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Preliminary Report of Building Expansion Needs of Wheaton Warrenville High School

Wayne Alan Schurter

Eastern Illinois University

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PRELIMINARY REPORT OF BUILDING EXPANSION
NEEDS OF WHEATON WARRENVILLE HIGH SCHOOL
(TITLE)

BY

Wayne Alan Schurter

THESIS

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YEAR

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INTRODUCTION

The purpose of this study is to analyze the present and future building expansion of Wheaton Warrenville High School. Parents, students, faculty, staff and administrators were consulted in regard to present facilities compared with facilities needed to handle present and future enrollment. The study encompasses such aspects as land size and usage, outside facility requirements, current building usage - its adequacy and needs, each team's needs, requirements for guidance and administration, functional use of facilities, general and specific recommendations, general cost estimate, and rationale for the recommendations. Additional resources used in the study included District #200 central administrative staff; the North Central Association Evaluation Team; and Orput Associates, Incorporated, school architects.

For practical purposes the author was designated as the chairman of the Committee to Study Building Expansion Needs of Wheaton Warrenville High School. The committee was responsible for providing input into the data collection process. As chairman, the author was charged with the responsibility of conducting all interviews, compiling all pertinent data, making all oral presentations to various groups and individuals, and submitting a final written document to Mr. Harold Burshtan, principal of Wheaton Warrenville High School.

To be able to understand the physical facilities of Wheaton Warrenville High School, one must first be cognizant of the school district, the school's academic program and the school's purposes and objectives. It is the author's intent to familiarize the reader with the aforementioned aspects of the school and to propose suitable physical facilities to enable the school to cope with present and future enrollment demands.

Wheaton Warrenville School District #200 is located twenty-five miles west of Chicago, Illinois, in DuPage County, and serves the communities of Wheaton and Warrenville. The unit district consists of twenty-two schools: fifteen elementary schools (K-6), four junior high schools (7-8), and three senior high schools (9-12); and serves over 13,000 students. The suburban communities of Wheaton and Warrenville have very little industry. A very large number of people living in these areas work in Chicago or its immediate suburbs. Those people working locally are self-employed, small business, etc. or are employed by industry in the near neighboring communities such as Bell Laboratories, Standard Oil Research or Fermi National Accelerator. As a result, the children of Wheaton Warrenville School District families are of a very cosmopolitan nature.

Wheaton Warrenville High School opened in the Fall of 1973 as the third high school in Wheaton Warrenville Community Unit School District #200 with a student body of 834 in

grades nine, ten and eleven. In the Fall of 1975 Wheaton Warrenville High School had an enrollment of 1176 in grades nine, ten, eleven and twelve. The school serves the southern part of the city of Wheaton and the village of Warrenville. The curriculum is basically the same as that of the other two high schools in the district, because of district curriculum coordination. The school year and curriculum are based on the quarter system rather than the semester system. Utilizing the open space learning concept, Wheaton Warrenville High School's physical facilities encourage a flexible learning atmosphere.

To fully understand Wheaton Warrenville High School, one must be aware of how the school perceives itself. In January, 1975, a faculty committee established the following statement of purposes and objectives:

Statement of Purposes and Objectives:

1. Our school should be concerned with each student's total development.
2. Our school should guide students to a useful body of knowledge which includes a proficiency in the basic skills and should encourage each student to the limit of his capability. In particular, each teacher should guide his students to an understanding of his subject area, thereby enabling the student to make his own value judgments and to develop the capacity to use the subject matter in resolving the fundamental concerns of himself and others.
3. Our school should help every individual to become a self-directed learner, to develop skills and attitudes necessary for problem solving, and to develop the necessities to accept and to adapt to a continually changing world.

4. Our school should recognize and accept that individual differences exist and should be guided by this principle.
5. Our school should choose methods for learning that provide each student with the opportunity to proceed on the basis of individual ability, interest, and need; and that provide for some student involvement in selecting course goals, methods, and measure of evaluation.
6. Our school should encourage all students to participate in creative activities.
7. Our school should encourage and exemplify values such as self-esteem, esteem of others and their property, honesty, integrity, self-discipline, altruism, and humaneness.
8. Our school should recognize that an image of self-worth is basic to a successful and stable student and should help each student to be successful in finding his individual place within the school environment and society.
9. Our school should integrate all phases of career education into the entire curriculum.
10. Our school should create an educational program sufficiently flexible to enable us to derive the maximum educational benefit from the human and physical resources available.
11. Our school should provide educational leadership and direction in the areas of curriculum development, student activities, community concerns, student discipline and improvement of individualized instruction.
12. Our school should promote professionalism among its members by encouraging them to be involved continually in the learning process and, to keep abreast of current developments in education.¹

In addition to the school's purposes and objectives each team establishes yearly goals that are compatible with the school's goals, and every faculty member establishes his own personal goals. The purposes and objectives are continually evaluated during the school year and are altered as necessary annually.

The physical facilities of Wheaton Warrenville High School attest to its uniqueness. Located in a rural setting,

the school site consists of a well landscaped forty-seven acres with trees, open areas, and a pond. The building, while employing a very attractive architectural design, is very practical. Low-maintenance brown brick throughout the building is complemented by terazzo flooring in heavily traveled areas as well as carpet in sections of the building that require more sound-absorbing construction. Super-graphics on the walls are functional, giving directions and locations of different disciplines and resource areas. In general, Wheaton Warrenville High School is a well-built, attractive and functional facility. The main problem with Wheaton Warrenville High School's physical facilities is that enrollment demands are presently exceeding building capacity and will inundate the school district and this building in particular unless immediate steps are taken to correct an ever-worsening situation.

In this study an attempt will be made to identify the additional facilities necessary for Wheaton Warrenville High School while attempting to maintain an equitable facilities relationship with Wheaton North and Wheaton Central High Schools.

LOG OF ACTIVITIES

To collect data for this study a series of interviews, meetings and discussions, both formal and informal, were conducted with the following people:

- October 3, 1975 Mr. Harold Burshtan, principal of Wheaton Warrenville High School. A discussion concerning possible field experience topics that would be suitable for the high school as well as Eastern Illinois University.
- October 7, 1975 Mr. Gene Steinkamp, administrative assistant of Wheaton Warrenville High School. A discussion concerning possible field experience topics.
- October 31, 1975 Mr. Harold Burshtan. A discussion of possible field experience topics.
- November 5, 1975 Dr. James Cole, committee chairperson of North Central Evaluation Team on physical facilities.
- November 17, 1975 Dr. Donald Smitley, field study advisor, Eastern Illinois University Department of Educational Administration. A discussion of the field experience and topics.
- November 18, 1975 Dr. Victor Zavarella, administrative assistant to the superintendent of schools, District #200. A discussion regarding popula-

- tion growth in District #200 and the Wheaton Warrenville High School area.
- November 20, 1975 Wheaton Warrenville High School Parent Advisory Committee. An overview of the proposed building expansion needs study.
- November 21, 1975 Dr. Victor Zavarella. A discussion concerning the final report of the Growth Sub-committee of the Long Range Planning Committee of Wheaton Warrenville School District #200.
- November 24, 1975 Special Building Committee of the Board of Education of District #200. A meeting concerning physical facilities of the district's three high schools: Wheaton North, Wheaton Central and Wheaton Warrenville High School.
- November 25, 1975 Mr. Lester Landherr, business area team leader. A discussion concerning facility needs.
- November 25, 1975 Mr. Leon Busboom, driver education team leader. A discussion concerning facility needs.
- December 1, 1975 Wheaton Warrenville High School Faculty Council. An overview of proposed facility study.
- December 1, 1975 Mrs. Julie Williams, foreign language team

- leader. An interview concerning building needs.
- December 3, 1975 Ms. Lydia Chapman, social worker at Wheaton Warrenville High School. Discussion of building needs.
- December 11, 1975 Dr. Frank Lucente, principal of DuSable High School, Chicago. A discussion as to his evaluation and impressions of physical facilities of Wheaton Warrenville High School.
- December 12, 1975 Mr. Howard Barnes, boys' physical education team leader. An interview concerning facility needs.
- December 12, 1975 Mrs. Carol Scott, girls' physical education team leader. An interview concerning facility needs.
- December 15, 1975 Mr. Norman Felland, English team leader. A discussion of building needs.
- December 15, 1975 Mrs. Mary Day, nurse for Wheaton Warrenville High School. A discussion of facilities.
- December 17, 1975 Ms. Diane Batson, library learning center team leader. An interview in regard to building expansion needs.
- December 17, 1975 Mr. Lester Schomas, performing arts team leader. A discussion of facility needs.

December 18, 1975 Mr. William Arloff, art instructor. An interview concerning specific needs of the art area.

December 18, 1975 Mr. August Zarcone, mathematics team leader. A discussion of math facility needs.

December 23, 1975 Mr. Gene Steinkamp. A discussion of present and future building facility needs.

December 30, 1975 Mr. William Nixon, head custodian for Wheaton Warrenville High School. A discussion of building facility needs.

January 5, 1976 Mr. Robert Hare, science team leader. An interview in regard to science facility needs.

January 5, 1976 Wheaton Warrenville High School Faculty Meeting. A progress report of building expansion needs study.

January 5, 1976 Committee of the Board of Education of District #200 formed to study building expansion needs of Wheaton Warrenville High School. This report is to spearhead their study.

January 6, 1976 Ms. Ruth Kobak, director of guidance services. An interview in regard to building needs.

January 6, 1976 Mr. Dan Boals, athletic director. A discussion concerning athletic facility needs.

January 7, 1976 Mr. Robert Day, business manager, District #200. An interview regarding district finance.

January 8, 1976 Mrs. Evelyn Tesnow, director of food services. An interview concerning building needs.

January 8, 1976 Mrs. Sally Riley, home economics team leader. A discussion of home economics facility needs.

January 12, 1976 Mrs. Vlasta Oyer, career development team leader. An interview concerning facility needs.

January 12, 1976 Mr. Kenneth Holland, industrial arts team leader. A discussion of industrial arts facility needs.

January 13, 1976 Mr. James Patterson, social science team leader. A discussion of building needs.

January 13, 1976 Mr. Harold Burshtan. A discussion of building expansion needs.

January 15, 1976 Wheaton Warrenville High School Parent Advisory Committee. A progress report of building expansion needs study.

October 3, 1975 -- January 16, 1976 Numerous informal discussions with students, staff, faculty, administrators, parents and community members were held regarding building expansion

needs and building programs for Wheaton
Warrenville High School.

ANTICIPATED ENROLLMENT OF WHEATON WARRENVILLE HIGH SCHOOL

Many facets must be analyzed in the consideration of building usage and expansion of Wheaton Warrenville High School. The first area to consider is present and projected enrollment of the school. To study this area sufficiently, one must look at national, state and local growth patterns.

A recently published article in the Chicago Tribune, Thursday, December 11, 1975, explained how many suburban areas are losing population. However, the article goes on to state that this trend is not true of all suburban communities. Instead of losing population over the past few years, Wheaton ranks twelfth in population growth in the Chicago area with an increase of 22.9% (twenty-two and nine-tenths per cent). The study was conducted by Pierre de Vise, College of Urban Sciences, University of Illinois, Chicago Circle campus, and reported by Alan Merridew of the Chicago Tribune.²

Wheaton Warrenville Community Unit School District #200 follows national trends in regard to population growth in most respects. The Wheaton and Warrenville community areas are growing slightly faster than national suburban trends. Dr. Victor Zavarella, administrative assistant to the superintendent of schools of Wheaton Warrenville Community Unit School District #200, has done extensive work on projected student enrollment for District #200, utilizing district data from past housing developments and comparing that data

with national data. The author has reviewed this information with Dr. Zavarella and concurs with him on district growth.

By analyzing the presently approved housing projects, one can understand the rapid growth rate that District #200 will experience, particularly in the Wheaton Warrenville High School area. The district has great growth potential in the south and southwestern areas. Presently approved housing projects in District #200 are located in the areas on the map (Figure I).

With permission of Dr. Zavarella, the accompanying table explains how student population per dwelling unit is estimated. Dr. Zavarella made minor adjustments to the National Table to fit District #200 grade levels and instructional levels. (Please refer to Figure II.)³

It should be noted that Pulte Homes, Lake Arrowhead, Kettel Riverside, Winchester, Emerald Green, Investment Development, Continental Homes, and Ferry Creek all lie within the attendance area of Wheaton Warrenville High School. The accompanying table illustrates the potential growth of the preceding housing areas. (Please refer to Figure III.)⁴

As shown, the presently approved housing projects could generate 540 high school students if the projects are completed within five years. In addition to this projection it must be noted that there exists a great amount of undeveloped land in the Wheaton Warrenville High School attendance area that may be available for future housing projects at a later

FIGURE II
TABLE OF ESTIMATED STUDENT POPULATION PER DWELLING UNIT *

<u>TYPE OF UNIT</u>	<u>Pre-School</u>	<u>Elementary K-6</u>	<u>Junior High 7-8</u>	<u>Total K-8</u>	<u>High School 9-12</u>	<u>Total K-12</u>
Detached Single Family						
3 Bedroom	.51	.94	.25	1.19	.32	1.51
4 Bedroom	.54	1.06	.33	1.39	.43	1.82
Attached Single Family: (Townhouses, Rowhouses, Quadruplexes, etc.)						
1 Bedroom	.17	.056	.009	.065	.013	.078
2 Bedroom	.71	.373	.017	.390	.056	.446
3 Bedroom	.76	.790	.143	.933	.124	1.057
4 Bedroom	1.00	1.337	.307	1.644	.396	2.040
Low-Density Apartments: (Condominiums, etc.)						
1 Bedroom	.17	.061	.019	.08	.013	.093
2 Bedroom	.43	.238	.072	.31	.057	.367
3 Bedroom	.51	.514	.156	.67	.183	.853
High-Density Apartments:						
1 Bedroom	.13	.031	.009	.04	.007	.047
2 Bedroom	.21	.077	.023	.10	.029	.129
3 Bedroom	.43	.177	.053	.23	.092	.322

**FIGURE III
POTENTIAL GROWTH OF APPROVED HOUSING PROJECTS**

PROJECT NAME	NUMBER OF UNITS	SENIOR HIGH 9-12
Pheasant Hollow (Pulte)		
1. Single Family		
3 Bedroom	59	19
4 Bedroom	60	26
2. Townhouse		
2 Bedroom	208	12
3 Bedroom	160	20
Arrowhead Lake		
1. Single Family		
4 Bedroom	46	20
2. Townhouse		
3 Bedroom	123	15
3. Condominium		
1 Bedroom	12	0
2 Bedroom	96	5
3 Bedroom	12	2
Continental Homes		
1. Single Family		
3 Bedroom	412	132
4 Bedroom	103	44
2. Townhouse		
2 Bedroom	88	5
3 Bedroom	308	38
4 Bedroom	44	17
3. Patio Homes		
3 Bedroom	278	34
4 Bedroom	31	12
Emerald Green		
1. Condominium		
2 Bedroom	77	4
3 Bedroom	231	42
Pulte-Thornwilde		
1. Townhouses		
2 Bedroom	223	12
3 Bedroom	223	28
Kettel Riverside		
1. Single Family		
3 Bedroom	22	7
Ferry Creek		
1. Townhouses		
2 Bedroom	60	3
3 Bedroom	60	7
2. Apartments		
1 Bedroom	30	0
2 Bedroom	30	9
Winchester		
1. Quadruplexes		
2 Bedroom	138	8
3 Bedroom	138	17
Investment Dev.		
1. Apartments		
1 Bedroom	68	0
2 Bedroom	69	2

TOTAL

time. However, for the purpose of this study only approved future housing projects are analyzed. Any unplanned growth would be in addition to that currently anticipated.

After an analysis of data, it can be seen that Wheaton Warrenville High School may approach a student population of 1800 within the next five years. Since the school opened its doors in Fall of 1973, enrollments have been as follows:

<u>School year</u>	<u>9-11</u>	<u>9-12</u>
1973-74	834	
1974-75		1109
1975-76		1176
1976-77 (anticipated)		1261

Since the Fall of 1975 Wheaton Warrenville High School has been actually operating in excess of its 1200 student capacity. District #200 philosophy allows a student to enroll in six courses per quarter, which is one course more than the normal five-course load. Thus, any student enrolled in a sixth course is actually 1.2 students instead of 1.0 student when figured on a full-time student equivalency. It has been found that 63% (sixty-three per cent) of Wheaton Warrenville High School's student body during the 1975-76 school year are enrolled in six courses. Therefore, when considering the full-time student equivalency, the enrollment of Wheaton Warrenville High School is approximately 1320 students. Next year that enrollment figure will swell to over 1400 students. In essence, it is not a question of will the high school student population exceed the capacity of the Wheaton Warrenville High School; it already has.

ASSESSMENT OF PRESENT FACILITY

The administration of Wheaton Warrenville High School concurs with the North Central Evaluation Team that the school's facilities are compatible with and enhance the school purposes and objectives. The open space concept encourages desirable student-faculty interaction. It should be noted that the basic design of the building is very good; existing areas are well-planned and maintained; all areas are utilized to their fullest extent; and there is extensive evening and weekend use of the building by school and community organizations.

The building has many strong points. Some of these are an appealing and functional design, terazzo flooring, carpet, low-maintenance brick, super-graphics which serve as directions for visitors, teacher offices in the teaching areas, good lighting, high quality furniture, lockers that are away from academic areas, air conditioning, centrally located administrative and guidance suite, a well-equipped food service area, a functional loading dock, special areas for activities that may be noisy, an extremely fine library learning center which can accommodate over 20% (twenty per cent) of the student body, and upwards of 95% (ninety-five per cent) utilization of available space.

There are some general weaknesses that should be mentioned at this time. These weaknesses include an inadequate staff lunch room area, an insufficient number of wash rooms,

problems with the ventilation system, lack of storage space, overcrowding in the student eating area, poor faculty office security, a seriously overcrowded shop area, lack of performing arts rehearsal areas and practice rooms, and undeveloped outside areas suitable for physical education classes and athletics.* Many of the preceding weaknesses are products of an over-capacity student enrollment. It can easily be seen that as enrollment increases, these problems will increase.

Because of the increase in enrollment, one of the following options may be effected to offset overcrowding: (1) limit all students to a course load of 5 (five) courses; (2) add mobile classrooms; (3) run double sessions; or (4) expand the length of the school day. To decide which option or combination of options should be used, staff is being involved. At this time there is a committee to study this problem, chaired by the administrative assistant, Mr. Gene Steinkamp. Results of the study will be submitted for approval to the Faculty Council. The Faculty Council is an organization within the high school consisting of team leaders of all teaching areas. The Faculty Council will in turn recommend a plan of action to the principal.

* It should also be noted that while all three high schools have comparable enrollments, Wheaton Warrenville High School has only two-thirds the number of teaching stations of each of the other two schools in the district.

FACULTY ASSESSMENT OF EXPANSION NEEDS

Every member of the Faculty Council was asked to evaluate the expansion needs of each team's respective area. Each Faculty Council member was then interviewed to determine the necessity and priority of the team's physical facility needs. This section deals with the perceptions of faculty, staff and administration in regard to building expansion needs of each area, if the school were to expand to 1750-1800 students. The following are the results of the interviews conducted and not necessarily the author's recommendations.

Business Education

To accommodate a significant increase in enrollment the business area would require an additional classroom. It would be desirable to have a teaching area with no machines. Also, the Home Economics Related Occupations (HERO), Career Work Training (CWT) and Diversified Occupations (DO) programs should be assigned to their respective areas instead of to business education. The Distributive Education (DE) and Office Education (OE) programs would remain assigned to the business education area.⁵

Presently the center room of this pod is used for graphic arts. It would be desirable to move graphic arts out of this area and secure the area with lockable doors, thus providing a double classroom area. Graphic arts would be moved to the

new industrial arts area and that vacated space would be shared by home economics and business education.

Foreign Language

At this time one health class uses the foreign language area, as does one social science class. It is the opinion of the foreign language team leader that if the social science and health classes were removed from this area there would be sufficient space to handle increased enrollments.

It would also be very helpful to the foreign language area to have a supplemental language laboratory of a one-way listening design in the library learning center. This area would be used for outside class assignments, etc.⁶

Driver Education

Under our present organizational structure, it would be beneficial to the driver education program to install a moveable wall between the driving simulator room and the classroom instruction area. The team leader of driver education recommends that Room 100, which is adjacent to the present driver education room, be used as an instructional area, and the partitioned-off area next to the driving simulator room be used as a resource center.⁷

Physical Education and Athletics

Physical education must be divided into areas: indoor areas and outdoor areas. Two significant factors affect the indoor physical education facilities: (1) lack of storage space and (2) overcrowded conditions. Part of the over-

crowdedness could be alleviated through the addition of equipment storage space. At present the upper gymnasium area must also serve as a storage area for all gymnastics equipment. The addition of a storage area for gymnastics equipment would free two teaching stations.

With a significant increase in enrollment it would be beneficial to the physical education program to have a classroom for specific instructional purposes. The ultimate desire would be to have an attached field house which would include another gymnasium, more showers and lockers, expanded weight training facilities, hand ball courts, an indoor track, and a swimming pool. This expansion would allow for equal facilities for women and men.

The outside area holds a great amount of potential. The needed areas all exist but must be developed. The ground is available for the needed play areas; specifically soccer, football and several softball fields. There is ample room for the construction of speedball and archery fields. It would also be advisable to expand the present six tennis courts to eight.

It should be noted that the adaptive physical education program could function within the present facility.⁸

English

Presently the English area, as most other areas, is being used to its fullest extent. Problems immediately pending are: where and how can the reading laboratory be expand-

ed to meet student demands; can the resource area be reclaimed as such or must it remain as a classroom area; and what is the plight of the federally funded writing laboratory (Project PLUS)?

The English area physical facility needs for an 1800 student enrollment become awesome. In its present form, the program would require three more full-time classroom areas in addition to space needed for the reading laboratory, the writing laboratory and the resource area.

Nurse

At this time the philosophy of "keep them moving" alleviates overcrowdedness in the health services area. Students too ill to return to class are sent home. Location of the present nurse's station hinders its expansion. A larger waiting area would be beneficial, as well as a second treatment room, two additional rest areas and another bathroom.¹⁰

Guidance Services

While the guidance area would need remodeling or rearranging, it would not require additional physical space. The present open area could easily be altered to accommodate two additional counselor offices, a waiting area, and another conference room.

Industrial Arts

The wood shop area is very adequate and could accommodate the increasing enrollment. The metals and automotive areas of the shop, however, present a serious problem, with

neither being adequate. The machines in the metals area are too close together and present a safety hazard for larger or careless students. Additional safety problems arise with hot metals in proximity to automotive solvents, lubricants and gasses. There is also no provision for a sheet metal area. Because of the confined space, the automotive shop is grossly inadequate. Programs are curtailed and students' requests cannot be met.

The graphic arts area is in one of the pod areas between the home economics and business education areas. The area is cramped with no storage area for paper and supplies, and the room houses both drafting and printing shops. It would be desirable to separate the two shops and move them from the business education area.

To accommodate the present enrollment and a future enrollment of 1800, the following expansion would be needed. The construction of an industrial arts addition to the present structure would be necessary. This addition would include the following: a large auto shop, allowing for the expansion of course offerings; an electronics room to be possibly shared with physics; movement of the Career Work Training (CWT) and Distributive Occupations (DO) programs from the business area to the industrial arts area; a classroom for instructional purposes both for industrial arts classes and cooperative education classes; office space; a graphic arts area; and increased storage areas.¹²

Cafeteria and Food Services

The food service area is sufficient to handle increased enrollment. Some minor alterations to the kitchen may be advisable but not essential.

Increased eating and serving areas would be required. The north commons area cannot cope with the student load in its present state. Either the lockers should be removed for increased serving and eating space and/or the south commons area should be used as a snack-sandwich area.

The faculty dining area is small and cramped and it would be desirable to enlarge it.¹³

Career Development

The career development programs do not function well in the open space concept. It is recommended that these classes be housed in enclosed classroom areas. Two classrooms designated as career development rooms would be required to house the program.¹⁴

Home Economics

It is suggested that Home Economics Related Occupations (HERO) be transferred from the business area to home economics and that child development be given its own room. With these changes, the home economics area would adequately accommodate increased enrollment.¹⁵

Science

An enrollment of 1800 would inundate a science area which is already at capacity. At the present time the English reading laboratory utilizes one potential science lab-

oratory area, and a possible science resource area which is centrally located is being used as a small classroom area.

The science area needs are as follows: storage area, an electronics laboratory, an area which would grow plants (preferably a greenhouse area), biology moved to another area, and an increase in chemistry laboratory facilities.¹⁶

Mathematics

Mathematics, as with science and English, would have great special demands as compared to their present physical facilities. This year the mathematics area has its testing area in the south commons. The testing area should be in the library learning center instead of the commons, or in another area closer to the mathematics area.

As with other areas, mathematics utilizes all available space to its fullest extent. It would be desirable to return the center area, originally designed as a resource area, to a passageway or small group area instead of a full classroom.

Library Learning Center

The basic structure of the library learning center was designed for a student population of 1800 or more. However, certain areas are inadequate. Audio-visual equipment and periodicals are housed in areas too small for either. Thus, additional areas are needed for audio-visual equipment, repair and production and periodicals. A quiet study area would be highly desirable and could be constructed within the present facility.

Performing Arts

At the present time, classes in the area of speech, oral communications, etc., are constantly moving to other more suitable areas in the building as their units change. Space and soundproofing present problems for the performing arts area.

It would be beneficial to have an area for independent work with video and audio equipment, to soundproof the lower music area, to have two classrooms, a multi-purpose area for performance and rehearsal, and considerably more area for an expanding music program. A box theatre would allow for multi-usage, provide a choral area, and offer more teaching stations.

The art area operates at 100% (one hundred per cent) usage and is very overcrowded. The art room needs expansion to handle its present enrollment and needs to be more than doubled to handle a school enrollment of 1800 students. An addition to the art room should have more storage area and additional windows to obtain more natural light.¹⁹

Social Science

The social science area would need an additional three classrooms to accommodate an increased enrollment. Changes in the graduation requirements have increased the student load on the social science area; and the area shares similar physical facility concerns, therefore, with English, mathematics and science.²⁰

Administration

The administrative area was designed to accommodate a school capacity of 3000 students. However, storage remains a problem for general materials as well as textbooks and workroom supplies.²¹

Custodial Services

Present inside storage is needed as well as outside storage. Security for custodial supplies is a problem. Should more physical facilities be added, another main storage area would be needed at the south end of the building, as the present storage area is at the north end of the building.

Outside storage areas should be secured to protect them from vandalism. This could be accomplished by enclosing the area under the contest field bleachers.²²

Social Worker

It would be advantageous to have a separate area for a social worker intern. Utilization of an intern program and one full-time social worker would accommodate an 1800 student population.²³

A COMPARISON OF PHYSICAL FACILITIES

District #200 philosophy attempts to keep each of the three high schools in close comparison with the others. This presents problems as each school has different and specific needs. Wheaton North was built during a booming era and enjoys quite adequate facilities. Wheaton Central, on the other hand, is a conglomeration of additions and is currently the main subject of a building program. Wheaton Warrenville is an excellent facility, except it is not large enough to accommodate present and future enrollment demands.

Figure IV illustrates size, space and facility comparisons. It should be noted that during the process of building program construction, those charged with the responsibility of recommending building program proposals must keep in mind a comparison of that facility with the facilities of the other two schools, regardless of the individual school's needs. Please note the comparison of the following underlined areas in Figure IV.²⁴

FIGURE IV
SCHOOL PLANT COMPARISONS

	<u>WHEATON CENTRAL</u>	<u>WHEATON NORTH</u>	<u>WHEATON WARRENVILLE</u>
AGE	Built 1925 Additions 1938, 1956, 1963, 1969	Built 1964 Additions 1968, 1969	Built 1973
LAND SIZE	22.36 acres (approx.)	47.5 acres	47 acres (approx.)
BUILDING SIZE	267,230 square feet	233,680 square feet	166,700 square feet
CLASSROOMS	67 teaching stations	69 teaching stations	44 teaching stations
CAFETERIA	7800 square feet	5248 square feet	4800 square feet
LIBRARY SPACE	15,000 square feet 17,400 volumes	15,000 square feet 24,000 volumes	11,950 square feet 13,000 volumes
AUDITORIUMS (seats)	600 large - 234 small	243 large - 240 small	800 - 200, 200, 400 when divided
ART AREAS	5000 square feet	4400 square feet	1600 square feet
MUSIC AREAS	5400 square feet	5400 square feet	3400 square feet
ADMINISTRATION AREA	3000 square feet	2772 square feet	3500 square feet
GUIDANCE AREA	3000 square feet	1656 square feet	1650 square feet
PARKING	325	600	600

	<u>WHEATON CENTRAL</u>	<u>WHEATON NORTH</u>	<u>WHEATON WARRENVILLE</u>
FIELDS			
FOOTBALL	Contest field - 2 practice fields	Contest field - 2 practice + space	Contest field - 1 practice + space
SOCCER	Use Lincoln, Whittier for practicing	Use main football practice field or contest field	Use Streams subdivision for practice
TRACK	1/4 mile	1/4 mile	1/4 mile all weather
TENNIS	Use park district - 4 Central Park - 4	Six	Six
CROSS COUNTRY	Use North Side Park	Use North Side Park	Use fields in Arrowhead
BASEBALL	Varsity use American Legion field, Central site	2 on school grounds area for practice	2 fields - practice and game
GYMNASIUMS	Gymnastics 5440 square feet Wrestling 6370 square feet No storage	Gymnastics 3815 square ft. Wrestling 3815 square ft. Plus storage	Gymnastics and Aux. Gym 8160 square feet Wrestling & Dance 8160 square feet No storage
GYM SIZES			
CONTEST	9,968 square feet	13,970 square feet	14,000 square feet
AUX.	9800 square feet	12,144 square feet 1	None
INDOOR P.E. STATIONS	Seven and one-half	Five	Four
LOCKER SPACE	Boys 10,400 square feet Girls 6,602 square feet	Boys 8000 square feet Girls 4800 square feet	Boys 8400 square feet Girls 6400 square feet

ESTIMATED CONSTRUCTION COSTS

A list of possible additions was given to the architect for a cost analysis. Cost, of course, is a very significant factor in a school district that operates with the philosophy that a balanced budget must exist and be maintained. The school district's estimated 1976 assessed valuation is \$319,722,403.00 in comparison to last year's \$298,805,985.46. Increased operating costs will offset any increased revenues from increased assessed valuation and, therefore, the district must look to the voters and a bond referendum for building expansion. District #200's present debt limit, at 12% (twelve per cent) of the assessed valuation of the district, is approximately \$38,000,000.00 with a present outstanding debt of approximately \$16,000,000.00. The district's present tax rate is 4.2823. A breakdown of the tax rate by individual fund is as follows: Educational fund - 2.6344, Building fund - .75, Bond fund - .6383, Transportation fund - .1186, Illinois Municipal Retirement fund - .1005, and Special Education fund - .0400.²⁵

As prepared by the school's architect, Orput and Associates, Incorporated, Figure V presents a cost estimate of proposed building expansion for Wheaton Warrenville High School.

COST ESTIMATES

	Area Sq. Ft.	Unit Cost \$/Sq.Ft.	Estimate
Two (2) STORY ACADEMIC POD		\$35.00	
Classrooms & Resource Centers	18,750		\$ 656,250
Toilets, Stairhalls, circulation and connect to existing structure	5,000		175,000
DINING & COMMONS		32.00	
Bi-Level Commons - connect to existing structure	5,625		180,000
SUB TOTAL	29,375		1,011,250
SITE DEVELOPMENT			10,000
EQUIPMENT			
Academic Block			45,000
Dining & Commons			16,000
SUB TOTAL			1,082,250
CONTINGENCY			
Design, Bidding & Cost Escalation to Spring 1976 @15%			162,350
FEES			
Estimated Professional Compensation and Miscellaneous Fees			93,400
600 Student Academic Pod ESTIMATED			
SUB TOTAL			1,338,000
ADDITIONAL FACILITIES			
Choral Music			
Art Studio			
Industrial Arts			
Audio Visual Storage			
Physical education Storage	10,000	-	
Equipment, etc.	12,000		
SUB TOTAL			600,000
BUDGET ESTIMATE TOTAL			1,938,000

CONCLUSION

Research of the building expansion needs of Wheaton Warrenville High School involved parents, community members, staff, faculty, students, and building and district administrators, as well as the North Central Association Evaluation Team and Orput and Associates, Incorporated, the school architects. Many formal and informal interviews, discussions and meetings were held and outstanding cooperation was received throughout the research process. The recommendations that shall be offered are the result of an analysis of all pertinent and received information. The recommendations attempt to reflect district philosophy in regard to cost and the concept that all three schools be operated as viable and essentially equivalent facilities.

It is recommended that the district immediately undertake a building program to alleviate the present and future overcrowded conditions of Wheaton Warrenville High School. It is estimated that the cost requirements of the proposed additions will be approximately \$1,938,000.00. A two-story academic pod should be constructed. This pod would include classrooms, resource areas, toilets, stairhalls, a commons area, and be connected to the existing structure and cost approximately \$1,338,000.00. The upper floor would consist of ten classroom areas, with the continuing of the school's present open space design. This addition would provide space

for mathematics, social science and career development to share the upper pod area and adequately cope with increased enrollment in addition to their present respective areas. A number of additional physical facilities are recommended and included in this cost estimate.

The lower area would be semi-open space with structural side walls opening to a center area. This area could be shared by English and science. The semi-walled areas would provide the necessary degree of seclusion needed for laboratory courses, both English and science. Biology would be moved from its present area to the new pod and its former area used to handle increased science enrollment. The center area of the lower pod would be enclosed for storage of equipment and supplies required by the laboratory courses.

Within the new pod, it is recommended that adequate storage for equipment and custodial supplies be planned. Also additional lockers would be necessary in the commons area. Moving all of the present lockers that are located in the north commons to the new commons would provide the needed cafeteria eating and serving area.

The foreign language area should be maintained as it exists with the removal of the social science and health classes from the area to a shared area in the new pod.

Because of the demand on space, the driver education room should be divided into two sections. One section would house the driving simulator as it presently exists and the remaining section would be for classroom instruction. It is

urged that the partition be of a moveable, portable nature which would allow the room to be used in a flexible manner.

In the area of industrial arts another building addition would be required. Graphic arts should be moved out of the area it presently occupies and relocated in the new industrial arts addition. The addition of two large shop areas would allow each area--woods, metals, auto and graphics--to have an area. Adequate storage would be an essential part of any added facility. The responsibility for Career Work Training (CWT) and Diversified Occupation (DO) would be transferred to this area. It is noted that the industrial arts area is limited in its course offerings, mainly because of spacial requirements for the desired programs. Addition of an industrial arts complex would alleviate overcrowded conditions and remove the majority of the safety hazards now present.

Another critical area is the performing arts, specifically art. At the present time, the art area is tremendously undersized for the student and program demands on it. The art room was designed for expansion. This expansion is necessary and should be accomplished. While art presently has four teaching stations, it should be noted that art operates at 110% (one hundred and ten per cent) capacity every hour of the school day and that the teaching stations are too close together for the number of students assigned to any given area.

The area assigned to choral music should be enlarged.

through enclosure of the bleachers at the contest field. Such an enclosure would provide security for equipment and decrease the present rate of vandalism of exposed equipment.

Through the removal of the graphic arts area from the home economics and business education areas, the vacated space would be shared by home economics and business education. This additional area would accommodate the overload of students that is being presently experienced and will increase with enrollment. It is also recommended that the Home Economics Related Occupations (HERO) program responsibility be transferred from business education to home economics.

The guidance services area is designed to accommodate an enrollment of 3000 (three thousand) students. The present browsing area would provide ample room for two additional counselor suites and a conference room. This alteration is necessary if guidance services are to be maintained at their present level.

In the same category as the guidance area is the library learning center. The learning center needs storage area for audio-visual material, equipment and periodicals. Removal of the audio-visual equipment from its present location and elimination of the wall between the audio-visual room and the periodical room would create enough space for the periodical room. Audio-visual equipment would have to be stored in new central storage area, or distributed to instructional areas.

The fact that the library learning center is a high usage area by students, faculty and classes creates noise problems. It is not unusual for 200 (two hundred) people to be using the learning center at any given time. Therefore, it is recommended that a glass enclosed area within the present facility be constructed as an area of quiet study, testing, etc.

The administrative area is designed to handle larger enrollment and would need no additional space, even though more storage area would be desirable. Along with the administration area, the health services area under their present philosophy could function with an increase in enrollment.

It is also recommended that if small unused areas are available, the social work program and student activities be allowed utilization of those areas.

The preceding facilities should be included in an expansion program for Wheaton Warrenville High School. The facilities are necessary if the high school and the school district are to continue to offer a complete and high quality curriculum. The cost estimate for the stated facility expansion is approximately \$1,938,000.00 and includes circulation and mechanical equipment.

One significant factor to be considered is the new board of education policy regarding class size. The new policy sets a class size limit at 50 (thirty) students per class. Applied to our present program, Wheaton Warrenville High

School would need 21 (twenty-one) more class sections and 4.3 (four and three-tenths) additional staff members. At this time Wheaton Warrenville High School does not have the physical facilities to cope with the extra class sections.

There are a few stop-gap solutions to temporarily help the overcrowding problem:

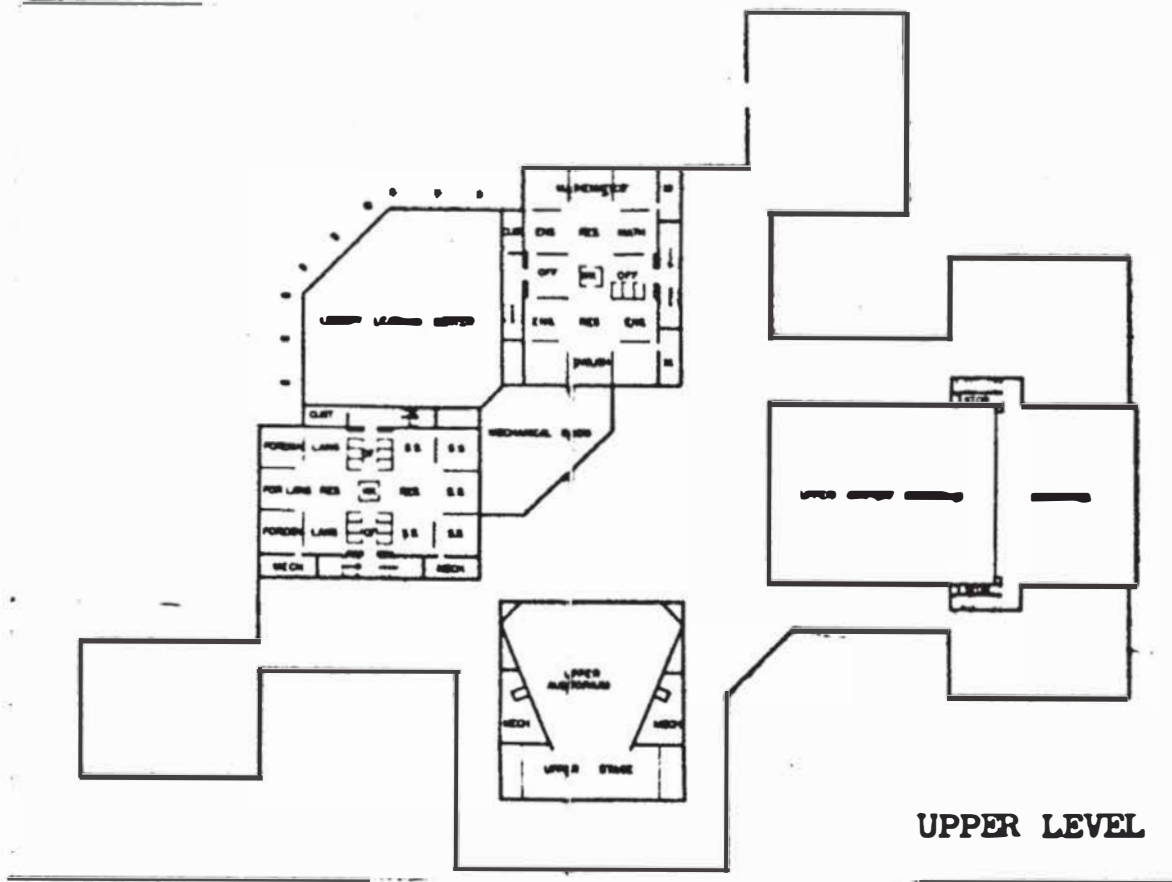
1. Limit all students to five classes, which violates district philosophy and discriminates against Wheaton Warrenville High School students in comparison with the other two schools.
2. Attempt to encourage more students to take summer school courses.
3. Add portable classrooms.
4. Expand the school day (split shift, 7 or 8 period day).

The expansion of the school day is the most feasible temporary solution, but it will not permanently solve the problem of increased enrollment.

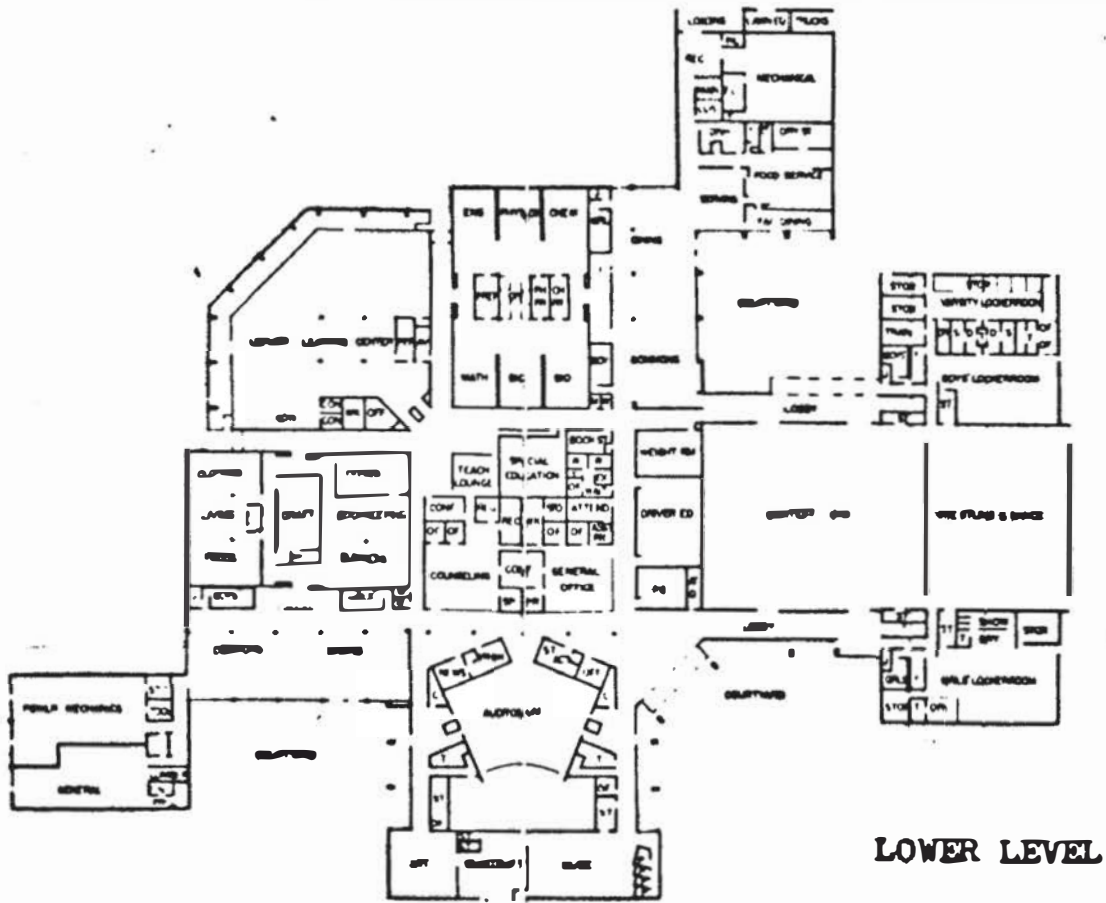
The purpose and general scope of this report was an analysis of the present physical facilities of Wheaton Warrenville High School and recommendations as to what changes or additions in facilities would be needed to accommodate future student enrollment. These recommendations as they appear on the preceding pages are to be submitted to the superintendent of schools, Dr. Donald Birdsell, for his consideration. It is hoped that the recommendations will then be submitted to the board of education for its consideration and implementa-

tion. Implementation would mean adopting a building program and putting a referendum to the people. It is strongly recommended that the previously described building program be implemented. This would assure the maintenance of the superior quality of educational program now in existence at Wheaton Warrenville High School.

FIGURE VI
 FLOOR PLAN OF WHEATON WARRENVILLE HIGH SCHOOL



UPPER LEVEL



LOWER LEVEL

FOOTNOTES

1. Harold Burshtan, "Faculty Handbook," September 1975, Wheaton Warrenville High School, Wheaton, Illinois.
2. "Metro Area Losing Population," The Chicago Tribune, 11 December 1975, Sec. 7, p. 1.
3. Victor Zavarella, "Estimated Student Population Per Dwelling Unit," study presented to the Board of Education, Wheaton Warrenville Community Unit School District #200, Wheaton, Illinois, November 1975.
4. Ibid.
5. Interview with Lester Landherr, business team leader, Wheaton Warrenville High School, Wheaton, Illinois, 25 November 1975.
6. Interview with Julie Williams, foreign language team leader, Wheaton Warrenville High School, Wheaton, Illinois, 1 December 1975.
7. Interview with Leon Busboom, driver education team leader, Wheaton Warrenville High School, Wheaton, Illinois, 25 November 1975.
8. Interviews with Howard Barnes, boys' physical education team leader; Carol Scott, girls' physical education team leader; and Dan Boals, athletic director, Wheaton Warrenville High School, Wheaton, Illinois, 12 December 1975, 6 January 1976.
9. Interview with Norman Felland, English team leader, Wheaton Warrenville High School, Wheaton, Illinois, 15 December 1975.
10. Interview with Mary Day, school nurse, Wheaton Warrenville High School, Wheaton, Illinois, 15 December 1975.
11. Interview with Ruth Kobak, director of guidance services, Wheaton Warrenville High School, Wheaton, Illinois, 6 January 1976.
12. Interview with Kenneth Holland, industrial arts team leader, Wheaton Warrenville High School, Wheaton, Illinois, 12 January 1976.
13. Interview with Evelyn Tesnow, director of food services, Wheaton Warrenville High School, Wheaton, Illinois, 8 January 1976.

14. Interview with Vlasta Oyer, career development team leader, Wheaton Warrenville High School, Wheaton, Illinois, 12 January 1976.
15. Interview with Sally Riley, home economics team leader, Wheaton Warrenville High School, Wheaton, Illinois, 8 January 1976.
16. Interview with Robert Hare, science team leader, Wheaton Warrenville High School, Wheaton, Illinois, 5 January 1976.
17. Interview with August Zarcone, mathematics team leader, Wheaton Warrenville High School, Wheaton, Illinois, 18 December 1975.
18. Interview with Diane Batson, library learning center team leader, Wheaton Warrenville High School, Wheaton, Illinois, 17 December 1975.
19. Interview with Lester Schomas, performing arts team leader, Wheaton Warrenville High School, Wheaton, Illinois, 17 December 1975.
20. Interview with James Patterson, social science team leader, Wheaton Warrenville High School, Wheaton, Illinois, 13 January 1976.
21. Interview with Harold Burshtan, principal, Wheaton Warrenville High School, Wheaton, Illinois, 13 January 1976.
22. Interview with William Nixon, head custodian, Wheaton Warrenville High School, Wheaton, Illinois, 30 December 1975.
23. Interview with Lydia Chapman, social worker, Wheaton Warrenville High School, Wheaton, Illinois, 3 December 1975.
24. Orput and Associates, Incorporated, Report to the Board of Education, Wheaton Warrenville Community Unit School District #200, Wheaton, Illinois, 15 December 1975.
25. Interview with Robert Day, business manager, Wheaton Warrenville Community Unit School District #200, Wheaton, Illinois, 7 January 1976.
26. Orput and Associates, Incorporated, Report to the Board of Education, Wheaton Warrenville Community Unit School District #200, Wheaton, Illinois, 15 December 1975.

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