners to get involved in determining the future of their property. They have made a significant investment in their land, but need to understand the opportunities and constraints in the greater community context.

General recommendations for public participation prior to implementation:

- Continue discussions in the community about the opportunity to preserve open space and the costs and benefits associated with such action.
- Encourage residents to envision the community twenty to thirty years down the road and what type of legacy they want for their land.
- Balance the preservation of natural areas and provision of recreational opportunities for future residents with the current land owners’ rights to derive maximum use and value from their property.
Background

Utilization of the park dedication ordinance in conjunction with the open space development ordinance has succeeded in preserving open space in Hassan, but it has also created some problems for the town. By accepting title to open space in new developments, parcels have been deeded to the town that are disconnected from one another and difficult to access and maintain as recreational amenities. They do provide valuable functional and aesthetic benefits to adjacent properties. However, these open spaces are not necessarily of value to the community on a wider scale. Isolated patches of open space also have limited habitat value for wildlife. If this pattern continues without a coordinated effort to maintain continuity, a significant conservation and recreation opportunity will be missed.

Another concern is whether or not the open space identified in the greenway plan is sufficient or excessive for the future recreational needs of the community. The presence of Crow Hassan Park Reserve in the community currently provides a large-acre open space and passive recreation opportunities. The Three Rivers Park District master plan for the Rush Creek trail seeks to build on this asset by providing an ecological and recreational link between Crow Hassan and Elm Creek Park Reserves. Existing parks in Rogers currently provide active recreation opportunities for Hassan residents.

However, development pressure is increasing and rapidly changing the rural character of Hassan. If the town desires to preserve natural features of the land and conserve and enhance wildlife habitat as development occurs in the town, a strategy needs to be set to ensure that such a goal is attainable. Now is a good time to further discussions about the nature and extent of preservation and development. Residential subdivision pressure has eased a bit and land values are adjusting accordingly.

The ultimate extent of open space preservation is yet to be determined. The amount of land that will be privately held and publicly held is not set in stone. The park, trail and greenway plan has identified significant natural resources in Hassan that are worthy of preservation and how future recreational needs can be provided for. The town’s comprehensive plan has considered how the community desires to accommodate development while maintaining a unique sense of place attractive to current and future residents. These documents provide essential, high quality information and guidance to inform the future of the town. However, as is often the case, the “devil is in the details” and many issues arise when communities desire to implement these plans.

Value of Open Space Preservation

Residents of Hassan have identified natural resources and the rural character of the community as key contributors to the quality of life in the community. That reflects a cultural value rather than something monetarily quantifiable. Yet, this “pricelessness” that is rooted in history and a unique sense of place is an essential component to consider when evaluating preservation options.

Many people are drawn to rural communities (areas with significant open space) for the opportunity to encounter wildlife not found in more developed areas. Conserving land for
habitat can aid in preserving species diversity for a wide variety of plants, animals and insects. Maintaining existing, functioning ecosystems is also difficult to quantify monetarily. However, it has been demonstrated that restoring natural resources such as woodlands and wetlands is a costly undertaking with mixed results often requiring decades of intensive management.

Different species have different needs for the amount of land they require to complete life cycle functions and the amount of outside disturbance (noise, pollution, encroachment of other species) they are able to tolerate. Preserving existing high quality natural areas and buffer zones becomes a top priority as approaching development threatens to degrade or destroy the conditions necessary for species to persist in their current locations.

Preserving trees and other vegetation can help to lower energy costs by providing summer shade and winter wind breaks. Undeveloped lands also provide areas for water cleansing, storm water storage, and ground water recharge. Maintaining natural drainage systems across the landscape can significantly lower storm water infrastructure costs.

While conserving open space is required to preserve important ecological functions, open space can serve an equally important social function. Recreational opportunities close to homes provide places for healthy physical activity and social interaction. Studies have shown that access to safe routes for alternative transportation (walking, biking) contribute to healthier communities and decreased health care expenditures. Additionally, exposure to natural areas with views of vegetation and water has demonstrated stress reduction benefits.

Although ecological and recreational benefits are often difficult to quantify, there are measures that have been able to evaluate the fiscal impact of open space on residential properties. Studies have shown that properties located in proximity to parks and open space consistently assess at higher values.

Finally, as noted above, the character of open space preservation is a defining element of a community’s identity. A recent study in Washington County revealed that “preserved open spaces—including parks and community walking paths— can result in a more visually pleasing and inviting community atmosphere, which may translate into potential new residents recognizing a higher premium on the value of any property in the area.”

Contrarily, the question of whether or not open space preservation devalues property is contingent upon a number of factors. In many cases, this is subjective and based on what one considers to be the highest and best use of a parcel of land. The following are just two factors commonly shown to impact the monetary value of open space and adjacent property:

- If buildable land is preserved as open space, income from potential improvements to that land would be foregone. However, properties within close proximity to open space consistently sell for higher prices, and development scenarios are possible which preserve the total number of units on a parcel.
- If land preserved as open space is not maintained, it could have a negative impact on adjacent properties. This underscores the need to provide sufficient funding for ongoing maintenance and planning capital outlays for amenity development.
Planning for open space is an integral part of planning for a community as a whole. Determining an overall vision for the character of a community and weighing the implications of land use decisions is an ongoing process. It is important to acknowledge the direct and indirect costs of development and open space preservation both in an overall sense and as opportunities for open space acquisition arise and proposals for subdivision are presented.

**Fiscal Implications of Open Space Preservation**

It may be argued that preservation of open space diminishes the tax capacity of the community – particularly when buildable land is not developed. However, tax capacity is already relatively set when initial zoning densities are determined. Maintaining large lot zoning as the only means of open space preservation still limits the taxable potential of the land. This is particularly relevant when large areas of wetlands exist on the property, which are taxed at a much lower rate. If a similar number of lots are proposed, such as with open space development or conservation design, tax capacity is maintained while open space is preserved with little or no further cost to the town (especially if the open space easement is privately held).

There also needs to be a long-term perspective regarding tax capacity of property adjacent to permanent open space. Recent regional studies have shown a premium of up to 30% realized by properties proximate to large natural areas (greater than 40 acres) that are used for passive recreation or preserved in their natural state. Other studies have shown property value increases up to one mile from an open space amenity (including trails).

In an analysis recently done by Embrace Open Space it was determined that property value increases resulting from open space in Hennepin County would generate an additional $35.7 million annually in property tax revenues without tax rates increasing. A 2007 study by Embrace Open Space in Washington County concluded that:

> All other factors being equal, a property located up to 200 feet from preserved open space will be worth an estimated $16,750 more than an otherwise similar property not located near open space ... a total of 8,844 residential properties in Washington County reflect this enhanced value.

The additional increase in valuation of the properties noted above totaled $148 million resulting in increased county tax revenues of $1.56 million. It must be noted that this premium was realized by parcels one acre or less in area. Lots larger than one acre recognized value from the amount of private open space they contained rather than adjacency to public open space. However, the study also showed a diminishing value increase as lot size increased from 1/10 acre to five acres – essentially, the primary value of a lot is to have a place to build a house. Buyers in the market do not place great value on large lots per se.

The following table from the Washington County study illustrates the proximity factor, lot size, and open space preservation under three development scenarios:
Although it may take some time for Hassan to recognize the property tax gains from open space preservation, the accumulated value over time can eventually be used to offset initial outlays for the acquisition of land and provide funds for its continued maintenance.

While considering the cost of open space, it is equally important to consider the fiscal impact of residential development on a community. One of the assumptions commonly applied is that residential development results in increased revenues from the real estate tax and other sources thereby strengthening the fiscal health of the community. However, development impacts the tax base both as a generator of tax revenue and as a consumer of public services. Studies indicate that the greatest impact is on local school districts from increased enrollment, and the addition of infrastructure typically results in costs greater than what is covered by property taxes. Open space preservation is one of the most efficient modes of land use, particularly when it is located adjacent to denser development with lower infrastructure costs (such as conservation design developments).

The following table is from a 2005 study of the economic value of open space conducted by the Amherst Wilder Foundation (full report in Appendix A). It illustrates a hypothetical scenario showing the various economic factors that pertain to preservation and development and the one-time versus ongoing fiscal outlay:

<table>
<thead>
<tr>
<th>Components of economic value</th>
<th>One-time impact</th>
<th>Annual impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition of open space</td>
<td>-$2,000,000</td>
<td></td>
</tr>
<tr>
<td>Change in property taxes of nearby homes</td>
<td></td>
<td>$125,400</td>
</tr>
<tr>
<td>Avoided costs of public infrastructure for new homes</td>
<td></td>
<td>$250,000</td>
</tr>
<tr>
<td>Lost property taxes from foregone development</td>
<td>-$855,000</td>
<td></td>
</tr>
<tr>
<td>Avoided cost of public services</td>
<td></td>
<td>$930,000</td>
</tr>
<tr>
<td>Lowered capital cost for water management</td>
<td>$300,000</td>
<td></td>
</tr>
<tr>
<td>Lowered operating cost for water management</td>
<td></td>
<td>$30,000</td>
</tr>
<tr>
<td>Totals</td>
<td>-$1,450,000</td>
<td>$230,400</td>
</tr>
</tbody>
</table>
This demonstrates that the initial fiscal outlay by the town to acquire open space is not the only factor to consider. In comparison to the development scenario, open space preservation realizes a cost savings over time.

**Identifying Priority Open Space for Preservation**

The town’s Park, Trail, and Greenway plan has identified areas in southern Hassan containing wetlands and other high quality natural areas. The plan has also identified areas where these patches of wetlands and woodlands could be connected to create a contiguous corridor. Such a corridor facilitates the movement of wildlife between habitat areas and protects and preserves water quality. Much of the land identified in the greenway corridor is not suitable for development. The remaining acres contain many high quality natural areas such as woodlands and wet prairie that provide essential ecosystem services (nesting habitat, infiltration areas, vegetative diversity, etc.).

The plan identified land suitable for permanent preservation as open space to accommodate future recreational needs of residents as well as conserving natural resources and protecting wildlife habitat. The recommendation for preservation was made without suggesting that the town acquire all of the opportunity lands. Ideally, a combination of tools will be applied in concert to accomplish the goals of the town. Some of these will be discussed later in this report.

The Three Rivers Park District has adopted a master plan for the extension of the Rush Creek Trail from Elm Creek Park Reserve to Crow Hassan Park Reserve. The town board approved a resolution supporting the master plan and has given the park district consent to begin discussing acquisition options with land owners along the proposed alignment. Section V of the Rush Creek Trail master plan states:

“...the exact location of the trail will reflect the opportunities that arise for acquisition, easements and neighborhood developments. The trail will likely develop as a series of small segments over a period of several years. This strategy takes advantage of the opportunity to locate and build the trail in or adjacent to future development areas prior to construction. Trail segments will have logical beginnings and ends, and will incorporate nonpermanent detours as needed to adjoin segments while waiting for future acquisition and easement opportunities.”

The proposed alignment is consistent with Hassan’s comprehensive plan and forms a significant portion of the desired trail loop around the community. The town benefits from the use of the trail without making any fiscal outlay for acquisition, construction, and ongoing maintenance.

Studies have shown that property values increase adjacent to trails, and residents within ½ mile of the trail are the heaviest users of the facility. With proper design, siting, and screening, privacy of adjacent residences can be maintained while providing trail users with a more scenic experience.
With the Rush Creek Trail forming the recreational backbone of the corridor, the town has the opportunity to focus their resources toward preserving acres of adjacent natural resources for wildlife and future community park facilities.

Another key resource for guiding open space acquisition is the town’s recently updated comprehensive plan. The plan has identified when and where development is likely to occur. Identifying land for preservation as open space needs to happen within this larger framework of changing demographics and market realities. This greater context also brings other partners and stakeholders from outside of the community to the table. The Three Rivers Park District master plan for the Rush Creek Trail extension is one example. Collaborating with organizations can leverage additional resources to accomplish the goals of the community to provide recreational opportunities for their residents and the potential for economic development. However, it is up to the town to set the tone for these partnerships by clearly articulating the community’s goals and priorities.

Ultimately, a vision for the future of the land and community needs to be the foundation for open space preservation in Hassan. If a coherent, community-backed vision is either not established or continually undermined, any discussion about pros and cons of development scenarios and open space may be confused and contentious. Consequently, every effort should be made to invite land owners and other stakeholders to participate in sorting through these issues and coming to a consensus. Most people prefer to be involved in determining the future of their land and community rather than being forced to conform to someone else’s vision, no matter how “good” it might be. Therefore, instituting a participatory process, either through land owner coalitions or outreach by the town board and commissions or other methods, is crucial. Providing information so that land owners can decide what kind of legacy they can have for their land is empowering, but still provides realistic parameters that recognize external realities, opportunities and constraints. Those who know the land best need to be at the table when determining which land should be prioritized for open space preservation.

**Acquisition of the Greenway Corridor**

As noted above, there is no assumption that the town should own all of the land identified in the greenway corridor. However, assuming that the town is committed to preserving natural resources in an integrated and connected manner, all of the land should be given significant consideration for conservation. The corridor identified in the plan has taken into account existing resources and the land area necessary to support wildlife habitat and prevent degradation of unique natural features.

There are also areas identified for future neighborhood parks adjacent to the greenway corridor that can provide nearby, active recreation opportunities for residents. The analysis in the park, trail and greenway plan should be revisited as proposals come forward for the suitability of integrating these recreational components.

The Park, Trail and Greenway plan defines the greenway as:
Privately or publicly owned corridors of open space which follow natural land and water features and are managed with the dual goals of providing cultural and ecological connections in Hassan Township. Cultural connections will be in the form of a recreational trail that will link important destinations. Ecological connections will be in the form of preserved, restored, or created wildlife habitat. Active recreational spaces such as athletic fields and parks, may be located along the periphery of the greenway. – p. 3-20

The Importance of Continuity

The defining element of the greenway is its continuity. The town, in creating the park, trail and greenway plan, recognized the opportunity to add value to the entire system by establishing and maintaining connections. Conservation overlays are a tool often used to ensure the integrity of such systems:

The purpose of the conservation area overlay district is to provide special controls over land use and development located in ecologically significant landscapes. The overlay district is designed to preserve and protect ecosystems in their entirety to the greatest extent possible. This shall be accomplished by minimizing fragmentation of the landscape, maintaining biodiversity and specifically protecting unique environmental features identified as integral parts of the designated landscape. The overlay district shall establish standards and procedures for the use and development of the land. The standards and procedures are designed to protect, conserve, enhance, restore, and maintain significant natural features and the ecological connections between them.


Greenway Corridor Overlay District

Creating a greenway corridor overlay district that encompasses the greenway and adjacent land would enable the town to apply a special set of allowances and restrictions for development in this area (see Appendix B for an example of a Greenway Corridor Overlay District ordinance). The benefit of adding this additional layer of regulation would reflect the underlying elements in the comprehensive plan. There is currently nothing else in the zoning or subdivision ordinance that codifies the community’s intent to preserve open space as an interconnected system. This, in coordination with the town’s open space development and park dedication ordinances, becomes the unifying regulatory tool for implementing the open space plan.

Open Space Development (OSD) Ordinance

Current policy promotes the preservation of natural features when development is proposed through the Open Space Development subdivision ordinance. Through this process, 30-40% of the gross acreage (including wetlands) is permanently preserved as open space via
an easement or deed of the land to the town. The town holds just under 200 acres in such subdivisions to date (not including Henry’s Woods).

The town is responsible for maintenance of the property and ensuring appropriate public access. Maintenance of these open space parcels and their use by the public has become an issue for the town. The parcels are not contiguous with other public land and are typically less than 20 acres. In the parcels in southern Hassan, no amenities beyond mown grass trails have been developed. It is uncertain how many residents use these publicly owned properties for recreation at this time.

The town needs to consider the benefit of owning open spaces in these developments and the alternatives to ownership. The town should evaluate each parcel before accepting the deed to determine if there are sufficient funds available to maintain the property, whether or not the parcel contributes meaningfully to the public open space system, and the alternatives to public ownership of the parcel.

If an overlay district were adopted, the OSD ordinance would need to be revised to require land within the greenway corridor to be permanently preserved. This may impact some parcels more than others raising concerns regarding equitable treatment. Some development options are discussed below that could be applied in such circumstances where the OSD ordinance does not allow sufficient flexibility for lot sizes. This also underscores the need to be talking with land owners with natural resources on their land about the development and conservation potential of their property.

Park Dedication Ordinance (PDO)

The existing park dedication ordinance can be utilized to acquire greenway lands in proposed developments. This is not a significant change in current practice the town uses to acquire title in OSD subdivisions. However, the town has the opportunity to revisit the amount of land to be dedicated and the basis for determining the cash in lieu of land. There is a possibility that the town could receive significantly more money per dwelling unit than is currently being collected (see Appendix C for an example of such a PDO).

The town needs to be judicious when reviewing subdivision proposals to ensure that any land donation is tied to fulfilling the recommendations of the comprehensive plan for future parks, trails and natural areas. As part of the adoption of the corridor overlay district, the town could utilize the overlay district’s boundaries to provide general policy goals for accepting park land dedication - within the greenway; and fee in lieu of land dedication - outside the greenway. (This does not preclude the ability of the developer to provide additional private recreational and/or natural open space amenities within a subdivision as is currently allowed in ordinance.)

To aid the town in determining which open space to acquire for public use, it may be helpful to classify the parcel as one of three categories: natural habitat, trail/ corridor open space, and neighborhood recreation. These are slightly broader, or more general categories than those outlined in the comprehensive plan. The following definitions of these categories are found in the Hanover town ordinance:
20-59.5-05: PERFORMANCE STANDARDS
A. Open Space Standards

1. All designated public or private open space and trail corridors shall be platted as outlots and held as open space in perpetuity.

2. Open Space Classification Criteria. Each open space outlot shall be classified as natural habitat, neighborhood recreation, or trail corridor open space, and shall conform to the type of use, location criteria, and deed restrictions of that classification, as specified in the Hanover Subdivision Ordinance.

   (a) Natural Habitat. The development shall preserve natural habitat in a contiguous, connected configuration. Natural habitat open spaces may include, but are not limited to, fields, wetlands, slopes, bluffs, dense woods, lakes, ponds, streams, shorelands, and other environmentally sensitive areas or desirable view sheds.

   (b) Trail and Greenway Corridors. The development shall locate corridors in strategic places such that larger open space areas both on the project site and adjacent land are connected with one another. Corridor open spaces may include, but are not limited to, recreational multi-purpose trails, shorelines and larger greenway corridors. Corridors shall be appropriately sized to their function but no less than thirty (30) feet in width.

   (c) Neighborhood Recreation. The development shall locate neighborhood recreation open spaces such that they are an integral part of the neighborhood, at an elevation appropriate to their intended recreational use, defined by coherent boundaries, and accessible to all neighborhood residents. Neighborhood recreation open spaces may include, but are not limited to, greens, commons, playgrounds, ball fields, gardens, or other recreational areas.

Keep in mind that the designation of the open space into one of these three categories is to aid in the determination of whether or not the town would be best served by taking ownership of the parcel. The comprehensive plan and existing subdivision ordinances also provide specific guidance for determining the character and appropriate public use for open space and should be consulted as proposals come forward.

Conservation Easements

Conservation easements can either be located on areas of land adjacent to sensitive ecological areas or encompass the land to be preserved. They are often buffers along rivers, streams, and wetlands. These easements provide a transition zone between areas of high or intense human activity and critical habitat or hydrological areas. This zone can mitigate impacts from polluted runoff, erosion, and even noise disturbance. These easements can protect native vegetation which enhances biodiversity and preserves natural ecological functions such as ground water recharge and hosting beneficial insect communities. These areas are often located in agricultural areas on land not suitable for cultivation due to slope, soils, or hydrology.
Land owners agree to certain restrictions on the use of the land, but maintain ownership and control of the property. Conservation easements need not offer public access to, on, or through the land.

Arrangements can be made for eventual transfer of ownership to the town or other qualified easement holder through sale or donation of the easement. Some conservation easements are time limited; they offer flexibility to the land owner who may wish to change the land use in the future. In cases where these are not permanent arrangements, the town should be active in discussing any changes as sunset dates approach.

In the greenway corridor, development capacity is already limited by existing zoning and the amount of buildable acres on a parcel (after wetlands are excluded). The greenway corridor boundaries were drawn with that in mind. The majority of greenway land (1,901 acres) is wetland and ineligible for development (or facing restrictions under the Wetland Conservation Act). Negotiating with land owners for conservation easements across wetlands could be a win-win. Since the land is already ineligible or difficult to develop, placing an easement would provide tax benefits to land owners and would ensure continuity of large areas of greenway corridor land.

Land Donation

Voluntary land donation is typically one of the least controversial means of establishing open space infrastructure in a community. Land owners often see such donation as establishing a legacy that will benefit the public for years to come. They may no longer have a use for the property, do not wish to pass it on to heirs and want to utilize tax benefits, or be relieved of the responsibility for managing and maintaining the property.

The town should make information available to land owners regarding the tax benefits of donating land or easements. This can have a considerable impact on estate and property taxes and can be a good fit in certain situations. The diminished tax capacity of the land should be weighed against the cost of outright acquisition in the fulfillment of the overall vision for open space preservation and residential development.

Where the land falls within the priority area for public acquisition, the town should work diligently to attain the parcel from the donor. Donation may also be made with a future effective date allowing the land owner to live out their life on the property (remainder interest donation).

There is no need to require land donation to occur only in the greenway area. If approached, the town should use its discretion when considering such proposals and the long term use and maintenance of the parcel. It may be more appropriate for the land (or easement) to be donated to a third party, such as a land trust organization, depending on the desires of the donor, the location and nature of the parcel, and the capacity of the town to maintain the land for its intended use.
Open Space Preservation and Residential Development

Residential and open space development in Hassan should be in done in balance with each other. The town has identified the desire for generous lot sizes (a defining element of rural character) and the preservation of high quality natural areas in the community. Residents also expect to maximize the value, use and potential of their land as the community develops.

If the town decides that they wish to preserve open space, particularly in southern Hassan, several issues arise. Of primary concern is the equitable treatment of land owners who have property affected by any preservation proposals and the fiscal impact on the town. Consideration of the development versus preservation scenario should be given to ferret out the pros and cons of each possibility on impacted parcels.

It may be useful to think about future development in southern Hassan Township occurring in two different areas in two different ways: within and immediately adjacent to the greenway corridor and outside of the greenway corridor adjacent to Rogers and surrounding communities.

Ecological Impact of Development Outside of the Greenway Corridor

It should be noted that development beyond the greenway corridor can have adverse impacts on the quality of the natural resources and habitat that the town is seeking to preserve. In addition to existing information and mitigation required of development, the town may want to consider requiring additional information from a developer so that any change in land use adjacent to the greenway corridor does not degrade the natural areas that are being protected.

Sample Conservation Area Management ordinance language:

A. Management Plan

Within any identified conservation area district, no construction, development, use, activity, or encroachment shall be permitted unless the effects of such development are accompanied by the submission of an approved Conservation Area Management Plan.

1. The landowner or developer shall submit to the town a Conservation Area Management Plan prepared by an ecologist, landscape architect, engineer, or other qualified professional, which fully evaluates the effects of any proposed uses on the Conservation Area. The management plan shall identify the existing conditions, all proposed activities, and all proposed management techniques, including any measures necessary to offset disturbances.

The application of conservation easements in buffer areas and effective landscaping and storm water management practices can help to protect and enhance the corridor land. Limitations on the amount of impervious surfaces or encouragement to use sustainable building and site practices can lessen the impact of new development. The town may want to explore incentives tied to green building practices and emerging energy efficient technology as these become more proven and standardized.
Residential Development and Land Preservation in the Greenway Corridor

There are areas throughout and adjacent to the greenway corridor where new residential development can be integrated in a way that adds value to the new home sites and preserves the ecological and aesthetic function of the corridor land. The following are some options for how the town might regulate new development in the corridor.

Conservation Subdivision Design

The town could require all development proposals within the overlay district to meet conservation design standards. This would involve an addition to or refinement of the current open space development ordinance. The new ordinance would require a clustering of units on smaller parcels to accommodate the preservation of natural resources within the corridor while maximizing the number of units on a parcel. Although this is similar to the current OSD provision, if the town decided to do this, they should consider allowing for a smaller lot size than currently allowed in the open space development ordinance.

The conservation design standards would also increase the percentage of land to be preserved as open space to upwards of 40-60% compared to the current OSD requirement of 30%. That percentage is typically calculated after unbuildable areas are excluded resulting in up to 70% of the site preserved as open space. Allowing for smaller lot sizes on the remainder of the parcel would ensure that no fewer units are built than a yield plan would produce under current OSD standards. Ordinances can even be written to require that the net number of units is no less than allowed by underlying zoning.

The trade-off here is higher density (in terms of distance between houses) for more protected open space. Because the housing is located adjacent to much larger tracts of open land, this could be considered agreeable. In a way, this could be considered as a transfer of development rights within a parcel with the "sending zone" being the open space and the "receiving zone" being the 30% of the parcel to be developed with smaller lots.

The open space could be acquired by the town if it served public purposes identified in the comprehensive plan. Otherwise, the open space could be privately held by the residents of the subdivision. Alternatively, it may be possible to allow single, private ownership of the open space or dedication to a land trust organization. Provision would need to be made for the permanent preservation of the open space with an easement prohibiting further subdivision and outlining maintenance standards and responsibilities, even in the case of public ownership by the town.

Conservation development design is particularly suited to preservation of natural area systems that run across the landscape and encompass both upland and lowland areas (drainage systems and wildlife movement for example). Under this scenario, it is expected that developers and residents understand that unbuildable areas are not the extent or default for open space preservation. Conservation design also provides significant benefits where wetlands provide essential storm water functions that would otherwise need to be accommodated through costly infrastructure. In this case, wetland areas are assets to the development and not merely “unusable” land. (See appendix D for a sample Conservation Development Design process).
Traditional Development with Conservation Easements

If the town opted to allow traditional (large lot – 4 acres and greater) development within and adjacent to the greenway, the building site could be required to be situated either outside of the identified corridor lands or buffered sufficiently to preserve ecological function and scenic views. A conservation easement could then be applied over portions of the property with significant natural resources allowing for preservation of the land while still remaining in private ownership. This could provide more diversity in housing type, particularly in southern Hassan, and may in fact be the most suitable subdivision for the preservation of natural resources in certain areas.

Discussions with or public presentations for current landholders of large lots (5 acres or greater) in the greenway could also provide them with information about the benefits and constraints of preserving portions of their land with a conservation easement. Engaging these land owners is also beneficial in areas that are either identified for increased density in the future or where parks and trails might be located when additional development occurs nearby.

Transfer and Purchase of Development Rights

As alluded to above, the transfer of development rights takes the right to improve land with structures and removes it from one parcel and gives it to another. The transfer results in lower density in one district (the “sending zone”) and increased density above underlying zoning allowances in another district (the “receiving zone”). This could be done informally between adjacent parcels with two willing sellers who agree to preserve part of one parcel and build on the other similar to conservation design on one parcel.

The town could choose to allow a market driven TDR program where a developer negotiates for additional development rights from property within the greenway corridor (sending zone) for more building eligibility where the extension of sewer and water can accommodate higher density (receiving zone). Or the town could establish a purchase of development rights program where a fund could be set up (possibly using park dedication money) to purchase development rights from interested land owners who large areas identified for conservation and desire to preserve their property for corridor or park land. The town could then sell these development credits to developers in areas where additional buildings could be accommodated, thus replenishing the fund. These transfers and additional building eligibility could be deemed appropriate in or adjacent to the greenway corridor if conservation design principles could be met with the additional density.

Open Space Preservation and Residential Development in Agricultural Zones

Additional open space preservation can be accomplished via existing zoning in current AG districts with the addition of an agricultural overlay district. This can best be applied in areas that contain prime agricultural land and have the potential to be farmed into the future. In rapidly developing communities, requirements for long term agricultural preservation are difficult to meet and fragmentation is hard to avoid. The Natural
Resources Conservation Service in the U.S. Department of Agriculture has developed the Land Evaluation and Site Assessment (LESA) system to help communities identify land valuable enough for agricultural use to be protected from development. Hassan may have the opportunity to preserve the cultural heritage of their land while capitalizing on the openness provided by large fields that contributes strongly to the perception of a community’s rural character. The town could consider strategic areas where this type of preservation may be applied and/or request proposals from current land owners interested in preserving their land for productive purposes and then contact the soil and water conservation district for more information about LESA processes.

In these areas, additional residential development could be accommodated by allowing additional building eligibility (1-3 units per 40 acres) clustered near an existing natural resource amenity that did not interfere with farming. Maximum lot sizes could be established to ensure that minimum disturbance occurred with development and appropriate buffers could be incorporated to ensure compatibility of uses.

Another opportunity would be establishing a conservation incentive where building eligibility (density bonuses) could be granted based on the enhancement, preservation, or restoration of a natural resource (woodland, wetland, etc.). Utilizing conservation design standards in these areas would seek to maximize compatibility between new development and the protection of the natural resources and the continued agricultural use of adjacent land. (See Appendix E for a sample Agricultural Preservation ordinance)

**Managing Open Space Preserves**

**Natural Resource Management**

If the town decides that the parcel meets criteria established for natural resource open space preservation, an open space management plan should be determined to ensure that the land retains its use and value. Where appropriate, this could be developed in partnership with organizations with expertise in the maintenance and restoration of natural areas (watershed district, DNR, University Extension Service). (See Appendix F for an open space management plan template).

Open space management plans can include:

- Minimal monitoring for invasive species or other degradation of natural features
- Active management for a particular habitat or plant community
- Partnerships with other organizations as appropriate for the ongoing maintenance of the land
- Lease agreements for food production (traditional agriculture, alternative agriculture, or community gardens)
- Schematic plans for future amenity development
Recreational Amenities

Maximizing public benefit of open space preservation often involves providing safe access and amenities appropriate to the use and character of the land. Planning for capital improvements and ongoing maintenance needs to be a part of developing a successful open space system. Capturing revenue from increasing property values can provide a source of funding for maintenance or paying the interest on bonds.

Partnering with other government agencies, charitable organizations, and school and community groups can also provide funds for new amenities and volunteer participation in maintaining parks and open space.

Existing Open Space in Hassan

The following is a basic inventory of existing parkland in southern Hassan and some initial recommendations for best use and maintenance.

Meadow Lake Estates Park – Trail Connection
- 13.6 acres (6.3 acres upland)
- Not located in the greenway corridor; connects two areas of the greenway
- Possible Rush Creek Trail alignment; part of future neighborhood loop trail or north-south connection along Woodland Road to Hassan Parkway
- Linear parcel most suitable for providing access and connections rather than active recreation (such as ball fields)

Northridge Preserve – Nature Park
- 19.9 acres (4.4 acres upland)
- Located within the greenway corridor
- Proposed Rush Creek Trail alignment along southern edge
- Begin establishing buffer plantings between the future trail alignment and adjacent properties or route trail along north edge of the preserve adjacent to wooded area
- Prioritize acquisition or permanent conservation of maple-basswood forest to the south west

Island View Estates Park – West Community Park
- 5 acres (5 acres upland)
- Access to Sylvan Lake
- Consider this site as part of a future community park – if desired, priority can be given to acquisition of sufficient acreage (20-50 acres total) to provide active sports facilities.
- Leasing the park for cultivation or establishing a tree nursery for future park planting could be interim uses for the park as current access is difficult and no amenities have been developed
Three Rivers Estates – Neighborhood Park

- Not located in the greenway corridor
- Possible future neighborhood park with trail along northern edge
- Limited natural resource value due to fragmentation; upland suitable for development of park amenities/ active recreation
- Consider placing conservation easements on nearby woodlands and/or applying conservation design standards when development is proposed

Dayspring Estates Park – Conservation Park

- Approximately 20 acres – mostly wetland
- In greenway corridor
- Wetlands can be enhanced, restored; permanently preserved
- Prioritize acquisition of adjacent wetlands or application of conservation easements
- Surrounding area might be a good candidate for conservation design with increased density (with appropriate buffering to ensure wetland preservation). The area to the north is close to the expanded service area adjacent to Rogers and may be able to handle more density
- Partner with DNR and watershed district to restore wetlands and watercourses and provide an active management plan

The long-term success of the Hassan open space preserves will be determined by both the quality of open spaces protected and how they are managed. To this end, successful implementation requires effective management of all town protected open space in a way that preserves them for the use for which they were originally acquired.

The town needs to consider the internal capacity to manage protected open space and provide appropriate budgetary funds to maintain these significant capital assets. Planning for management and maintenance will ensure that the open space continues to contribute positively to surrounding property values.

Summary of Policies and Best Practices for Preserving Open Space in Hassan

The Town of Hassan possesses rich cultural and natural resources. The comprehensive plan and the park, trail and greenway plan along with existing ordinances provide a wealth of information, analysis, and direction for shaping the future character of the community. Yet even the best plans can amount to nothing more than interesting reading unless there is agreement and commitment to implementation by members of the community.

While some see any plan as a restriction on their ability to maximize the use and diminishing the value of their property, others recognize that a collaborative effort is the only way to accomplish their vision for the legacy of their land. These perspectives are both valid and serve to underscore the necessity to educate and actively involve stakeholders.
In light of the future annexation of Hassan Township by the City of Rogers, organized commitment to creating open space preserves in Hassan will ensure that the town’s values and vision for the land is respected.

The following provisions are excerpted from the Davis, California open space management plan with minimal alterations for relevance to the Town of Hassan. They provide a good summary of established policies and best practices for implementing open space preservation.

General Policies and Practices

- Acquire and hold the least interest in a property necessary to carry out the comprehensive plan goals for open space protection.

- Utilize conservation easements as the primary method of open space protection. Conservation easements shall be held in perpetuity.

- Acquire and hold fee-title to properties where protection of unique resources, restoration, or public access is desired.

- Protect open space lands and resources that are threatened by urban development or a significant change in land use.

- Acquire lands that facilitate the protection of other open space lands in the same area through interruption of sprawl, establishing linkages, buffering, and aggregation of protected open space lands.

- Acquire lands that have existing significant wildlife habitat or potentially restorable significant wildlife habitat.

- Consider the relative scarcity of the land type or resource being conserved when analyzing acquisition options.

- Balance efforts to restore natural resources with efforts to maintain agricultural production in the planning area.

- Factors such as the urgency or advantage of a particular sale, market conditions, and risk of loss without Town participation may be considered in acquisition decisions.

- Consider potential management goals for an open space parcel during the acquisition phase to ensure that the parcel is considered in the context of surrounding land uses and that adequate funding is available to achieve conservation objectives.

- Continue to develop partnerships with conservation organizations, farm groups, and public agencies to facilitate the acquisition of open space lands and resources.

Prioritization for Acquisition

- Strategic location of the proposed acquisition (protection of land is key to protecting other open space land in the same area).
• Project size and what effect it may have on whether the land type or resource can be maintained over time.

• Connectivity to intact or relatively intact natural areas.

• Adjacency to protected lands.

• Ecological value (unique habitat, species diversity, protection of listed species or species in local decline, etc.).

• High risk of loss of exceptional open space resource(s) without participation by the town.

• Outstanding scenic values (views of significant local or regional landmarks, community gateways, etc.).

• High recreational value that is consistent with the town’s open space protection goals and provides opportunities for unmet recreational needs (e.g. wildlife viewing, hiking, etc.).

• Landowner commitment to perpetuation of conservation values (sustainable farming practices, voluntary protection of sensitive natural resources, etc.).

• Land or conservation easement can be acquired with reasonable effort in relation to its cost.

• Landowner insists on provisions in an easement, which would diminish the property’s conservation values.

• Town effort required to enforce and/or monitor an easement.

• Potential impacts of adjacent properties on the conservation value of the protected land or resource.

• Consideration of destructive trespass, dumping, or other activities that may have a negative impact on conservation values.

• Title issues, boundary disputes, or pending legal actions associated with the land or easement.

Acquisitions procedure

• Identification of parcels that meet the goals and acquisition categories described in the plan.

• Contact with a property owner(s) or agents who may be interested in the program.

• Submission of a letter of interest by a landowner requesting a property evaluation and site visit by staff.

• Completion of a preliminary property evaluation by staff including: project description, initial analysis of consistency with program goals and budget priorities, and investigation of available outside funding sources for the project.
• Presentation of preliminary property evaluation to the Planning Commission for recommendation on appropriate next steps (appraisal, negotiation, or rejection). Public input opportunity.

• Direction from Town Board on next steps.

If direction is given to proceed, the following steps are necessary:

• Appraisal preparation, environmental site assessment, title reports, and collection of other pertinent documents and information.

• Negotiations on terms and easement language if necessary. May include closed session meetings with the Town Board on terms of the acquisition.

• Staff report to Planning Commission for recommended action on transaction. Public input opportunity.

• Staff report to City Council action on the transaction and release of funding. Public input opportunity.

These administrative procedures along with regulatory controls identified in this report and an active public participation and outreach program can aid the town in promoting and developing a system of open space preserves in Hassan. The town has an opportunity to preserve the beauty and heritage of their land and provide a legacy for generations to come.


Kopits, Elizabeth; McConnell, Virginia; and Walls, Margaret (2007). The trade-off between
private lots and public open space in subdivisions at the urban-rural fringe. 
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10.1111/j.1467-8276.2007.01083.x


Appendix B
ARTICLE 58
GW, GREENWAY CORRIDOR OVERLAY DISTRICT

SECTION

20-58-01: Purpose
20-58-02: General Design Standards
20-58-03: Greenway Ownership
20-58-04: Greenway Maintenance Standards

20-58-01: PURPOSE: The purpose of the GW Greenway Corridor Overlay District is to establish a zoning overlay district intended to implement the natural environmental and open space goals of the Hanover Comprehensive Plan by protecting natural features identified on the Natural Resource Inventory. The design standards established under this Article have been established to support the natural resource conservation objectives of Hanover and its open space, recreation and natural resources plan while accommodating new growth and development. The purposes of these standards are:

A. To allow for flexibility in lot design which directs buildings, site disturbance, and activities to the most suitable locations with respect to the natural conditions of a tract;

B. To protect unique natural features of the City including aquifers, water bodies, the Crow River, floodplains, wetlands, woodlands, and steep slope areas from disturbances;

C. To minimize visual impact upon the scenic character of the City by fitting new construction harmoniously into the natural landscape;

D. To provide an opportunity for creative, varied, environmentally sensitive, and economical development, permitting a range of lot areas, building densities, and housing sizes, and to promote continued diversity of age and income in the community.

20-58-02: GENERAL DESIGN STANDARDS:

A. Greenway lands shall be laid out in general accordance with the Hanover Natural Resources Inventory Map of the Comprehensive Plan to ensure that an interconnected network of open space and trails will be provided.
B. Greenway lands may be contained within lots (provided covenants or easements are provided to protect the natural resources), or may be set aside as undivided land with common rights of usage among the subdivision residents or dedicated to the public as public park or open space, or protected by a conservation easement.

C. Where the Comprehensive Plan indicates the location of a trail within a greenway corridor, the trail corridor shall contain a minimum of thirty (30) feet of width.

D. In situations where the site contains greenway corridor lands, the City may allow smaller lot sizes than identified in the underlying Zoning District to allow for conservation of natural features provided the project is processed as a Residential Cluster Planned Unit Development. The PUD must provide mechanisms to protect the integrity of the resources from an environmental, functional and visual standpoint and shall outline the mechanisms and financial resources to maintain the greenway, control invasive species and promote a varied habitat for plant and wildlife.

1. In order to safeguard these areas, tree cutting shall generally be prohibited and existing fields or meadows shall be managed as such. Meadow mowing shall be permitted only between October and March, after wildlife has left their nests and after wildflower seed have been set.

E. Permanent Greenway Protection through Conservation Easements.

1. Greenway land that is required to be reserved and created through the subdivision process shall be subject to permanent conservation easements prohibiting future development. (For example, the clearing of woodland habitat shall generally be prohibited, except as necessary to create trails, active recreation facilities, and to install subsurface public utility systems or spray irrigation facilities). The determination of necessity shall lie with the City Council.

20-58-03: GREENWAY OWNERSHIP:

A. In general, greenway land may be owned by individuals, a homeowner’s association, the City, a land trust, or another conservation organization recognized by the City.

1. Purchase of Greenway Lands. The City or other public or non-profit agencies may work with the private property owner to purchase greenway lands or easement rights over said lands.

2. Offer of Dedication. The City Council may grant park dedication credit for designated greenways as part of the subdivision process.
3. **Homeowner’s Association.** The greenway land and associated facilities may be held in common ownership by a homeowner’s association provided that ownership, access, maintenance, insurance provisions are implemented acceptable to the City.

4. **Easements.** The City may accept easements for public use of any portion of the greenway corridor, title of which is to remain in private ownership.

5. **Conservation Easements.** An owner may transfer easements to a private, non-profit organization recognized by the City, among whose purpose it is to conserve open space and/or natural resources, provided that:
   
   a. The organization is acceptable to the City and is a bona fide conservation organization with perpetual existence; and
   
   b. The conveyance contains appropriate provision for proper reverter in event that organization becomes unwilling or unable to continue carrying out its functions.

**20-58-04: GREENWAY MAINTENANCE STANDARDS:** Unless otherwise agreed to by the City Council, the cost and responsibility of maintaining greenway corridors shall be borne by the property owner, homeowner’s association, City or conservation organization.

A. Persons proposing to impact the greenway corridor as identified on the Natural Resources Inventory Map of the Hanover Comprehensive Plan are required to demonstrate that said activity complies with the applicable requirements of this Chapter and with the following principles listed in descending order of priority:

1. Avoid direct or indirect impacts to the greenway that may destroy or diminish the greenway or natural feature.

2. Minimize the impact to the greenway by limiting the degree or magnitude of the activity and its implementation.

3. Rectify the impact by repairing, rehabilitating, or restoring the affected greenway area.

4. Reduce or eliminate the impact to the greenway area over time by preservation and maintenance operations; and

5. Replace unavoidable impacts to the greenway by restoring or, if greenway restoration opportunities are not reasonably available, creating substitute greenway areas having equal or greater public value.
C. Failure to adequately maintain the greenway land in reasonable order and condition constitutes a violation of this Chapter and may be remedied as outlined in Article 20-03-00 (General Administration) of this Chapter.
Appendix C
500.47 Park Dedication Requirements

Subdivision 1. Required. Pursuant to Minnesota Statutes, section 462.358, subd. 2b, the city requires all subdividers to dedicate to the city or preserve for public use as parks, recreational facilities, playgrounds, trails, open space or areas of natural and environmental significance a reasonable portion of the buildable land of the subdivision. For the purposes of this section, a “subdivider” means any party separating an area, parcel, or tract of land under single ownership into two or more parcels, tracts, lots, or long-term leasehold interests. The city council, at its discretion, may elect to require in lieu of land an equivalent cash payment based on the fair market value of the buildable land no later than the time of final subdivision approval. Any cash payment shall be placed in a special fund and used only for the purposes for which it was obtained, including the acquisition and development or improvement of the public park system or debt retirement in connection with land previously acquired. The form of contribution (cash or land, or any combination thereof) shall be decided by the city council based upon need and conformance with the comprehensive plan and the park plan therein. For purposes of this section, “buildable land” means the gross acreage of all property in the subdivision excluding wetlands designated by federal or state agencies, areas below the 100-year ordinary high water elevations and arterial streets and roadways.

Subd. 2. Administrative procedures. The city council shall establish the administrative procedures deemed necessary to implement the provisions of this section, including all those required by Minnesota Statute, section 462.358.

Subd. 3. Dedicated land requirements. Any land dedicated to the public as a requirement of this section shall be reasonably useable for one or more of the public purposes for which it is acquired. Factors used in evaluating the utility of the area proposed to be dedicated shall include size, shape, topography, drainage, geology, tree cover, access and location.

Subd. 4. Standards for determination. The parks and recreation commission may from time to time recommend changes to the standards and guidelines established by this section for determining which portion of each subdivision should reasonably be required for public dedication. Such standards and guidelines may take into consideration the zoning classification to be assigned to the buildable land, the particular use proposed for such land, amenities to be provided and factors of density and site development as proposed by the subdivider.

Subd. 5. Parks and recreation commission recommendation. For each subdivision, the parks and recreation commission shall recommend to the city council the total area and location of the land that should be dedicated within the subdivision for public use.

Subd. 6. Area of dedicated land. Subdividers shall be required to dedicate to the city for use as parks, recreational facilities, playgrounds, trails, open space, or areas of natural and environmental significance the percentage of the buildable land of the subdivision or the equivalent fair market value in cash as set out below:

(a) Residential.

The greater of:
(1) proposed dwelling units per acre, or

(2) the zoned density

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(b) For commercial and industrial subdivisions, the subdivider shall, at the discretion of the city council, dedicate five percent of the buildable land area of the subdivision or an equivalent amount of cash in lieu.

(c) Maximum payments. In no event shall the cash in lieu payment exceed $25,000 per residential lot.

Subd. 7. Exemption for newly created lots with an existing dwelling or structure. For residential subdivisions on which a dwelling unit currently exists, the required dedication shall not apply to the resulting lot containing the existing home. For commercial and industrial subdivisions on which there is an existing permitted or conditionally permitted use, the required dedication shall not apply to the resulting lot containing the existing use.

Subd. 8. Future subdivisions. Any land which is further subdivided shall be subject to the park dedication requirements in effect at the time of such additional subdivision. Previously subdivided property from which a park dedication has been received, being resubdivided with the same number of lots, is exempt from park dedication requirements. If, as a result of resubdividing the property, the number of lots is increased, then the park dedication or per-lot cash fee must apply only to the net increase of lots. In no event shall the city be liable for any repayment because of a subsequent reduction in the required park dedication.

Subd. 9. Cash contribution in lieu of lands.

(a) In subdivisions in which the amount of land to be dedicated to the public is less than the amount required in Section 500.47, subdivision 6, the city council shall require a cash contribution by the subdivider in lieu of dedication of the additional land. The amount of cash to be contributed shall be based upon the fair market value of the equivalent land that would otherwise have been dedicated.

(b) For purposes of this section, the fair market value means the value of the land at a time no later than final subdivision approval, determined in accordance with the following:

(1) The planning department shall make a recommendation to the city council regarding the fair market value of the land, after consultation with the subdivider.
(2) The city council, after reviewing the planning department’s recommendation, may agree with the planning department or the subdivider, as to the fair market value. If agreement is not reached in this matter, the fair market value shall be determined in accordance with one of the following:

a. Fair market value as determined by the city council based upon a current appraisal submitted to the city by the subdivider at its expense. The appraisal shall be made by appraiser who is a member of SREA or MAI, or an equivalent real estate appraisal society; or

b. If the city council disputes such appraisal, it may obtain a second appraisal of the land by a qualified real estate appraiser whom the city council selects, which appraisal may be accepted by the city as being an accurate appraisal of fair market value. The cost of the second appraisal shall be paid by the subdivider.

Subd. 10. Lands designated for public use on official map or comprehensive land use plan. Where a proposed park, recreational facility, playgrounds, trail, open space, or area of natural and environmental significance that has been indicated in the comprehensive plan or park plan is located in whole or in part within a proposed subdivision, such proposed public site shall be designated as such and shall be dedicated to the city by the subdivider.

Subd. 11. Density and open space requirements. Land area dedicated for public use under this section may not be used to calculate the density requirements of the subdivision. Additionally, land dedicated under this section shall be in addition to, and not in lieu of, open space requirements of the zoning ordinance and standard development easements. At the discretion of the city council, land set aside through conservation easements may be accepted, in whole or in part, as a dedication if deemed to be of public benefit in achieving goals established by the comprehensive plan and park plan.

Subd. 12. Credit for private open space. Where private open space for park and recreation purposes is provided in a proposed subdivision and such space is to be privately owned and maintained by the future residents of the subdivision, such areas may be used for credit at the discretion of the city council against the requirement of dedication for public purposes, provided the city council finds it is in the public interest to do so and that the following standards are met:

(a) Yards, court areas, setbacks and other open space required to be maintained by the zoning ordinance shall not be included in the computation of such private open space;

(b) The private ownership and maintenance of the open space is adequately provided for by written agreement;

(c) The private open space is restricted for park and recreation purposes by recorded covenants which run with the land in favor of the future owners of property within the subdivision and which cannot be modified without the written consent of the city council;

(d) The proposed private open space is reasonably adaptable for use for park and recreation purposes, taking into consideration such factors as size, shape, topography, geology, drainage, access, and location of the private open space land; and

(e) The facilities proposed for the open space are in substantial accordance with the provisions of the recreational element of the comprehensive plan, or park plan, and are approved by the city council.
Under no circumstances, however, shall such credit for private facilities exceed 25 percent of the amount required to be dedicated to the public under this section.

Subd. 13. Funding, accounting, budgeting, expenditure of cash in lieu of lands. All cash contributions received from subdividers in lieu of land dedications shall be deposited into a separate fund to be used for the purposes for which the cash was obtained, including acquisition of land, the development or improvement of existing public sites, or for debt retirement in connection with land previously acquired. The city council shall establish separate budgeting and accounting procedures to oversee said fund.
Appendix D
Appendix 1: Conservation Subdivision Design Process

“Conservation Subdivision Design” (CSD), describes a concept of cluster-type development that enables land to be developed while simultaneously preserving Hanover’s rural character, reducing environmental impacts, maintaining site hydrology, protecting the rights of property owners, and enabling a developer to benefit from a high-quality project. CSD accomplishes these goals through a creative design process that identifies conservation areas and places buildings and infrastructure to maximize views as well as minimize development impacts, energy use and stormwater runoff. A key goal of CSD is to mimic predevelopment site hydrology by using site design techniques that store, infiltrate, evaporate, and detain runoff as close to the source as possible. The hallmark of CSD is designing a project to fit the land.

The design process includes key steps to ensure that city goals and policies are met. The design steps are important not only for creating good development proposals, but to communicate in a common language. A common language will aid both land developers/owners as well as city residents, city staff and city officials in the design, review and approval of development proposals.

Illustrative drawings developed by Randall Arendt are intended to communicate the general four-step design approach expected in Hanover. The process begins with a tract of land containing open fields, woods and a stream, a common landscape in Hanover (Figure 1).

Figure 1. Tract of land before development (Source: Arendt, Randall)
Step 1- Identify Significant Resources for Protection/Preservation

Hanover has identified land features that are inherently unsuitable for development and cultural and natural resources that are to be preserved. Both types of resources are critical for protecting the community’s rural character, for minimizing development impacts, and for maintaining/creating ecological corridors.

Inherently unbuildable land (Figure 2)
Steep slopes (slopes of 12 % and greater)
Wetlands, lakes, springs, streams and rivers (including buffers)
Floodplains
Natural drainage ways

Cultural and natural resources to be Protected (Figure 3)
Medium and high quality ecological resources
Cultural resources (i.e. farmsteads, views)
Historic resources (i.e. Native American archeological sites)

Figure 2. Inherently Unbuildable Land (Source: Arendt, Randall)
Step 2 – Identify buildable areas and locate housing sites

The areas not designated as unbuildable or designated for protection are identified as potential development areas for homes and roads. Potential development areas are designated in white on Figure 4. Up to fifty percent of the development area is to be set aside as open space in Hanover (note that more than this is depicted in Figure 4). The open space is to be used for passive and active recreation as well as for the creation of stormwater management facilities and ecological corridors consistent with the future land use map.
As part of step 2, housing sites are located. The location of housing sites should take advantage of solar access in order to reduce the energy needed for heating and cooling. This means that houses should be oriented to the south and roads oriented east-west as much as possible. Homes should also be oriented to take advantage of views but also placed so as not to block views of natural areas from major road corridors. In situations were this is difficult to do, the view of the home from the corridor should be of the home’s front.

Soils suitable for infiltration of stormwater should be identified. If such soils are limited, they are to be reserved for stormwater management and treatment; homes and roads should not be placed in these areas.

Step 3 – Layout Roads, trails and stormwater management areas

Once homes have been placed, a street and trail network is added to link the homes and to create connections to adjacent property and the existing road network (Figure 5). Streets and trails are planned in a manner that minimizes impacts to drainage ways, streams and woodlands.
Low impact design best management practices are to be used in siting stormwater management facilities. Stormwater is to be treated/managed as close to the source as possible. Shallow basins/rain gardens are to be used in yards as well as in open space areas. Open channel conveyance of flows by means of pervious vegetated swales is preferred over piped systems. A series of depressions/rain gardens within large open space areas (stormwater meadows) are ideal to hold/detain runoff from large storm events. (Figure 6)
Step 4 – Add lot lines

The last step is to add lot lines for each house (Figure 7). The size and dimensions of the lots shall be consistent with standards established in the underlying zoning district. Different lot sizes are encouraged to create opportunities for visual variety and different house styles, configuration and sizes.

![Figure 7. Add Lot Lines](Source: Arendt, Randall)

Through the Comprehensive Planning process, the City used a variation of the above described conservation design process to show how a large tract of land in Hanover could be designed and developed (Figure 8). This example shows the preservation of both natural and cultural resources including existing farmsteads. Over fifty percent of the potential buildable area was preserved as both passive and active open space. Placement of the lots provides direct views of and access to the surrounding open space. Most lots are designed for southern exposure to maximize passive solar gain. Open space was provided to incorporate an ecological corridor as a regional recreational and habitat connection to other natural resources in the area. Existing woods and tree stands are preserved.
Figure 8. Example of conservation design subdivision in Hanover. Source: Barr Engineering

Appendix E
3.1 USE REGULATIONS

It shall be unlawful to use or permit the use of any building or premises within the City of Chaska for any purpose other than as listed or described below. Uses similar in nature to those listed may be permitted if, in the opinion of the City Council, they will not be detrimental to the integrity of the applicable District.

Uses not listed or described within this Section or within any Planned Development District shall be prohibited. In addition to regulations and standards contained within this Section, all uses and structures shall be subject to special regulations contained within Section 9 of this Ordinance and shall comply with all applicable local, State and Federal laws, rules and regulations.

3.1.1B RR2 - RURAL RESIDENTIAL 2:

3.1.1B.1 Intent

This district is intended for application to land located at the edge of Chaska’s corporate limits where a “green belt” separation from adjacent communities is desired. The district is intended to help preserve Chaska’s identity as a separate free-standing community as urban expansion of the Twin Cities metropolitan area occurs around Chaska. Toward this end, the district provides for agricultural, horticulture and similar open space uses together with scattered non-farm dwellings at a maximum density of four dwellings per quarter quarter section (4 per 40 acres). Clustering of lots so as to leave large undeveloped areas that may be susceptible to future resubdividing shall be prohibited.

Such low density development is intended to be a permanent land use pattern and is not considered a holding zone for future urban development. This district is not intended to be served with municipal sewer and water facilities.

In addition to serving a “green belt” function and providing opportunities for ex-urban living in a rural/natural setting, this district is also intended to preserve the significant natural resources within Chaska’s current and ultimate corporate limits.

3.1.1B.2 Uses Permitted

a) Commercial agriculture and horticulture, including farm buildings, farm drainage and irrigation systems;

b) Forestry;

c) Four single family dwellings per each quarter quarter section provided:

i) Each dwelling shall be located on a separately owned parcel which shall be at least 5.0 acres in size.
ii) Driveways serving dwellings shall be separated from adjacent roads and driveways on the same side of the road by the following distances measured between center lines:

   aa) local road or private driveway: ......................... 100 feet
   bb) Class I collector road or County highway: .......... 330 feet
   cc) minimum distance from intersection of two or more of the above: ......................... 100 feet

iii) Dwellings shall be set back at least 75 feet from the road right-of-way and be separated at least 300 feet from any structure located on any adjoining separately owned parcel.

iv) A standard on-site sewer system shall be installed in conformance with City Code regulations, and one alternate drainfield site shall be provided.

v) The parcel upon which the dwelling is to be located shall have a minimum of 200 feet of frontage along an existing public roadway, or shall benefit from an easement for vehicular ingress and egress of not less than 50 feet wide providing access to and from a public roadway.

d) Parks, wildlife refuge or preserves, and open space preservation areas of a non-commercial nature;

e) A State licensed residential facility serving six or fewer persons, a State licensed day care facility serving twelve or fewer persons, and a group family day care facility licensed under Minnesota Rules, parts 9502.0315 to 9502.0445 to serve 14 or fewer children.

3.1.1B.3 Uses by Special Permit

a) Horticulture, landscape design and limited landscape contracting services provided:

   i) Such activities shall not generate customer traffic to the premises or within the District except by appointment only.

   ii) Retail services shall not be conducted on the premises or within the District.

   iii) Re-wholesale of plant material not grown on the premises shall not be conducted on the premises or within the District.

   iv) Outdoor stockpiling of accessory materials including, but not limited to, decorative rock, timbers, woodchips, peat, etc. shall not be permitted.

   v) It is the intent of the District that only a limited number and size of vehicles used for subject contracting shall be permitted and any such vehicle and equipment shall be kept within an enclosed building. Any outdoor storage within this District shall be prohibited.
vi) Signs advertising the services shall not be permitted within this or any other District within the City of Chaska.

b) Roadside stands/structures for the sale of farm products;

c) Public stables where more than one horse per acre is proposed to be kept, exclusive of farms, subject to the following conditions:

i) Submittal of site plan showing stable operation, fencing, drainage, buildings, sewage treatment and well systems.

ii) A minimum lot size of ten (10) contiguous acres shall be required for public stables.

iii) Applicable animal densities may be increased for in-house operations pending submittal of the stables’ functional plans showing that the animals’ needs will be adequately cared for and including an area for daily exercise. In no event shall in-house confinement areas be less than 100 square feet per horse.

iv) All structures, parking lots and storage areas shall be located at least 300 feet from an existing non-farm dwelling in the R District, or from a residential district boundary.

v) The applicant shall submit a plan for removal and distribution of manure and other waste materials which meets all requirements of the Minnesota Pollution Control Feedlot Rules. The plan shall provide for the storage of manure and other waste materials at least 300 feet from an existing non-farm dwelling in the RR2 District, or from a residential district boundary, and at least 100 feet from a well.

vi) Depending upon the size of the operation, one or more caretaker units may be allowed as part of a public stable operation.

d) Ground supported radio and television antennas greater than 40 feet combined height above ground level to a maximum of 65 feet subject to provisions of Subsection 9.15;

e) Bed and Breakfast facilities subject to provisions of Subsection 9.19.

3.1.1B.4 Permitted Accessory Uses

a) Private garages and parking spaces as regulated by Subsection 9.2 provided that a detached garage shall not exceed 1,000 square feet in floor area nor 20 feet in height above ground level;

b) Private recreational facilities such as swimming pool and tennis court;

c) Customary home occupations as regulated by Subsection 9.14;

d) Signs allowed without a permit as regulated in Subsection 10.3.1(a);
e) Screen houses, gazebos;

f) Roof mounted radio and television antennas less than ten (10) feet above the highest point of the roof line and ground supported towers and antennas less than 40 feet combined height above ground level as regulated by Subsection 9.15;

g) Ground supported satellite dish antennas provided they are located in rear yard areas. Side yard locations may be permitted only if a usable rear yard is not available. Front yard locations and roof-mounted antennas larger than one meter in diameter are prohibited;

h) Essential service structures;

i) The renting of no more than two rooms for lodging purposes in a one family dwelling;

j) One accessory storage structure in addition to a detached garage subject to the following:
   i) Maximum size: ................................. 1,750 square feet
   ii) Maximum height: ...................................................... 30 feet
   iii) Location at least ten (10) feet from the residence;
   iv) Exterior building materials shall be the same as or of similar quality as that of the residence;
   v) Construction in accordance with the State Building Code;
   vi) Structure shall be used only by the occupants of the residence and may be used for: storage of household goods, recreational vehicles and equipment, personal vehicles, maintenance and repair of personal vehicles and equipment, shop or similar activity for hobby purposes (no products or services for sale or pay or similar remuneration), keeping of animals and appurtenant equipment and supplies, and as otherwise regulated by this Ordinance.

k) The keeping of animals on non-farm lots according to the following regulations:
   i) Dogs, cats and other domestic animals customarily kept as pets are not subject to these regulations.
   ii) On lots less than 2.5 acres, only dogs, cats and other animals customarily kept as pets are permitted.
   iii) On lots of 2.5 acres and over, with the exception of farms, the following types of animals shall be permitted at a maximum density of one animal unit per acre:
iv) Fences or other means of confinement shall be provided so as to prevent the movement of animals across property lines or onto public roads.

v) Structure to be used exclusively for the keeping and maintaining of animals and appurtenant equipment and supplies shall be permitted, in addition to the detached garage and storage structure permitted in a) and j) above. Such structures shall be located at least 100 feet from the residence.

3.1.1B.5 Density Transfer - Dwellings

a) Whereas the basic measure of residential density within the Rural Residential 2 District is established by this Ordinance at four single family residences per quarter quarter section (40 acres), it is intended that reasonable transfer of density allocations from one quarter quarter section to another may be permitted. Such transfer shall require approval of the City Council after review and recommendation by the Planning Commission. Additional requirements shall be as follows:

i) The subject property shall be in one ownership.

ii) A recordable document attesting to the density transfer shall be filed with the deed to the parcel or parcels at the Office of Carver County Recorder.

iii) In no event shall more than six single family residences be permitted in one quarter quarter section.

3.1.1B.6 Dwelling Application Requirements

a) Application for building permits for new single family residences within the RR2-Rural Residential District shall be accompanied by a registered land survey or a survey by a registered land surveyor of the parcel for which the application is requested, showing the proposed location of the residence on said parcel, showing driveway easements between the parcel and the public roadway providing access to the parcel, and showing any and all residences and other structures within 300 feet of the proposed site;

b) Any time a recorded parcel existing on the date of this Ordinance is split or divided into two or more parcels, a document in recordable form shall be filed
in the Carver County Recorder’s office setting forth the availability or non-availability of residential building rights under this Ordinance;

c) For any parcel meeting the requirements of Subsection 3.1.1B.2, there is hereby waived any requirement of any Chaska Ordinance, rule or regulation, requiring that a residential parcel have frontage on a public street;

d) In order to insure that the proposed location of the dwelling on the property will not adversely affect or be adversely affected by any existing residence or proposed natural or manmade feature, the required location plan shall be reviewed and approved by the Director of Planning and Development prior to issuance of a building permit.

3.1.1B.7 Platting Requirements / Public Street Dedication

a) A maximum of two residential parcels may be served by a common driveway in which event a separate cross access easement and maintenance agreement shall be recorded with the respective parcels;

b) Whenever three or more dwelling sites are proposed to be created or to be served by a new access road, the parcels shall be platted according to procedures and requirements of Chaska’s Subdivision Regulations (Ordinance No. 252), and the proposed road shall be dedicated to the City as a public street;

c) Minimum requirements for such public streets shall be:

i) 60 feet right-of-way.

ii) Rural section roadway with a 24 foot bituminous surface and three (3) foot gravel shoulders. (City of Chaska Standard Detail Plate No. STR-6)

3.1.1B.8 Existing Street Improvements

It is commonly known that the three existing gravel streets in the northwest area (Bavaria, McKnight, 82nd) are in poor condition. Portions of the road surface heaves and becomes impassable in Spring time. The roadbeds are poorly drained and consist of frost susceptible material which is not conducive to maintaining a stable roadway.

While the City supports the concept of a permanent 4/40 development pattern in northwest Chaska, it is imperative that the three existing streets be reconstructed and bituminous surfaced prior to approval of additional plats in the 4/40 area. Accordingly, no plats shall be approved after the date of adoption of this Section, until the existing street, from which the plat gains access, has been upgraded to meet City standards, or until a plan for financing such upgrading has been approved and adopted by the City Council.