Memorandum

To: Board of Aldermen
From: David A. Olson
Re: Material for Public Facilities NNHS Site Plan Approval
Date: July 18, 2006

Board of Aldermen,

In preparation for the Public Facilities NNHS Site Plan Approval Meeting tomorrow night, please find attached materials from the Architects as well as a draft Board Order for Site Plan Approval prepared by the Law Department. The meeting will take place Wednesday, July 19, 2006 and begin at 7:00 pm in Room 209.

Thanks,

David

Public Facilities Committee Meeting
Newton North High School
June 27, 2006

Committee Questions / Issues to be resolved:

1. **Building Expansion:**
   Quantify number of classrooms needed and location.
   Answer: NPS has asked for (4) expansion classrooms. Location for (4) expansion classrooms has been identified on the end of the wing that overhangs the west terrace. GUND

   What is the square footage of the footprint of proposed plan?
   Answer: 169,999 GSF for Site Plan Approval Plan. GUND

2. **Proposed Basement:**
   Location of "proposed" basement storage.
   Answer: Storage needs for the educational program have already been accounted for in the program. Additional storage can be provided if a need is identified. Such storage could be located in a basement space adjacent to the service elevator at the north end of the building. GUND

   Square foot cost for "unfinished condition basement" i.e. exposed concrete walls, no ceiling, basic electrical, HVAC, fire sprinklers.
   Answer: Budget cost for unfinished space as described is $150/sf. GUND

   Explain J. Nitsch / Civil Engineer comment concerning "need for small ejector pump for floor drainage in the basement."
   Answer: The basement is below the level of the existing sewer lines in the street. A small pump, if required, will pump sewage to the sewer line on site where it will connect to the street. This is commonly done in basements. GUND

   How much storage does the existing NNHS have in basement?
   Answer: There is very little storage space built into the existing NNHS. In the true basement, where the boilers ar, there is not space. On the First floor, where the career and technical program is, things are either stored within the shop space for each program or in some of the following areas: the custodial break room, the loading dock, and two spaces in the cafeteria behind the elementary school lunch preparation area. Finally, lumber for the carpentry shop is stored in the area at the corner of Elm St. and Lowell Ave. that has the roll-up garage door. NPS

3. **HVAC Options:**
   Explain different HVAC system options under consideration, including initial cost/ noise/ efficiency/ lifecycle cost.
   Answer: The design team is currently reviewing systems including Centralized Equipment, Rooftop Units as well as Geothermal. While the final design may

utilize a mix of the above systems, all systems will be reviewed for initial cost, noise of operation, system efficiency and lifecycle cost.

4. **Hull Street Impact:**
   Answer: Views of building from Hull Street including trees and new lighting for tennis courts will be presented at the next meeting. GUND

5. **Cost information:**
   Cost of "Depressed" stadium vs. "on grade" stadium. Will space be saved if stadium not depressed?
   Answer: The earth from the stadium excavation will be used to raise the grade around the building in order to provide positive drainage away from the building and reduce the potential for water from Laundry Brook Culvert entering the building during a severe storm. To the extent that fill is needed for this purpose, there is a savings associated with getting it from on site. This savings will offset the cost of stadium excavation and may completely zero it out. The expectation is that the site grading will balance cuts and fills so that competent soil will not have to be removed from the site.
   Putting the stadium on grade would allow the perimeter fence to be located closer to the track at each end of the stadium. GUND

6. **Elm Road:**
   Clarify restrictions and daily use of Elm Road.
   Answer: Buses and service vehicles will be permitted to use Elm Road as a one way through street accessed from Lowell Avenue prior to 4:00 PM on weekdays. Faculty parking will be allowed at any time of day via two way access from Walnut St. to the parking lot and a designated part of the north entry/Theatre loop parking. Faculty parking should be complete prior to student buses arriving in the morning. Auto drop-off and pick-up activities will be allowed at any time of day via two way access from Walnut St. to the north entry / Theatre loop. Elm Road will be available to the public for parking and through traffic after 4:00 PM, on weekdays and anytime on weekends and holidays. GUND

   How wide is the existing Elm Road?
   Answer: Existing Elm Road width varies from 31' wide at the entry off Lowell Avenue, to 22' wide at the parent drop off loop. Elm Road off of Walnut Street is approximately 28'-6" wide. GUND

   Possibly add "STOP" sign where cars will turn left into North entry / Theatre drop-off, possibly across path of bus.
   Answer: We can add traffic control devices for the parent drop-off on Elm Road as the design becomes refined. Additional traffic controls can also be installed as need becomes more defined. TS

7. **Response to Alderman Yates questions:**
    a. Response to Citizen's alternate proposal.
    Answer: Gund comments are:
    - School shown is only +/- 295,388 S.F.
    - Footprint of school would not accommodate Athletic Program.
    - Students should ideally not cross any street to reach playing fields from the school.
    - Tennis courts shown 70' x 30', should be 120' x 160'.
    - Soccer field shown at 80' x 310' vs. 213' x 342', desired.

    b. Written documentation of orientation of fields and safety.
    Answer: The American Academy of Ophthalmology (AAO) reports that half of all eye injuries occur among people 25 years or younger, and 40% of those injuries (40,000 annually in the United States) are directly related to participation in sports or recreation. The AAO recommends eye protection, including goggles and sunglasses that block both UVA and UVB rays, for sports including baseball, football, soccer, field hockey and lacrosse.
    Radiation injuries occur after exposure to ultra violet light. Solar retinopathy occurs after looking into the sun for an extended period. The AAO recommends eye protection to reduce significant eye injuries and advises coaches and officials that injuries caused by sun glare can be prevented by a South to North field layout.
    The American Institute of Architects; Architectural Graphic Standards, a manual of design standards used across the country advises; "The preferred orientation of playing fields is with the long axis stretching NW to SE."

    c. Review of "right turn in only / right turn out only."
    Answer: The Federal Standard "Manual on Uniform Traffic Control Devices" states that "a traffic signal at a roadway intersection is not permitted to be pedestrian activated only". Since the signal is required to have automobile phases, the benefit gained is that left turns can be safely provided. GUND

8. **Alderman Albright's issues:**
    Documentation of School Committee philosophy, goals, direction for new school?
    Smaller Learning Communities?
    Library as center of school, not Cafeteria?
    Community Education?
    Answer: See attached document from Supt. Jeffrey Young.

NEWTON PUBLIC SCHOOLS
OFFICE OF THE SUPERINTENDENT
EDUCATION CENTER
100 WALNUT STREET
NEWTON, MA 02460

MEMORANDUM

TO: Board of Aldermen

FROM: Jeffrey M. Young
Superintendent of Schools

DATE: June 29, 2006

RE: Public Facilities Committee meeting questions

Please see the following responses to questions raised in the Public Facilities Committee meeting:

Question: What are the educational philosophy and programmatic goals behind the design of the high school?

Five excerpts from documents address various aspects of this issue.

1. Excerpt from April 6, 2000 memo to School Committee:

   Over the past year, we have been engaged in an intensive study of Newton's existing high school facilities. The study itself has been characterized by broad participation: School Committee members, City officials, school administrators, teachers, parents, students, and the architectural firm of Strekalovsky and Hoit have all contributed to the discussion. Having considered issues ranging from the broadest educational goals to the most specific elements of construction, I am prepared to recommend that the School Committee adopt the proposal that is summarized in this memorandum and detailed in the accompanying comprehensive report.

   <u>Two Modern High Schools for Newton</u>
   In formulating this proposal, we have worked to integrate the programmatic goals of a modern American high school with the functional needs of two physical plants that call desperately for upgrade and renovation. Clearly, this project is large in scope, but it is our belief that a community's high schools are its most valuable asset; thus, this proposal seeks to take the comprehensive approach, that is, to do the job once and to do it right.

   In December, 1999, the School Committee voted to create two high schools in Newton of approximately equal size. As I wrote in a memo to the Committee at that time, there is a strong rationale for taking this approach:

High school education in Newton should embrace the ideals of academic challenge and support, positive relations between staff and students, opportunities for individual students to discover their uniqueness as young adults, and a strong sense of community. With numerous forces from inside and outside the schoolhouse affecting the way education is conducted, we must work hard to organize our schools in ways that allow us to reach for the ideals stated above.

All students should have access to a curriculum that is grounded in the core academic subjects and at the same time provides ample opportunity for students to pursue elective areas of study. In every classroom, teachers and students should be expected to do their best work. To that end, teachers must utilize a wide repertoire of instructional strategies to meet the learning needs of a diverse group of students. Schoolwork is serious business and teachers not only must have expertise in their subject area but also in their personal knowledge of the students they meet every day. There should be a shift from an emphasis on teaching to an emphasis on learning. Teachers need to be able to know all of their students well in order to help them to understand and appreciate the intellectual struggle that comes with grappling with challenging material and the joy and self-esteem that result from success in that struggle.

American secondary education has been characterized since its inception as a kind of factory model. Here, teachers deliver content and "produce" students who have accumulated enough information to pass a test and graduate. A new approach to high school education suggests that the human relationships that grow up between staff members and students are essential in ensuring that all students reach the achievement levels we expect of them. We need to reject the factory model; we should be equipping young people to achieve the standards society sets for them in a manner that respects them as individuals, each with different interests, strengths and talents. Effective schools must be organized in such a way that adults and children know one another well enough to foster civility, mutual respect, and a true sense of community.

One of the ways students begin to develop a strong sense of self is by finding their own place within the academic setting. Schools must afford students the chance to explore a variety of intellectual pursuits. For some, a particular class will be the entry way to adulthood; these students will discover the intersection of a rich content area and their own special predilections and interests. For others, it will be an extracurricular activity that unlocks their individuality. High schools should be planned in such a way that offers students a wide variety of programs and opportunities to connect to their own learning, for it is through these connections that learning becomes most meaningful. Thus, a key for high schools is access: students must have access to subject matter as well as to their emerging adult selves.

In addition, high schools should strive to become communities where individuals know one another, care about one another and take care of one another. Like the best of communities, students and staff in high schools should share a sense of purpose. They should know why they are there and be constantly reminded, in a dozen ways every day, that their community is safe and supportive—a place where they can feel prepared to take risks in their learning and development.

Parents, too, have an important role as community members. Parents need to feel that in a large secondary school, they still have a way to enjoy some of the benefits of the smaller elementary or middle school. These are basic human concerns. Parents should know that there are adults in the school who are looking out for their sons and daughters, that there is someone in the school who really knows that young person as an individual and is working to be sure that the student is being supported and progressing appropriately.

High schools must be organized as places which de-emphasize the bureaucracy too often associated with big educational institutions and substitute instead a kind of intimacy that will produce significant educational, intellectual, psychological, physical and social gains for the students in attendance.

We can know a good high school when we see one. Good high schools are places where there exists a sense of purposeful activity and enthusiasm, where adolescents are encouraged to take on greater responsibility, and are engaged in working to achieve a clearly stated end. In good schools, we see expressions of students' academic, artistic, athletic and other achievements throughout the building. We see teachers talking to students all over the place—in hallways, offices, classrooms, and common areas. We also see teachers talking to teachers, collaborating on the best ways to meet student needs. We see parents present in good schools. We see teachers working in a professional environment, equipped with the essential tools of their trade, including a desk, a telephone, and a computer with easy access to electronic mail to enhance communication among teachers themselves but also between school and home. We feel a hum of activity that is busy and energizing, not chaotic and enervating.

In Newton, we seek to support two such high schools. The administration of the Newton Public Schools recommends proceeding with plans to roughly equalize the population of both high schools so that, simply stated, one school is not too large and one school is not too small. While there is no firm magic number for the optimal size of a public high school, experience teaches us that once a school enrolls over approximately 2000 students, certain things begin to happen. Likewise, in schools that are too small, disadvantages appear.

First, there is an increased sense of anonymity among students and staff. We believe that the members of a graduating class should all know one another. This is clearly significant in regard to creating the sense of community described above, but it is also important with respect to safety and a sense of belonging. There should be, as suggested above, a shared sense of purpose, or vision, which binds people together. In mid-sized high schools (the kind we are recommending for Newton), we can be more attentive to the physical and psychological safety of children. When a school gets overly large, issues such as supervision, building management, and control require more energy and resources, and begin to take center stage in the daily life of the school, where the emphasis should remain on learning and teaching. While this advantage is critical in and of itself in these times, it is also true that when people function in an environment where they do not feel lost in the crowd, their chances for making intellectual gains also rise.

Second, on the theme of anonymity, it is important to build a culture of collegiality among the adults in the building. In a mid-size high school, there are greater opportunities for teachers and other staff members to share strategies for instruction as well as insights about particular students. The units within a school (i.e. houses, departments) should be properly sized so as to promote the kind of collaborative conversation we know builds unity of purpose and expectation.

Third, in a mid-sized school, the curriculum no longer must utilize a "one size fits all" approach. On the contrary, in a school of 1800-2000 students, we have more ability to tailor academic programs to the students themselves, and there is an increased opportunity to employ a diverse teaching force that will establish personal connections with the broadest range of students.

Fourth, in a school that is too small, on the other hand, administrators often wrestle with the problem of "singletons," that is, courses for which only one section can be offered due to the lack of critical mass of students and teachers to develop a more comprehensive school schedule. It is not right for students to have to choose, for example, between taking a second language and participating in the school orchestra. Or, what happens when, say, thirty students elect an Advanced Placement course? As a managerial matter, the principal is forced to choose between running one large section with thirty students, which may be educationally unsound, or two small sections with fifteen students apiece, which may be fiscally unsound. With more students and teachers in the mix, there is greater flexibility for meeting all student needs.

Fifth, in a school that is too small, we are concerned about those students "at the fringes," the ones whose interests are so specialized that they often cannot find enough peers like themselves. In a mid-sized school, the opportunities for students to meet new friends who share their interests are greatly increased.

Finally, it must be said that while the primary purpose of school still remains the academic development of students, we are acutely conscious of the factors that help us reach that goal. We seek, therefore, to restructure the high school experience in Newton so that every freshman who enters either North or South knows that in the course of four years, he or she will have a chance to succeed, to test out a new idea, to meet people like and unlike himself or herself, and to make a meaningful, and possibly life-lasting human connection with an adult who knows and cares.

Much of the overall cost of this project involves rehabilitating the existing infrastructure at both high schools. North is thirty years old; South is forty. At both buildings, systems need to be repaired or replaced. This should come as no surprise to any homeowner who has found him- or herself in the position of having to replace a roof, a heating system, or electrical service. The report from the architect details the engineering studies that have formed the backdrop for the recommendations to address these issues.

<u>High Schools in the United States</u>

Newton is not alone in dealing with these matters. A recent report from the National Association of Secondary School Principals in partnership with the

Carnegie Foundation for the Advancement of Teaching entitled “Breaking Ranks: Changing an American Institution” describes the problem facing the nation:

The condition of facilities can affect the climate for learning. All aspects of the high school’s physical environment have an impact on students and their inclination to achieve. The physical setting of a high school should nurture a student in much the same way that the clean, safe interior of a home makes the youngster feel comfortable and secure. The physical environment of a high school ought to lend a sense of affirming, supporting, tolerating, accepting, and caring. Americans must provide the kinds of school facilities that show students that society values them. In this connection, districts should ensure that facilities are accessible to the disabled, which, after all, is a legal requirement. Furthermore, schools must provide for the safety of all people who use the facilities, making certain, for instance, that fire alarms and sprinkler systems work and that the design of parking lots protects pedestrians.

A report from the federal government’s General Accounting Office estimates that schools in the United States need $112 billion to upgrade or repair their facilities, noting that as many as one-third of all schools need extensive repairs or replacement. These findings reflect the fact that one-third of the 110,000 schools in the country were built before World War II and only about 1 of 10 schools was constructed since 1980. In a survey of teachers in the late 1980s, the Carnegie Foundation for the Advancement of Teaching discovered that heating was considered a problem by 54 percent; cleanliness, by 51 percent; and the general condition of the physical plant, by 46 percent. A good building does not necessarily make a good school and, in fact, one sometimes finds marvelous schools housed in centuries-old structures in European countries. But the morale and motivation of those in the building can sag—and safety can be imperiled—when a school of any age suffers neglect.

Districts everywhere in the United States exacerbated the physical problems of schools in recent years by deferring maintenance in response to budgetary pressures. The District of Columbia Committee on Public Education, looking at the dismal state of school facilities in that city, said that the message to students was that “...what is going on inside is not important, that the school system is uncaring, and that neglect is tolerated. A building in poor repair contributes to the attitude and discipline problems among students, which in turn contribute to poor performance in schools.”

The physical condition of school buildings depends on the attitudes and deportment of many people. As in a family, each member of the school community bears some responsibility for the well-being of the facilities. Japanese schools assign students to perform various maintenance tasks in their schools, leaving no doubt in the minds of young people about their role in the upkeep of their schools. Students in the United States should also come to understand, especially by the time they are teenagers, that they share an obligation to keep their schools in good condition. Litter and vandalism, for instance, do not miraculously appear as a result of infractions by evil elves. Responsibility for the upkeep of a high school extends more widely when the school opens its facilities to the neighborhood for various functions before and

after classes, on weekends, and during vacations. Outsiders who use the school, like the students and the teachers, must respect the facilities and contribute toward keeping the building clean and in working order.

Technology

The "Breaking Ranks" report observes that "technology is revolutionizing education and educators cannot afford to regard it as a frill or simply as an add-on. Careful planning should begin immediately in each high school to employ technology throughout the school and to integrate it into all aspects of the program. Boards of education must provide for the funds for the purchase of current technology and for enabling teachers to pursue ongoing education in technology."

Two years ago, the School Committee established the High School Technology Committee. This Committee has met regularly during that time to discuss the technology needs of the high schools and to develop a high school technology plan. The committee has reviewed wireless technology and attended a presentation by Apple Corporation in Boston. Wireless technology does not literally mean no wires are necessary. The buildings will still need to be fully wired, however, a wireless computer can gain access to the network without being physically plugged into the cable. Our early experiments with wireless solutions suggest that this technology works very well and holds great promise both for providing teachers with access to the internet and email from even remote work stations, and for turning a classroom into a computer lab as needed.

This project proposal includes funds for building the "technology backbone" and contains support for data, video, and telephone cabling to classrooms; cabling between teachers' outlets and video outlets; public address systems, speakers, clocks, and related cabling; telephone main equipment, telephone handsets in classrooms and offices, and voice mail system; local audio equipment in auditoriums, gymnasiums, cafeterias, pool, and other common spaces; video head end equipment for distributing program information; an allowance for "loose technology" including hardware and software; and design and project management services.

2. Superintendent's PowerPoint presentation to Newton North High School Task Force, January 2003

   Please see the attachment.

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3. Design Criteria Approved by School Committee September 27, 2004

The overall goal of the School Committee is for the City of Newton to build a new Newton North High School according to high performance design standards that allow for the construction of a fully functioning school on the site of the current Newton North. The new school should have a rich instructional program, Career and Technical Education, theater and arts, indoor and outdoor athletics, community education, and the ability to be used as a shared community resource.

We seek to require high performance design elements that extend beyond minimum building codes. These standards promote: a school facility and site plan that advances the health and well being of users of the facility; a school that is efficient in its use of materials and resources and is easy to operate and maintain; a school that is safe and secure; and a school that will accommodate future change while maintaining its standards of performance and reliability. Our expectation is that high performance standards utilizing proven technologies can create a state of the art school that will complement and fit well within the context of the site and surrounding neighborhoods, be a model of energy, water, and materials efficiency, and be cost effective to maintain over the lifetime of the building.

Specifically, we look for the following:

Health, well-being, and student performance

- Maximum access to natural daylight throughout the building
- Superior ventilation
- Superior acoustic environment
- Reliable and flexible control of the internal environment
- Visually appealing design that supports a sense of a vibrant, diverse community
- A design that feels welcoming throughout the facility
- A building that enhances the functions of teaching and learning, including areas for chance encounters between students and adults and spaces that facilitate private student/teacher conferences
- A building that is easy to navigate

Efficient use of resources in building, operating, and maintaining

- Evaluate design elements using life cycle costing to achieve the best possible building performance within the budget parameters. The life cycle cost should account for all measurable benefits including:
    - Reduced demand for natural resources (energy, water)
    - Lowered utility costs
    - Lowered operations and maintenance costs

  Life cycle costing should also consider the value of non-monetary benefits including building a school conducive to a healthy and productive learning environment.

  Maintenance and operations schedules must be included as part of each analysis.

- Design should be determined and design elements specified according to:
  o Efficiency

- Durability, longevity
- Reduced consumption of energy, water, and resources
- Low or no maintenance
- Clear and reliable operations

- Commissioned to ensure the building operates as designed

Safety and security
- Ensure controlled access including accommodation for community access after hours without compromising security to the rest of the facility
- Design that maximizes natural supervision of space
- A design that takes into account both the curiosity and impulsiveness of high school students in creating a safe environment

Flexibility to accommodate change
- Anticipate changing student/staff spatial needs
- Anticipate changing technology for major systems

Inclusive process for designs
- Allowance during the design phase for School Committee, Board of Aldermen and public discussion and input
- Separate meetings at the school for major stakeholders (students, faculty and staff)

4. Update on staff work with Design Team, November 23, 2005.

In the fall of 2005, we convened a series of meetings with the Design team and staff to review and update the goals of program. Copied below is the memo I sent to School Committee in November of 2005 summarizing those meetings:

> *Earlier this fall, the School Committee asked me to review the Educational Specifications (Program) for Newton North High School, which you had approved in June, 2004. The external economic factors detailed by architect John Prokos in his 10/26/05 memo to Nick Parnell and the general passage of time indicated that the costs associated with the approved Newton North project might rise. Given the uncertainty of cost, the Committee wanted to be sure that it was advancing a building project that met the educational needs of the high school in the most cost-efficient manner possible.*
>
> *Working with the Design Team and a representative group of Newton North teachers, administrators, parents and students, we began a process of "Affirmation and Modification" of the June 2004 approved program. Our goal was to affirm those aspects of the program we deemed essential and take the necessary steps to preserve them in the new specifications. At the same time, the Design Team was able to take a fresh look at the specs, and they helped us identify some possible efficiencies in the use of square footage. Thus, after careful review, I can recommend that the School Committee adopt the revised Educational Specifications (summarized in the attached spreadsheet).*

The June 2004 program called for 404,860 sq. ft. -- a gross number composed of two components (287,135 sq. ft of net educational spaces plus 117,725 sq. ft. of support spaces based on a multiplier used by the architect at the time). As the multiplier itself is a design rather than a programmatic issue, we do not consider it at this time. Instead, in the effort to compare "apples to apples," it is best to relate the 287, 135 sq. ft. of program space in the June 2004 plan to the 274,090 sq. ft. of program space in the present recommendation. In other words, we are focused at this time on the roughly 13,000 sq. ft. of efficiencies we were able to identify in our work with the Design Team as well as the major staff user groups at Newton North.

Our effort affirmed the importance of maintaining the following:

- *enough core classrooms to run the academic program for the projected 1850 student population, using an 85% utilization rate;*
- *plans to utilize the technology model in place at Newton South High School;*
- *adequate space for all special education programs, including Pilot, Links, Network, Integrated, Connections and Leaning Centers;*
- *space for a library/media center that is supported by standards of national professional associations;*
- *sufficient space for teaching stations for the physical education/fitness program;*
- *a large competition gymnasium with bleacher seating, as well as a simulated outdoor area (SOA) with a synthetic floor and indoor developmental track;*
- *an auditorium with seating for 650, along with support spaces such as scenery shop, dressing rooms, storage, lobby, etc.*
- *adequate flexible space to house the Career and Tech Ed programs of today and tomorrow;*
- *an outdoor stadium that provides adequate seating capacity for graduation and other large events;*
- *guidance spaces dispersed throughout the building, including individual offices for counselors and conference rooms;*
- *an allocation of square footage for teacher workspace, although no plan for design of this workspace has been created as of yet;*
- *significant, flexible space for student gathering areas, including a cafeteria/ student union and some space (yet to be designed) that would meet the goals currently served by Main Street.*

The above list is not intended to be exhaustive but rather illustrative of the kinds of spaces we wanted to be sure would be incorporated into the new building design.

At the same time, we were able to identify approximately 13,000 sq. ft. of efficiencies achieved largely by making existing spaces "work harder" and by smart use of adjacencies. For example, we will analyze the CTE program to see whether there are ways for certain programs to share spaces, and we will consider options for locating some smaller programs into existing space at Newton South. Placing the exhibition gym and the SOA next to each other on the same floor (unlike their placement at Newton North today) should create a more economical use of athletic space.

As we move forward, once the School Committee approves the updated program, the Design Team will work closely with the faculty and staff at Newton North to begin schematic design. Our discussions to date have led to the articulation of four policy questions that will have design implications. I spoke about these at the faculty meeting at Newton North on November 22 and will discuss them with the Newton North School Council on December 5. These questions are typical of the kinds of issues we will want to work through as a school community but, again, they are only the first four to emerge and in no way constitute the full list of programmatic issues that have important implications for the design of the school. I present them here mainly to give the School Committee an idea of the kind of work we will be taking up next:

(1) Should the Library/Media Center or the Cafeteria/Student Union be the core of the school? There are symbolic associations with either choice, and clearly there are design implications that will need to be studied.

(2) How can teacher workspace be designed in such a way that it addresses ostensibly competing objectives (the desire for space that allows for professional collegiality and "buzz" and space that works for quiet one-on-one meetings with students for writing conferences and other purposes)?

(3) To what extent should we use double-loaded corridors with classrooms on either side (the traditional approach), or should we use clusters of classrooms with break-out space nearby?

(4) In what ways will the House structure and the Departmental organization work together both programmatically and in the design sense?

Again, I expect other questions like this to surface in the coming months, and I know the Design Team is committed to working closely with the Newton North community to ensure that the educational goals of the school are supported and advanced by the physical plant.

5. Report on Teacher Workspace, March 14, 2006

Currently at North, 72 teachers have individual workspace or “cubicles.” These teachers are primarily from the larger departments of English, world language,

mathematics, and history and social science and are assigned these spaces by their respective department heads. Most science teachers do not have this type of workspace (there are some smaller offices in the back of some science rooms that teacher have been using as workspace), nor do most teachers in the smaller departments such as art, music, business, etc.

In addition to the individual cubicles, 36 teachers share space in groups of three. This space is located in "end" rooms that are attached to the individual cubicles that are organized into groups of six. The cubicles are scattered throughout the building on floors 2, 3, and 4, with one space on the first floor for three mathematics teachers.

The total faculty of NNHS is approximately 200 teachers, so roughly half of them (108) are assigned individual or semi-individual workspace. Teachers that are not assigned individual workspace use their classrooms, or their department office large space.

Teachers' views about their workspace are summarized in the bullet points below. At the March 15 meeting, we want to know whether we have accurately captured your interests. Once the interests are confirmed, the architects will sketch some possible configurations of space for your review. To keep the whole building project moving forward, I ask that you submit your reactions to Heidi Black on or before March 24.

- Teacher workspaces must have telephones and data drops.
- Individual workspace provides teachers with a place to have private telephone conversations.
- Individual workspace provides teachers with a place to have a private meeting with a student (writing conferences for example).
- Teachers need a place to secure their personal belongings and laptop computers.
- Teachers need a place to gather as a department in addition to the individual workspaces.
- Teachers do not want individual carrels.
- Teachers want a space that lends itself to professional collegiality yet also affords a means to achieve privacy as described above.
- Other points to consider?

Question: Should there be a special design element to support the Smaller Learning Communities initiative?

Newton Public Schools secured a competitive grant from the United States Department of Education in the amount of $650,000 to study and implement Smaller Learning Communities. Our work in this area suggests that SLCs are related more to administrative and organizational aspects of the school schedule and calendar, and less directly connected to the physical plant. A recent update to the School Committee, (minutes below) provides an overview of our work to date in this area.

Minutes from 2/27/06 School Committee meeting:

Superintendent Jeffrey Young stated that tonight's discussion will be another update on the progress that has been made to date in this area at the high schools and several staff members are present to answer questions.
Judith Malone Neville, Assistant Superintendent of Schools, noted that the SLC initiative continues to move along. The purpose of SLCs is to improve the relationship among students and teachers and to make large high schools seem more manageable. The Newton South High School pilot program for the 9th grade advisors that was put in place last year has now become a full program for all 9th grade students. Newton North has begun a similar pilot program involving approximately ¼ of the 9th grade. A group of students at both high schools is participating in a 9th grade cluster/team project and plans are underway for examining upper grade academies. To date two have been identified and are in next year's program of studies catalogue for Newton South. A tremendous amount of professional development has occurred for staff around the critical friends groups (CFGs), which brings teachers together to examine student work and improve on their practice in order to help students become more successful learners.

Gail Glick would be interested in hearing more about the upper class academies.

Rachel McNally, Co-coordinator of SLC at Newton South, stated that the programs were developed through requests for proposals from staff. It was felt that this was a better way to approach it than to have it come from the top down. Four proposals were submitted and two were selected. One is an upper grade interdisciplinary SLC in the global studies program, which will run for three years beginning in the sophomore year. The other is a senior interdisciplinary SLC involving human anatomy art and 3-D imaging. Teachers are currently working on the curriculum for these programs. The programs are open to all students in every curriculum level and students will select them from the catalogue in the same way they do all their courses.

Reenie Murphy asked for more information about the 9th grade cluster.

Rachel McNally explained that at South it involves eight teachers from the English, science, social studies, and special education (SPED) departments which share approximately 135 students. They are able to meet weekly for an entire block, which allows for consistent communication and collaboration among teachers around both the students and the curriculum. They recently planned an interdisciplinary week-long unit on Hurricane Katrina, which will be accompanied by a student survey to get feedback on the experiences of the students in this project and she would be happy to report back on that at a future date. The ability to have time to collaborate with colleagues is a tremendous opportunity. A consultant is evaluating the program and spent three days in December setting up interviews with teachers and students. In the debriefing, the consultant stated that there is an obvious difference in the 9th grade experience between the students in the SLCs vs. those not in the program in terms of their feeling special and supported and knowing that several teachers are collaborating around their education. Students are getting consistent messages on skills and habits.

Jennifer Huntington spoke about North's experience in the cluster program, where for a number of years they have had an English/history cluster that was very successful. Another was added this year in science/math. Students are randomly selected and the collaboration time for teachers is the essential ingredient in making these experiences work.

Anne Larner asked about the academy experience from the perspective of the students.

Emma Leslie, Co-coordinator of SLC at Newton South, stated that the three year global study project will replace the current linked English/social studies, so they will have some data on which to base students' experiences because they can compare the two. The students are very excited about the connection between the disciplines. It is hoped that the students will make a three year commitment to the course.

Brenda Keegan, Interim Principal at Newton South, stated that several students have mentioned how meaningful the cluster course has been for them and how much they liked the interdisciplinary approach among the three subjects. Some of these students are working on planning a trip for their senior year to a third world country where they will develop a project incorporating what they have learned from their experiences in this program.

Dan Freshman, sophomore at Newton South, stated that this year they have been raising school supplies for Nicaragua and assisted with relief efforts for Hurricane Katrina and are now working toward determining plans for next year's program.

Dori Zaleznik asked about the difference between the one longer vs. two shorter block timeframes of the advisories.

Dan Freshman stated that the two shorter blocks do not provide sufficient time for meeting around the advisories. The longer full block allows for the opportunity to conduct fuller activities vs. a quick sharing or chit-chat about plans. He prefers the longer period.

Emma Leslie talked about how they arrived at the shorter block timeframe. In order for the advisory to work for the whole school, they needed a schedule that provided dedicated time for advisories for all students. One block is 10 minutes long and the other is 15 and they meet twice a week. She agrees with Dan that the longer period is preferable, but they have to work with what they are dealt, and hope in the future to somehow extend the time.

Marc Laredo asked about the 9th grade teaming initiative.

Rachel McNally stated that next year at South there will be three 9th grade SLCs with three different teacher teams. They plan to stay with the basic model of weekly meetings and will conduct the training over the summer. A schedule is posted in the office to help teachers coordinate homework, tests, due dates for major papers, etc.

Deb Holman, Coordinator of SLC at Newton North, stated that North has three long-standing 9th grade teams and one new one. Unfortunately, due to scheduling conflicts and other issues, they have been having some problems developing interest among staff in linking the courses, so their plan is limited at this time. Their main focus has been on ramping up 9th grade advisories for all students for next year. Ample teacher training would be necessary over the summer and she is concerned about not being further ahead in planning at this time. However, understandably there have been other conflicting activities that have taken up faculty meetings such as the NEASC accreditation, principal search, and building project.

Dori Zaleznik asked the student about whether these other SLC opportunities would pique his interest having had the advisory experience and whether he thinks they would appeal to other students.

Dan Freshman commented that many of them seem very interesting. He experienced the Link program last year in English and history and found it made the workload both easier and of better quality because of the coordination between the disciplines. It is also a good transition experience for freshman to have some of their teachers connecting with one another, similar to what they are used to in the team structure at the middle schools.

Claire Sokoloff wondered about the sustainability of the programs if additional funding is not forthcoming from the grant.

Susan Linn, Grants Coordinator, responded that they are in phase two of the initiative. The first stage involved the planning portion of the grant and they are now a year-and-a-half through the three year grant and have spent $223,000 of the $650,000 allocation. It appears that at the end of the grant they will have an excess of $70,000 left of unspent funds to sustain the initiative. This would allow them to have a .25 coordinator position at each school, which is currently .5, and to continue some professional development, although the district may need to invest some matching funds for the latter. They can also reapply for grant funding although she does not anticipate that being forthcoming.

Carolyn Wyatt added that they have done some training of their own staff in the CFGs so that they can capitalize on their expertise in moving forward. They will also need to discuss other issues such as the deployment of staff, average teacher loads, and linking courses as some examples for future planning. The goal of the grant is to restructure school settings in order to make more intimate communities without huge added expenses by rethinking the way schools are organized.

Question: Why is the library on the second floor and not at the "heart" of the school?

The library needs to be near the classrooms and the core subject areas. The library is a learning laboratory that is there to help facilitate teaching and learning. The library teachers do a great deal of planning and co-teaching with the Social Studies,

English/Language Arts, Science, and World Languages Departments. If the library is on the first floor it will not be near any of the classrooms. It will be more time consuming and inconvenient for the teachers and students to get to.

The location of the library is key to its being used for its purpose and for its being successful.

Question: Will the design accommodate Newton's Community Education?

Newton Community Education will continue to be a vital part of the new Newton North High School. Originally approved for 780 square feet of space, an additional 150 square feet was added for a total of 930 square feet to allow for future growth of the program's support staff as well as providing enough space for the entire staff to meet; currently there are 7 workstations, a private director's office, 3 computer stations, a copy area, a small safe, and storage for supplies. The new Community Education office will be prominently located at the Main Entrance of the school, thus allowing users easy, visible, and immediate access for registration and assistance with programming, particularly in the evening. In addition, the office will be located immediately adjacent to the school's summer school office so that 450 square feet of space will be available to the Community Education program throughout the school year to share as additional overflow space should it be needed. The Community Education program will have use to the entire school building. State-of-the art athletic facilities, computer labs, art and music space, classrooms, and the Career and Technical Education program will be available to enhance the wide range of classes offered. Because the design of the new building will allow portions of the school to be locked and closed off is not in use, the Community Education program will benefit from a more efficient use of space, perhaps not requiring the entire building to be opened off-hours.

I hope the above information is helpful. The School Department stands ready to assist the Board of Aldermen in its decision-making process in whatever ways we can be of service.

cc: Newton School Committee

DRAFT for discussion purposes only
July 18, 2006
#224-06

CITY OF NEWTON

IN BOARD OF ALDERMEN

July , 2006

ORDERED:

That the Board of Aldermen finding that the public interest would be served by its action, hereby grants SITE PLAN APPROVAL to the City of Newton for construction of a new Newton North High School with related athletic facilities and other site improvements pursuant to the provisions of Sec. 5-58 of the Revised Ordinances of the City of Newton, in accordance with the recommendations of the Public Facilities Committee and subject to the following conditions:

Docket Number:	224-06
Petitioner:	The Design Review Committee of the City of Newton
Location:	Newton North High School, 360 Lowell Avenue, Ward 2, Newtonville, more specifically described as Section 24, Block 18, Lot 1, containing approximately 1,045,658 square feet of land.
Owner:	City of Newton
Owner's Address:	Newton City Hall 1000 Commonwealth Avenue Newton Centre, MA 02159
To be used for:	New Newton North High School and related athletic facilities (hereinafter referred to as the "Project")
Construction:	Brick and glass façade
Explanatory note:	All new construction of a municipal building requires Site Plan Approval pursuant to the provisions of Section 5-58 of the Revised Ordinances of the City of Newton.

The land referred to is zoned Public Use.

1. The building and site improvements for the new Newton North High School shall be constructed consistent with the set of plans approved by the Design Review Committee entitled "Site Plan Approval Set", prepared by Gund Partnership, dated May 4, 2006, and on

file with the City Clerk. The "Site Plan Approval Set," which sets out Option 4A as considered by the Design Review Committee, consists of the following plans:

a. EX-1, Existing Conditions Plan;

b. C-1, Utility Plan;

c. L1.0, Site Plan;

d. L2.0, Grading Plan;

e. L3.0, Landscape Plan;

f. A2.20, Plan Basement Level;

g. A2.21, Plan First Level South;

h. A2.22, Plan First Level North;

i. A2.23, Plan Second Level South;

j. A2.24, Plan Second Level North;

k. A2.26, Plan Third Level North;

l. A2.27, Plan Fourth Level South;

m. A3.11, Building Elevations; and

n. A3.21, Site Sections.

N.B. The plan references and Site Plan Option identified in this Condition should be modified if a Site Plan other than Option 4A is reported out of the Public Facilities Committee to the Board of Aldermen.

The building floorplans and elevations are subject to modification as the plans are developed during the Design Development and Construction Document phases of the Project. Pursuant to §5-54(c) of The Revised Ordinances of Newton, 2001, the Design Review Committee shall make periodic reviews of the Project's plans as it moves through the various design phases.

The following draft conditions which reflect concerns raised in Committee have been prepared for discussion purposes only:

2. The Board of Aldermen acting through its Public Facilities Committee will receive regular updates on the status of the Project, including reports on the issues to be analyzed pursuant to the conditions contained in this board order.

3. During the Design Development phase, the City shall undertake a comparative design and associated financial analysis of the following alternatives:

a) Building the multi-purpose playing field at grade rather than sinking it;

b) Providing basement space for such of the mechanical equipment as may be relocated from the roof;

c) Providing basement space above and beyond that needed for mechanicals to be used for secure storage;

d) Adjusting the layout of Elm Road in the area of the bus waiting zone to maximize the opportunity to increase the landscape buffer between Elm Road and the abutting residential properties;

e) Providing a drop-off area along Lowell Avenue;

f) Covering the stairs leading from Hull Street into the east side of the site; and

g) Designing the classroom building to allow expansion space for additional classrooms to be erected later.

4. The Public Works Commissioner shall recommend to the Board of Aldermen possible street improvements to promote safety at the intersection of Hull Street and Walnut Street, including but not limited to signage, and the narrowing of the intersection. Such improvements as approved by the City shall be undertaken as soon as possible and in no event later than the Project's opening.

5. A traffic signal shall be installed by the City at the driveway to the Project's center entrance on Walnut Street. Such signal shall be in operation at the time of the Project's opening.

6. The City shall use best efforts to retain and protect the existing trees along the north side of Hull Street to provide a landscape buffer for the adjacent residential properties.

Under Suspension of Rules
Readings Waived and Approved

(SGD)_____
DAVID OLSON, City Clerk