

I have three specific recommendations, which I have proposed to CC at Play, regarding how the fields complex could be a more flexible design, at lower cost, than the current design which was first promoted in October 2013. Through June 2013 (no public presentations again until October) the proposed layout had tennis and basketball courts 'on the hill' but in October the tennis courts were repositioned near the stadium. Since the fall, the layout has only been altered in minor ways to meet regulatory requirements. Some of those seemingly minor changes have had significant functional and cost impacts. Here are the suggestions I have been proposing since the October presentation of the current arrangement:

- 1) Rebuild the tennis courts on the hill, not at the end of the football stadium
 - Do not change the configuration of the current football stadium without a plan for each use/function
- 2) Do not rotate the Varsity softball diamond out into field
- 3) Do not create a fully circular path around the lower fields

Each is independent. Any could be adopted without requiring the others to be implemented. None of these recommendations have been incorporated into the plan. Only one of them involves any delay whatsoever in its implementation (#1, tennis, due to the unavailable area within the building project footprint).

Detailed Analysis

Tennis on the Hill

This suggestion changes the proposed use of the area previously occupied by 5 tennis courts and a multipurpose field (the "JV lacrosse" field). The area has been partially consumed in the new building footprint, so it impossible to re-site both features in this location without very extensive (and expensive) regrading and removal of more wooded area on the site. CC at Play proposes to build a multipurpose field and rebound wall in this location. I believe tennis should be sited there instead.

Pros

- Existing courts already there. 2 courts (possibly 3?) can be salvaged and fully refurbished for lower cost than building new.
- Align 4-6 new courts with the current to create a 6-8 (9?) court complex. Building 4 with 2 refurbished would be at lower cost than the CC at Play proposal. I suggest 6 new + 2 refurb for 8, likely adding cost. See below regarding requirements for 8 courts.
- Lower regrading/drainage costs than proposed lacrosse field.
- Expansion potential in that area. The team requires a minimum of 8 courts for matches (must split with Emerson if only 6 built), and will certainly continue to use Emerson for practice with only 6 courts available. With the CC at Play design, there is no expansion potential anywhere near the 6 proposed. Here, if 6 are built, room is available to expand in the future.

- Construction not in conflict with other athletic uses of the area.
Construction could begin as soon as area is vacated, not necessarily wait for a summer construction window.
- Tennis would probably put less pressure on the limited parking serving that area of the campus than another multipurpose field. During community use windows, Doug White parking already a problem.

Cons

- Windy site due to elevation. Fence windbreak fabric could be added to mitigate, also landscape plantings
- Not 'central' to the athletic action. Spring sport of lacrosse would be across the parking lot at Doug White. Also, with a larger number of courts, they would not be quite so isolated 'in the woods'.
- Placing courts on the hill means no full size lacrosse field (see Alternatives).
- Must wait, likely ready by spring '17, but possibly could be built for spring '16 use. CC at Play plan provides 6 courts by fall '14 ready by the '15 season.
- The alternative, a multipurpose field, would create parking problems for community use if Doug White and this field were in use simultaneously.

Alternatives

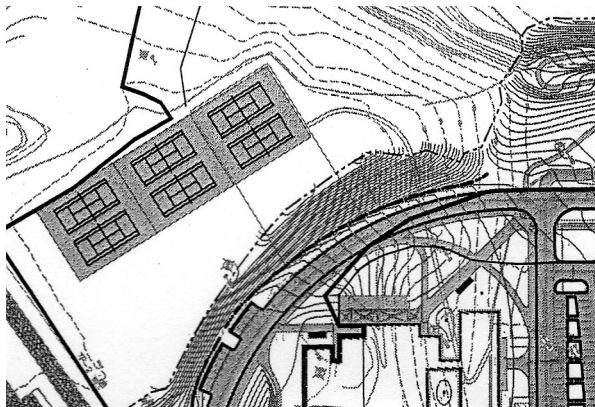
The CC at Play plan places a full size multipurpose field at this location. I believe a field surface is a good outcome for the ash dump remediation area under the current student parking lot. Neither the School Committee nor CC at Play has considered this area as a possible location. The additional cost to the remediation plan of covering the parking area with loam and grass would be minimal, whereas the costs associated with regrading for a full size field 'on the hill' are far higher than a tennis alternative at that location. There would be a delay getting a field at the current student parking location, as it is also in the building construction envelope.

Placing tennis courts on the hill leaves the small practice area and maintenance barn intact. The chart below summarizes some comparisons between tennis 'up or down'.

Feature	Tennis near Stadium Field	Tennis near Doug White Fields
Parking	Plenty in the lower lots, a short distance away, down hill to courts	Limited parking, but immediately adjacent to courts
# of courts	6 with no room to expand	6-8 (maybe 9). If only 6, would have room to expand in place later
Grading	Retaining wall required, adding expense	Existing site graded, limited grade improvements required
Other costs	Maintenance barn replacement Discus structure replacement Forces softball diamond to be moved	No added costs
Intangibles	Enhanced school spirit from proximity to the 'center of the action' for tennis, alternatively - 'Congestion' from proximity to several spring sports venues.	Fewer distractions during play/practice – tennis requires quiet & concentration
Schedule	Spring '15	Spring '17

Concepts of the 'upper tennis', using the existing courts as the basis (using 2 refurb'd on existing alignment)

CCHS regulatory filing – official Stormwater management filing for the building project. The Stormwater plan reserved impervious surface for tennis courts, while at the same time asserting that these courts were not part of the building project. This design minimizes grading and utilizes two courts from the prior 5 court complex.

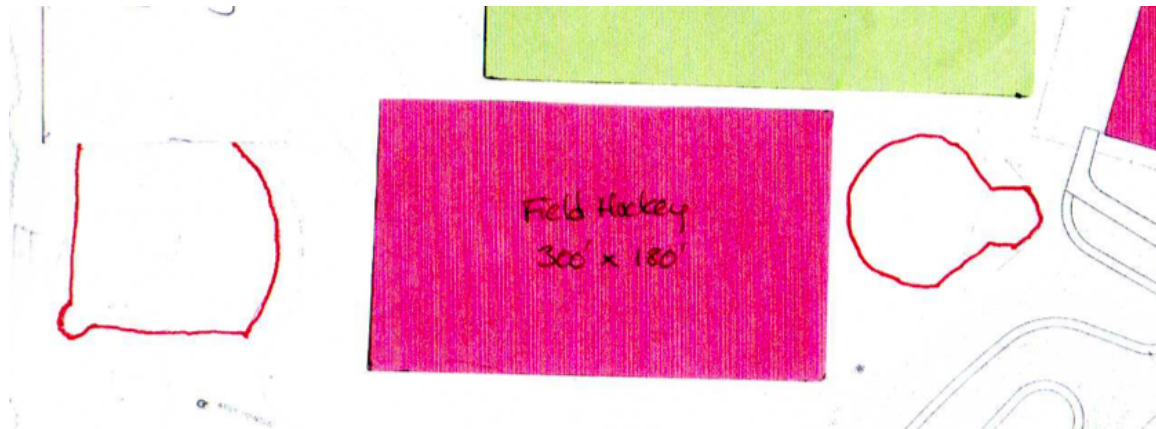


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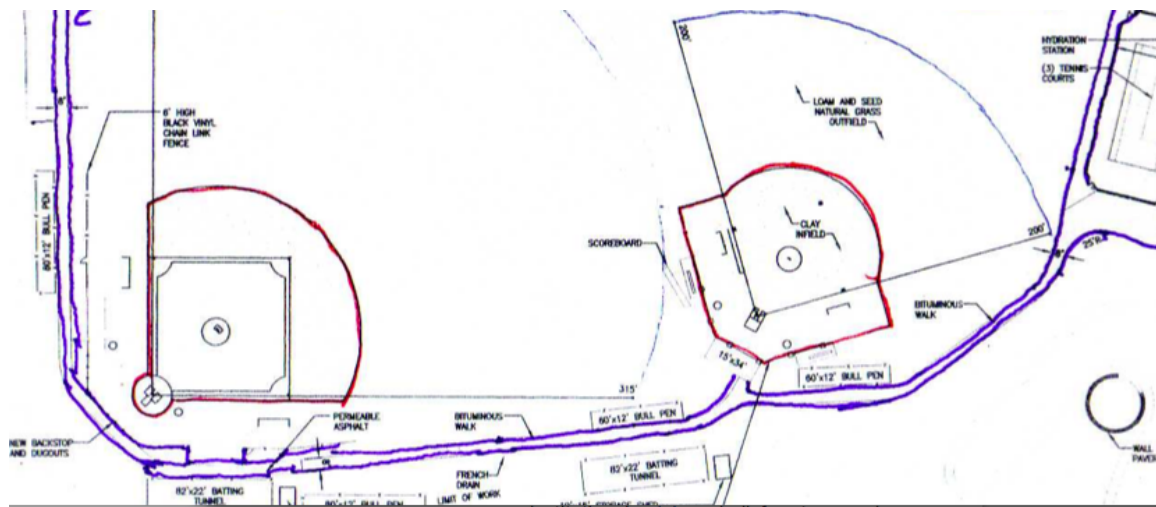
Rotating the Varsity Softball diamond

The current lower fields complex hosts 4 backstops and infields for baseball (90 ft diamonds) and softball (60 ft diamonds), each tucked conservatively into a corner of the roughly rectangular fields area. This arrangement allows the grass areas between the diamonds to be used flexibly for sports requiring rectangular field configurations. The area between the Varsity baseball and softball diamonds is over 100 yds long and is lined in the fall for field hockey. The CC at Play proposal rotates the Varsity Softball diamond, which places a permanent backstop in the middle of the grassed area, degrading the flexibility of the entire space by chopping the grass into fragmented smaller spaces, not useful for regulation fields.

Today



Proposed



Note that due to the 6 court tennis proposal, even if the alignment of the softball diamond remained the same as it is today, it would need to push out somewhat due to the encroachment from the tennis courts. However, I believe that 100yds between the infield skins would still be possible with a careful design, along with the requirements of outfield depth for both diamonds. This may entail added expense to

create a retaining wall, as the area contains steep grades. If the tennis courts were not built at this location, the field could stay in approximately its current location, without added regrading.

The single goal of rotating this diamond is the creation of an ideal sun orientation for the field. I believe this consideration, regardless of how it is characterized ('gender equity' with boys baseball, safety, because sun is minimized in all players' eyes) is too great a compromise to the overall utility of the layout. Loss of general purpose space for single season, single sport use must be weighed very carefully and there has been no public discussion of this compromise. The Town made a similar decision when building the 60ft diamond at Ripley – the loss of a full size multipurpose field for the diamond (along with some arable farmland). The result here is a permanent loss of a fall sports field space for high school use and summer camp rental field for soccer or lacrosse camps.

I also believe that if the sun orientation were of critical importance to the program for equity or safety reasons, games could be played at the other softball diamond today, where the afternoon sun would be behind the batter, but this has not been a priority of the program. It should be noted that the sun sets well after 7 pm during the spring softball season. Softball/baseball is the only sport which wears a billed hat, for just this reason. Batters look straight out at the pitcher, not up, into the sun, as fielders must. A billed batting helmet should cover matters very well. Do not rotate this diamond.

Circular walking path

CC at Play has proposed various features to improve ADA compliance, and these are to be commended. However, the application of the principle of accessibility has been applied unevenly in the design, and the resulting "1/2 mile measured walking loop" I believe is over-engineered, interacts badly with the sports needs of the campus and the demand for it as a community amenity for exercise walkers is undocumented.

ADA is but one of several regulatory overlays on the lower fields. Since the original high school was built, the Commonwealth has legislated that wetlands (1972) and groundwater (1977) resources are worthy of protection, and the Town has followed suit with Bylaws which strengthen those protections. The lower fields contain areas subject to both protections. In addition, regulations have been promulgated to protect our waterways from untreated storm water runoff (1995). All of these, along with accessibility must be balanced along with the general purpose of the complex – sports activity.

Overengineered

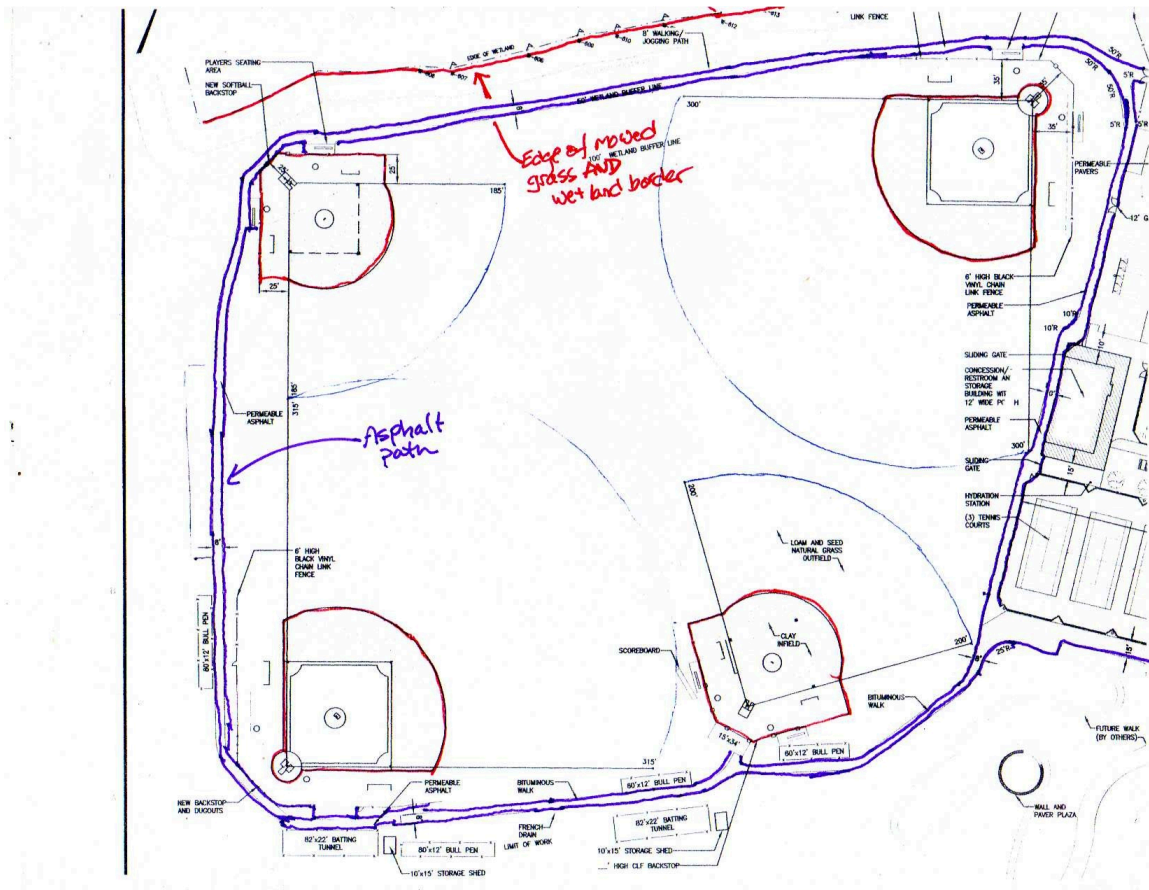
The path makes a full circuit around the lower fields. This has previously been a section of the route of the cross country trail. A surface compatible with running and also ADA compatible would be a packed dirt/cinder surface similar to the Minuteman Park trail. Cross country state championship meets are held at Franklin Park, which has an extensive network of packed dirt trails. I suggested this, but my

suggestion was not taken up, instead this path is to be bituminous (asphalt) sidewalk. To date, the re-designed cross country circuit has not been mapped out.

It is designed at 8ft wide, fully wide enough for vehicular travel. Concord sidewalks (with numerous ADA features) are 5 ft in width. What this feels like is more of a circular driveway than an access or walking path.

Interacts Badly with Sports Use

Here is a picture of the lower complex with the proposed drive highlighted in purple. The red line on the northern side of the fields is a wetland boundary.

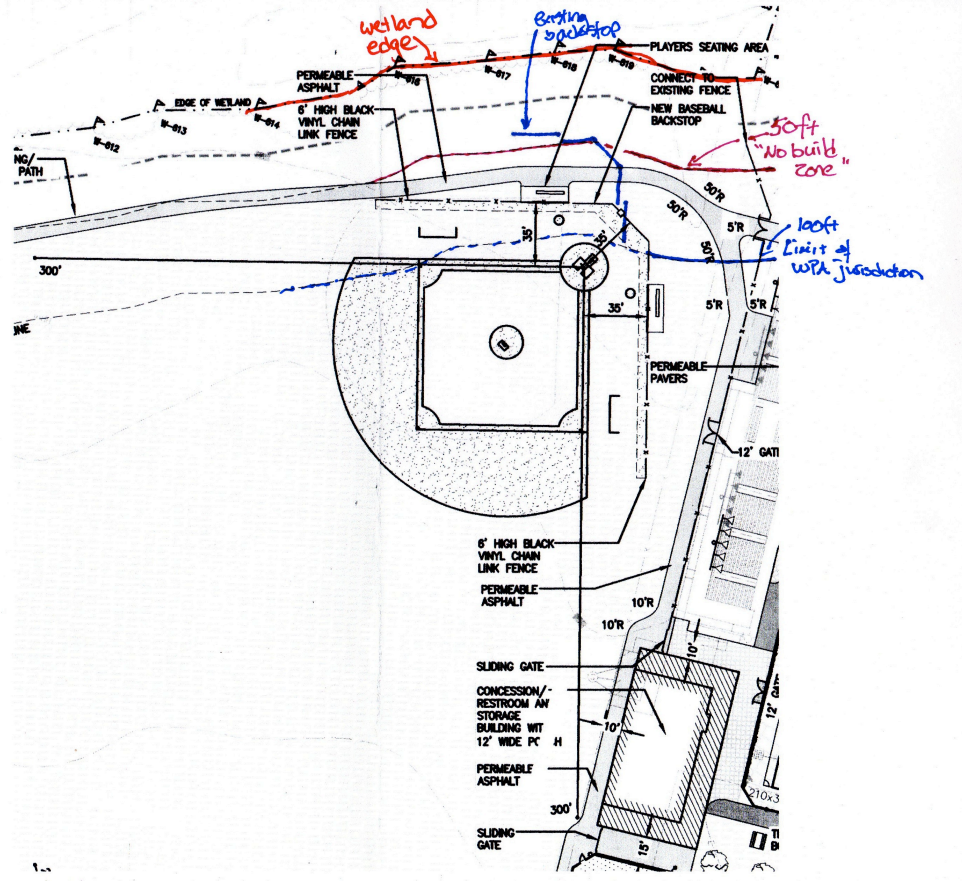


I believe the ring should be truncated at the two JV (northern) diamonds and not continue along the northern edge. By continuing around, the plan automatically engages the Wetlands Protection Act (WPA), and this has resulted in multiple expensive (cost and usability) changes in the original concept that I feel are unwarranted. These are totally avoidable with a design that leaves the grandfathered uses alone along that sensitive area. Bringing that access down the sides of the field to within 100 ft of the wetlands (WPA jurisdictional boundary) is a very good ADA solution for access to the fields. A full loop is not part of the high school athletic program, yet CC at Play persists in including it, to the detriment of the design.

I have watched carefully during the permitting process, and I think this path should be rethought before a shovel goes in the ground. Although the path between the JV

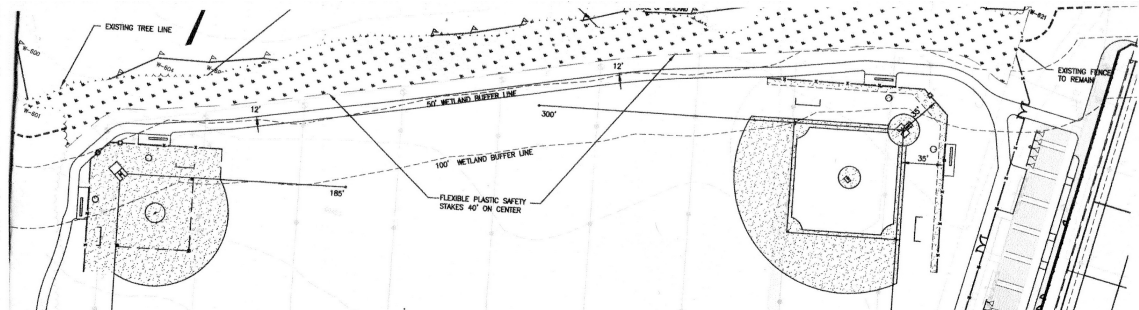
diamonds on the northern edge is a phase 2 item, and revisions could be arranged for it during the construction of Phase 1, costs might be avoided during Phase 1 if the decision is taken not to install it.

The image below shows in blue where the existing backstop and player screening fences are located for the overgrown/abandoned JV baseball diamond. They are very close to a critical line, 50ft from the wetland edge. Concord has a policy that no structures can be placed within 50ft of a wetland. These are grandfathered. If a backstop of similar scope, not the more extensive fencing and road proposed, were brought to the NRC as a 'replacement in kind', they may allow strict replacement at the current location. If the same scale fencing were moved west 10'-15' and _rotated_ slightly, the bench screening fence now closer than 50ft would rotate out of the 50ft protection zone and the NRC may view that as a nice accommodation of the 50ft rule. I cannot speak for the Commission, and have been very clear that I am recused in this matter. The diamond cannot shift too far west, or the 120 yd football practice field will end up intersecting with an infield, which should be avoided if possible. Due to the extensive new development proposed in the wetland protection buffer, the backstop had to be moved much farther south, as shown, to keep both the fencing and the drive/path outside the 50ft zone. This design leaves the orientation of the diamond the same. This would normally not be an issue, but one reason this diamond is abandoned today is that too many foul balls end up in the wetland and rotating the diamond was a priority of the AD. This could not be achieved due to the need to migrate south so far.



The JV softball diamond is similarly grandfathered where it is, but bringing the road around it really engaged the WPA and Concord's bylaw which totally prohibits disturbance in the zone 25' or nearer to the wetland edge. Forcing this grandfathered backstop out to the 50ft line caused the Varsity baseball backstop, new in the last two years, to be scheduled for demolition and rebuilt 15ft farther back in Phase 1, so that foul lines for both fields could be 315' (baseball) and 185' (softball). Leaving the JV softball backstop (again, replace in kind if you want) where it is means saving that costly relocation of the Varsity diamond and still keeping the 315/185 dimensions. We are losing a lot of utility (the football practice field is compromised when that sidewalk goes in) because CC at Play would like to 'fix' something that could be better with a much less aggressive approach. I have been saying this since last October to no avail. I guess, if there is really money looking for a way to spend itself, you could move the varsity baseball back the 15' and get 315'/200', but I would not call that value for the money spent.

Here is a picture of the final border treatment - 25'-30' of tall grasses, mowed only once a year (dotted area), 12' of mowed strip, 8' asphalt drive, playing field area. This is 50'-60' of usable playing field space that is completely grandfathered for its mowed athletic use, but it is being given away for a vehicle drive that is not required for ADA, and as a walking circuit not a component of the High School athletic program.

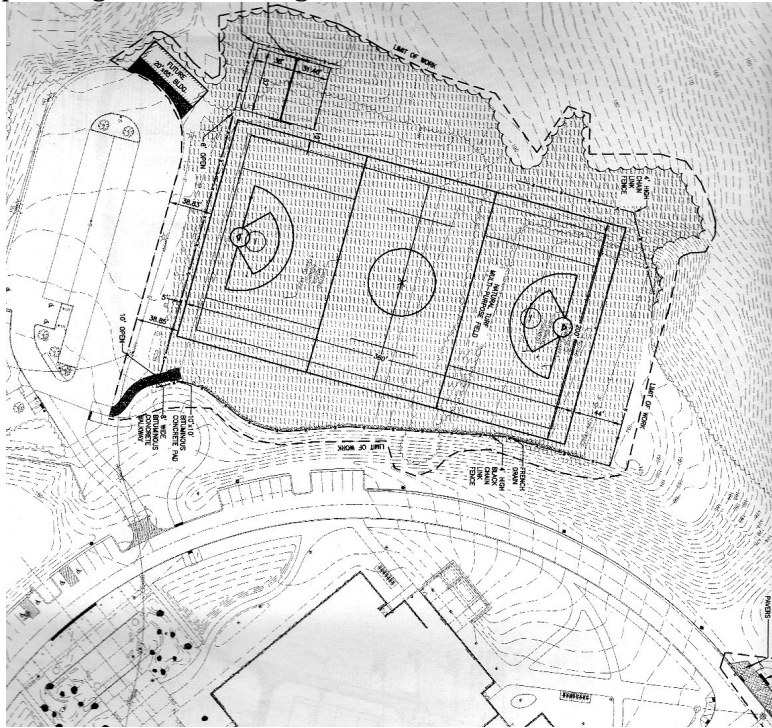


Uneven Treatment of Access as a Priority

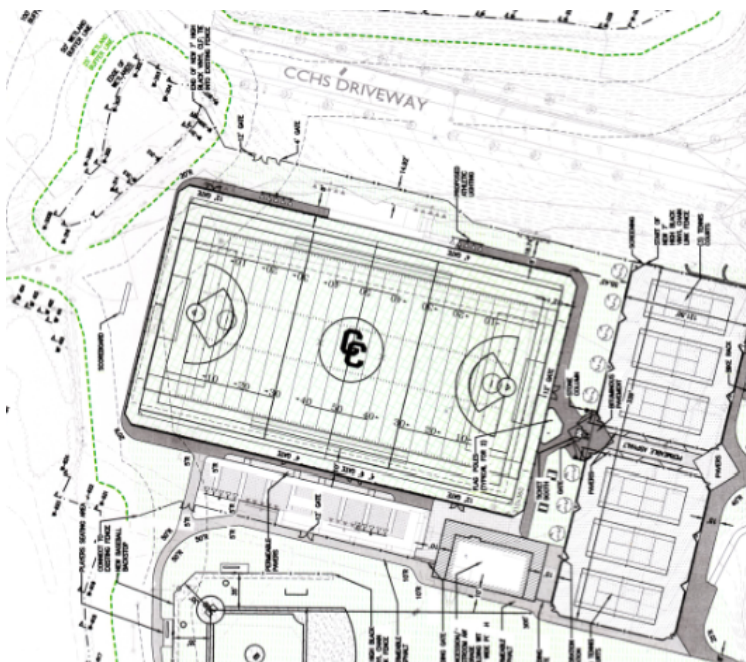
Asked at Town Meeting whether the loop path was an 'ADA requirement', John Boynton stated that yes it was. With that in mind, I will offer a few caveats regarding the uneven application of ADA principles. I am not a lawyer or an ADA expert, but have tried to understand how the law is applied to playing fields and more particularly to fields used for multiple sports, laid out differently in each season. There are not a lot of resources on this, so what follows are what I have found, but are by no means definitive.

Access Principle – Access generally to the field itself. The operative statement here is "An accessible route is required to connect to the boundary of the area of sport activity. The term "area of sport activity" distinguishes that portion of a room or space where the play or practice of a sport occurs from adjacent areas." 'Connect to the boundary' has been interpreted, in the case of the upper multi-purpose field as a minimal capacity to reach the field, not as a universal ability to

reach the field from all places along its boundary. Note the dark path from the parking lot in the image below:



In addition, during permitting, the football stadium field originally had an 8ft wide asphalt path surrounding it, but this was removed due to interaction with WPA regulations, so that field also does not have a full boundary access path. Note the lack of a path on the left side below. Unfortunately, also lost in this final revision were handicapped parking spaces along the CCHS driveway and an accessible path down to the field from them. The parking spaces could have been saved, I believe, by moving them farther up the driveway. That is unfortunate, and avoidable.



So why then, does CC at Play insist on a full perimeter path (road/drive) around the lower fields, when the same wetlands laws that forced a revision to the football field plan are affecting the other design as well? It does not appear to be an ADA absolute.

To summarize, I believe the full circuit drive around the fields forces the JV diamonds away from their grandfathered, fully legal locations. It yields 50-60ft of useful athletic space to habitat creation and pavement, it makes design of the cross country course more complicated, its width invites vehicular travel and its demand as a community need is undocumented. If we really want it and must build it, I feel it could be done more sensitively to the needs of runners with a different surface, compatible with running.

In Conclusion

Land use in the end is a zero sum game. When we presuppose to reconfigure land, the pre-existing condition, even undisturbed wooded areas must be accounted for and the change evaluated in terms of what is lost and what is gained. I feel each of these three suggestions reduces costs and improves the athletic utility of the available acreage, yet none have been adopted.

I love the CCHS property. My family has lived beside it for 18 years and we have been lucky to do so. As an NRC member, I have participated in hearings to construct things as prosaic as a new sewer line or as major as a new school building, and in the process have helped to manage and protect its sensitive areas and the Town's groundwater reserves. I have studied maps and surveys of its drainage and topography, and walked every inch of it with my dogs. We are close enough that we can hear the pep band, the announcer and the cheers on Friday nights in the Fall. We can hear the roll of names being called on graduation days. We donated to and encouraged the creation of the Beede Center and the Doug White fields, and every member of my family has benefited greatly from those efforts as have so many in our community. We are thankful that so many in Town have been so generous with their time and talents in creating these improvements.

I want nothing but the best for this jewel in our midst. The reconfiguration will stand for another 40 years. We are not in an urgent situation, although waiting even one year can seem an eternity to athletes who are displaced, or who are playing on subpar surfaces. CC at Play will create a wonderful resource for all in Concord and Carlisle. I have just felt all along, it could be better.

Dean Banfield