

AVON PUBLIC SCHOOLS
AVON, CONNECTICUT

**A Report
On
High School Facility Needs
October, 2003
Revised December, 2003**

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Introduction

In the spring of 2002, the Avon Board of Education, aware of the accelerating growth in student enrollment in all schools and the projections for future enrollment at the high school, established an ad hoc High School Facilities Committee. The charge of the committee was to study enrollment projections, identify school facility needs and improvements, and options in response to those facility needs. The Board invited a member of the Town Council to participate in the committee's deliberations.

The committee directed Superintendent Kisiel to prepare a comprehensive report on Town demographics, including population trends, housing characteristics and trends, school enrollment projections, and high school facility needs. The committee reviewed and revised these reports, included as appendices of this report, and identified several options in response to facility needs. The ad hoc committee was not responsible for making any recommendations for Board action. The Board of Education reviewed and discussed the information in the committee's report.

On December 16, 2003, the Board of Education unanimously approved a motion to request the Town Council to approve and fund an architectural feasibility study for the purpose of constructing permanent additions and completing renovations to the Avon High School.

Members of the Board of Education's ad hoc high school facility committee included:

Pamela Friedman, Board of Education
Tom McNeill, Board of Education
Peggy Roell, Board of Education
Richard Hines, Town Council
Richard Kisiel, Superintendent of Schools
Lawrence Sparks, Principal

Summary and Conclusions

The ad hoc High School Facilities Committee reached the following conclusions:

1. Enrollment Growth

In 1996, the highest high school enrollment projection was 757 students by the year 2005. Between October 1995 and October 2003, the high school enrollment increased from 603 to 859 students or a forty-two percent increase in enrollment in eight years. The Connecticut Department of Education projects that the high school student population will reach 1263 students by the 2013 school year or more than 400 students above the current enrollment. Appendix A of this report includes a complete report on school enrollment projections and the Town's population and housing characteristics.

2. Building Operational Capacity

The high school building capacity will exceed both its recommended designed capacity and room utilization rate by the beginning of the 2004 school year. The high school's design capacity, following the most recent addition and renovation, is 900 students. The State Department of Education recommends, for construction reimbursement purposes, a maximum of 180.5 square feet per high school student in grades 9-12. Currently, the high school contains 163,500 square feet. The design capacity of the high school of 900 students equates to 182 square feet per student, which approximates the state recommended guideline. Student enrollment will exceed the current design capacity of 900 students by the beginning of the 2004 school year. In addition, in order to accommodate students and the school program within the square foot guideline, the State Department of Education recommends a classroom utilization rate of eighty-five percent. The current room utilization rate is eighty-seven percent.

Class size also defines the operational capacity of a school. The addition and renovation in 1996 provided for an average student to teacher ratio of 20:1. The current class size statistics in the core academic subjects fall within these original class size guidelines.

	2002	2003
English/Language Arts	18:1	20:1
History/Social Studies	20:1	21:1
Mathematics	18:1	17:1
Science	20:1	20:1
World Languages and Latin	15:1	15:1

Appendix B includes a complete report on the use and availability of school space at the high school.

3. Instructional and Non-Instructional Space Needs

The reduction of out-of-district special education programs and the relocation of these programs within the high school require the use of three classrooms that would have otherwise been available for regular education instruction. The relocation of these programs into the high school reduces the overall costs for out-of-district tuition and transportation.

General classrooms and additional dedicated instructional areas such as in science, music, physical education, special education, and pupil services will be needed to accommodate the projected student enrollment and programs. Any additional instructional classroom space should maintain an average student/teacher and class size ratio in academic areas of 20:1 as planned in the last renovation and addition project.

The increased enrollment will also require additional space in non-instructional areas such as cafeteria/kitchen, the health office, and pupil services area.

The additional instructional and non-instructional space requirements are as follows:

Instructional Space

- Eight general classrooms
- Two science classrooms
- One computer lab
- Three special education classrooms
- Additional gymnasium and team locker space
- Additional weight/fitness center space
- Additional music education classroom and practice rooms

Non-instructional Space

- Pupil service offices, testing room, and conference room
- Expanded kitchen facility
- Additional cafeteria space
- Expanded health room

Appendix C includes a complete report of current building conditions and recommended improvements.

4. Capital Improvements

Several capital improvement projects, already identified in the Board of Education's capital improvement plan, could be eligible for state reimbursement for school construction. These include:

- Replacement of the auditorium stage curtain
- Improved stage lighting and sound system in the auditorium
- Replacement of the current gymnasium floor
- Multiple wireless computer work stations
- New roof (section of the building that did not undergo renovations in 1997)
- Refurbishing or replacing existing lockers, and additional lockers
- Video communication system
- HVAC unit above the current library
- Additional outdoor storage facility
- Additional parking

5. Options in Response to School Facility Needs

The committee considered several options in response to the school facility needs identified in its report. Appendix D describes these options in response to facility needs.

The options include scheduling alternatives, school year and school day alternatives, a year-round school calendar, modular or portable classrooms, expansion of the middle school to include grade 9, multi-level permanent construction, and additional and permanent space construction.

On December 16, 2003, the Board of Education unanimously approved a motion to request that the Town Council approve and fund an architectural feasibility study for the purpose of constructing permanent additions and completing renovations to the Avon High School.

APPENDIX A: POPULATION CHARACTERISTICS AND PROJECTIONS

A. TOWN POPULATION

1. Total Population

Since the number of inhabitants is an important demographic fact about any community, an examination of the population characteristics of Avon begins with a review of the town's total population from 1960 to 2002 based on data from the U.S. Bureau of the Census and the Connecticut Capital Region Growth Council.

<u>Total Population</u>			
Year	Population	Difference	% Increase
1960	5,273		
1970	8,353	3,080	+58.41%
1980	11,201	2,848	+34.09%
1990	13,937	2,736	+24.42%
1995	14,350	413	+ 2.96%
2000	15,832	1,482	+10.33%
2001	16,055	223	+ 1.41%
2002	16,332	297	+ 1.85%

- The total population has grown by 11,049 residents during the forty-two year period from 1960 to 2002.
- The largest population increase occurred between 1960 and 1970.
- An earlier report published by the Connecticut Capital Region Growth Council projected a total population for the year 2000 of 14,800, which is 1,000 less than the actual population in 2000.

2. Total Population by Age Groupings

This table displays historical information in age grouping obtained from U.S. Census Bureau reports and the Connecticut Capitol Region Growth Council reports. Categorizing by age groups is important because it provides information on longitudinal trends in school age and non-school age population groupings.

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
<u>Population</u>	8,352	11,201	13,937	14,350	15,832
<u>Age</u>					
Under 5	671	597	773	1,005	1,018
% Distribution	8.0%	5.3%	5.6%	7.0%	6.4%
5-17	2,336	2,391	2,248	2,440	2,909
% Distribution	28.0%	21.4%	16.1%	17.0%	18.4%
18-64	4,627	6,970	9,071	8,896	9,534
% Distribution	55.4%	62.2%	65.1%	62.0%	60.2%
65+	718	1,243	1,845	2,009	2,371
% Distribution	8.6%	11.1%	13.2%	14.0%	15%

- The school age population has increased by 469 school-age children between 1995 and 2000 and the highest five-year total increase since 1970.
- Although the town's population shows increases in adult populations, the number of children under five and the number of school age children have also increased in the past ten years.
- The number of children under five has increased by 30% between 1990 and 2000.
- The data also reveals that Avon's population is aging. The number of retired age adults increased by 526 or 29 percent from 1990 to 2000. This data suggests that retired adults are remaining in town.

B. HOUSING

1. Housing Characteristics

The number of households and total units of housing are also important factors that affect student enrollment. The next table reports housing information obtained from the U.S. Census Bureau reports and the Connecticut Capitol Region Growth Council reports.

	1970	1980	1990	1995	2000
Households	2,387	3,950	5,366	5,549	6,182
% Owner	83.8%	83.4%	83.7%	85%	86.5%
% Rental	16.2%	16.6%	16.3%	15%	13.5%
Housing Units	2,465	4,427	5,709	5,952	6,480
Persons per Household	3.5	2.8	2.6	2.6	2.6
Average School Age Child per Household	1.0	1.7	2.4	2.3	2.1

- The increase in total net housing units from 1970 to 2000 was 3,701 or 159%.
- The average number of adults per household declined between 1970 and 1990, but remained unchanged in 1990 and 2000. The average number of school-age children has declined from 2.4 to 2.1 per household in the last ten years.
- The percent of owner occupied and rental housing units remained about the same.
- The data suggests that the number of new homes in Avon is likely to continue to produce an average of two children per household.
- Between 1990 and 2000, the Town experienced a net gain of 771 housing units.

2. Housing Permits

Since 1990, the Town of Avon reports the number of housing permits for new homes and condominium. Generally, seventy-two percent of the permits are for new homes and twenty-eight percent for condominiums.

Year	Number of Permits
1990	28
1991	34
1992	50
1993	48
1994	60
1995	56
1996	55
1997	88
1998	123
1999	168
2000	69
2001	75
2002	169
2003	150

Between 1990 and 2002, housing permits averaged 79 per year. The number of housing permits for 2003 nearly equals the number of permits issued the year before for the same period. In a five year look-back, the average of housing permits was 126. In the near term, an average of 126 new housing units per year is possible. Within the mix of new housing permits, an increase in new housing for individuals approaching retirement age exists. This data also suggests that in-town migration will continue at least around 2.5 percent, which will continue to add to the student population.

3. Potential Dwelling Units

The Avon Planning Department divides the Town of Avon into 16 neighborhoods. It identifies neighborhood 13 as the neighborhood with the largest single-family housing growth potential. Neighborhood 13 is located in the western part of town between Lovely Street and Huckleberry Hill Road. Based on a lengthy study, the Planning Department estimates that the vacant land capacity in this neighborhood could accommodate 350 new single-family housing units. The Town's Planning Department estimates the availability of future home sites to be around 1200 to 1500 parcels.

4. Sales of Existing Housing

Real estate sales, which are comprised mostly of residential sales, have been solid in the last five years. Sales of existing homes that peaked in 1998 and 1999 dropped slightly in the past four years. It is uncertain what impact recent reductions in mortgage rates will have on existing home sales. Sales of existing homes owned by long-time Avon residents to younger newcomers may become part of new growth in Avon. In the past six years, into-town migration averaged around 2.8%, but in the last two years, the average dropped slightly to 2.5%.

House Sales (No condominiums)

Jan. 1999	Feb. 1999	Mar 1999	April 1999	May 1999	June 1999	July 1999	Aug. 1999	Sept. 1999	Oct. 1999	Nov. 1999	Dec. 1999	Total
14	11	23	22	14	34	28	29	16	30	17	14	252
Jan. 2000	Feb. 2000	Mar 2000	April 2000	May 2000	June 2000	July 2000	Aug. 2000	Sept. 2000	Oct. 2000	Nov. 2000	Dec. 2000	Total
15	8	20	18	28	36	31	25	15	17	19	6	238
Jan. 2001	Feb. 2001	Mar 2001	April 2001	May 2001	June 2001	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001	Dec. 2001	Total
15	8	6	13	16	15	32	30	23	19	20	14	211
Jan. 2002	Feb. 2002	Mar 2002	April 2002	May 2002	June 2002	July 2002	Aug. 2002	Sept. 2002	Oct. 2002	Nov. 2002	Dec. 2002	Total
9	14	13	19	14	22	28	30	7	19	19	18	212
Jan. 2003	Feb. 2003	Mar 2003	April 2003	May 2003	June 2003	July 2003	Aug. 2003	Sept. 2003	Oct. 2003	Nov. 2003	Dec. 2003	Total
13	9	12	20	18	32	33	33	16	23	15	19	233

C. STUDENT ENROLLMENT HISTORY

The two tables that follow display the October 1 enrollment for the Avon Public Schools from the 1987-88 school year to the 2003-04 school year. These tables do not include special education students enrolled in a pre-kindergarten program. This program currently includes twenty students. In addition, examining enrollment groupings by grade reveal can reveal enrollment trends as found in the tables below.

School Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
1987-88	133	178	174	156	169	154	152	142	165	135	160	167	183	2068
1988-89	160	146	176	172	160	170	156	146	141	152	125	156	161	2021
1989-90	167	174	154	175	179	163	168	156	155	121	146	124	151	2033
1990-91	143	172	181	151	174	173	169	162	162	141	125	152	125	2030
1991-92	157	163	170	188	157	185	180	163	169	141	131	129	149	2082
1992-93	207	173	160	173	200	160	181	177	161	155	138	128	129	2142
1993-94	174	219	170	162	176	195	161	181	183	134	154	136	121	2166
1994-95	177	185	214	179	162	178	195	155	180	163	130	149	140	2207
1995-96	175	190	195	214	189	170	193	196	160	160	166	130	147	2285
1996-97	198	199	197	200	216	198	165	204	189	141	148	166	123	2344
1997-98	200	223	204	202	205	215	206	155	203	157	137	141	166	2414
1998-99	198	227	223	218	218	207	209	211	160	176	162	131	148	2488
1999-00	236	215	247	235	221	223	215	230	199	160	182	163	137	2694
2000-01	210	251	222	264	238	276	225	223	232	209	171	188	177	2886
2001-02	223	239	260	236	264	244	267	225	229	211	206	167	186	2957
2002-03	212	269	244	268	239	283	244	275	221	210	214	204	166	3049
2003-04	222	233	279	244	281	261	292	263	281	215	214	219	211	3215

School Year	Grades K-5		Grades 6-8	Grades 9-12	Total
1987-88	964		459	645	2068
1988-89	984		443	594	2021
1989-90	1012		479	542	2033
1990-91	994		493	543	2030
1991-92	1020		512	550	2082
1992-93	1073		519	550	2142
1993-94	1096		525	545	2166
1994-95	1095		530	582	2207
1995-96	1133		549	603	2285
1996-97	1208		558	578	2344
1997-98	1249		564	601	2414
1998-99	1291		580	617	2488
1999-00	1408		644	642	2694
2000-01	1461		680	745	2886
2001-02	1466		721	770	2957
School Year	Grades K-4	Grades 5-6	Grades 7-8	Grades 9-12	Total
2002-03	1232	527	496	794	3049
2003-04	1259	553	544	859	3215

D. STUDENT ENROLLMENT PROJECTIONS

This report provides a ten-year projection of Avon enrollment data through the 2013-14 school year. It includes graphs and charts that illustrate the enrollment projection by school level. The State Department of Education (SDE) and the New England School Development Council (NESDEC) provided the enrollment data. Their reports are based on current and historical enrollment information, birth records from the State Department of Public Health, Avon Town Clerk's office, and estimated births between 2003 and 2008 for Avon's economic reference group, construction permit data from the State Department of Economic and Community Development, and real estate sales data from the Commercial Record published by The Warren Group.

The method used by SDE and NESDEC to project enrollment is a modified cohort survival method. This method is based on the calculation of a series of progression ratios (often called survival ratios) from an enrollment history that indicates the fraction of students in one grade level in a given school year that are enrolled in a grade level the following year. For example, 283 students enrolled in a grade divided by 264 students enrolled in the same grade during the previous year results in a progression ratio of 1.07. These progression ratios encompass the individual factors that influence enrollment: birth, migration in and out of the school system, school policies (e.g. retention), students who transfer to private school, and changes in housing patterns. Both demographic reports take a weighted five-year average to calculate the change the progression ratios. In addition, the enrollment projection assumes that what has happened in the past will continue to happen in the future.

Both reports assume that our current promotion and retention practice will continue and that there will be no new charter or magnet schools in the region. The SDE projection also assumes that the thirty students currently enrolled in the Choice program will remain until they graduate. The enrollment projection does not include new Choice students. The NESDEC projection data does not include students enrolled through the Choice program or students enrolled in any magnet school program.

This methodology is sufficiently accurate for intermediate-range policy planning and applying for a school construction grant. The SDE provides information regarding the accuracy of its enrollment projection. Last year's projection for 2003-04 was 51 students (K-12) below the actual count of 3,215. The ten other enrollment projections, between 1993 and 2002 had one-year error rates that averaged 1.9 percent. Error rates may be included in enrollment estimates when applying for a school construction project. A school construction project may include be considered when supplying enrollment estimates for a school construction project.

1. Student Enrollment Data for the 2003-04 School Year and Projected Enrollment for 2004-05

The table below compares actual enrollment in the current school year by school level with the projected enrollment for the 2003-04 school year. The NESDEC projected enrollment data do not include the thirty students currently enrolled in Avon through the Choice program. Total school enrollment will increase between 97 and 111 by October 1, 2004. The most significant increases will occur at the high school and middle school.

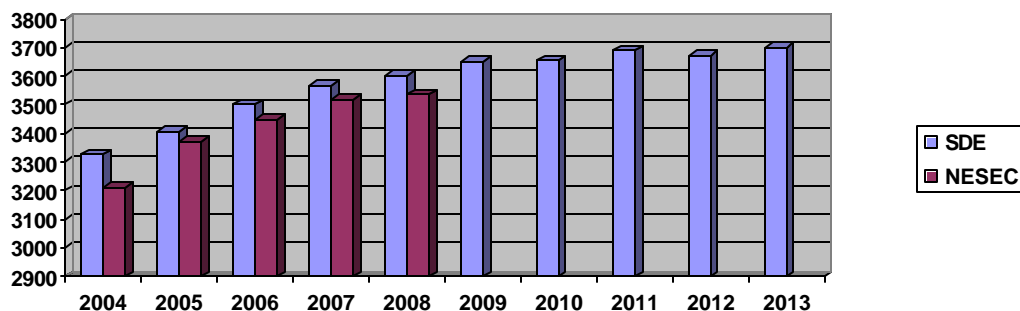
Actual Enrollment for 2003-04 and Projected Enrollment for 2004-05

Grade Level	Actual Enrollment October 2003	Projected Enrollment October 2004 SDE	Projected Enrollment October 2004 NESDEC
K-4	1259	1263	1261
5-6	553	565	562
7-8	544	571	569
9-12	859	927	920
Total:	3215	3326	3312

2. Ten Year Student Enrollment Projection Data for Grades K-12

The table below shows the projected enrollment in all grades through the 2013-14 school year. The SDE data reveal a 15.1 percent increase in school enrollment between October 2003 and October 2013. Slow and modest growth will take place over the next seven years and enrollment appears to peak between 2011 and 2013. The NESDEC projection does not include students enrolled under Choice or the students currently enrolled in magnet school programs, which helps to explain some of the difference between both projection reports.

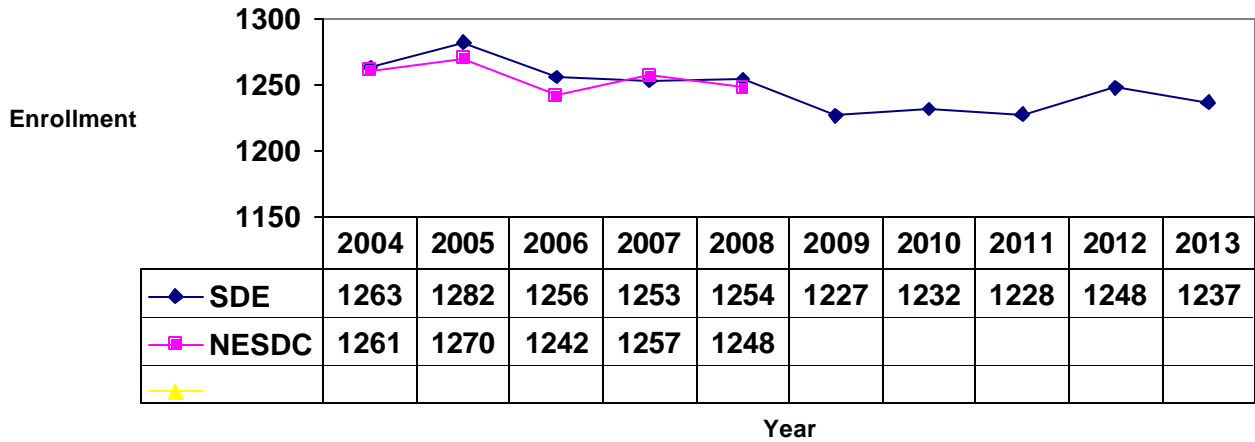
Ten Year Student Enrollment Projection Data for Grades K-12



3. Enrollment Projection Data for Grades K-4

The chart below indicates that enrollment in grades K-4 will peak in the 2005-06 school year and begin a modest decline for the next seven years. Moreover, the graph shows the projected enrollment in the year 2013 as less than the current school year.

Projected Enrollment for Grades K-4



The next two tables provide enrollment data for each grade level at each K-4 school. Pine Grove School enrollment will remain relatively unchanged during the 2004-05 school year with some minor shifts in population at specific grade levels. Roaring Brook School population will increase by 11 students; however, additional enrollment will require an additional part-time teacher in kindergarten. The enrollment projections reveal that the total enrollment for both K-4 schools will be below the building capacity of each school.

Pine Grove School – Enrollment Projection 2004-05 and Comparison Student/Teacher Ratios

Grade	October 2003 Actual Enrollment	2003-04 # of Teachers and Students/Teacher	2004-05 Projected Enrollment	2004-05 # of Teachers and Students/Teacher
K	105	3(18:1)	107	3(18:1)
1	100	5(20:1)	115	6(19:1)
2	138	6(23:1)	105	5(21:1)
3	118	6(20:1)	140	7(20:1)
4	132	6(22:1)	120	5(24:1)
Total	593		587	

Roaring Brook School – Enrollment Projection 2004-05 and Comparison Student/Teacher Ratios

Grade	October 2003 Actual Enrollment	2003-04 # of Teachers and Students/Teacher	2004-05 <u>Projected Enrollment</u>	2004-05 # of Teachers and Students/Teacher
K	116	3(19:1)	125	3.5(19:1)
1	133	6(22:1)	133	6(22:1)
2	141	7(20:1)	137	7(20:1)
3	126	6(21:1)	150	7(21:1)
4	149	7(21:1)	131	6(22.1)
Total	665		676	

4. Enrollment Projection Data for Grades 5-6

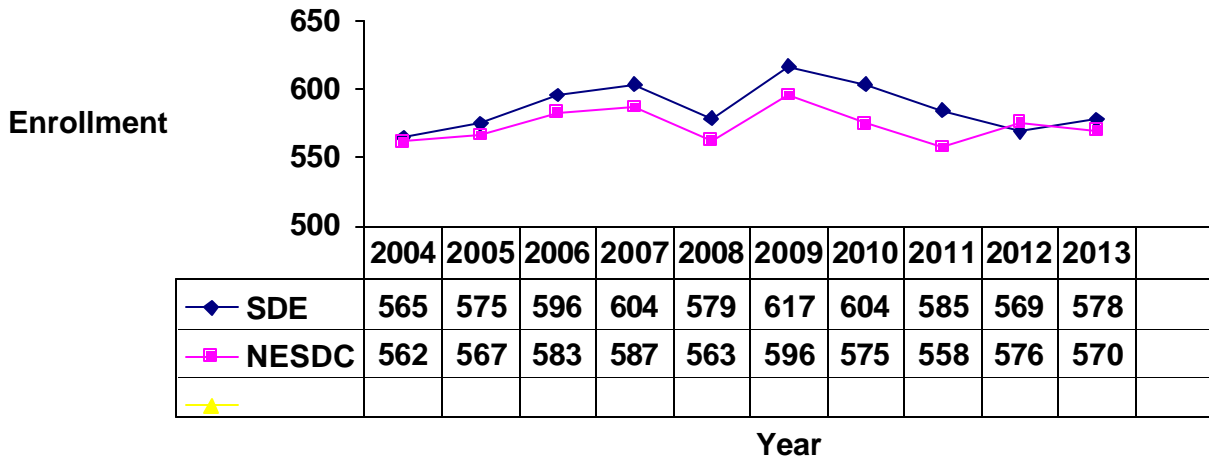
Thompson Brook School opened in September 2002. The school has a designed building capacity of 600 students, but it could house additional students, up to 700, if needed in the future.

Thompson Brook School – Enrollment Projection 2004-05 by Grade and Student/Teacher Ratios

Grade	October 2003 Actual Enrollment	2003-04 # of Teachers and Student/Teachers	2004-05 Projected Enrollment	2004-05 # of Teachers and Students/Teacher
5	261	11(24:1)	301	13(23:1)
6	292	13(23:1)	264	11(24:1)
Total	553		565	

The chart below shows the enrollment patterns for the Thompson Brook School over the next ten years. The enrollment is expected to peak around the year 2009. The enrollment will remain within the building’s design capacity.

Thompson Brook School – Enrollment Projection 2004-2013



5. Enrollment Projection Data for Grades 7-8

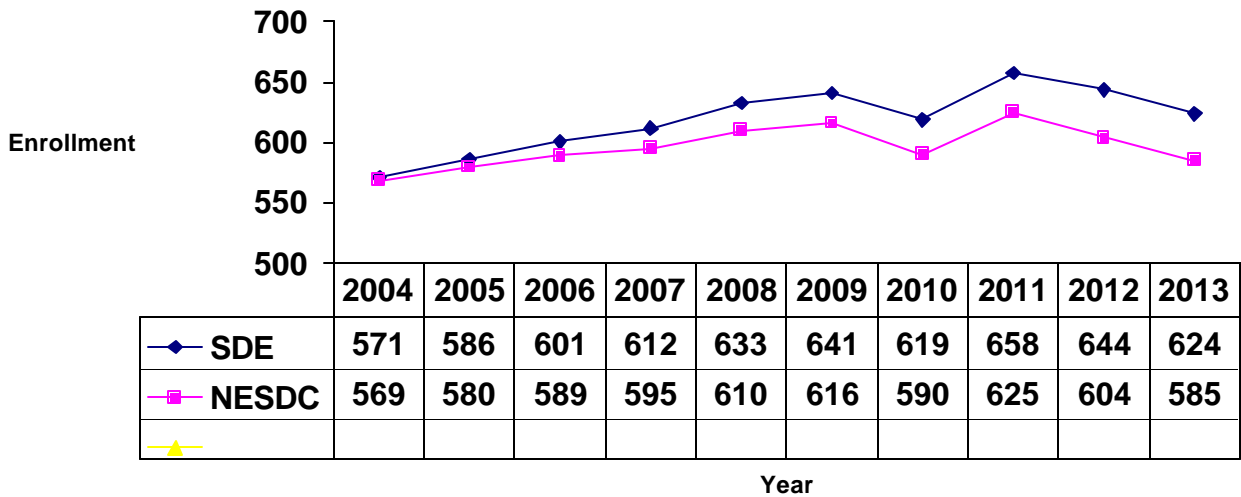
The enrollment projection for Avon Middle School shows an overall increase in school population for the 2004-05 school year of twenty-one students. The seventh grade enrollment will increase by forty-four students in 2004.

Avon Middle School – Enrollment Projection 2004-05 by Grade

Grade	October 2003 Actual Enrollment	2004-05 Projected Enrollment SDE	2004-05 Projected Enrollment NESDEC
7	263	307	302
8	281	264	267
Total	544	571	569

Enrollment at Avon Middle School in grades seven and eight will peak in 2011. During those some years, the school enrollment will reach the school’s design capacity.

Avon Middle School – Enrollment Projection 2004-2013



6. Enrollment Projection Data for Grades 9-12

The table below indicates that enrollment at Avon High School in the 2004-05 school year will increase between sixty-one and sixty-eight students between 2003 and 2004.

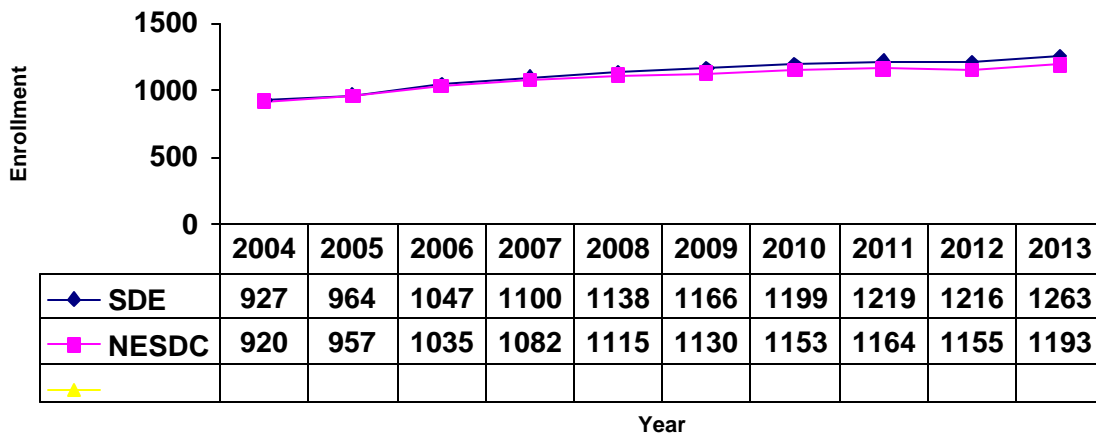
Avon High School – Enrollment Projection 2004-05 by Grade

Grade	2003-04 Actual Enrollment	2004-05 Projected Enrollment SDE	2004-05 Projected Enrollment NESDEC
9	215	266	263
10	214	219	218
11	219	216	216
12	211	226	223
Total	859	927	920

The most significant increase in district enrollment will occur at Avon High School. The enrollment will increase by 47 percent between October 2003 and October 2013. The high school building capacity is 900 at 100% utilization of all existing classroom space. The school enrollment will exceed its designed capacity in the 2005-06 school year.

The chart below shows the enrollment projection for the next ten years.

Avon High School Enrollment Projection 2004-2013



8. Conclusions

This is an extraordinary time to project enrollment regardless of the methodology used in determining the enrollment data. A key assumption behind the enrollment projections is that the recent past will be a good indication of the near future. Most demographers will look back five years into the past to predict future enrollment. For the most part, the past five years were a period of growth and prosperity in the country and in most parts of Connecticut. The current national economic outlook is certainly not as rosy as that period. How changes in economics will affect the decision to buy a home, relocate, or to start or expand a family is a great unknown.

The Board of Education and administration must make a judgment of how the economic downturn might affect current and future Avon residents. The labor force appears to be stable; the estimated student migration has backed off the high levels of 1997 through 2000. This projection data is a starting point for local planning, particularly for the high school.

Projections can serve as useful guides to the Board of Education and administrators for educational planning. In this regard, projections are generally more reliable when they are closest in time to the current year. Thus, next year's projections are the most reliable, the following year is the next most reliable, etc., up to a five-year period.

Projections are less reliable six to ten years distant. Such projections may serve as a guide to future enrollments, and are useful for facility planning purposes, but are subject to change. Annual updates, such as this report, allow for the identification of any recent changes in historical trends.

Avon can expect a continuing increase in total enrollment in the upcoming years, particularly at the high school, if current patterns hold. Between 1990 and 2003 enrollment in grades K-4 increased from 821 to 1,259 students. This increase of 438 students represents a fifty-three percent increase. Growth will continue, but nowhere near that magnitude. This report suggests that the peak enrollment in the K-4 schools will occur in 2005 (1,282 students). Afterwards, based on the estimated birth rates for all ERG A towns, the enrollment will begin a very slow drift downward. Births, the prime determinant of elementary school growth, have changed very little in the past several years. In the five years from 1994 to 1998 (today's kindergarten through fourth graders) births averaged 165, and births in the 1997 through 2002 period averaged 158 births. There is a modest correlation of .69 between births and kindergarten enrollment five years hence.

Between 1990 and 2003, enrollment in grades 5-6 increased from 342 to 553. This increase of 211 students represents a sixty-two percent growth rate for these two grade levels. Enrollment in these grades will approach slightly over 617 students in the 2009 school year.

Since 1990, enrollment in grades 7-8 has increased from 324 to 544 students, a sixty-eight percent increase. The enrollment in these grades is expected to peak at about 658 students in 2011.

Since 1990, the enrollment at Avon High School has grown from 543 to 859 students. The increase of 316 students represents a fifty-eight percent growth rate. Enrollment at Avon High School has the potential to reach 1,263 students by October of 2013.

9. Summary

1. Student enrollment will increase by at least 100 students by the beginning of the 2004-05 school year. Most of the growth will be concentrated at the high school. The largest grade 9 class will be entering the school in September of 2004 with an expected enrollment of around 265 students.
2. Between October 2004 and October 2012, the Department of Education projects the total district enrollment to increase by 487 students or twenty-five percent. Most of the enrollment growth will occur at the grade 7-12 levels.
3. Projected enrollment in grades K-4 will remain stable.
4. Enrollment at Thompson Brook School will peak in 2009 but remain within its design capacity.
5. Middle school enrollment will increase within the next ten years, but will peak enrollment in the year 2011 with 658 students, which is 114 more students compared to the current school year (2003-04).
6. The high school enrollment will increase by 404 students between October 2003 and October 2013.
7. Except for the high school, our K-8 school buildings will accommodate the projected enrollment within their enrollment design specifications.
8. It is nearly impossible to predict the exact enrollment for both K-4 schools. Any shift and increase in student population in one part of town may require some shifting of school zones for these two schools.
9. New housing permits for single-family homes show a decline, but the current level of annual permits will continue. The new housing market can fluctuate depending on a whole host of economic variables.

Similarly, sales of existing houses continue to decline, but this market can also fluctuate. The declining interest rates have not increased the sale of existing. It appears that rather than selling and upgrading, families are re-mortgaging their homes.

APPENDIX B: THE USE AND AVAILABILITY OF SCHOOL SPACE

It is useful to consider the use and availability of space in a school in terms of its operational capacity. Several variables determine the operational capacity of a school and provide a statistical and practical useful measure of the use, availability, and need for school space. These variables include the following:

10. Student capacity: the square feet of space per student
11. Class size: student/teacher ratio
12. Grade organization
13. School programs: space available for regular and special education, and specialized spaces such as library media center, computer laboratories, music, art, and physical education

1. Student Capacity

The State Department of Education standard space specifications are the space criteria used to determine space needs for a school and a major standard that determines the level of funding for construction grants. The square footage of the school divided by the enrollment determines square footage per student in the school building. The table below shows the square foot allowances that would be considered eligible for state reimbursement. The maximum square foot allowance for high schools with enrollment between 751 and 1500 students is 180.5 square feet per student.

State Standard Space Specifications

Grades													
School Enrollment	K	1	2	3	4	5	6	7	8	9	10	11	12
Allowable Square Footage Per Student													
0-350	124	124	124	124	124	156	156	180	180	180	194	194	194
351-750	120	120	120	120	120	152	152	176	176	176	190	190	190
751-1500	116	116	116	116	116	116	148	148	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

Applicants for school building projects, which exceed the state space specification standards, because of extraordinary programmatic needs, may apply to the Commissioner of Education, at such time and in such manner as the Commissioner may prescribe, for a waiver of space limitations. In general, this

standard is a good school design tool. At the time the Town applies for a school construction grant, the Town must identify the building capacity for the school.

The following table illustrates each of the school's design capacity, the recommended square feet per student, and the current square feet per student.

School	Current Square Footage	Designed Student Enrollment Capacity	Recommended Square Feet per Student	Enrollment October 2003	Current Square Feet Per Student
Roaring Brook	79,500	700	120	665	120
Pine Grove	86,000	609	120	593	145
Thompson Brook	97,100	600	152	553	176
Middle School	120,150	620	176	543	221
High School	163,500	900	180.5	859	190

The space standards data above shows that all schools fall within their design capacity. The table below, however, reveals that the high school will exceed its design capacity beginning with the 2004-05 school year and will continue to exceed its building capacity over the next five years. The three elementary schools and the middle school will have sufficient space to accommodate student enrollment within the same ten-year enrollment projection.

The most recent renovation and addition to the high school, completed in 1998, added an additional 50,000 square feet of new space that included a new science and classroom wing, expanded music rooms, larger physical education and athletic locker room area, two computer labs, and a lobby/gallery area.

Square Feet per Student based on Projected Enrollment

School	Current Square Footage	Recommended Square Feet	2003	2004	2005	2006	2007	2008	2013
Roaring Brook	79,500	120	120	120	120	120	120	120	120
Pine Grove	86,000	120	145	145	145	145	145	145	145
Thompson Brook	97,100	152	176	171	165	161	158	153	156
Middle School	120,150	176	221	210	205	199	196	189	186
High School	163,500	181	190	176	170	155	148	144	130

2. Class Size

Current contractual obligations and practice define teacher/student ratios or class sizes in the academic programs as follows:

Grade	Student/Teacher Ratios
Kindergarten	20:1
1 – 3	23:1
4 – 12	25:1

The Board of Education and the Avon Education Association recognize that the student-teacher ratio is an important criteria for evaluating the quality of an educational system. Both also recognize that any optimum class size is variable because of such factors as subject matter, approach, and content. For example, class sizes in advanced placement courses, which are equivalent to college level courses in the high school, are likely to be smaller than other academic programs due to the nature of the course content. Similarly, phase five courses tend to be smaller because of the students' learning requirements and the individual teaching attention required in such courses. These courses require remedial intervention and/or a slower pace of instruction.

In the event that class sizes exceed these maximum limits, The Board of Education has agreed to exert reasonable effort to assist the teachers. In the event that no assistance can be arranged within 45 days, the affected teacher receives a \$500.00 stipend per additional student for that teaching year. These funds are to be used for a professional development program approved by the Superintendent of Schools.

In addition, the Board of Education makes an effort to ensure that teachers of regular academic classes at the high school will not be required to teach more than three different subjects or grade equivalents. Any individual class may include, however, students from more than three grades. It has also been practice to assign high school teachers, who teach traditionally described academic courses, to no more than five teaching periods. If a sixth teaching period is assigned to a teacher, the enrollment is likely to be less than average student/teacher ratio for the subject matter. This arrangement will explain why some classes at the high school may have ten or less students enrolled in the course. It is important for the reader to understand that class size is probably the most singular quality that parents use to assess the quality of the school and the instructional program.

The next table summarizes the student/teacher ratio and average class size at Avon High School for each of the academic subject areas. The data reflects enrollment during the first semester of the 2003-04 school year.

**AVERAGE CLASS SIZES and
STUDENT-TEACHER RATIOS**

	2002	2003
English/Language Arts	18:1	20:1
History/Social Studies	20:1	21:1
Mathematics	18:1	17:1
Science	20:1	20:1
World Languages and Latin	15:1	15:1

3. Grade Organization

In response to a fifty percent increase in enrollment between 1996 and 2001, the Board of Education reorganized its previous grade level organization at the K-8 school level. This plan resulted in the building of a third elementary school to house students in grades 5-6. This change in grade reorganization also created two schools to house pre-kindergarten through grade four students, one grade 5-6 school, and one middle school accommodating grades 7-8.

One remedy some communities have used to reduce the impact of increased enrollment at the high school is to relocate 9th grade students to its middle school. The committee views the current team organization of the Avon Middle School as a curriculum and instruction advantage. The committee also rejected any consideration of moving the 9th grade from the high school to the middle school for one primary and obvious reason. The middle school does not have sufficient core facilities, such as cafeteria, library, gymnasium, to accommodate nearly 900 students projected for grades 7-9 in the year 2013.

4. School Programs (Instructional and Non-Instructional Space)

The most recent building addition and renovation to Avon High School was completed in 1998, during which time unprecedented enrollment growth began at the elementary school level. The current high school has a design capacity for 900 students based on a state space standard of 180.5 square feet per student. The most recent renovation and addition provided for more classrooms academic areas, particularly science, and additions and renovations for specialized program areas such as art, music, and computer labs.

The building project was planned around an enrollment projection of 750 students by the year 2005, which represented a total increase in enrollment of 175 students. High school enrollment has already exceeded both of these projections. Current enrollment is 859 students (October 2003).

The tables below summarize the use and availability of current classroom space and identify the classroom and instructional space requirements for existing and planned instructional programs. The present school schedule is an eight period day on a rotation schedule. This schedule of periods allows for longer and a few shorter periods of instruction in contrast to the traditional 45-minute period that meets daily. An eight period schedule also creates additional classroom space that would not be available in a traditional seven period day schedule. A blank space in the table indicates that the classroom is vacant for the designated period. The number in each space shows the student enrollment for the room, period, and subject matter.

Table 1 below shows classroom space dedicated for **art instruction**, including courses in 2-dimensional and 3-dimensional art, and painting. Sufficient classroom space is available for current and future enrollment and program requirements. The specialized features of classroom furniture, art displays and project storage make the vacant periods inappropriate for instruction for the academic areas.

Table 1: Art Education Classrooms

Room #	Department/Area	1	2	3	4	5	6	7	8
C102	Art	6*			22	17	19	21	19
C104	Art	20	20S		20	18		11	20
C106	Art			14		14			
* Denotes that teacher has a sixth period teaching assignment S Denotes supervised study									

Table 2 summarizes current use and availability of four **computer labs** in the school. The 1997 renovation and addition to the high school provided one additional computer lab. Sufficient computer laboratory space exists for current program requirements providing the computer labs are properly equipped and adult supervision is available in each lab. The availability of additional wireless laptop computers in the library/media center beyond the few that are currently housed in the media center would provide needed student accessibility to Internet resources and other reference information. Graphic design classes are taught in

room C101, a wide range of computer applications courses are taught in room W119, and engineering/technology courses are taught in room C103. A general computer lab (room C107) is available for whole class instruction and individual use. An increase in enrollment to 1263 students will require an additional computer lab and wireless access in the library/media center and other sections of the building.

Table 2: Computer Labs

Room #	Department/Area	1	2	3	4	5	6	7	8
C101	Computer Lab (Art)	16	X	X	X	X	10	14	X
C103	Computer Lab (Business)	X	20	X	19	X	11	19	14
C107	Computer Lab (All-purpose)	X	X	X	X	X	X	X	X
W119	Computer Lab(Technology)	21	13	10*	19		19		19
* Denotes that teacher has a sixth period teaching assignment									
X Denotes that the computer lab is open for classes and students									

Table 3 summarizes the available instructional space for music, physical education, athletics, and technology education. The renovation and addition completed in 1998 provided a renovated and expanded locker room and weight room facility for boys and girls, expanded band room that included the previous choral room, a new choral room, and renovated technology lab. Room C105 currently houses equipment such as table saws and workbenches, which are primarily used for theatre stage set construction. The district no longer offers a program in industrial education. Current planning will divide this space, one-half will remain a construction workshop for stage set construction, and the other half will be designed around the pre-engineering or similar program.

In the last five years, an increase in student enrollment combined with an expanded music program contributed to an increase student participation in music programs. A pilot string program inaugurated in 2001 and expanded in the last two years demonstrates sustained student interest and parent support for this program. The participation level at the elementary schools will affect the high school within four years. Small string ensembles, and possibly an orchestra, are the likely outcomes of this new program. Space is not sufficient to accommodate an expansion of the program. Therefore, a classroom that could accommodate small ensemble performances and instruction would provide sufficient space for music instruction and small group performances. The committee suggests the use of the stage in the auditorium as an alternative to adding another classroom facility. A soundproof partition would be needed to separate the auditorium from this instructional area. With only instrument practice room, additional practice rooms, along with instrument storage, are needed near the instrumental classrooms.

Table 3: Gymnasium, Music and Technology Classrooms

Room #	Department/Area	1	2	3	4	5	6	7	8
E101	Gymnasium/PE	35	38		50	41	39	32	
E106	Band Room	99	#	6	#	67	#	#	#
E107	Choral Room	42	#	28	#		22	9	#
# Denotes that the rooms are used for sectional rehearsals lessons									

The 1997 renovation and addition to the school resulted in a seating reduction in the gymnasium from 765 to 500 to accommodate handicap seating and conformity to safety and fire code regulations. The gymnasium area, which includes a regulation size basketball court and a smaller auxiliary area, is sufficient to accommodate the projected enrollment if the physical education requirement for graduation remains at one credit. However, if the district seeks to maintain its current level of student participation in athletic programs (66%), additional gymnasium space will be required for play, practice, and additional teams and programs for volleyball, basketball, and wrestling. The use of the Thompson Brook School gymnasium could serve as another high school gymnasium site if the community was willing to forego the use of the facility for town recreation in the fall and winter seasons. The team locker room and weight room facilities are not adequate in size and number to accommodate student athletes.

Table 4 shows the current use of the eight new science classrooms/laboratories. The last building project increased the number of science classrooms from seven to eight. The science course of study now includes additional advanced placement course work and elective courses such as physiology and anatomy, applied chemistry, and biotechnology. The projected enrollment increase over the next ten years will require two additional science classrooms.

Table 4: Science Classrooms

Room #	Department/Area	1	2	3	4	5	6	7	8
W121	Science/Lab	19	20	20		16	23		22
W122	Science/Lab	16	18	15	24	24	18	22	17
W123	Science/Lab	20	20	19	15		20	20	22
W124	Science/Lab	15	23	23	17	15	21	21	22
W221	Science/Lab	13	22	18	15	15	12	17	8
W222	Science/Lab	22	21	21	21	20	10	10	16
W223	Science/Lab	23	23	19		15	18	16	19
W224	Science/Lab		24	21	21	19	19	16	24

The last building project included the addition for four additional general classrooms.

Table 5 shows the use for all general classrooms in which English, mathematics, history and social studies, world language, and health instruction take place. Current planning is to redesign the former foods and nutrition lab (Room W118) and child development lab (W116) for a special education program. This program, which was established in the middle school three years ago to reduce out-of-district special education tuition and transportation, provides instruction and support services for children with severe learning and physical disabilities. Room C109 is a general classroom that is adjacent to the library/media center. It is currently used for English instruction. This classroom space would be needed as library space to accommodate the additional enrollment. The remaining thirty classrooms house instruction in English, history/social studies, world language, mathematics, and health education. A full size classroom at the high school ranges between 750 and 850 square feet.

Table 5: Regular Classroom Use Space

Room #	Department/Area	1	2	3	4	5	6	7	8
W101	English/Social Studies^	25^	25		18	24	25	18	
W102	English	12	22	18		20	20		
W104	Social Studies	25		19	25	10	22	21	23
W106	Social Studies	10S		14		10	10	22	25
W108	English	19		25	12		16	21	18
W109	Social Studies	23	28S	24	27	17		21	22
W111	English	26	11	13			27		16
W113	Health	14*		14		17	18	19	17
W115	Social Studies	12	20	25		15		21	24
W117	English	19	16	25	26	23	19		23
W120	Social Studies		12		17	21	21	23S	22
W125	English	15	10			23	10		23
W202	Mathematics			21	31	13	10S	24	20
W204	Mathematics	12	21	18	24			17	
W206	SocialStudies/WorldLanguage^	27	24S	19	31	10S	21	11^	24
W208	English/World Languages^	10	12	12		19^	12		24
W209	English/World Languages^	19	21	15	24	25	17	5^	25
W210	Mathematics		10	26		15	23	23	
W211	SocialStudies/WorldLanguage^	22	15^	28	31	24	22	20	26
W212	World Languages		11	13	18	17	15	11	
W213	Mathematics/World Language^		21	16	26	23^		23	24
W214	Mathematics	21	16	16	21	12		29S	18
W215	World Languages	9	10	9	25	15	18	15	
W216	World Languages		20	14	20	12	14	19	13
W217	World Languages	20	12	19		20		18	9
W218	World Languages		7	15	23	16	11	15	17
W219	World Languages	11	18		18	12	20	6	
W220	Mathematics	26	22	21	19	22	25	23	25
W225	Mathematics	20		25		21	18	27	
C108	Mathematics		24	12	25			13	10S
C109	English (Library)		23		25	23	30	8*	26

* Denotes sixth period teaching assignment
S Denotes supervised study

Table 5 shows a general classroom utilization rate of eighty percent. The remaining availability of classroom space will accommodate enrollment in the next two years. However, additional enrollment will increase the level of room utilization to nearly one-hundred percent. A room utilization rate of eighty-five percent is the maximum percentage of room use in approved state school building designs for reimbursement purposes. The school's projected student enrollment will require eight additional general classrooms to maintain an eighty-five percent room utilization formula. General classroom space is also used for study hall assignments when the cafeteria is unavailable during lunch periods.

Special education classrooms, **Table 6**, occupy six classrooms. Three are used as resource rooms and three others provide instructional space for two special education programs. The Alternative Learning Program (A.L.P.) is a program introduced two years ago to maintain high school students within the district, thereby reducing out-of-district tuition and transportation costs. This program combines a self-contained academic program with a therapeutic component. This program is currently located in two rooms adjacent to the library/media center. Any future building program should include a design location for these classrooms out of the mainstream of daily classroom routines and schedules in the building. The A.S.A.R.P. is a special education program introduced three years ago in the middle school for students with severe disorders such as autism, and intellectual retardation.

Table 6: Special Education Classrooms

Room #	Department/Area	1	2	3	4	5	6	7	8
W201	Special Education Resource Rm	X	X	X		X	X	X	
W203	Special Education Resource Rm	X	X	X		X	X	X	X
W205/207	Special Education Resource Rm	X	X	X		X		X	X
C111 (Library)	Special Education (A.L.P.)	X	X	X	X	X	X	X	X
C112 (Library)	Special Education (A.L.P.)	X	X	X	X	X	X	X	X
W118	Special Education (A.S.A.R.P.)	X	X	X	X	X	X	X	X

Appendix C: The Condition and Recommended Improvements

AREA	CURRENT CONDITIONS	RECOMMENDED <u>IMPROVEMENTS</u>
General Classrooms	The classrooms are adequate in number for the current enrollment. General classrooms are in use 80% of the time. All casework, ceilings, wall, and floor coverings are clean, neat and without damage. Ample shelf and storage space exists in each room.	Eight additional general classrooms to achieve a maximum 85% utilization rate will be necessary to accommodate the projected enrollment by 2013.
Dedicated Instructional Areas		
a. Art	Three classrooms provide the specialized classrooms for art instruction.	None. Three art classrooms will be sufficient to meet projected enrollment increases.
b. Science	Eight science classrooms, which include laboratory space, are available for earth science, biology, chemistry, and physics instruction. The available classroom space is in use 97% of the time for instruction. Adequate prep and storage areas and appropriate ventilation.	Two additional science classrooms with adequate prep and storage will meet the space requirement for science instruction.
c. Music	Two separate dedicated spaces for choral and instrumental programs. Both spaces acoustically treated. There is adequate storage for sheet music but storage for instruments and the one small practice room for instrumental music are inadequate considering the number of students enrolled in the program.	The music program will require additional classroom space for smaller ensembles, music practice rooms, and additional instrument storage. <u>Note:</u> The stage could provide an additional ensemble area providing a soundproof folding wall separates this instructional area from the auditorium.
d. Auditorium	The auditorium has fixed seating for 600. It has the capacity to do theatre productions as well as vocal and instrumental performances. The stage light and sound system is inadequate.	Improved stage lighting and sound system The stage curtain, original equipment, needs replacement. The fixed chairs in the first four rows of the center seating section could be equipped with lecture arm tables to serve as a large instructional classroom, including supervised study.
e. Outdoor Athletic Facilities	A baseball field, football field with running track, and a field hockey field are located on the school site. The fields at Fisher Meadows, Buckingham area, and the Middle School and the tennis courts at Thompson Brook School and the Middle School are available for athletic competition and practice.	To maintain the current level of student participation (57% of the student body) in the athletic program with additional enrollment will require additional field space in town. The bleachers and benches on the football field are in need of repair and replacement.
f. Gymnasium	The gymnasium has a full-size basketball court. Girls' volleyball teams use the gymnasium in the fall for	Boys' and girls' athletic teams need additional team locker room space. A physical fitness/weight training center

	<p>competition and practice. The small gym area in the south end of the gymnasium is used for adaptive physical education classes and wrestling events. The facility includes adequate shower areas but the team locker space is inadequate. Storage of athletic equipment is not adequate. The school district currently rents storage space in Town.</p>	<p>would complement the physical education program and the fitness training required of student athletes. Requiring two credits in physical education, eliminated at the beginning of the 2003-04 school year, would require an additional gymnasium for physical education classes. The gymnasium at Thompson Brook School can provide an alternate site location for basketball and volleyball. However, the locker areas are very limited, showers are not available, and its use would reduce community access. An additional gymnasium, as originally recommended in 1996, is therefore recommended. The addition of two bays onto the current garage would provide adequate and additional outdoor storage on the school site. The Board of Education's capital improvement budget recommends the replacement of the original gymnasium floor.</p>
g. Technology Education	<p>One computer is located in each general classroom with Internet access, LAN/WAN in place. Additional connections available in each classroom for multiple workstations. Four computer labs are located in the building. Dedicated instruction in art, business, and technical education takes place in three of these labs. The fourth multi-purpose lab is open for instruction and individual student use.</p>	<p>Student access to computer technology requires one additional computer lab, and multiple wireless workstations.</p>
h. Language Labs	<p>No language lab currently is available.</p>	<p>Sufficient student access to the computer labs for interactive instruction would support the teaching of world languages.</p>
i. Guidance/Student Services	<p>The school maintains seven offices where counselors can meet with students in a confidential manner. The school psychologist currently uses one of these offices and the vocation teacher/counselor uses another office. The guidance area also includes a general reception area, resource material room, and a conference room.</p>	<p>An additional conference room and office space for pupil service personnel such as the school psychologist, social worker, speech pathologist, testing room, vocational teacher/counselor office, and a secretarial work area are needed.</p>
j. Special Education	<p>Six classrooms support instruction for the special education program. Three classrooms (one of which can be divided into two teaching areas, support special education resource instruction, a fourth classroom (formerly the home economics classroom) provides an instructional area for severely disabled students (A.S.A.R. P.), and two other classrooms adjacent to the</p>	<p>The Alternative Learning Program requires two classrooms with a small conference room.</p>

	library house an alternative learning program (A.L.P.)	
m. Library/Media Center	The facility is not of adequate size to accommodate an adequate print, non-print and electronic collection of materials, seating for instructional and study purposes, computer workstations, circulation, work area and storage.	The relocation of the regular and special education classrooms currently adjacent to the library media to the main academic wing of the school would provide additional space for instructional activity and quiet study.
Administration	The administrative offices include a general office, a small conference room, and offices for each of the administrators. The school social worker occupies another office in the administrative area of the school.	No additional space is required.
Cafeteria/Kitchen	The current cafeteria can accommodate 225 students in four lunch periods. It is bright and clean. A food serving area replaced the original teacher dining room area. The kitchen did not undergo any renovation during the 1997 building project.	Projected enrollment will require additional square feet to accommodate 75 more students per four lunch waves. Food services require additional kitchen workspace and the replacement of kitchen equipment (e.g. walk-in cooler freezer, dishwasher, and hot water booster).
Health Room	The health room includes a small nurses' station, three sick bays, and a lavatory. Storage is inadequate and not provided in the 1997 renovation.	The health room requires additional sick bays, an examining room, and storage closet.
Teacher Work Areas	This space includes a teacher lounge, copy room, and teacher work area to accommodate eight desks for teachers without assigned classrooms.	None
Building Exterior/Facade	The facility is in sound condition. The exterior is neat, clean, bright in appearance, and free of graffiti, damage, and vandalism.	The building will require a new roof on sections of the building (100,000 square feet) that did not undergo renovation in 1997.
Entrance/Hallways	Main entrance is highly visible to visitors. All entryways are clean, neat, and welcome people into the school. The 976 lockers are uniform and thirty are in need of repair. The last building project included the painting of the building's original student lockers.	Future enrollment will require additional lockers and the refurbishing of the existing lockers.
Code Compliance	The building underwent complete code compliance with the renovation completed in 1997 to bring the building into full conformity with codes (building, fire, ADA and health).	None
Service Systems		
a. Internal Communications	The building has an intercom system and phone system enabling communication with all academic and administrative areas. All classrooms have access to an	A video communication system would allow this school to have the same video technology available in other schools and improve the quality of communication within the

	outside telephone line.	school.
b. Technology Infrastructure	The complete building has access to voice and data transmission including all instructional and administrative areas. Appropriate wiring for multiple computer workstations is available in all program areas.	Wireless transmission appropriate for the media center and selective classrooms.
c. Air Conditioning	All instructional, administrative, and student support areas are air-conditioned. The system attempts to keep the building comfortable throughout the heating system, but balancing of temperature continues to be problematic.	The Board of Education's capital budget plan identifies the replacement of the he HVAC and air-handling unit above the current library.
d. Heating	Fully operational heating system with zoned and room controls allows for the regulation of temperature throughout the heating system. The balancing of the heating system throughout the building, however, continues to be problematic.	None
e. Interior Lighting	Fixtures, including emergency lighting are working and, when necessary, undergo immediate repair. The lighting system is energy efficient and controlled by an energy management control system.	None
f. Exterior Lighting	Exterior façade, walkways, roadways, and parking areas have proper lighting that provides complete coverage of these areas for nighttime use.	None
g. Roadways/Walkways	All walks and paved areas are free of potholes and caved-in areas, and properly marked for traffic control and pedestrian safety.	None
h. Parking Areas	Parking spaces will accommodate 210 vehicles.	Additional parking spaces, on site or in an alternate location, will provide adequate parking for at least senior students.
i. Lavatories/Plumbing	Most lavatories are intact but require improvements to provide privacy. The 1997 did not include the renovation of lavatories in the academic wing.	Additional enrollment will require additional lavatories to meet building code. The lavatories in the current academic wing require renovation.

RECOMMENDED FACILITY ADDITIONS AND IMPROVEMENTS

Instructional Space

Sq. Ft. Recommendation

- | | |
|---|------|
| • Eight additional general classrooms | 6800 |
| • Two science classrooms | 2400 |
| • One computer lab | 850 |
| • Three special education classrooms with adjoining conference room | 2250 |
| • Additional gymnasium, expanded locker team rooms | 9000 |
| • Expansion of existing fitness/weight training center | 800 |
| • Additional instrumental music rehearsal room* | |

Non-instructional Space

- | | |
|---|------|
| • Pupil service offices, testing, and conference room | 1200 |
| • Expansion of the health room | 300 |
| • Expansion of kitchen workspace | 600 |
| • Additional cafeteria seating space and student activity spaces (yearbook, newspaper, student council) | 1500 |

Capital Improvements

- Replacement of current gymnasium floor
- Replacement of stage curtain
- New roof (on existing building that did not undergo renovation)
- Refurbishing of existing lockers and additional lockers
- Replacement of kitchen equipment
- Video communication system
- Replacement of HVAC unit above the current library
- Additional parking
- Additional outdoor storage facility
- Renovation of pre-1997 lavatories

* The report suggests the conversion of the auditorium stage for large group ensembles and practice rooms. This would require the addition of a soundproof wall on the stage separating the stage from the auditorium seating area.

APPENDIX D: OPTIONS IN RESPONSE TO SCHOOL FACILITY NEEDS

SCHEDULING ALTERNATIVES

Staggered Schedule

Description: A staggered schedule would include an eleven-period day running from 7:30 a.m. until 4:00 p.m. Half the students would attend the first seven periods and the other students would attend school for the last seven periods.

Split Schedule

Description: A split schedule would require half the students to attend school in the morning and the other half in the afternoon. Seniors and juniors would attend school from 7:00 a.m. to 12:00 p.m. Freshmen and sophomores would attend school from 12:15 p.m. until 5:15 p.m.

Advantages

Increased classroom availability.

Greater availability of core instructional areas such as cafeteria, gymnasium, and library.

Split Schedule: Eliminate or scaled-down lunch.

Disadvantages

Reduction in instructional time and course offerings, particularly in a split schedule.

Negative impact on athletic and co-curricular activities. Freshmen and sophomores have no access to athletic program.

Possible collective bargaining issues, such as change in working conditions.

Need for additional teaching staff.

Need for additional educational support staff.

Student access to teachers for extra-help sessions or consultation limited.

Loss of a sense of school community.

Additional transportation costs.

Additional personnel costs.

SCHOOL YEAR and SCHOOL DAY ALTERNATIVES

Extended Summer Program

Description: A six-week summer program during which students have the opportunity to study, in depth, one or two courses. Each course would meet for three hours each day in an afternoon or morning session.

Late afternoon/Evening School Day

Description: A four-day school week that meets from 3:30 p.m. until 8:30 p.m. each day.

Online Program Opportunities

Description: Students earn credit for course work completed on the Internet.

Advantages	Disadvantages
Reduces the number of students attending school during the traditional school day, thus making classroom space more available.	Changes the notion of a traditional high school by lessening student involvement in the school.
Enables students to plan programs and a course of study to meet their own learning style and requirements.	Reduces the number of students participating in co-curricular and athletic activities.
Allow students to graduate early.	Requires additional transportation costs.
May meet the needs of some students who are less successful in a traditional day program.	Requires additional administrative, certified teaching, pupil personnel, and educational support personnel.
No need to expand existing core facilities such as gymnasium, cafeteria, and library.	Collective bargaining issues.
Increases student opportunities to learn independently.	Requires additional technology and technical resources.
Cost efficient use of school facilities.	Limits access to after school activities.
	Limits student ability to seek after school employment.

YEAR ROUND SCHOOL ALTERNATIVE

Year-Round School

Description: Students would attend school for two of three semesters. Teachers would teach two of the three tri-semester.

Advantages

With 33% of the students not attending any one of the semesters, sufficient classroom space would be available.

Core facilities, such as gymnasium, cafeteria, and library would be of sufficient size to accommodate the enrollment and program.

This alternative would provide an efficient use of space.

Disadvantages

Fragmentation of the student body.

Additional administrative, teaching, and educational support staff.

Possible collective bargaining issues.

Year-round transportation costs.

Requiring students to attend school during non-traditional times during the year could be controversial.

Not all courses would be available.

A 33% reduction in student enrollment in any given semester will have a negative impact on co-curricular, athletic, and other student activities.

Increase in school building maintenance costs.

Out of sync with curriculum and state testing requirements.

Family concerns related to vacation schedules.

MODULAR OR PORTABLE CLASSROOM CONSTRUCTION

Modular or Portable Classrooms

Description: This type of construction is similar in appearance as permanent construction, but it can be built and constructed faster than conventional construction. Built in sections off-site, these units are transported to the site and constructed. These structures can be constructed in multi-levels. These structures are not considered permanent, but can be constructed to be permanent.

The estimated cost of a modular classroom, which is more permanent, is about \$175 per square foot. The estimated cost of portable or less permanent structures, similar to those at the Roaring Brook School and Avon Middle School, is about \$125 per square foot. Additional costs include site work, architectural and engineering fees, legal and other services, and utility connections.

Advantages

Portable and modular classrooms are the least expensive type of construction.

Recent legislation allows the School Facilities Unit to approve portable classrooms for reimbursement. This option reduces the time required for construction projects.

This type of construction reduces the time for construction.

The exterior of a modular classroom could resemble the current brick fascia at the high school.

Purchasing portable or modular classrooms does qualify for state grant eligible costs.

If specified, a modular structure could be specified as a two-story building.

Disadvantages

Modular classroom construction must follow the same procedures as permanent construction requiring legislative approval to assure state reimbursement.

This plan will not alleviate the need to add additional space in the core facility.

Portable classrooms are not a permanent solution to a classroom space problem.

Easy access to utilities may be a problem.

Availability of space on the current site.

MULTI-LEVEL CONSTRUCTION

Description: Construction of a second floor over the existing single story section of the high school. This area would include the space above the existing administration and art classrooms, as well as areas adjacent to the library/media center.

Advantages

Does not require any use of land space around the building.

Qualifies for state construction grant reimbursement.

Provides adequate space for additional classrooms.

Disadvantages

Would still require additions to the core facilities.

Probable the most expensive option because it would require reinforcement of the existing single story areas.

Will disrupt instruction and administration.

May take longer to complete than the conventional permanent option.

Will require an additional elevator and minimally two staircases.

ADDITIONAL and PERMANENT SPACE CONSTRUCTION

Description: This option provides for permanent and additional instructional and non-instructional space as defined in the Appendix C of this report.

Advantages

Will meet the building need requirement into the future.

Compliments the existing structure.

Qualifies for state grant construction reimbursement.

Less disruptive to instruction compared to the multi-level construction option.

Could be designed as a two-story addition in the classroom areas.

Disadvantages

Takes longer to complete than most of the other options.

Loss of existing parking lot space.

Availability and flexibility of existing space to accommodate permanent additions.

ADDITION and RENOVATION TO AVON MIDDLE SCHOOL

Description: This option would reorganize the Avon Middle School to include grades 7-9. New construction would add ten general classrooms, two science labs, one special education resource room, an additional art room, and additional space to core areas such as the cafeteria and library.

Advantages

Disadvantages

Meets the classroom requirements.

Insufficient space to enlarge library, cafeteria, and other core areas.

Compliments the existing structure.

Reduces public parking.

Qualifies for state grant construction reimbursement.

Mixes a teaching staff with different instructional ideologies and training.

Allows 9th grade students another year of a smaller team oriented instructional climate.

May transform a school from a middle school to a junior high school.

Too large of a school for the age group.