

# **DRESDEN ATHLETIC FIELDS COMMITTEE PROPOSAL**

**June 21, 2005**

We began meeting in February and dedicated much of the first two months discussing the issues related to developing a fields plan, information gathering, and analysis of that information. Most of this process work is made available in the Appendices and at the [www.sau70.org](http://www.sau70.org) website.

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PART ONE  
DEVELOPMENT OF PLAN & RECOMMENDATION

**MISSION STATEMENT**

On November 23, 2004, the Dresden Board approved the following mission statement and action plan for the Dresden Athletic Fields Committee:

Assist the Dresden School Board and SAU 70 administrative staff in the development of a community partnership to provide athletic fields.

**ACTION PLAN**

- Analyze the findings of the Dresden School District survey on athletic fields and make recommendations to the Board based on their findings;
- Develop a recommended long-range plan for the provision of athletic fields in Hanover and Norwich;
- Work with the SAU 70 administrative team and consultants hired by the Dresden Board to develop specific plans for athletic fields;
- Propose, facilitate, and review potential partnerships between Dresden and town governments and/or Dartmouth College and/or local businesses relative to the development of athletic fields;
- Assist with the promotion of any warrant articles needed to facilitate the development of athletic fields.

## **COMMITTEE PRINCIPLES FOR ACHIEVING ITS MISSION**

To keep us focused on our mission, the Dresden Athletic Fields Committee (AFC) decided to create a set of principles. The principles were developed by looking carefully at public input and through discussion between AFC members.

- Develop a long-term athletic fields plan that best benefits both Dresden students and the community and that is in concert with Hanover and Norwich master plans;
- Think creatively and without bias to design a plan that promotes athleticism and fitness and that is embraced by a resounding majority of the community;
- Be extremely thorough and pragmatic in evaluating and prioritizing Dresden and community needs;
- Continue to evaluate ways to leverage existing Dresden and community facilities and to share facilities;
- Always keep in mind our responsibility to be financially prudent and to maximize the use of athletic facilities;
- Communicate efficiently and effectively with the public; continue to have an ongoing dialogue with the public as we move forward; and always seek ways to improve communication;
- Continue to incorporate community feedback as we move forward with plans development.

## BACKGROUND ON DISPOSITION OF FIELDS

### Overview

Not only Dresden, but Hanover, Norwich, and Dartmouth are feeling squeezed in terms of having adequate field space for their respective athletic programs. This shortage is contributed to two major factors: increases in programs' sizes over a period of time and the tri-party agreement that allowed for Hanover High School to remain downtown. Also, keep in mind that the fields and track located on the high school's property are in need of renovation and replacement.

As part of our fact-finding, we cataloged the inventory of fields owned, managed or used by Dresden and then determined the status of those fields. Toward that end, Mike Jackson provided information on what teams practice where and when. In addition, because Dresden athletics relies on fields "owned" by Hanover, Norwich, and Dartmouth, we invited Julia Griffin, Jill Kearney, and Bob Ceplicas (Assistant Athletic Director, Dartmouth) to present their views on the disposition of fields. All communicated the same message: squeezed for field space (see reports in Appendix).

### Field Inventory – Fields Used by Dresden Athletics

| <u>Field</u>              | <u>Status as of Fall 2009</u> |
|---------------------------|-------------------------------|
| 3 HHS Fields              | Dresden owned                 |
| 1.5 Dresden Rd (RMS site) | NO ACCESS                     |
| 1 baseball diamond at TT  | NO ACCESS                     |
| Practice area at TT       | Hanover owned - shared        |
| 2 Fullington Fields       | ACCESS UNLIKELY               |
| 1 Forward Farm Field      | Will have access for now      |
| 1 Sachem                  | L/T use unlikely but ok now   |
| Huntley multi-use field   | Cont'd access likely          |
| Huntley softball          | Cont'd access likely          |

### The Bottom Line for Dresden

Due to the tri-party land swap and expanding Dartmouth programs, Dresden athletics has or will be losing full access to the following by Fall 2009:

- Lost 1.5 fields where the new middle school is being built, although, through Spring 2009, Dresden will be using the one field there that is owned by Hanover;
- Lost 1 baseball diamond at Thompson Terrace and full use of other space located there, although Dresden will have 1/2 access through Spring 2009 (to be shared with Hanover);
- Probable loss of Fullington as Dartmouth cannot guarantee use of;
- Also, it is believed the long-term use of 1 field at Sachem for V and JV girls soccer and the long term use of Forward Farm are not guaranteed. The use of private property is greatly appreciated, but long-term reliability is hindered by liability issues.

To account for the known loss of the above fields, preliminary opinion suggests Dresden must provide for 1 varsity baseball field and 3 general use fields, in addition to renovating the HHS fields. It is hoped that the Dresden in Norwich fields project using the Merriman money will

provide 1 baseball field with a field hockey field overlapping the outfield, and 1 general use field, which leaves a need for 1 more general use field at a minimum, but more likely 2.

NOTE: This plan is based on assumptions about long-term sharing of fields with the towns of Norwich and Hanover. We recommend that the Dresden Board get formal commitments from both select boards to this sharing of fields (Thompson Terrace and Huntley) before the amount of the bond is established.

## **PLAN DEVELOPMENT & OPTIONS CONSIDERED**

### **Logic**

The Dresden Athletic Fields Committee created several subcommittees to manage the critical tasks in creating the plan, and has taken an incremental approach that focused initially on how best to leverage the fields at Hanover High School, then evaluated what is further required, which is satisfied by some development of the Norwich parcel. We focused on the high school first because the public has indicated a desire for maximizing the use of the HHS property and the public worked hard to keep the campus downtown. In addition, it is the most convenient site for students to use, and athletic events at this site foster the greatest community spirit.

### **Summary of Conclusions that Shaped Our Plan**

While our process and reasoning is quite involved, our recommendation is based on the following basic conclusions:

- Due to the tri-party land swap and the growth of athletic programs over time, not just Dresden, but Hanover, Norwich, and Dartmouth are experiencing field shortages;
- Sharing of facilities and fields between Dresden, Hanover, and Norwich is already widespread; the AFC has acted as a catalyst to increase sharing through 2009 (i.e., the RMS field); and there is no real opportunity for increasing sharing.
- All students who wish to participate in athletics should have that opportunity;
- The community desires the focus to be at HHS, but some development at Dresden-Norwich fields site is acceptable;
- The community will support a project that costs in the \$2-3 million range, but as the price tag closes in on \$3 million there must be concrete benefits for the entire community.

### **Breaking Apart the Puzzle**

Before settling on our final recommendation, we swept the old plans out the door and looked at the HHS site from a variety of perspectives. To maximize the use of this property, we considered the following:

- Moving the track offsite to see if two fields could be put in that space;
- Building a field on land between the field hockey field and Thompson Terrace;
- Adding tennis courts, among other possibilities.

For various reasons, these possibilities were not pursued. In addition, at a public meeting on June 7, we presented four possible options for a plan to solicit feedback (see Appendix A for those options), which also guided our thinking.

### **Options Considered**

We considered four possible options before endorsing the plan to follow. These options ranged from merely renovating the existing fields at HHS, to building two synthetic turf fields at HHS. For various reasons, such as being either inadequate or too elaborate, three options were eliminated.

## **PLAN RECOMMENDATION**

The AFC has developed a plan that we know will excite the community and will be broadly endorsed. This plan assumes that the current Dresden Norwich Fields “interim” work using the Merriman fund comes to fruition. If the “interim” project does not materialize as planned, the AFC suggests it be folded into our recommendation and become part of the bond vote. The AFC has included the estimated costs for this project in our own plan to “show the big picture.”

### **Components: Reconfiguration at Dresden-HHS, and Dresden-Norwich Fields**

This plan involves several major changes for the Dresden-HHS fields and some construction at the Dresden-Norwich site. The major components are:

#### **I. Existing Lower Field Hockey Field**

- Raise the existing field hockey field using fill, and expand the playing space so that is large enough to accommodate any sport. Install a synthetic turf field configured for multiple sports, including, for example, field hockey, football, lacrosse, and soccer.
- Install lights at the synthetic turf field to maximize usage;
- Install aesthetically pleasing seating/bleachers using the natural amphitheater.

#### **II. Existing Football Field & Track**

- Expand the size of the existing football field, making it more flexible so it can accommodate soccer / lacrosse games, which will result in increased usage. Because there is more space to work with where the current football field is, this will allow for a more traditional sized soccer field - the existing one is undersized. Sod will be used on this field as opposed to seed so that it will be ready for play much sooner. The additional cost of using sod over seed is estimated at less than \$20,000.
- Build a new track around the expanded field.

#### **III. Existing Soccer/Lacrosse Field**

- Current soccer/lacrosse game field receives irrigation and remains a multi-purpose field.

## **ENHANCING THE PLANS**

The analysis of the questionnaire has made it very clear that while our mission is to provide athletic fields for Dresden students, we must be very cognizant of community desires. Therefore, the AFC feels it is very important to pursue other opportunities that promote athletics, lifelong fitness, and community spirit, which benefit the Hanover and Norwich communities at large.

### **Community Partnerships in Enhancing the Dresden-Norwich Fields Site**

Once a plan for athletic fields development at the Norwich site is accepted, the AFC and Dresden can then pursue a number of opportunities for partnering with community groups to develop specific portions of the property for other purposes. It is important to note that any development NOT related to athletic fields and/or other Dresden programs would NOT be funded with taxpayer money. Many of the suggestions, below, might involve a right-of-way.

There has been considerable interest expressed and preliminary planning among parties interested in developing a multi-use, recreational trail through the Dresden/Norwich land. The Norwich Trials Alliance, Transportation committee, and other independent groups have met to discuss these ideas, as well as the advantages of improving non-vehicular access to the Norwich fields. This concept would offer possibilities for hiking, biking, cross-country and Nordic skiing trails. The AFC highly recommends that these ideas be pursued. Other ideas for consideration, which the AFC has discussed, include creating a space for the Norwich Lions Fair and for such activities as Boy Scout Jamborees; climbing wall; horse trail, skateboard park; picnic pavilion; and Little League/softball diamond, among others.

NOTE: Discussions with the COOP concerning parking at the Dresden Norwich Fields need to continue.

### **Enhancing the HHS Site**

Once plans are accepted for refurbishing the fields at Hanover High School, the AFC and Dresden should investigate what opportunities there are to make the campus outdoor athletic facilities more community friendly. These opportunities might include, for example, setting aside a modest space for a swing set/jungle gym set up – a “pocket park” – so that parents can jog or watch events while their younger children play, which would be in sync with the Hanover master plan and benefit the neighborhood. Also, refurbishing the ropes course and trails to Thompson Terrace should be considered.

### **Long-term Vision**

The AFC is confident that the recommended plan will accommodate any Dresden athletic needs for the foreseeable future. If, for example, over the next few years, Dresden were to lose use of the Sagem, Fullington, and Forward Farm, there remains enough “wobble” room in our plan to accommodate the teams using these spaces. Our confidence is based on sample practice/game schedules Mike Jackson created for this very purpose. In addition, there is no great short-term growth projected for the student population at HHS.

Keep in mind that Hanover has several housing developments in the works and coming before the planning board that may have an impact on Dresden student population. If all of these plans

come to fruition, in 7 to 10 years from now, perhaps, Dresden may have to build an additional field at the Dresden-Norwich Fields site. It would be wise to stake out those spaces for potential development now. Because this is speculative, it would not be prudent to spend money on a field not needed now.

It is best to take an incremental approach to developing the Dresden-Norwich Fields by keeping a close watch on the projected student population and athletic participation numbers by sport. Dresden should always keep in mind that it is prudent to leave 2 years as a timeframe for building a field.

NOTE: The AFC recommends that Dresden *evaluate the synthetic turf field after five years* to determine its benefits and drawbacks. If at this time, synthetic turf has proven to be very beneficial, Dresden may consider replacing the sod field inside the track with a synthetic turf field.

### **FIELD USAGE TABLE**

The hours of usage are based on schedules supplied by Mike Jackson; these schedules are for typical weeks in the 2004 – 2005 school year for the HHS fields. For full tables for the AFC’s recommended plan, including all Dresden used fields, see Appendix A.

|                | <u>Fall 2004</u> | <u>New Design</u> |
|----------------|------------------|-------------------|
| Lower Field    | 13.5             | 30                |
| Football field | 5                | 14                |
| Soccer/lax     | 14.75            | 14                |
| <br>           |                  |                   |
| Total          | 33.25            | 58                |

Net gain: 24.75 hours

|                | <u>Spring 2004</u> | <u>New Design</u> |
|----------------|--------------------|-------------------|
| Lower Field    | 15                 | 30                |
| Football field | 0                  | 14                |
| Soccer/lax     | 16.75              | 16.75             |
| <br>           |                    |                   |
| Total          | 31.75              | 60.75             |

Net gain: 29 hours

A synthetic turf field could be used as much as 36 hours Monday to Saturday, with rental/sharing time available on Saturday and all day Sunday.

## **COST OF PLAN**

The costs were estimated by analyzing prior work by Pathways; talking with other schools such as Lebanon, Windsor, Manchester, and Dartmouth; talking with contractors, such as Casella, New England Turf, Clark, United, Universal Sports Lighting, and Tuckahoe Turf. (For an overview of the costs for the other options we considered, see Appendix A.)

NOTE: These costs are estimates and will need to be refined by Dresden.

### **CONSTRUCTION COST**

| HANOVER HIGH SCHOOL SITE                                                     | ESTIMATED COST     |
|------------------------------------------------------------------------------|--------------------|
| Synthetic turf field – lower field                                           | \$700,000          |
| Site preparation (excavation, etc.)                                          | 100,000            |
| Lights                                                                       | 85,000             |
| Football field – expansion with sod                                          | 320,000            |
| Track                                                                        | 450,000            |
| Soccer/Lax field irrigation                                                  | 50,000             |
| Fencing, goal posts, etc.                                                    | 50,000             |
| Bleachers (500 seats in total)                                               | 65,000             |
| <b>SUBTOTAL</b>                                                              | <b>\$1,820,000</b> |
| Engineering 10% of subtotal                                                  | 182,000            |
| Contingency 15% of subtotal                                                  | 273,000            |
| <b>SUBTOTAL</b>                                                              | <b>\$2,275,000</b> |
| <b>DRESDEN NORWICH FIELDS SITE</b>                                           |                    |
| 1 baseball diamond with multi-use field<br>in outfield and 1 multi-use field | \$600,000*         |
| <b>TOTAL</b>                                                                 | <b>\$2,875,000</b> |

\*This cost is reduced by the Merriman Fund (valued at just over \$290,000); in kind services provided to date, including the roadway and other site prep work, valued at about \$50,000; and the estimated 25,000 cubic yards of fill, along with some top soil, that has been provided.

NOTE: The costs estimates may be revised after soil testing and an engineer's evaluation.

## **MAINTENANCE & REPLACEMENT COSTS BASED ON RECOMMENDED PLAN**

NOTE: John Aubin has done some present value analysis for these costs (see his spreadsheet); however, the AFC acknowledges that these numbers need to be refined.

### **Lights**

According to the Hartford Athletic Department, they spend \$24 per 4 hours of usage. Based on a second source of information, Universal Sports Lighting Co., it would cost about \$5.50 per hour, or \$22 for 4 hours.

In 5 years, Lebanon has had to perform no maintenance on their lights.

### **Sod Field**

Current cost for Dresden will be about \$2,500 per field for bare minimum; however, other schools spend \$20,000 or more on maintaining a grass field annually. Dresden should budget more than the \$2,500 in annual maintenance for each sod/grass athletic field constructed because sod requires more work than the established grass. Sod needs to be well watered, a proper fertilization and aeration program. This higher maintenance cost will affect only the new fields being built.

NOTE: Due to a restricted budget, which all public schools face, Dresden has spending far less on field maintenance than what is recommended.

A sod field may need replaced at about year 25 if properly maintained, which should cost much less than the original \$320,000, but it will depend on the resilience of the sub-grade work.

### **Synthetic Turf Field**

Dresden can maintain its own synthetic turf field for \$3,000 annually. If Dresden contracts out this work it will be about \$6,000 annually. Assuming Dresden takes care of maintenance, the incremental cost over maintaining the existing Field Hockey field is about \$500 to \$1,000 annually.

The synthetic turf field will need replaced at year 12 and year 24 at \$350,000; so, the total replacement cost over 25 years is \$700,000 versus \$320,000 for sod.

Rental income and other savings, such as not having to rent other fields for athletic events and such events as HS graduation will save money toward replacement. Also, the AFC strongly believes the dramatic increase in field justifies these additional costs. Remember, anecdotally speaking, one synthetic turf field equals 3 grass fields.

*Rental income of the synthetic turf field* could range from \$6,000 to \$9,000 annually, and this should be pursued. Over a 12-year period, the athletic department could realize \$72,000 to \$108,000 plus increased gate receipts, all of which could be applied toward the replacement cost.

# TAX BURDEN

## SCHOOL ADMINISTRATIVE UNIT #70 Dresden, Hanover, and Norwich School Districts

### Memorandum

To: Athletic Field Committee  
Wayne Gersen, Superintendent

From: John P. Aubin, Assistant Superintendent for Business

Re: Summary Tax Impacts of Possible Athletic Field Projects

Date: June 21, 2005

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The attached chart brackets possible tax impacts for a Dresden athletic field project. The chart shows the annual tax bill increment for this project based on \$400,000 properties in both Hanover and Norwich. This cost estimate is based on level total debt borrowing for twenty years and the following assumptions:

- (1) A borrowing rate of 4.75%,
- (2) New Hampshire Building Aid, but no Vermont Construction Aid,
- (3) Hanover Assessed Value Grows at 1.5% per year,
- (4) Vermont "Base Amount" grows at 2.5% per year,
- (5) Vermont's Statewide Education Tax Rate declines by 2% per year.

It does not seem likely that Vermont's excess spending provisions will not apply to this expenditure. It is possible that either statewide spending could increase at a rate greater than Norwich's spending rate; or, that the State Board of Education might, consider this an "approvable project" for purposes of the excess spending provision, though not for Vermont Construction Aid purposes. But on net it seems likely that the excess spending provisions will apply.

**DRESDEN SCHOOL DISTRICT**

Possible Athletic Field Tax Impacts  
Average First Five Years

| Possible Project Cost                                                       | \$2,000,000 | \$2,500,000 | \$3,000,000 |
|-----------------------------------------------------------------------------|-------------|-------------|-------------|
| <b>HANOVER</b>                                                              | \$22        | \$28        | \$33        |
| <b>NORWICH</b>                                                              |             |             |             |
| <b>If Excess Spending Provisions Do Not Apply,</b><br>Non Income Sensitized | \$62        | \$78        | \$94        |
| Income Sensitized @<br>\$60,000 Household Income                            | \$13        | \$16        | \$19        |
| <b>If Excess Spending Provisions Apply,</b> Non<br>Income Sensitized        | \$124       | \$156       | \$188       |
| Income Sensitized @<br>\$60,000 Household Income                            | \$26        | \$32        | \$38        |

NOTE: According to John Aubin, the state has acknowledged that the athletic fields project can be considered part of the HHS renovation, therefore, *Norwich residents will not have to worry about the Excess Spending Provision.* Also, Dresden will likely be eligible for some VT/NH building aid.

## YANKEE TRADER ATTITUDE

Dresden should seek ways to save money when refurbishing and constructing fields. Examples include:

- all bleachers that are structurally sound should be saved; community groups such as a boosters club or Boy Scouts could be recruited to refurbish the bleachers (same for the press box);
- with the arrival of Buddy Teevens at Dartmouth, some refurbishing/replacement of facilities is expected; Dresden should stay in touch with Dartmouth to see what they plan to discard;
- as the HHS renovation gets under way, consider what might be usable, such as a mobile classroom for storage or as a changing facility at the Dresden Norwich site (although the cost of moving the mobile unit would need to be considered).

NOTE: Dresden should also seek community partners. For example, for Lebanon HS, Granite State drilled the holes and set the poles free of charge. This and other in-kind services should be pursued.

## **ALTERNATE FUNDING – TAX BURDEN RELIEF**

The AFC strongly recommends that Dresden pursue all opportunities to raise or accept funding to offset the cost and tax burden of the plan before the bond vote. It is clear to the AFC that certain segments of the community are acutely sensitive to any increase to their tax burden regardless of the project.

In Kind Services should continue to be pursued. The towns of Hanover and Norwich have public works departments that could readily help build parking areas, as well as install screening and fencing. At the Dresden Norwich site, for example, the parking lot work is estimated to cost almost \$20,000 – any kind of saving adds up.

## **BENEFITS OF PLAN SUMMARY – SYNTHETIC TURF & LIGHTS**

### **Prudent Investment**

Usage of synthetic turf equates to approximately 3 grass fields when its use is maximized so it's a far better investment than building the equivalent in grass fields. In a typical fall 2004 week, the football field was used 5 hours, the field hockey field 13.5 hours, and the soccer field 14.75 hours. A synthetic turf field could easily be scheduled for 30 hours of use, with none loss to weather except for a severe storm. The same could be said for the spring, when the football field actually gets less usage. Also, student-athletes could be using the synthetic turf field on March 15 forward, regardless of poor weather conditions.

### **Keeps more student athletes on campus**

Far more student athletes will be able to practice and play games at HHS, which means less time lost on transportation and less logistical problems. This factor is a major advantage to both students and parents.

### **Educational cost to student-athletes reduced**

Because games could be played in late afternoon and evening, students would not have to leave school early for home games during the times of year when light is a factor.

### **Expanding and Maximizing HHS Site**

By expanding the lower field, in particular, as well as the existing football field, the size and value of the HHS campus is increased. The use of the property is optimized.

### **Fewer other fields needed**

Turf field with lights will increase field availability and usage dramatically and therefore require fewer fields to be constructed and maintained.

### **Less maintenance**

Turf fields require dramatically less maintenance and can be used everyday by multiple teams, regardless of weather.

**Will be able to use turf field immediately**

Athletes can literally begin using a turf field within hours of its installation.

**Generates Community Spirit**

By being able to have more games, whether varsity or reserve, in the later afternoon and evening, attendance will be higher, particularly among parents. The campus will generate more excitement.

**Save Money on Field Rental**

Dresden could realize savings on by not having to rent as many other fields for athletics and for such events as graduation.

**Higher Gate Receipts**

With higher attendance, gate receipts will increase. Currently gate receipts are about \$7,000 per year.

**Synthetic Field Revenue Generation**

There is a relatively high demand for fields from local community groups and the rental of the synthetic turf field should more than offset maintenance costs and perhaps provide money toward the replacement cost. For example, if the field was rented for \$100 per hour, just 60 hours of rental time (3hrs a week over 5 months) would more than cover the maintenance of the field if Dresden manages the maintenance.

Possible customers:

- Jay Champion runs an adult soccer league involving as many as 200 members or more. He would be interested in renting space from Dresden.
- Dartmouth can begin its spring practices on February 1, a month and a half before Dresden, so they may be interested in renting the field heavily during that period, as well as for special events/tournaments they organize throughout the year.
- Area schools and recreation programs, as well as other community groups and individuals, may wish to use the field during open slots on the weekend.

Currently, Dartmouth charges \$100 per hour for a field. Dresden would have to be price sensitive when marketing to institutions and groups.

Mike Jackson would have to manage the rental program; however, he has said he will need some kind of assistance to do promote the field's availability and to manage the program.

At the same time that revenue should be pursued, Dresden should make the field available to certain Hanover – Norwich community groups at no cost so that a broader base of tax-payers enjoys the facilities.

## **NEGATIVE ASPECTS OF RECOMMENDATION**

Expanding the lower hockey field will require a more involved permitting process, including lighting, drainage, and possible wetlands issues, depending on the design.

Lights and noise will affect several abutting properties.

Hanover town ordinances will dictate usage of lighted field.

Synthetic turf will need replaced every 10 – 12 years.

## **PROFESSIONAL OVERSIGHT & PERMITTING**

Due to the wetlands issue involving the lower field hockey field, the AFC believes Dresden will have to go through state agencies and permitting, which could take 3 – 6 months. To do so, plans will need to be submitted. In addition, Dresden will need to go through a similar process with Hanover – Dresden needs to confirm if the two permitting processes can move in parallel. Dresden needs to determine how specific the plans need to be and whether the plans can change once the process has begun. Jonathan Brush should be consulted.

A number of members of the AFC have gained invaluable knowledge concerning field and track construction and the AFC suggest that Dresden tap this resource by creating a fields construction oversight subcommittee that includes several members of the AFC. The AFC also has information on a number of contractors whom Dresden may desire to contact.

In addition, Dresden should weigh the advantages of hiring a professional to oversee the fields construction, especially since the SAU 70 administration has the HHS renovation to manage.

NOTE: Dresden should consider using **a design-builder** who will bring a complete package to the table. This could save on engineering and be more practical and efficient when it comes to implementing the plan.

## TIMELINE

Once Dresden approves the athletic fields plan, events would move quickly. Beginning in September the AFC would assist in the promotion of the plan, culminating in **a bond vote on November 8, 2005.**

The AFC recommends a November vote so that contractors can be hired over the winter and work started in the spring. This tight timeframe means that permitting and specific plans creation would have to begin immediately after the vote. Therefore, groundwork for plans should be laid before the vote.

### 2005

November 8: Bond Vote

November – December: Hire Contractor

November – April: Permitting

### 2006

Late April: Permitting completed  
Begin Construction

Late August: Synthetic Turf field ready  
Existing soccer/lax field ready

### 2007

Spring 2007 Sod field inside track and track ready

NOTE: Construction timeframe will, in part, depend upon the HHS renovation project and staging of it.

## PART TWO COMPONENTS OF PLAN

### **LOWER FIELD HOCKEY FIELD**

Currently this field has minimal use as an athletic field due to its modest size. The current length from the base of the bank to the fence is 380 feet or 127 yards, while the width is 188 feet or 63 yards. (The width varies by a couple of feet depending on where you take the measurement.) Ideally, this field should be lengthened by at least 3 yards and widened by at least 12 yards, which could easily be done and allow it to accommodate any sport. At the same time, there would still be room to allow an access path/road down to the field and through to the ropes course.

There has been discussion of raising the field up by as much as 10 feet to expand its size, however, this could present problems at the far end in terms of retaining walls, drainage, and possible wetlands issues. Therefore, Dresden may want to consider raising the field only several feet, and, at the same time, carve space into the hillsides, using some retaining wall work. This retaining wall work could be done in such a manner that aesthetically pleasing bleacher seating could be integrated into the resulting terraces, creating an amphitheater.

### **SYNTHETIC TURF EVALUATION**

#### **Overview**

More and more New England high schools and colleges are installing synthetic turf fields (see Appendix A), so Hanover is hardly the first and synthetic turf should no longer be viewed as a luxury. Dresden soccer and lacrosse teams in tournament play are already playing on synthetic turf in Manchester and Nashua. Also, three other NH public high schools are considering the installation of synthetic turf fields.

Over the last few years, technological advances have greatly improved the quality of synthetic turf fields. Both Dartmouth's Scully-Fahey field and Grantham Indoor are NOT good examples of what is available today. For example, you cannot wear cleats on Scully; however, you can on the synthetic turf fields the AFC has investigated. The biggest issue (installation cost aside) is safety. Many people think of the old astro-turf, which was hard and caused injuries and abrasions. Today's synthetic turf is highly regarded and statistical evidence clearly indicates that the rates of injuries on grass and synthetic turf are essentially the same.

#### **Safety**

In anticipation of many questions and concerns regarding artificial turf, the AFC has pulled together a number of web links and resources we've found in doing our own research, which are available at the SAU 70 website.

Because synthetic turf quality and construction has changed considerably in recent years, we limited our research on injury rates to studies conducted in the past five years. The NCAA Football Injury Surveillance System published their findings among schools nationwide,

comparing injury rates between natural and synthetic turf. During the academic year 2003-4, the injury rate during practice was 4.4% on natural turf, and 3.5% on synthetic turf. During games, the injury rates were 11.5% vs. 11.4%, respectively.

While a number of recent studies suggest that the *rates* of injuries on grass and synthetic turf are essentially the same, it should be noted that the *types* of injuries are different. The results of a prospective study of the injury rates among 8 high schools over a 5-year period, comparing synthetic vs. natural turf was reported in the November 2004 issue of American Journal of Sports Medicine. This well designed, multivariate analysis indicated that there *were* differences in injury rates, severity, and type between grass and artificial turf. Overall, the injury rate was higher on synthetic turf (15.2% for artificial vs 13.9% for natural). However, most of the injuries on synthetic turf were minor (such as abrasions, muscle trauma, non-contact injuries, resulting in 0-1 day loss of play). The more serious injuries (ligament, head, and neural trauma, resulting in days and weeks of play loss) occurred on natural grass.

During one of the AFC public meetings, a community member expressed concern about a recently published case report implicating synthetic turf in an outbreak of methicillin-resistant S.aureus (MRSA) among college football players. The AFC reviewed that literature to see whether a causal relationship had been established. The authors indicate that there were several factors that led to team members becoming infected with MRSA, only one of which may have been turf burns. Body shaving, use of a contaminated whirlpool, dirty towels, and poor turf burn hygiene were other identified factors.

Finally, FIFA (Federation Internationale de Football Association), recognizing the variability in design, quality, and maintenance of synthetic turf products, has published a 44-page guide describing multiple factors that consider before issuing their quality seal of approval for synthetic turf. We recommend that Board members and/or staff who will be involved in choosing a synthetic turf product become familiar with these factors.

NOTE: A reader-friendly handout should be created for the public so that they can educate themselves on synthetic turf.

## LIGHTS

### Overview

Lighting a field at HHS would allow practices and games to be extended into darkness, which is a factor in the fall, in particular. As with a turf field, the lights would allow a more efficient use of the fields and keep events close to the HS. Night games would allow more parents and families to attend, creating better community spirit. The committee has contacted three area schools, Lebanon, Kearsarge, and Hartford, that added lights fairly recently. Both schools have been very happy with their lights. Lebanon has had them for five years and they have had to do no maintenance. Kearsarge athletic director Marty Brown has been very pleased with their lights, now there 6 years.

NOTE: For Lebanon, Granite State drilled the holes and set the poles free of charge.

### **Technology**

Lighting companies now have the technology to "direct" the light from the towers specifically onto the playing surface to minimize the amount of light that is reflected away. Light poles of about 70 to 80 feet seem to be recommended. The higher the better so the light shines down on the field, not across. The company that installed the Lebanon lights has a website that illustrates these points: <http://www.musco.com>.

### **Neighborhood Issues**

The committee has discussed lights with neighbors, and, to date, no strong objections have been raised. If the lights were installed at the current field hockey field location, the neighborhood would be well screened by existing trees. However, town ordinances must be taken into consideration.

### **Town Ordinances**

There are outdoor lights, noise, and outdoor activity ordinances that effect our plan for lights. For details on these ordinances please see Appendix D. Naturally, Dresden will conform to the ordinances. If negotiations are required with the town and neighbors, Dresden should be sensitive to neighbor concerns while pursuing maximum possible use of the lighted synthetic turf field.

## **SOD AND GRASS RECOMMENDATION**

Recommendation: 100% Bluegrass for sod or grass seed.

To determine the best type for sod or grass to use in our environment, the committee has had conversations with Tuckahoe Turf sod farms and the Hart Seed Co. There are 2 factors that need to be considered when choosing a good grass seed or sod for sports: one is "wear tolerance", the other is "recuperative potential." Bluegrass is the best when considering both of those factors. Bluegrass is also a very hearty grass for cold weather areas, too, as far as winter survival rates. Cost for bluegrass sod, installed, would be about \$.37 per square foot (as of May 2005). Seeded would probably be about a third of that but this needs confirmed.

### **Re-Using Sod from Another Site**

It is possible to cut, roll, and transport sod from another field. For example, if Dartmouth elects to install synthetic turf on Memorial Field or elsewhere and the quality is acceptable, this sod could be used. The cost savings would need to be determined if this becomes an option. Preliminary suggestions indicate it may save 10 cents a square foot.

### **Renovating Existing Fields with Sod or Grass**

Tuckahoe Turf advised that we would need to remove no more than 12" of the existing soil and replace that with a good root-zone mix (which is mostly sand with some organics blended in). Before installing the root-zone mix, any drainage would be installed in the base soils left below. This would be the same for seeded or sod.

NOTE: Sod needs to be well watered, a proper fertilization and aeration program, therefore the annual maintenance cost is higher.

# TRACK

## **Condition**

While the track will be torn up during the high school renovation, it should be noted that it's condition is so poor that only sections of it are suitable for training and it has not been used for competition for several years. Built in 1989, deterioration was noticed within five years. A Hanover resident familiar with the 1989 construction believes that the rapid deterioration is due to poor sub-grade soil quality. Dresden should seriously consider the depth needed for proper sub-grade work.

## **Rationale for Keeping Track and Field at HHS**

The committee discussed the possibility of moving the track offsite, in order to create more field space at HHS. For several reasons, this option was eliminated:

- The students will be able to easily access it at HHS;
- Keeping the track at the high school site will allow access to the facility by the community in much greater number, including recreation programs;
- If the track was moved to the Dresden – Norwich Fields site, some kind of storage facility would need to be created as well. The sport is both track and field, and the implements used (shot put, discus, javelins, etc.) are not something that is easy for students to transport on a daily basis. There would also need to be a way to secure other equipment (hurdles, jumping pits, etc).
- Track and field competitions can go on for several hours. Not having a place for athletes to gather in inclement weather and having very limited bathroom facilities would be far less than ideal.
- The cross-country team also uses the track, both for practices and for part of their home course.
- Other HHS teams often use the track as part of their conditioning program; again, having it close to the high school is ideal.
- HHS has a PE program thru the ninth grade. The current PE program does not utilize the track but future teachers may well want that opportunity.

# PART THREE

## APPENDICES – SUPPORTING DOCUMENTS

### APPENDIX A

#### DOCUMENTS RELATED TO PLAN COMPONENTS

#### SYNTHETIC TURF & SAFETY

In anticipation of many questions and concerns regarding artificial turf, we've put together a number of links and resources on the Athletic Fields Webpages. In an effort to be objective, we omitted references to .com sites, or companies promoting their product. Because the following are websites with long urls, or links to lengthy PDF files, we recommend viewing them via the web ([www.sau70.org](http://www.sau70.org))

- FIFA (Federation Internationale de Football Association) report on artificial turf
- NCAA News article (2003) on the state of artificial turf.
- NCAA Sports Specific Injury Data 2003-4. This site lists the results of athletic injuries, by type of sport. The most salient number is the injury rate among football players in all participating of 4.43% on natural grass, and 3.53% on artificial grass.
- A listing of recently published articles in medical journals, with their abstracts.
- The Chappaqua (NY) School District's Athletic Field Turf Committee report 2004: This 20-page document is a very thoughtful, thorough analysis of the pros and cons of synthetic turf. The following section from their report outlines their assessment of safety:

**Injuries.** Orthopedic injuries (both traumatic and chronic) were a problem with the original turf fields, but current research shows no difference in injury rates between turf and grass fields. A study was recently published in *The American Journal of Sports Medicine*\*. It is important because the article reported on a prospective study of 5 years of football injuries on both Artificial Turf and natural grass. The study includes 240 games played, which is a good sample size. The results were gathered from reports of full time certified athletic trainers, orthopedic surgeons, and team physicians. The authors concluded the following:

- The rate of injuries on modern turf fields and on well maintained grass fields is essentially equal
- There was a higher injury time loss from injuries on grass vs. turf fields
- There was a higher incidence of concussion on grass vs. turf fields
- There was a higher incidence of ligamentous tears on grass vs. turf fields
- There was a greater incidence of ACL injuries on grass vs. turf fields
- There was a higher incidence of superficial surface epidermatitis and non-contact injuries on turf vs. grass
- The incidence of recurrent injuries reported in other studies (college football, lacrosse and soccer) was slightly higher on grass vs. turf.
- More minor injuries occurred on artificial turf vs. grass
- Other studies suggest that the more consistent surface of turf fields enhances the speed at which a game is played and, therefore, increases fatigue potential of muscles as players perform at a greater acceleration, speed and torque

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\* *Incidence, causes, and severity of high school football injuries on FieldTurf versus natural grass: a 5-year prospective study.* **Am J Sports Med.** 2004 Oct-Nov;32(7):1626-38 Meyers MC, Barnhill BS., Human Performance Research Center, West Texas A&M University, Canyon, Texas

- Elevated surface temperature may play a role in the type of injury sustained.
- Safety of turf vs. a good natural grass field has been relatively well established as comparable
- Many factors that play a role in athletic injuries that are not affected by either artificial turf or grass. Such factors are beyond the scope of this discussion, but sports participation involves some inherent risks

The safety of modern artificial turf has been demonstrated. Both surfaces, artificial turf and natural grass, exhibit unique injury patterns related to multiple factors. No pattern of significant injury was observed in the studies of artificial turf vs. natural grass and in some studies turf produced fewer severe injuries than grass.

## **SYNTHETIC TURF & LIGHTS TESTIMONIALS**

Date: May 23, 2005

To: Dresden Athletic Fields Committee

From: Mike Jackson, Dresden Athletic Director

The values to Hanover High School athletics of a synthetic turf field are numerous. It will allow us to have one field facility accommodate as many as 3 sports in the fall and 2 in the spring time for contests. It allows for practices in both seasons for almost every outdoor sport that we have. The addition of such a field will keep more student-athletes on campus and not driving themselves and others to off-campus sites. It allows for all-weather opportunities for practices and many contests. With the addition of lights, we can schedule as many as 3 practices per day on the surface or combinations of contests and practices on any given day. Having a surface that we can clean snow off of in the early spring and use immediately, allows spring sports to practice outdoors from the first allowable day in the spring and, for many sports, allows them to get all of their pre-season scrimmages in.

Field maintenance costs are kept lower because of the type of surface it is. I believe that the field will pay for itself in a short amount of time based on its maintenance costs savings and the amount of use it gets. Additionally, grass fields need to be rested in order for them to "bounce back" after repeated use and the synthetic field does not have that same need.

Based on discussions that I have had in the past with synthetic field users, the % of injuries on the synthetic turf field is not higher. There have not been any out of the ordinary safety concerns in using this type of surface, based on those same conversations.

The addition of lights only makes sense for the above-listed reason. Also, night contests provides a terrific community gathering opportunity. Communities with lighted fields enjoy being together at a youth sports activity and are better able to do so due to the later hour of the function. Gate receipts increases as a result are also another reason for having lights.

I am whole-heartedly in favor of this addition and definitely support it.

M.A. Jackson, C.M.A.A.  
Athletic Director  
Hanover High School  
41 Lebanon St.  
Hanover, NH 03755  
(603) 643-0655  
FAX #: (603) 643-3431  
Cell Phone #: (603) 381-5719

\*\*\*\*\*

From: Angelo Fantasia, Athletic Director, Nashua

Stellos Stadium's field is a synthetic turf field.

“Stellos Stadium has been a tremendous asset with regards to being able to play a variety of sports in most any kind of weather. It has been easy to maintain, and as a result, we have been able to schedule most games on this surface without having to cancel. Also, it has not proven at this time to have caused any further injuries to our student-athletes.”

\*\*\*\*\*

June 3, 2005

To: Peter Krass  
Fr: Hank Tenney, Soccer Coach  
Re: Synthetic Turf

I would like to send this memo in support of the Athletic Fields Committee including Turf in their presentation that is being made.

I would not be supporting this concept if you were asking for this same request 5 years ago. As a coach I saw many disadvantages to players with the previous used turf and I felt it was not in the student's best interest to participate on it. We needed special turf shoes and parents had to purchase shoes they used only during tournament time. The old turf did give schools more controlled practices and enable teams to start the pre-season on time which is critical in the New England, but I felt it was slippery and not safe nor did it give the students a chance to play at a level they had all season.

But today the new turf, as used in Nashua, is far superior to the surface of the past. We do not have to have special shoes, but can play on this surface with existing soccer cleats. The surface is not slippery and the bounce is far better and control of the ball now becomes more realistic to a grass field. Rain, sleet or snow will not stop play or practice where in the past this was not true. With the state now using turf fields for playoffs it will give our athletes the opportunity to play on a surface they had not see until playoffs.

I have had several injuries to date, on our team, that relate to the grass surface, but none {and I realize we have not played many times on turf} related to the turf surface. The turf will enable practice and games to happen as they are scheduled and not worry about weather conditions that we will face later in the season. Bad field conditions will no longer create a scheduling nightmare and a turf field would not have to rest.

In the final analysis the present grass fields will last longer and require less maintenance if a turf field existed.

Yours in Soccer  
Hank Tenney

## **NORTHEAST INSTITUTIONS WITH SYNTHETIC TURF**

### Connecticut

Hamden High School  
Hamden, CT  
Football  
Installed: July 2002

Brien McMahon High School  
Norwalk, CT  
Football  
Installed: July 2002

Trinity College  
Hartford, CT  
Football  
Installed: August 2002

Greenwich Academy  
Greenwich, CT  
Football  
Installed: August 2002

Amistad Academy  
New Haven, CT  
Soccer/E-Turf  
Installed: August 2002

CT Sports Complex  
New Milford, CT  
2 Indoor Soccer Fields/Multi Purpose  
Installed: October 2002

## **Maine**

MBNA  
Camden, ME  
Football/Multi-Purpose  
Installed: July 2001

Portland HS: Fitzpatrick Stadium  
Portland, ME  
Football/Multi-Purpose  
Installed: September 2001

Husson College  
Bangor, ME  
Baseball/Football/Field Hockey  
Installed: August 2002

Mansfield  
Bangor, ME  
Baseball  
Installed: August 2002

York Sports Center  
York, ME  
Indoor Soccer Fields/Multi Purpose  
Installed: August 2002

## **Massachusetts**

Peabody Middle School  
Cambridge, MA  
Soccer/Multi-Purpose  
Installed: May 2000

Boston University: Nickerson Field  
Boston, MA  
Soccer  
Installed: May 2001

Canton Sportsplex Field  
Canton, MA

Indoor Soccer  
Installed: July 2000

Danehy Park  
Cambridge, MA  
Soccer/Multi-Purpose  
Installed: May 2001

UMASS Lowell  
Lowell, MA  
Football/Field Hockey  
Installed: October 2000

Kings Middle School  
Cambridge, MA  
Soccer/Multi-Purpose  
Installed: March 2002

Milton High School  
Milton, MA  
Soccer/E-Turf  
Installed: August 2002

John Smith Sports Center  
Milford, MA  
2 Indoor Soccer Fields/ E-Turf  
Installed: August 2002

### **New Hampshire**

Manchester, 3 fields including Memorial Field

Fieldhouse Sports  
Bow, NH  
2 Indoor Soccer Fields/Multi Purpose  
Installed: November 2002

Nashua HS: Stellos Stadium  
Nashua, NH  
Soccer  
Installed: May 2000

All Around Sports  
Hampstead, NH  
2 Indoor Soccer Fields  
Installed: January 2002

Salem H.S. Voc. Center  
Salem, NH  
Multi-Purpose  
Installed: April 2002

Rising Stars Sports  
Bedford, NH  
2 Indoor Soccer Fields/Multi Purpose  
Installed: November 2002

**New York – Westchester & Putnam Counties – as of 2004**

Ardley  
Bedford-Fox Lane  
Blindbrook  
Byram Hills  
Croton-Harmon  
Dobbs Ferry  
Eastchester  
Greenburgh-Woodlands  
Katonah-Lewisboro  
Lakeland  
Mahopac  
New Rochelle  
Pleasantville  
Putnam Valley  
Rye  
Valhalla  
Yorktown

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## TURF FIELD (VS) GRASS FIELD MAINTENANCE COSTS

These estimates were made by Jonathan Brush. Other sources indicate different cost scenarios, so Dresden will have to study maintenance further.

### TURF COSTS:

- Grooming Machine, 2 times/mo/1.5hrs X \$35/hr. X 4.5 months = \$475
- Sweeper Machine (for leaves and trash) 2 times/mo./1hr/\$35 X 4.5 = \$315
- Lining of field .....1 time per year once established..... = \$175
  - TOTAL: ..... \$ 965

\*Washing of the artificial Blades of grass is recommended every few weeks due to spitting and skin scrapes. Mostly a labor fee, sprinkle field and then use grooming machine is assumed in the Grooming Machine item above.

**Info from: Alan Waterman of SRI Sports**  
**800-561-0388**  
**cell: 609-977-6742.....(H)860-355-9708**  
**e-mail: Awaterman@srisports.com**

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### GRASS FIELD COSTS:

- Fertilizer.....\$ 1,071
- Perimeter mowing.....\$ 280
- Lining and Mowing.....\$ 475
- Aeration.....\$ 430
- Lime ....(every other year at \$350 so divided in half to reflect per year cost=\$175/year.....\$175 .
  
- TOTAL:..... \$ 2,431.00 per year

# PLAN OPTIONS

## DEVELOPMENT OF PLANS May 2005

### WORKING DRAFT – NOT APPROVED

The Dresden Athletic Fields Committee is taking an incremental approach to creating a plan that focuses initially on how best to leverage the fields at Hanover High School, then evaluates what is further required, which will be satisfied by creating a plan for some development of the Norwich parcel.

These options assume that to maintain the number of athletic fields that have been available to Dresden (see Disposition of Fields section), the committee must account for constructing the equivalent of 2 new fields. This new construction is in addition to the current Merriman project, which includes building 1 varsity-level baseball field, with an expanded outfield area large enough to include a field hockey field, and 1 multi-use playing field.

Each option lists first what will be done at the Hanover High School site (HHS) and then at the Norwich Fields site (NF). Again, this latter work at Norwich will be in addition to Dresden's current Merriman project.

The pros and cons listed beneath each option are largely self-evident and will be developed further as we create a cost-benefit analysis of each option, as well as an analysis of safety issues.

NOTE on Norwich Fields Site: The options listed below are basic to the extreme. We will be developing ideas for Norwich. In addition, we will be having ongoing dialogues with a variety of potential community partners with interests in enhancing the Norwich site, but the first priority is athletic fields needs.

#### **Option 1: Status Quo, Plus Norwich Fields**

Dresden - HHS: The configuration will remain as is; however, the soccer field, football field, field hockey field, and track will be renovated. For now, it is assumed sod will be used.

*Pros:* Simplest engineering and design work.

*Cons:* Does little to upgrade facilities and does not fully leverage the HHS property.

#### **Option 2: Reconfiguration, Synthetic Turf Field, Plus Norwich Fields**

Dresden - HHS: This option involves two major components for HHS, which include expanding the size of the current field hockey field and "flip-flopping" the football and soccer/lacrosse fields.

- Raise the existing field hockey field approximately ten feet using donated fill, which will create a playing space large enough for any sport. Install a synthetic turf field that has lines configured for multiple sports, including, for example, field hockey, football, lacrosse, and soccer. Install lights at synthetic turf to maximize usage.

- Expand the existing football field to accommodate all field sports and renovate the existing soccer / lacrosse game field. Because there is more space to work with where the current football field is, this will allow for a more traditional sized soccer field - the existing one is undersized. Build a new track around the new soccer field. Current soccer/lacrosse game field becomes a multi-purpose field.

*Pros:* Turf field with lights will increase field availability and usage dramatically and therefore require fewer fields to be constructed. Turf fields require dramatically less maintenance. New fields for other sports will be much improved and create a safer facility for games and practices. Will be able to use turf field immediately.

*Cons:* There are wetlands issues to contend with at the field hockey field. Over the short term, this will be more costly than Option 1.

**Option 3: Reconfiguration, Renovation of Field Hockey Field, Plus Norwich Fields**

Dresden - HHS: This option also involves two major components, which include expanding the size of the current field hockey field and “flip-flopping” the football and soccer/lacrosse fields.

- Raise & expand the existing field hockey field. Install a sod field that can be used for multiple sports, including, for example, field hockey, football, lacrosse, and soccer.
- Expand the existing football field to accommodate all field sports and renovate the soccer / lacrosse game field. Because there is more space to work with where the current football field is, this will allow for a more traditional sized soccer field - the existing one is undersized. Build a new track around the new soccer field. Current soccer/lacrosse game field becomes a multi-purpose field.

Dresden - NF: Build 1 general use fields.

*Pros:* New fields for other sports will be much improved, creating a safer facility.

*Cons:* There are wetlands issues to contend with at the field hockey field.

**Option 4: Reconfiguration, 2 Synthetic Turf Fields, Plus Norwich Fields**

HHS: Same as Option 2; however, replace one of the grass fields with a 2<sup>nd</sup> synthetic turf field.

**ESTIMATED COSTS BY OPTION  
WORKING DOCUMENT – NOT FINAL**

The following table is a working document that provides some guidance on cost by option.

|                       |                    |                                  |            |       |
|-----------------------|--------------------|----------------------------------|------------|-------|
| <b>Cost Estimates</b> |                    |                                  |            |       |
| <b>OPTION 1</b>       | <b>Dresden/HHS</b> | <b>FIELD Field Hockey</b>        | Renovate   | \$200 |
|                       |                    | <b>Football/SoccerSize Track</b> | Sod        | \$320 |
|                       |                    |                                  | Subsurface | \$450 |

|                                |                        |                                        |                |                        |
|--------------------------------|------------------------|----------------------------------------|----------------|------------------------|
|                                |                        | <b>Soccer/practice Bleachers</b>       | Improve        | \$200                  |
|                                |                        | <b>Fencing, etc</b>                    |                | \$50                   |
|                                |                        | <i>Subtotal</i>                        |                | <i>\$1,220</i>         |
|                                |                        | <b>Engineering 10% contingency 10%</b> |                | \$122                  |
|                                |                        | <b>Engineering 10% contingency 10%</b> |                | \$122                  |
|                                |                        | <b>Subtotal Dresden/HHS</b>            |                | <b>\$1,464</b>         |
| <b>Cost Estimates OPTION 2</b> | <b>Dresden/HHS</b>     | <b>FIELD</b>                           |                | <i>Revised 6.17.05</i> |
|                                |                        | <b>Field Hockey</b>                    | Syn Turf       | \$700                  |
|                                |                        |                                        | Lights         | \$85                   |
|                                |                        |                                        | Excavation     | \$100                  |
|                                |                        | <b>Football/SoccerSize Track</b>       | Sod            | \$320                  |
|                                |                        |                                        | Subsurface     | \$450                  |
|                                |                        | <b>Soccer/practice Bleachers</b>       | Irrigate       | \$50                   |
|                                |                        |                                        | Bleachers      | \$50                   |
|                                |                        |                                        | Fencing, goals | \$50                   |
|                                |                        | <b>Fencing, etc</b>                    |                | \$50                   |
|                                |                        | <i>Subtotal</i>                        |                | <i>\$1,805</i>         |
|                                |                        | <b>Engineering 10% contingency 10%</b> |                | \$181                  |
|                                |                        | <b>Engineering 10% contingency 10%</b> |                | \$181                  |
|                                |                        | <b>Subtotal Dresden/HHS</b>            |                | <b>\$2,166</b>         |
| <b>OPTION 3</b>                | <b>Dresden/HHS</b>     | <b>FIELD</b>                           |                |                        |
|                                |                        | <b>Field Hockey</b>                    | Sod            | \$320                  |
|                                |                        |                                        | Excavation     | \$100                  |
|                                |                        | <b>Football/SoccerSize Track</b>       | Sod            | \$320                  |
|                                |                        |                                        |                | \$450                  |
|                                |                        | <b>Soccer/practice Bleachers</b>       | Re-surface     | \$100                  |
|                                |                        |                                        |                | \$50                   |
|                                |                        | <b>Fencing, etc</b>                    |                | \$50                   |
|                                |                        | <i>Subtotal</i>                        |                | <i>\$1,390</i>         |
|                                |                        | <b>Engineering 10% contingency 10%</b> |                | \$139                  |
|                                |                        | <b>Engineering 10% contingency 10%</b> |                | \$139                  |
|                                |                        | <b>Subtotal Dresden/HHS</b>            |                | <b>\$1,668</b>         |
|                                | <b>Dresden Norwich</b> | <b>Multi-use field</b>                 |                | <b>\$350</b>           |
|                                |                        |                                        |                | \$2,018                |
| <b>Cost Estimates OPTION 4</b> | <b>Dresden/HHS</b>     | <b>FIELD</b>                           |                |                        |
|                                |                        | <b>Field Hockey</b>                    | Syn Turf       | \$700                  |

|                    |                            |                        |                |
|--------------------|----------------------------|------------------------|----------------|
|                    |                            | Lights                 | \$85           |
|                    |                            | Excavation             | \$100          |
|                    | <b>Football/SoccerSize</b> | Syn Turf               | \$700          |
|                    | <b>Track</b>               |                        | \$450          |
|                    | <b>Soccer/practice</b>     | Irrigate               | \$50           |
|                    | <b>Bleachers</b>           |                        | \$50           |
|                    | <b>Fencing, etc</b>        |                        | \$50           |
|                    | <i>Subtotal</i>            |                        | <i>\$2,185</i> |
|                    |                            | <b>Engineering 10%</b> | \$219          |
|                    |                            | <b>contingency 10%</b> | \$219          |
| <b>Subtotal</b>    |                            |                        |                |
| <b>Dresden/HHS</b> |                            |                        | <b>\$2,622</b> |

## MIKE JACKSON'S SAMPLE SCHEDULES

OPTION 2 FALL – Synthetic Turf not used aggressively

| field: | Field A (old FH) Soccer-sized with Synthetic Turf and lights                                                | Field B (old football) new Soccer sized field and track | Field C (old soccer field) refurbished grass Soccer sized field | Thomps on Terrace - Football | Thompson Terrace - Soccer (New sharing arrangement with Hanover) | Sachem - One field     | Route 5 Norwich FH Field in outfield of new baseball diamond | Route 5 Norwich: Multi-purpose (2 practices fields or 1 game field) |
|--------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------|------------------------------|------------------------------------------------------------------|------------------------|--------------------------------------------------------------|---------------------------------------------------------------------|
| Mon    | JV Football 3:15-6:00 V & JV FH 6:00-9:00                                                                   | <b>V B Soccer 3:15-6:00 GAME</b>                        | <b>JV B Soccer 3:15-6:00 GAME</b>                               |                              | Res G Soccer 3:15-5:00                                           | V G Soccer 3:15-5:15   | JV G Soccer 3:15-5:00                                        | <b>Res B Soccer 3:15-5:45 GAME</b>                                  |
| Tues   | V & JV FH 3:15-5:15<br>V G Soccer 5:15-7:15                                                                 | <b>V G Soccer 3:15-6:00 GAME</b>                        | <b>JV G Soccer 3:15-6:00 GAME</b>                               | V & JV Football 3:15-5:45    | Res G Soccer 3:15-5:00                                           |                        | JV B Soccer 3:15-5:15                                        | Res B Soccer 3:15-5:15                                              |
| Wed    | V G Soccer 3:15-5:15                                                                                        | <b>V B Soccer 3:15-6:00 GAME</b>                        | <b>JV B Soccer 3:15-6:00 GAME</b>                               | V & JV Football 3:15-5:45    | Res G Soccer 3:15-5:15                                           |                        | V & JV FH 3:15-6:15                                          | Res B Soccer 3:15-5:15                                              |
| Thurs  | V B Soccer 3:15-5:30                                                                                        |                                                         | V G Soccer 3:15-5:30                                            | V & JV Football 3:15-5:45    | Res G Soccer 3:15-5:15                                           | JV G Soccer 3:15-5:15  | J & JV FH 3:15-6:15                                          | Res B Soccer 3:15-5:15                                              |
| Fri    | V & JV Football 3:15-5:30 V & JV FH 5:30-9:00 <b>GAME (or Route 5)</b><br>V B Soccer 12:00-2:00 <b>GAME</b> | V G Soccer 3:15-4:45                                    | V B Soccer 3:15-4:45                                            |                              | JV G Soccer 3:15-5:15                                            | Res B Soccer 3:15-5:15 |                                                              | Res G Soccer 3:15-5:15                                              |
| Sat    | JV B Soccer 2:00-4:00 <b>GAME</b>                                                                           | <b>V G Soccer 10:00-12:00 GAME</b>                      | <b>JV G Soccer 10:00-12:00 GAME</b>                             |                              | <b>Res B Soccer 12:00-2:00 GAME</b>                              |                        |                                                              | <b>Res G Soccer 2:00-4:00 GAME</b>                                  |

OPTION 2 FALL – Synthetic Turf used aggressively

| field: | Field A (old FH)<br>Soccer-sized<br>with Synthetic<br>Turf and lights                                                                                                           | Field B (old<br>football) new<br>Soccer sized<br>field and track                            | Field C (old<br>soccer field)                                                                                             | Thompson<br>Terrace -<br>Football                     | Sachem -<br>One field | Route 5<br>Norwich FH<br>Field in<br>outfield of new<br>baseball<br>diamond       | Route 5<br>Norwich<br>Multi-<br>purpose<br>practice<br>fields or<br>game fie |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Mon    | <b>3:15-6:00</b><br><b>JV football</b><br><b>GAME</b><br><b>6:00-8:00</b><br><b>Boys JV Soccer</b><br><b>GAME</b>                                                               | <b>3:15-5:45 boys</b><br><b>res soccer</b><br><b>GAME</b> 5:45-<br>7:00 girls res<br>soccer | <b>3:15-6:00</b><br><b>Boys Var</b><br><b>Soccer GAME</b>                                                                 | 3:30-5:45<br>Var football                             |                       | <b>3:15-5:30</b><br><b>Var FH GAME</b><br><b>5:30-7:00</b><br><b>JV FH GAME</b>   | 3:15-5:15<br>girls var<br>soccer 3:<br>5:15 g<br>soccer                      |
| Tues   | <b>3:15-5:45 girls</b><br><b>var GAME</b><br><b>5:45 - 7:45 boys</b><br><b>var soccer</b><br><b>7:45-9:00 boys jv</b><br><b>soccer</b>                                          | 3:15-5:00<br>boys res soccer                                                                | <b>3:15-5:45 girls</b><br><b>jv soccer</b><br><b>GAME</b>                                                                 | 3:45-5:45<br>var football<br>3:45-5:45<br>jv football |                       | 3:15-5:15<br>Var FH<br>3:15-5:15 jv FH                                            | 3:15-5:00<br>girls res<br>soccer                                             |
| Wed    | <b>3:15-6:00 Boys</b><br><b>Var Soccer</b><br><b>GAME</b> 6:00<br><b>- 7:30 Girls</b><br><b>varsity Soccer</b>                                                                  | 3:15-5:15<br>girls res soccer<br>3:15-5:15<br>girls jv soccer                               | <b>3:15-6:00 boys</b><br><b>jv soccer</b><br><b>GAME</b>                                                                  | 3:45-5:45<br>var football<br>3:45-5:45<br>jv football |                       | 3:15-5:15 var<br>FH 3:15-5:15<br>jv FH                                            | 3:15-5:00<br>boys res<br>soccer                                              |
| Thurs  | 3:15-5:15 boys<br>var soccer 3:15-<br>5:15 boys jv<br>soccer 5:15-<br>6:45 girls res<br>soccer                                                                                  | 3:15-5:15<br>girls var soccer<br>3:15-5:15<br>girls jv soccer                               |                                                                                                                           | 3:45-5:45<br>var football<br>3:45-5:45<br>jv football |                       | 3:15-5:15 var<br>FH 3:15-5:15<br>jv FH                                            | 3:15-5:00<br>boys res<br>soccer                                              |
| Fri    | 3:15-4:30<br>boys var soccer<br>4:30-6:00<br>girls var soccer<br>6:00 - 7:45<br>boys jv soccer                                                                                  | 3:15-5:00<br>girls res soccer                                                               | 3:15-5:00<br>girls jv soccer                                                                                              | 3:15-5:15<br>var football<br>3:15-5:15<br>jv football |                       | <b>3:15-5:00</b><br><b>var FH GAME</b><br><b>5:00 - 7:00</b><br><b>jv FH GAME</b> | 3:15-5:00<br>boys res<br>soccer                                              |
| Sat    | <b>10:00-12:00</b><br><b>girls var soccer</b><br><b>GAME</b> 12:00-<br><b>2:00 boys var</b><br><b>soccer GAME</b><br><b>2:00-4:00 girls</b><br><b>res soccer</b><br><b>GAME</b> | <b>12:00-2:00</b><br><b>boys jv soccer</b><br><b>GAME</b>                                   | <b>10:00-12:00</b><br><b>girls jv soccer</b><br><b>GAME</b><br><b>12:00-2:00</b><br><b>boys res</b><br><b>soccer GAME</b> |                                                       |                       |                                                                                   |                                                                              |

**CURRENT FIELD USAGE - Week of May 1, 2005:**

|       | HS-<br>Football<br>Field | HS- Field<br>Hockey Field                  | HS-Soccer<br>Field                                    | Thompson<br>Terrace                                                                                | Huntley<br>Meadows                                                                                             | Fullington                                            |
|-------|--------------------------|--------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Mon   |                          | <b>3:15-7:00<br/>girls jv lax<br/>GAME</b> | <b>3:15-7:00<br/>girls var lax<br/>GAME</b>           | <b>3:15-7:00<br/>jv baseball<br/>GAME</b><br>6:00-8:00<br>var baseball<br>6:00-8:00<br>jv baseball | <b>3:15-6:00 jv<br/>softball GAME</b><br>3:30-5:30<br>girls var lax<br>3:30-5:30<br>girls jv lax               | 3:30-5:30<br>boys var lax<br>3:30-5:30<br>boys jv lax |
| Tues  |                          | <b>3:15-7:00<br/>girls jv lax<br/>GAME</b> | <b>3:15-7:00<br/>girls var lax<br/>GAME</b>           | 3:30-5:00 var<br>baseball 5:00-<br>7:00 jv<br>baseball                                             | 3:30-5:15 var<br>softball 5:15-<br>6:45 jv softball<br>3:30-5:15<br>girls var lax<br>3:30-5:15<br>girls jv lax | 3:30-5:15<br>boys var lax<br>3:30-5:15<br>boys jv lax |
| Wed   |                          |                                            | 3:15-5:00 boys<br>var lax<br>3:15-5:00<br>boys jv lax | <b>3:15-6:00<br/>var baseball<br/>GAME</b>                                                         | <b>3:15-6:00<br/>var softball<br/>GAME</b>                                                                     |                                                       |
| Thurs |                          | <b>3:15-7:00<br/>boys jv lax<br/>GAME</b>  | <b>3:15-7:00<br/>boys var lax<br/>GAME</b>            | <b>3:15-6:00<br/>jv baseball<br/>GAME</b><br><b>3:15-6:00<br/>jv baseball<br/>GAME</b>             | 3:15-5:15<br>girls var lax<br>3:15-5:15<br>girls jv lax                                                        |                                                       |
| Fri   |                          | <b>3:15-7:00<br/>girls jv lax<br/>GAME</b> | <b>3:15-7:00<br/>girls var lax<br/>GAME</b>           | 3:15-5:15<br>var baseball<br>5:00-6:45<br>jv baseball                                              | 3:15-5:15<br>var softball<br>5:15-6:45<br>jv softball                                                          | 3:15-5:15<br>boys var lax<br>3:15-5:15<br>boys vj lax |

**New Configuration – sample schedule**

| field: | Field A (old FH) Soccer-sized with Synthetic Turf and lights | Field B (old football) new Soccer sized field and track | Field C (old soccer field) refurbished grass Soccer sized field | Thompson Terrace - Lacrosse (New sharing arrangement with Hanover) | Route 5 Norwich New Baseball Field | Route 5 Norwich: Multi-purpose (2 practice s fields or 1 game field) | Huntley Meadows                   |
|--------|--------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------|-----------------------------------|
| Mon    | <b>V &amp; JV G LAX 3:15-7:00 GAME</b>                       | Track                                                   | JV B LAX 3:15-5:30                                              | V B LAX 3:15-5:30 or Route 5                                       | <b>JV Baseball 3:15-6:30 GAME</b>  |                                                                      | <b>JV Softball 3:15-6:30 GAME</b> |
| Tues   | <b>V G LAX 3:15-7:00 GAME</b>                                | <b>JV G LAX 3:15-7:00 GAME</b>                          | V B LAX 3:15-5:30                                               | JV B LAX 3:15-5:30 or Route 5                                      | V & JV Baseball 3:15-7:00          |                                                                      | V & JV Softball 3:15-6:30         |
| Wed    | V B LAX 3:15-5:00<br>JV B LAX 5:00-7:00                      | Track                                                   | V G LAX 3:15-5:30                                               | JV B LAX 3:15-5:30 or Route 5                                      | <b>V Baseball 3:15-6:30 GAME</b>   |                                                                      | <b>V Softball 3:15-6:30 GAME</b>  |
| Thurs  | V G LAX 3:15-5:30                                            | <b>TRACK MEET</b>                                       | <b>JV B LAX 3:15-6:00 GAME</b>                                  | V B LAX 3:15-5:30                                                  | <b>JV Baseball 3:15-6:30 GAME</b>  | JV G LAX 3:15-5:30                                                   | V & JV Softball 3:15-6:30         |
| Fri    | <b>V B LAX 3:15-6:30 GAME</b>                                | Track                                                   | <b>JV G LAX 3:15-6:30 GAME</b>                                  | V B LAX 3:15-5:30                                                  | <b>JV Baseball 3:15-6:30 GAME</b>  | JV B LAX 3:15-5:30                                                   | V & JV Softball 3:15-6:30         |

## APPENDIX B DOCUMENTS RELATED TO AFC PROCESS

### QUESTIONNAIRE RESULTS – SALIENT POINTS

While there is a wealth of material to glean from Bob Sokol's analysis of the questionnaire, there are several salient points the committee feels are particularly important in guiding our plans development.

#### WHY DID PEOPLE VOTE NO IN THE 2004 BOND VOTE?

- Too expensive 49%; and too elaborate 42%
- Plan not useful to community at large 25%
- Places too many fields in Norwich 19%
- Would create traffic problems 19%
- Opposed artificial turf 15%

*Salient Point:* We must offer a plan that is financially prudent and takes into consideration community concerns.

#### OTHER HIGHLIGHTS & REVELATIONS

- 64% of the respondents want some kind of fields development in Norwich; this number could be higher because 17% of the respondents said it was too complicated to answer.
- However, 60% of the respondents want the primary site for games to be at Hanover High School.

*Salient Point:* While the Norwich site is an acceptable place for some kind of development, we need to invest in game quality fields at HHS.

- Also, the community feels very strongly that the towns and schools should share fields; for example, 85% of the respondents agree that when possible teams should share fields and stagger practices.

*Salient Point:* We have to insure that all community fields are being used efficiently and act as a catalyst if we see opportunities for sharing.

#### WHAT ARE PEOPLE WILLING TO SPEND?

According to Bob Sokol's analysis, the community would definitely support a project in the \$2-3 million range and as much as \$3 million if the plans incorporated community desires/needs

*Salient Point:* As the cost approaches \$3 million, the plans must cater to more than just Dresden athletics, or passage of a bond vote would be in doubt.

NOTE: The committee has looked very closely at other public input, including input from the focus groups held after the failed 2004 vote, letters to the editor published in the *Valley News*, and letters to the Dresden board.

## **HIGHLIGHTS OF WHAT WE HAVE LEARNED CONCERNING THE COMMUNITY'S ATHLETIC FIELDS**

Having grappled with the issues for many months now, we have learned a few things about the size of our community's athletic and recreation programs, how they are managed, what their priorities are, and some options for providing solutions.

### **Nobody has Enough Fields**

The school district, town recreation programs, and Dartmouth are all facing increased demands for programs that will only increase the overall need for field space.

### **Sharing of Fields & Facilities Is Happening & Improving**

To see if existing facilities were being optimally used, we investigated how the towns and the school district share fields (See Appendix ??). Both Hanover and Norwich recreation programs have been generous in sharing their fields with the school district both formally and informally. The school district has and will continue to share facilities with the town recreation programs when possible. There may be possibilities for increased sharing of town fields until the school district builds its fields, but in the long run, the towns will need all their fields for their recreation programs. Sharing does not offer long term solution.

### **The Dartmouth Factor**

Dartmouth shares with the school athletic program when it can and hosts many community events (See Appendix ??). The college is aggressively expanding its own intramural sports program and feels strongly that it is already using its grass fields more than is good for them. An additional complicating factor is that NCAA recruiting regulations prohibit college and high school students practicing at the same time on the same field.

### **We Must Protect What We Have**

For the short term, we could force even more sharing of fields by attempting to use all fields every possible minute. However, grass fields cannot be used continuously or they become mud, simply put. Also, some fields need to be held in reserve to meet unexpected scheduling demands on both school and town programs.

### **Synthetic Turf as a Solution**

We have looked at how to best leverage the fields we have and believe replacing a grass field at the high school with synthetic turf would allow for continuous use and less construction of new fields. Synthetic turf today is nothing like Astroturf of yesterday. It is almost like real grass and just as safe. More schools are installing synthetic fields, which has helped us gauge the benefits of synthetic turf.

### **Maximize the Use of HHS Property**

It is clear from public input and our own discussions that we must fully leverage the fields at HHS and take a phased approach to developing the Norwich Fields site. The more practices and games that can be scheduled at HHS, the better for the students and for creating community spirit.

## CREATION OF SUBCOMMITTEES

March 2005

We began meeting in February, and, after a month of discussing the issues and tasks before us, we broke down into subcommittees to address critical aspects of the planning process:

### *1) Fields Sharing Between Programs*

It is important to insure existing fields owned by Hanover, Norwich, and the schools are being used efficiently. We are studying the current sharing and looking at ways to enhance it.

### *2) Hanover High Lebanon Street Site*

We're studying how best to leverage this area because it's obviously so convenient for the students. For example, should we have lights and synthetic turf or can the fields be reconfigured for greater use?

### *3) Norwich Fields Route 5 Site*

Because the community supports some development there, such as a large general use area modeled after Sachem, we are evaluating different options. This evaluation includes alternative uses for parts of the site.

### *4) Budget/Financing*

We are very conscious about the tax impact and we plan to be responsible and prudent here. Toward that end we will be exploring various options for alternative fundraising.

### *5) Community Friendly Solutions*

We have spoken to and will be speaking to many community groups to develop partnerships as we move forward. Also, we have initiated a dialogue with neighbors of HHS so we adequately address their concerns. Our desire is to create a plan the community will embrace and benefit from.

### *6) Communication*

Efficient communication with the public is paramount. We are scheduling community meetings; we have placed Dresden Athletic Fields Committee binders filled with information in the Hanover, Etna and Norwich libraries; and please visit [www.sau70.org](http://www.sau70.org) and click on *Athletic Fields Committee*. Our meeting schedule is advertised and posted as all meetings are open to the public. Also, the public can provide input by emailing at us at **fields@valley.net**.

## COMMUNICATION WITH THE PUBLIC

The committee has been very conscious of the need to allow our process of developing plans be fully visible to the public and to communicate effectively. Toward that end, we have taken on several initiatives detailed below.

### Meetings Open to the Public

All full committee and subcommittee meetings have been open to the public. Times and places were posted and full committee meetings announced with a transaction ad. CATV has also taped a number of our meetings and those tapes are available at their office and the Hanover Public Library. We also had a table set up at the Hanover Town Meeting, with informational flyers.

### Outreach Program

Realizing not everyone is attuned to when public meetings are held, we have taken a proactive approach in reaching out to community groups. To provide updates on our work, we visited with a number of them, including:

|                                     |                                 |
|-------------------------------------|---------------------------------|
| Hanover Conservation Commission     | Norwich Conservation Commission |
| Marion Cross PTO                    | Ray School PTO                  |
| Hanover Rotary                      | Hanover Rec. Board              |
| Norwich Rec. Board                  | Hanover Select Board            |
| Norwich Select Board                | Hanover High School neighbors   |
| Hanover High School Student Council |                                 |

We have also had extended conversations with Upper Valley Trails Alliance, Hanover Little League, and the Norwich Lions Club.

### Website

The committee desired to provide as much information within reason at the SAU 70 website ([www.SAU70.org](http://www.SAU70.org)), so that anyone interested could investigate fairly deeply into our process. The web pages have been completely revamped.

### Binders in Public Libraries

At the public libraries of Etna, Hanover, and Norwich, the committee's minutes and other reports are in binders labeled "Dresden Athletic Fields Committee."

### Informational Flyers & Bookmarks

Several different informational flyers with updates on our work have been distributed at meetings and elsewhere. Bookmarks have been distributed to direct traffic to the website.

### Newspaper Articles

Beginning in April, there have been a series of articles in the Valley News and Spectator, which are the most effective way to reach the broadest audience. In addition, we submitted two Letters to the Editor that were printed.

### Public Forum

On June 7 we hosted a public forum and presented four possible plan options to solicit feedback. See report that follows.

## **Public Forum Feedback**

**June 7, 2005**

Generally speaking the tone was positive and there was no individual representing hardcore opposition. Of the about 30 attendees (not including school board and AFC members), only one was opposed to synthetic turf and lights because this option appeared elaborate and would result in a defeated bond. Also, see the article in the *Valley News*, June 8, 2005. Below are the highlights of issues the public raised. And see John Chamberlin's email at end.

### **Synthetic Turf**

Mostly, people were simply curious about it. One attendee took her shoes off and stepped on it, which made for great pr because she found it very comfortable to the touch. Being able to show side by side samples of old astro turf and new synthetic turf is key to selling the latter. Because it still has the stigma of appearing elaborate, we must show that we are being very pragmatic; in other words, it makes financial sense. We must explain the increase in usage it provides not only anecdotally but with reasonable hard numbers. We can also point out that the Field Turf product is less expensive than the Astro Turf style product.

A strong argument voiced in favor of synthetic turf is that more kids can stay at the high school, rather than traveling around.

We can create a table that shows how many hours a year a turf field would be used vs. a grass one; the schedule that Mike Jackson made would be a good place to start.

### **Lights**

There was concern over how lights would affect the neighborhood and, again, appearing as elaborate. We must continue to lay groundwork with the abutters and demonstrate that lights are a prudent move, but also a way of bringing the community together at events. Julia Griffin noted that town's agreement with Dartmouth for the Scully-Fahey field has set the precedent so the Hanover planning board should work with the AFC/Dresden board to make this option happen.

We need to review a copy of the Scully agreement – but should keep in mind this is a very restrictive agreement – we can do better! While we can use the Scully-Fahey document as a starting point, we need to show that the field hockey field site is much more secluded than Chase Field and will impact fewer people and in a less significant way.

There was also concern that the kids would be playing too late under lights. We explained that athletes in basketball, volleyball, hockey, and crew already practice either very early or late. Also, we explained that Mike Jackson would rotate the schedule so that the same team was not always in the late bracket. The notion that the kids would not have to leave school early for home games (per Chris Cheney's comment at a prior meeting) was met with approval. However, we need to be sensitive to these issues.

### **Track**

One resident was concerned about the track design, specifically, the need for 8 lanes. To have only 8 lanes down one straight appeared to be satisfactory and acceptable.

According to Barry Harwick, an 8-lane track is pretty standard. Barry does not believe promoting the track will be a real issue since the existing track will be completely gone and it is easy to show that the facility can be used by both Dresden and the community.

### **Reconfiguration at HHS**

There was some confusion over the concept of switching the football and soccer/lax field. It appeared some thought we were physically switching them, which would be costly. We need to explain this better. We need to state clearly that the current soccer field is undersized and the football field gets limited usage (per Bob Riessen's explanation); therefore we want to make the current football field bigger so any sport can be accommodated there. Another way to state this would be that we want to expand the dimensions of the current football field so it would be usable by other sports as well.

We should drop the notion of "flip-flopping" and simply say the current soccer/lax field remains as is with some renovation.

### **Cost**

A number of residents voiced the opinion that we must present not just upfront costs, but all long terms costs including maintenance and replacement costs. Also, options for funding the replacement of the synthetic turf must be clearly laid out. The AFC has a lot of work to do here.

We need to establish figures for:

- Cost per year we currently spend on athletic fields; and we need to say it is inadequate.
- Cost per year to maintain a turf field.
- Cost per year to maintain a sodded grass field.
- Additional electricity costs of the lights on a yearly basis; we should we ask Hartford or Lebanon about this?

### **Alternate Funding - Fundraising**

One audience member encouraged a two-pronged approach: go after big donors, but also go after HHS alumni, because if alumni give money it demonstrates that they feel their athletic participation was an important part of their education and will encourage others to support our field plan.

We must explore alternate funding because the public is acutely sensitive to the tax burden.

We need to get some insight from the board about whether they will entertain the possibility of gaining revenue by renting out the turf to outside groups; if so, we need some parameters. Only local athletic groups? Charges per hour? Could we use this to set up a fund for replacement costs.

### **Long-term Vision**

A school board member expressed concern over what happens if Dresden loses access to Fullington and Forward Farm, among other non-Dresden sites and the squeeze becomes tighter. Will our plan accommodate the teams losing space? We must review Mike's sample schedule and determine how much wiggle room we have. Also, we should present a plan that states options for dealing with more lost field space in the future; for example, explain where another field in Norwich could be constructed at X dollars and when this might be necessary.

### **Contingency Plan**

One resident wondered what we do if we entered the construction phase and found ourselves short of money to achieve the plan. We explained we are being generous with a contingency dollar amount; however, we don't want to become involved in another SteelGate so we better be sure.

FROM JOHN CHAMBERLIN:

For what it's worth, the person who took her shoes off and romped through the meadow was Allison May, Norwich selectboard chair. Irv Thomae from Norwich was the guy who asked about the eight-lane track.

After the meeting I had a conversation with Robin Carpenter who had just finished talking to Barry about the same topic - long-term sharing at Thompson Terrace. .... He knew about Brian's statements that sharing at Thompson Terrace should end once the schools had their own fields. He felt that the school board should be preempting Brian and taking a hard line on sharing Thompson Terrace. I pointed out that we are waiting for the memorandum of agreement from Julia and that the last thing we wanted to do was pick a fight with the select board if we didn't have to. He grudgingly accepted this notion, though in the long run he still feels the schools should have access to Thompson Terrace.

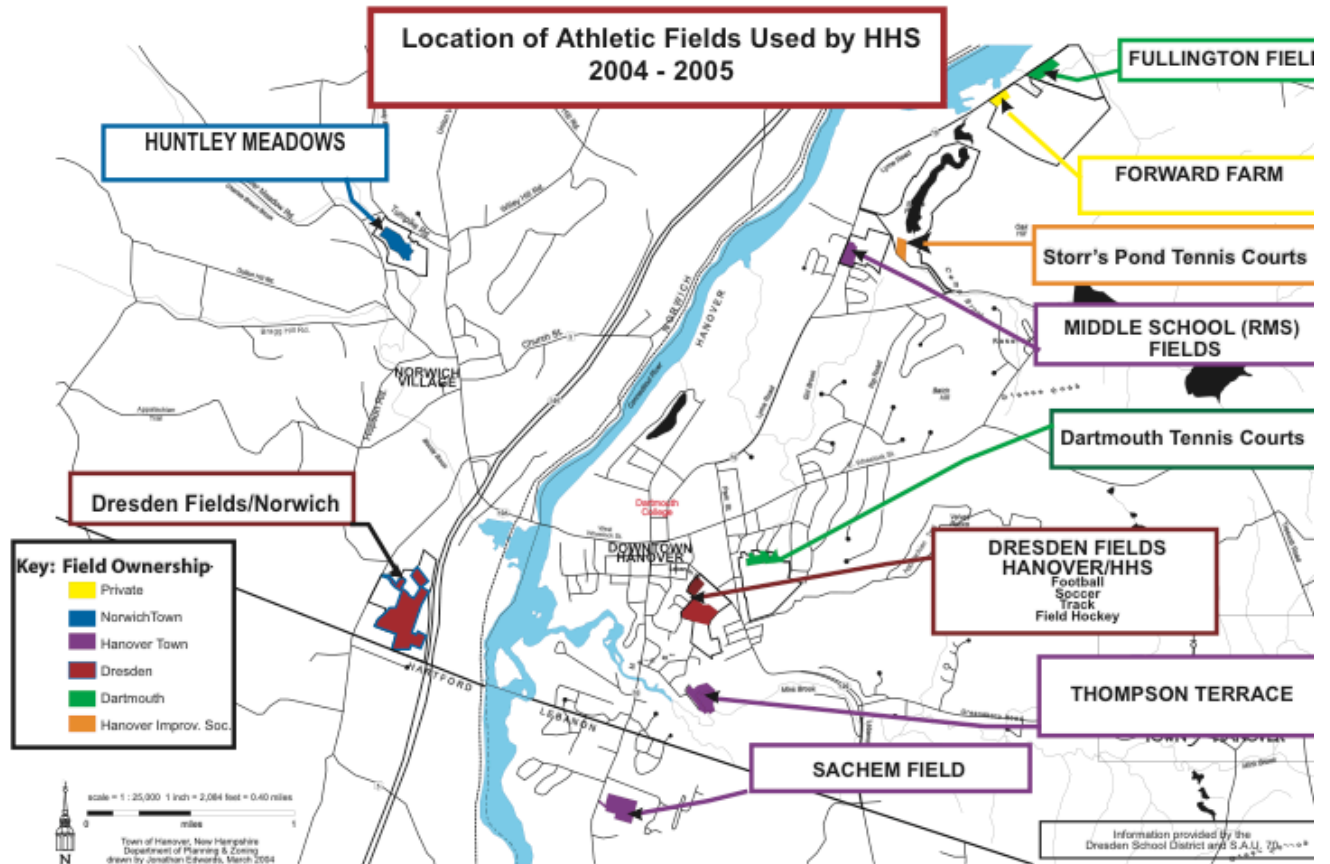
I called Randy Mudge this morning. He is the guy who said his kids had bad experiences on artificial turf. His son graduated last year from Skidmore and is a soccer player (captain I think). The son played on Artificial turf for games all four years and had multiple ankle sprains and "raspberries". The surface was too fast and generally poor for soccer. He and I think that this was probably the Scully-Fahey type turf. He believes the surface was about ten years old and is about to be replaced. He gave me the name and phone number of the athletic director. Watch this space for developments.

Randy also wondered if it would be possible to construct the subsurface of grass fields so that it would be relatively easy to replace the sod with artificial turf at some later date.

John

APPENDIX C  
DOCUMENTS RELATED TO FIELD INVENTORY AND DISPOSITION

MAP OF FIELDS USED BY DRESDEN



# **COMMUNITY SHARING OF ATHLETIC FIELDS EVALUATION**

April 25, 2005

As we know from the questionnaire results, sharing is a hot topic. To document how Dresden, Hanover, and Norwich coordinate the sharing of facilities and to understand whether further opportunities existed to maximize sharing, a subcommittee was created. After several lengthy meetings and much homework, the subcommittee was able to serve as a catalyst to create more sharing and is now satisfied that Dresden, Hanover, and Norwich are sharing efficiently and prudently.

## **MANY INTANGIBLES**

There are many intangibles and unknowns on a year-to-year basis when it comes to sharing between Dresden, Hanover, and Norwich, which include issues surrounding the scheduling of practices and games, future field availability, the respective recreation departments' use of volunteer coaches, and program sizes changing from year to year.

## **EXISTING SHARING**

We have documented that a tremendous amount of sharing was and is taking place and is bound to continue. (See sharing matrix.) It's also important to note that the Hanover Recreation Department runs the athletic programs for 7<sup>th</sup> and 8<sup>th</sup> graders.

## **PHILOSOPHY TO GUIDE SHARING/FIELD SCHEDULING**

While more sharing could be forced on our school and town programs, it would occur at the expense of program quality, participant's experience, and facilities. It is important to keep the following factors in mind when evaluating the use of fields:

- A) Overused fields wear out more quickly which causes higher maintenance costs and increases the risk of injury; for example, scheduling more activities at an already high use venue like Sachem is of very limited value.
- B) In addition to poor field quality, overcrowding can create a situation that is dangerous to participants; for example, multiple teams using one field with overlapped practice times, or young children playing baseball adjacent to lacrosse programs.
- C) The high school teams are very competitive so we do not want to put them at a disadvantage by asking them to practice on sub-par facilities with restricted times.
- D) Due to weather and other factors, some time slots must be left open.

## **THE DARTMOUTH FACTOR**

The Dartmouth Athletic Department has made it clear that Dartmouth fields are effectively out of the picture because of their own aggressive expansion of programs and construction projects, as well as NCAA rules that restrict/prohibit college and high schools from sharing facilities/overlapping practices.

## **FUTURE POSSIBILITIES**

The dialogue will continue between Dresden, Hanover, and Norwich, and any future opportunities to share fields will be pursued. Ultimately, looking to the future, Dresden's heavy reliance on Dartmouth and Hanover/Norwich recreation fields was possible when there was a limited demand

for those facilities. However, the net loss of fields due to the tri-party land swap and the increased number of high school teams, as well as expanding town recreation and Dartmouth programs, makes the old model for sharing less viable.

### FIELDS INVENTORY & STATUS OF SHARING MATRIX

| <u>Managed by</u>                  |                                                                             | <u>Sharing</u>    | <u>Sharing/ General Comments</u>                                  |
|------------------------------------|-----------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------|
| <b>DRESDEN</b>                     |                                                                             |                   |                                                                   |
| Lebanon Street<br>football field   | football/track & field                                                      | YES               | Han. Rec. football, grades 4-8                                    |
| lower field<br>soccer/lax<br>track | field hockey/lax<br>games                                                   | YES               | Han. Rec. track, grades 3-8                                       |
| <b>HANOVER</b>                     |                                                                             |                   |                                                                   |
| Sachem                             | 5 soccer, fall<br>2 lax/farm b-ball, spring<br>1 baseball diamond           | YES               | V and JV girls soccer/Little League<br>middle school/adult league |
| Grasse Rd<br>RMS Field             | 1 LL baseball<br>1.5 general use                                            | YES               | Little League                                                     |
| Etna                               | undersized, soccer/baseball                                                 | YES               | ultimate frisbee & other groups                                   |
| Thompson Terr.                     | 1 baseball diamond<br>practice field                                        | YES*              | *should be shared with Dresden                                    |
| Res Rd Field                       | 2 baseball diamonds, spring<br>1 field hockey, fall<br>1 small soccer, fall | YES               | football, rec uses Dresden equipment<br>Little League             |
| <b>NORWICH</b>                     |                                                                             |                   |                                                                   |
| Huntley                            | 2 general<br>2 baseball diamonds<br>4 tennis courts                         | YES<br>YES<br>YES | Dresden soccer/lax<br>Dresden softball<br>Dresden tennis          |
| <b>OTHER</b>                       |                                                                             |                   |                                                                   |
| Storr's Pond                       | 4 tennis courts                                                             |                   | Dresden tennis                                                    |
| Forward Farm                       | 1 general use, fall                                                         |                   | Dresden Reserve soccer                                            |
| Fullington                         | 1 general use                                                               |                   | Dresden Reserve soccer                                            |

NOTE: Hanover Recreation runs sports programs for Dresden 7 & 8th graders  
 Huntley under construction next four years  
 Res Rd goes to Dartmouth in July 2009  
 Fullington available on year-to-year basis

## Status of Town Current and Potential Future Playing Fields

By Julia Griffin

(March 1, 2005)

### A. Current Playing Fields

- **Sachem Field** – parking lot in setback owned by Dartmouth will need to be constructed by Dartmouth and Town once court issues have been resolved relative to Sachem Field. Town will lose use of that setback as “informal” outfield space for youth sports once lot is in place, making it tougher to utilize the fields for the current number of youth baseball and soccer teams we site there after school on Saturdays.
- **Trumbull Hall Field (Etna)** – no changes contemplated. Sub-standard field (not regulation sized) used for elementary school age soccer in the fall and Farm League and C Minor baseball (grades K-3) in the spring.
- **Reservoir Road Fields** – Town will lose both fields and parking lot on July 1, 2009.
- **RMS Fields** – Town will have use of the fields at RMS after school hours and on weekends effective no earlier than spring of 2006 (perhaps later depending on rate of growth of grass). These replace the fields lost at the Gile Tract as part of the Three Party Agreement negotiations (one baseball field was to be constructed in the summer of 04 and one multi-purpose field was to be constructed in the summer of 05).
- **Grasse Road Baseball Field** – built to supplement Town’s two baseball fields on Reservoir Road due to significant increase in level of Little League baseball activity. Little League wants full-time use of the field but has been denied this level of use due to demand generated by Town’s youth baseball teams and need to accommodate Co-ed Adult League teams in the spring.
- **Thompson Terrace** – will serve to replace **one** of the two baseball fields we will lose at Reservoir Road in July of 09. Currently needed for spring lacrosse which has grown significantly and cannot be safely accommodated at Sachem alongside other youth baseball. Fall is somewhat more flexible for the time being, which is a time when we could arrange to share the field with the school district for football practices. Town would need some access, however, for youth soccer and/or Hanover football. **Fields cannot be made available to the School District until 6:00 pm each evening in the spring or fall, as discussed at a recent Dresden Board meeting; simply does not provide the Town with sufficient time to utilize the field.** Remember that the Town now owns the field which we swapped for loss of Reservoir Road and, more importantly, loss of Gile Tract.

### B. Potential Future Playing Fields

- **Farr (formerly Renz) Property (Greensboro Road)** – As part of Zoning and Planning approvals to move and renovate historic barn and build two additional housing units,

David Farr is required to donate the back land on either side of Mink Brook for conservation purposes. Town, Conservation Commission or Conservation Council are logical recipients. Town hopes to receive approval for appropriation of approximately \$15,000 from the Land and Capital Improvements Fund at Town Meeting this spring to do full assessment of site to determine if, given state and local wetlands regulations and federal floodplain regulations, a baseball field and/or multi-purpose field could be constructed on the north side of Mink Brook. If field(s) could be constructed, this would replace loss of the **second** baseball field we lose at Reservoir Road in July of 09. Construction would not take place any earlier than summer of 2006 as funds could not be appropriated for construction until Town Meeting in 2006. The field would not be available for use until fall of 2007 at the earliest. Parking and access to the field will be from the Town's Public Works Facility on Greensboro Road (Shed 2).

- **Leavitt Property (Greensboro Road)** - Connecticut developer has optioned both parcels on the north and south side of Greensboro Road for residential development. It is possible that they will consider donating the southern parcel to the Town or Hanover Conservation Council for preservation as open space **IF** they can receive approval for more intensive development of the northern parcel (currently not allowed unless Zoning Ordinance is revised or two parcels are deemed to be legally owned as one parcel). It is likely this development will be controversial and may generate strong neighborhood opposition depending upon the level of development being contemplated. It is possible that one or two playing fields could be developed on the southern parcel but wetlands and floodplain issues abound and the conservation community may be strongly opposed to any development on this parcel. Playing field development would be in the 5-10 year timeframe.
- **Grasse Road Phase III**- The Planning Board will require that Dartmouth College develop a playing field on the northern edge of this property, but this cannot be viewed as a replacement for a portion of Sachem Field, for example. This field will be required given the significant increase in school-age children expected to be generated by this development, hence requiring additional playing field space to accommodate the increased demand.
- **Rivercrest** – If a rezoning of this property is approved (before the voters no earlier than Town Meeting in 2006 and currently the subject of a major Dresden Village Planning Committee effort), Dartmouth may be required to build a playing field as part of this development. It will probably not be a full-size field and would be required by the Town to accommodate the additional demand generated by this very large multi-residential project, designed to generate approximately 200 additional living units. As with the Grasse Road Phase III field, this cannot be viewed as possibly replacing a portion of Sachem Field; rather it is a supplement which will be required in response to significant residential growth.
- **Gile Tract** – The Town's former dump site is now leased to Dartmouth for 75 years as an outdoor storage facility, replacing what they now have situated behind Rivercrest. Development of playing fields is no longer a viable option on this property, which was originally slated for 2-3 additional fields for the Town (including one baseball field which had already been laid out). Jonathan Edwards has indicated that there may be room for an additional playing field on a small parcel of land behind the Go-Go Mart adjacent to the

proposed affordable housing site owned by the Town, but development of this site as a formal field is unlikely given the difficulty in accessing the site and parking adjacent to it. It is more likely this will be maintained as meadow open space for the affordable housing development.

- **Town Participation in Development of Route 5 Property in Norwich** – Town has offered to provide labor and equipment, to be combined with labor and equipment from Town of Norwich, to help in field development if:
  - 1) Norwich Selectboard agrees to use of these resources;
  - 2) Hanover Board of Selectmen agree to use of these resources;
  - 3) Town of Hanover staff can perform this work around other Public Works duties.

**For the summer of 2005 and 2006, it is unlikely that Town crews will have much, if any, time to dedicate to this work given the priority we have given to completing all of the improvements to the Lyme Road corridor in conjunction with the construction of the new RMS facility.**

## FIELD INVENTORY OF OTHER SCHOOLS

The committee feels strongly that the plan for fields is not excessive in terms of matching the athletic program's needs, nor is it excessive when compared to other school's facilities.

It is not easy to compare the field inventory of various schools because there are differing definitions as to what constitutes a field; for example, Souhegan has one field by the school that is big enough for to be lined for 2 or 3 playing areas. Also, other school districts, like Dresden, share fields owned by other entities.

The following reports do provide some gauge for what other schools' field inventories and usage. The first report is from Michael Jackson, which is in response to report by Jan Assmus.

March 26, 2004 email from Mike Jackson to Jan Assmus:

Jan et al,

I called each athletic director and talked at length with each of them about their current program and field accommodation capabilities, as well as their desires, should the opportunity arise, to expand. That included, in some cases, plans to expand their fields to accommodate their program as it is and how they project it will be.

Here's what I found out.

School:

Kearsarge - Information is correct. Obviously, they would like to expand their field options, if there were fields available and dollars to develop them. Fall teams that go back-to-back with practices and games find that the latter time slot is seriously impacted by loss of daylight. They have lights on their "stadium field" on which they practice on a regular basis in soccer and games for Football.

Lebanon - 12 teams, 6 fields instead of the 5 listed. 1 game field. Multiple uses for all fields except game field. They just developed another 2 fields (included in the 6 listed fields). They also use 2 fields at the Junior High for lacrosse in spring. Back-to-back practices and games have limited second slot capabilities due to darkness in mid to late fall. They have lights on their game field on which they play games for Football and some times Field Hockey (Varsity & JV)

Hartford - 12 teams. They use 5 fields off campus, 4 of which they do not own. On campus they have 4 and a half fields. They find the same problems with back-to-back practices that other schools experience with loss of daylight. They send some of their teams out to satellite sites, like Hanover High School does. They have lights on the football/soccer/lacrosse game field that allow for multiple use in both seasons. (Also, see John Aubin's note below.)

Souhegan - Just as we have tried to put out there in terms of our needs, the success, win/loss wise, does not mean we need fields to a greater or a lesser degree. Souhegan has 12 teams plus 2 X-Country teams that run their entire course on the school campus. They have a large field out front of the school on which they can put 2-3 field and combine use with Field Hockey teams (3) and middle school field hockey as well. They have a side field that they use for Football practice in

the fall and Softball for games and practices in the spring. They have a large field expanse in the back on which they play and practice 2 -4 soccer teams, depending on the day. In the spring they use that field for Varsity & JV Baseball. They also have a stadium field on which they only play games in Varsity Boys & Girls Soccer and 3 levels of Football in the fall. They do have lights on that field.

Bishop Brady - 8 fall teams. 2 field of their own on campus. They also use 1 city field that holds 2-3 fields for many of their fall sports practices and games. They also utilize Memorial Field in Concord for home Football games. Practice fields are game fields for the 2 on campus fields and the large city field expanse.. They do stagger and share fields.

Oyster River - 10 teams. 3 fields on campus and other various small spaces on which they spread out. They practice and share those field areas. Practices and games take place on all 3 school-owned fields. They have to stagger practices.

Some important notes:

A. All athletic directors indicated that they have to do the best they can with what they have to work with. Obviously, if they had more options, they would much prefer to not share fields or try to stagger practices.

B. The schools with lights have more options, given limited fields. Those that do not have lights on practice fields or do not have lights at all, have the same difficulties that we would in scheduling back-to-back practices or games from mid to late fall with failing daylight. The second practices or contests are never completed. Also, all of the schools listed above, as well as almost all others in N.H., get out of school at the end of the day anywhere from 2 PM to 2:30 PM. Hanover gets out at 3 PM, 4 days per week. This allows other schools to schedule back-to-back with better potential success than we can have.

C. Oyster River High School has just passed a \$15,000 bond to study their field deficiencies with the long term project of acquiring and developing new fields for their existing program. Kearsarge is looking into other potential areas to use for fields.

FROM JOHN AUBIN, MAY 2005 – RE: Hartford

The only other town I am intimately aware of is Hartford. I brought this to Jan's attention when she discussed this data at the fields district vote a year ago. Hartford School District may have only four fields but they play also on Ratcliffe Park--a town-owned field in WRJ with two baseball fields at either end of the field used for varsity soccer games . Watson Field a town-owned field in WRJ with one field, the Quechee Green, a town-owned park with two fields, the Ottauquechee Elementary School field, and Kilowatt park, with one or two fields, owned by whoever currently owns Wilder Dam. It is not as easy as calling someone at each of these high schools and asking how many fields there are at the school. I think you need to contact the AD or AD's secretary at each school to get the master schedule for practices and home games and count up how many fields they actually utilize during the course of the year.

## Jan Assmus March 2004 Report

| School                         | Number of fall teams                        | Number of fields                                                                           | Other comments                                                                                                     |
|--------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Kearsarge                      | 8 teams, planning to add freshmen next year | 3 fields and a meadow                                                                      | 3-5:30pm each day, no team has its own space                                                                       |
| Lebanon                        | 12 teams                                    | 5 practice fields, 1 game field                                                            | Sometimes use game field for girls field hockey<br>JV-1/2 , V other 1/2, practices run until 7pm                   |
| Hartford                       | 11 teams                                    | 4 fields plus sometimes sharing fields with rec dept<br>sometimes use an Ottoquechee Field | Practice fields are game fields.                                                                                   |
| Souhegan,<br>(often champions) | 12 teams                                    | 2 fields plus spaces around the school, plus the gym<br>Stadium for games                  | Sharing staggering, 3:15-9pm.<br>Practice fields are games fields                                                  |
| Bishop Brady                   | 8 teams                                     | 2 fields                                                                                   | Practice fields are game fields.<br>Share fields and stagger practices.                                            |
| Oyster River                   | 9 teams                                     | 3 fields, plus various other smaller spaces                                                | Practice fields are game fields.<br>Every day practice starting at 2:45 until dark, 1 1/2 hr practices, staggering |
| Hollis Brookline               | 7 teams                                     | 3-4 fields plus other spaces, field hockey on a town field                                 | Practice fields are game fields, staggering and sharing between 2:45 and 5:30 every day                            |
| Stevens                        | 8 teams                                     | 4 fields plus 2 game fields                                                                | JV practices 3-5, varsity practices 4-6. Teams share fields                                                        |

Source: Telephone survey by Jan Assmus, March 2004.

## DRESDEN COMMUNITY ATHLETIC PROGRAMS REQUIRING FIELDS & TRACK

While finding enough space for active athletic programs is a good problem, the information below gives some indication as to the logistics administrators face in scheduling while attempting to please players, parents, and coaches.

### **Hanover High School Sports Programs Requiring Fields & Track**

Fall 2004: 11 teams, which included 6 soccer teams (Boys & Girls Varsity, JV & Reserve teams); 2 Football teams; 2 Field Hockey teams; 1 Cross Country team.

Total athletes, 302.

Spring 2005: 10 teams, which included 3 Baseball teams; 2 Softball teams; 2 Boys Lacrosse teams; 2 Girls Lacrosse teams, and 1 Track & Field team.

Total athletes, 235.

### **Hanover Recreation Programs Requiring Fields & Track**

Fall 2004: 4 Football teams; 35 Soccer teams; 3 Field Hockey teams.

Total athletes, 526

Spring 2004: 12 Baseball teams; 3 Softball teams; 9 Lacrosse teams; and 1 Track team.

Total athletes, 279

Spring 2005: 11 Baseball teams; 4 Softball teams; 10 Lacrosse teams; 1 Spring Track team; and 1 Summer Track team.

Total athletes 361

### **Other Hanover Groups**

In addition, there are 5 Hanover Little League baseball teams, a co-ed softball league, as well as adult soccer and lacrosse teams, among other community groups desiring to use the fields.

### **Norwich Recreation Program Report 6/1/05**

*(Jill Kearney, with K. Parsonnet assisting)*

These are the statistics regarding participation in field sports through the Norwich Recreation Program, based on Fall 04 and spring 05 enrollments:

#### ***Fall Soccer: Total of 227 children (grades k – 6) participating***

Coed Kindergarten - 30

Coed 1st Gr - 30 children

Coed 2nd Gr - 42

3/4 Boys - 35

3/4 girls - 23

5th Boys - 20

5th Girls - 19

6th Boys - 13

6th Girls - 15

Also, the Upper Valley Women's Soccer uses the fields on Saturdays for both Spring and Fall (about 30), as does the community (open) soccer for adults, on Sunday (also about 30).

#### ***Spring Sports: Total of 229 children (grades Pre-K through 6)***

*Norwich Green T-Ball/Parent Pitch:*

Preschool: 25 children

Kindergarten: 27

1st Grade: 19

2nd Grade: 22

The above grades practice on the Norwich Green, but sometimes use Huntley for games.

*Huntley:*

3/4 Girls Softball: 16

5/6 Girls Softball: 16

3/4 Boys Baseball: 28

5/6 Boys Baseball: 19

3/4 Boys Lacrosse: 27

5/6 Boys Lacrosse: 17

5/6 Girls Lacrosse: 13

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**Summer:** Soccer camps, daytime sports camps, mountain biking "kids on wheels", HHS Girls' and Boys' soccer, men's lacrosse.

*The following is Jill's assessment regarding anticipated Huntley Field Availability for the next 4 years:*

We are leveling and re-seeding 1/2 of Field 2, all of field 3, and part of the meadow at the east end in Summer 2005. Fall of 2006 would be the earliest that they'll be usable; depending on weather, they may not be playable until Spring 2007. Once we're able to use the new surfaces, we'll be leveling Field #1 and part of #2.

We cannot guarantee HHS field space for Fall '05 thru Spring 2007. From Spring '07 through Spring '09, I could have one field and partial use of only one diamond for HHS. [as an aside, just because Rec can't 'guarantee' field space at set times, it doesn't mean things can't be worked out on an ad hoc basis, according to Jill. - kp]

It would be wonderful to work collaboratively if the Rt 5 space is further developed. Currently, and in the past, I've had to turn people's requests away. Adult groups looking for field space generally all ask for evenings and weekends. This problem could be alleviated by having more field space in the Upper Valley."

APPENDIX D  
DOCUMENTS RELATED TO HANOVER ORDINANCES

**HANOVER ZONING ORDINANCES**

**Section 320 – Exterior Lighting**

“Exterior Lighting in conjunction with commercial, industrial, institutional, public, semi-public uses and residential accessory uses such as for swimming pools and tennis courts shall be installed and operated in such a way that provisions are made in directing the lighting, screening, or other means so that adjacent residential uses shall be suitably protected.”

Also, see Hanover Site Plan Regulations, page 8.

**Ordinance 33 - NOISE**

**TOWN OF HANOVER**

**ORDINANCE OF THE BOARD OF SELECTMEN**

The Board of Selectmen of the Town of Hanover ordain as follows:

**AN ORDINANCE REGULATING NOISE  
WITHIN THE TOWN OF HANOVER**

**1. DECLARATION OF PURPOSE:**

The purpose of this Ordinance is to regulate the making, creation or maintenance of such excessive, unnecessary or unusually loud noises that, in their time, place and manner, adversely affect and are a detriment to public health, comfort, safety and welfare of the residents of the Town of Hanover.

**2. TITLE:**

This ordinance shall be known and may be cited as the "Noise Ordinance of the Town of Hanover."

**3. AUTHORITY:**

RSA 31:39, I (n).

**4. DEFINITIONS:**

Construction: Any site preparation, assembly, erection, substantial repair, alteration or similar action, but excluding demolition;

Continuous Sound: Any sound that exists, essentially without interruption, for a period of 10 minutes or more;

Demolition: Dismantling or intentional removal of structures, utilities, public or private right-of-way surfaces or similar property;

Impulse Noise: Any noise of short duration, usually less than one second, and of high intensity, with an abrupt onset and rapid decay;

Institutional "I" Zoning District: That area of the Town of Hanover which is so defined and delineated in the Zoning Ordinance of the Town of Hanover and which is shown on the attached Zoning Map;

Noise Disturbance: Any sound, whether a continuous sound or an impulse noise, which is a loud or unreasonable noise and which disturbs a reasonable person with normal sensitivities;

Owner/Lessee: Owner of the freehold of the premises or lesser estate therein, or mortgagee thereof, a lessee or agent of any of the above persons, a lessee of a device or his or her agent, a tenant, operator, or any other person who has regular control of the premises, device or an apparatus.

Person: Any individual, partnership, company, corporation, association, firm, organization, governmental agency, administration or department, or any other group of individuals, or any officer or employee thereof.

Power Tool: Any device powered mechanically, by electricity, by gasoline, by diesel fuel or by any other fuel, which is intended to be used or is actually used for, but shall not be limited to, the performance of such functions as cutting, nailing, stapling, sawing, vacuuming or drilling.

Residential Property: Any real property developed and used for human habitation and which contains living facilities, including provisions for sleeping, eating, cooking and sanitation, unless such premises are actually occupied and used primarily for purposes other than human habitation.

Undue Hardship: A situation or circumstance in which it is unreasonable to require the applicant to conduct the regulated activity during the hours permitted under the ordinance.

## 5. SPECIFIC PROHIBITIONS:

### A. Noise/Time Restrictions:

It shall be unlawful for any person to carry on the following activities within three hundred (300) feet of any residential property in the GR and SR zoning districts of the following activities if such activities create a noise disturbance that generates a complaint:

a. Between 10:00 p.m. and 7:00 a.m. the loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, trashcans, dumpsters or similar objects.

b. Between 10:00 p.m. and 7:00 a.m. (Monday through Saturday) and 10:00 p.m. and 10:00 a.m. (Sunday):

(1) The operation or use of heavy construction vehicles and equipment involved in construction, demolition, property maintenance or similar activity, including, but not limited to, bulldozers, graders, dump trucks, backhoes, earthmoving equipment, front end loaders and log skidders;

(2) The operation or use of tools, power tools, or construction equipment to include, but not limited to: cement mixers, hammers, staple or nail guns, power tools (i.e., saws, drills, grinders, sanders, chain saws, lawnmowers, electric hedge trimmers, lawn edgers, leaf blowers, and jack hammers), whether involved in construction, demolition, repair, maintenance, or similar activity; and

(3) The operation or use of agricultural equipment to include, but not limited to, tedders, balers and tractors.

## 6. EXEMPTIONS:

The following uses and activities shall be exempt from the foregoing noise/time restrictions:

A. Noise of safety signals, warning devices, and emergency pressure relief valves;

B. Noises resulting from any authorized vehicle when responding to an emergency call or acting in time of emergency;

C. Noise resulting from emergency maintenance work or work that cannot be performed during the day due to mitigating factors such as traffic volume or facility use, as performed by the Town, the School District, the State, public utility companies, Dartmouth College, or a private property owner in the event of a legitimate emergency;

D. Noise resulting from snow removal operations performed by the Town, the State, Dartmouth College, and other types of private or commercial snow removal operations;

E. Noise resulting from groundskeeping activities on the golf course;

F. Any other noise resulting from activities of a temporary duration permitted by the law and for which a license or permit therefore has been granted by the Town;

G. Any noise which is created in and audible only from within the Institutional zone.

## EXCEPTIONS:

It is possible to apply “for an Exception for relief from the provisions of this ordinance on the basis of undue hardship may be made to the Town Manager. Any such permit granted by the Town Manager shall set forth all conditions pertaining to the specified noise, and a reasonable time limit for its abatement.”

# **Ordinance 34 – OUTDOOR ACTIVITIES**

## **TOWN OF HANOVER**

### **ORDINANCE OF THE (BOARD OF SELECTMEN OR TOWN MEETING)**

**The Town of Hanover ordains as follows:**

### **REGULATION OF OUTDOOR ACTIVITIES**

#### **1. DECLARATION OF PURPOSE:**

This Ordinance regulates outdoor activities that may result in the substantial disruption of traffic flow or may generate significant noise. This would include such activities as a large outdoor event open to invitees or the general public; private party, parade or foot race; blocking of road, sidewalk or

access to structures; fireworks; or any other activity which may result in substantial production of noise or disruption of the normal flow of activities.

## 2. TITLE:

This ordinance shall be known and may be cited as "Regulation of Outdoor Activities" Ordinance of the Town of Hanover."

## 3. AUTHORITY:

RSA 31:39, I(n). The Town of Hanover will also enforce RSA 644:2, Disorderly Conduct, in addition to this ordinance. Specifically, "a person is guilty of disorderly conduct if he/she purposely causes a breach of the peace, public inconvenience, annoyance or alarm, or recklessly creates a risk thereof, by: (a) Making loud or unreasonable noises in a public place, or making loud or unreasonable noises in a private place which can be heard in a public place or other private places, which noises would disturb a person of average sensibilities..."

## 4. DEFINITIONS:

A. Noise Disturbance: Any sound, whether a continuous sound or an impulse noise, which is loud or unreasonable and which disturbs a reasonable person with normal sensitivities.

B. Noisy Assembly: A noisy assembly under this chapter means any gathering of more than one (1) person at a residential property that creates a noise disturbance. Any such gathering between the hours of 10:00 p.m. and 7:00 a.m. on Sunday through Thursday; between the hours of 11:00 pm and 7:00 am on Friday and Saturday; and between the hours of 12:00 pm and 7:00 am on Friday and Saturday of Dartmouth Homecoming, Winter Carnival, Green Key and Graduation, in such a manner as to be plainly audible at the property line of a structure or building in which it is located or in the hallway or apartment adjacent, shall be prima facie evidence that the noise is excessive.

C. Person: Any individual, partnership, company, corporation, association, firm, organization, governmental agency, administration or department, or any other group of individuals, or any officer or employee thereof.

D. Undue Hardship: Exists where it is unreasonable to require the applicant to conduct the regulated activity during the hours permitted under the ordinance.

E. Sound Amplification Device or Equipment: Any apparatus for the amplification of sound from any electronic device, band, orchestra or other sound-making or sound-producing device, including any apparatus for the amplification of the human voice.

F. Continuous Sound: Any sound that exists, essentially without interruption, for a period of 10 minutes or more.

G. Impulse Noise: Any noise of short duration, usually less than one second, and of high intensity, with an abrupt onset and rapid decay.

H. Residential Property: Any real property developed and used for human habitation which contains living facilities, including provisions for sleeping, eating, cooking and sanitation, unless such premises are actually occupied and used primarily for purposes other than human habitation.

I. Owner/Lessee: Owner of the freehold of the premises or lesser estate therein, or mortgagee thereof, a lessee or agent of any of the above persons, a lessee of a device or his or her agent, a tenant, operator, or any other person who has regular control of the premises, a device or an apparatus.

J. Outdoor Activity: Any outdoor activity that may result in substantial production of a noise disturbance or disruption of the normal flow of activities, including but not limited to: a large outdoor activity to which invitees or the general public are invited; private party, parade or foot race; blocking of road, sidewalk or access to structure, fireworks; the use of sound amplifying devices on a street, sidewalk, park, public place, or in a private place which could be heard in another private or public place; or any activity which constitutes a noisy assembly.

## 5. PERMIT:

Application for a permit for an outdoor activity shall be made to the Town Manager. Any such permit granted by the Town Manager shall set forth all conditions pertaining to the outdoor activity, and a reasonable time limit for its conclusion. An application for an Exception granting relief from the provisions of this ordinance on the basis of undue hardship may be made to the Town Manager. Any such Exception granted by the Town Manager shall set forth all conditions pertaining to the specified noise, and a reasonable time limit for its abatement.