



**Duluth Public Schools – ISD #709**

# **Comprehensive Facilities Plan**

## ***Review & Comment***

**August 8, 2007**



# DULUTH PUBLIC SCHOOLS

*Preparing all students for successful lives in the twenty-first century . . .  
success in the workplace, success in the home, and success in the community*

August 9, 2007

Alice Seagren, Commissioner of Education  
Minnesota Department of Education  
1500 Highway 36 West  
Roseville, MN 55113 4266

Dear Commissioner Seagren:

For decades, Duluth has wrestled with development of a long-range facilities plan for its schools. Given over 25 years of declining enrollment, the need for such a plan cannot be overstated. Both the school board and community emphasized the desire for a long-range facilities plan when I arrived in Duluth two years ago, one that provides quality educational spaces for all our children for the next 20-30 years, puts children first, is fact-based, objective, and identifies all financial resources necessary to execute it.

Since April 2006, a volunteer Citizens Group, district staff, and Johnson Controls, Inc. have worked continuously to develop a long-range facilities plan. They conducted assessments, compiled in-depth reports, and invested tremendous time and effort communicating with the community and gathering feedback related to our facilities. This includes 10,000+ hours of expert analysis, 120+ meetings with organizations and groups, 12 open community meetings, plus hundreds of emails, faxes, phone calls, and regular mail. The project also appeared over 250 times in broadcast, print and web media.

In March 2007, we released three opinions (Red, White and Blue) for community consideration, followed by open public debate, listening sessions, and professional polling, to come to a general recommendation. The polling, conducted by Decision Resources, Ltd., told us: 1) the Red Plan was the overwhelming choice in all parts of the community, 2) the community felt well informed about the Long Range Facility Planning process, and 3) the community supported the school board utilizing funding authority without a referendum.

Taking into consideration feedback and polling, Citizens Group volunteers unanimously recommended to the school board the Red Plan as the long-range facilities plan for the district. The group also provided their unanimous advice to the board to utilize its funding authority without a referendum. **During its regular meeting June 19, 2007, our school board approved the Red Plan as the long-range facilities plan for the Duluth Public Schools. Our board also approved funding the plan utilizing its full authority granted through MN state statutes without going through the bond referendum process.**

I strongly encourage timely response to our review and comment process for three reasons:

1. The more time passes, the more inflation can significantly impact our project
2. It's important to develop plans and specifications soon for summer 2008 remodeling
3. To meet all filing deadlines for this fall's levy

Our district and community have a lot of emotion invested in this process and decision. I'm proud of everyone involved and the courage of the board to take action. As you know, it's difficult for a diverse community such as ours to close schools and implement change. We finally have a plan with broad community support, and I'm proud to say our facility related levy will still be below the average of 54e-sized districts.

Thank you for your sincere consideration of our request.

Respectfully,

Keith Dixon, Ph.D.  
Superintendent, Duluth Public Schools

(A)

*Demographics*

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# A) Demographics

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## **Professional Analysis**

In developing a long-range facilities plan that charts out the District's future in the next 20-30 years, accurate demographic information is needed. The Duluth Schools' planning team hired Dr. Hazel Reinhardt to conduct a professional demographic analysis of the District. Dr. Reinhardt is a former Minnesota State Demographer and has conducted 65 such studies for school districts across Minnesota, Wisconsin, South Dakota and Illinois.

## **Summary**

- Duluth Schools' enrollment has declined 25% since 1997
- Enrollment will continue to decline until 2013
- Enrollment low-point will be between 8,998 and 9,329 students (700 per grade)
- From 2013 to 2022, enrollment will increase modestly
- Long-term enrollment will stabilize around 9,600 students (740 per grade)

## **Geographic Area & Population**

Duluth Public Schools' boundary covers 337 square miles of St. Louis County serving:

- City of Duluth
- Gnesen Township
- Lakewood Township
- Normanna Township
- North Star Township
- Rice Lake Township
- Marion Lake Unorganized Territory
- Whiteface Reservoir Unorganized Territory

The total population served by the District is approximately 94,000 citizens.

## **Reasons for Enrollment Decline**

First and foremost, Duluth's enrollment has declined because there are fewer young adults to have children. The current generation, Generation X, is 60% smaller than the previous generation. This trend has caused the median age of our population as a whole to increase, which has decreased the number of school-age children per household. Statewide, school-age children per household is expected to decrease from 0.51 in 2005 to 0.41 in 2015. In Duluth, the number of school-age children per household will shrink from 0.39 in 2005 to 0.30 in 2015, a 25% decrease.

Duluth's lower number of school-age children per household is related to the median age in Duluth being significantly higher than the State average. At first glance, Duluth's median age appears identical to the State average of 35 years. However, the large college/university population artificially lowers the median age. If Duluth had the same percentage of 18-24 year-olds as Minnesota, the median age would be 40 years. The higher median age shrinks the pool of women of childbearing age, which reduces the future pool of students.

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## A) Demographics

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Another reason for declining enrollment, yet to a lesser extent, is the emergence of competition—specifically, charter schools. Statewide, 20,608 children attended charter schools in 2005. Of those, approximately 5,000 were from the St. Paul Public School District and 6,000 were from the Minneapolis Public School District. In 2005, charter schools served 1,064 students in Duluth. Compared to urban areas like Minneapolis and St. Paul, Duluth loses a smaller percentage of students to charter schools.

### **Factors Not Contributing to Declining Enrollment**

Enrollment in Duluth is *not* dropping due to enrollment in traditional non-public schools; in fact, enrollment in Duluth's traditional non-public schools has been steadily declining over the last five years. As of 2005, 1,383 or 10% of the school-age population in the Duluth Public School District enrolled in traditional non-public schools. On a percentage basis, this is consistent with the State average of 9%. All evidence indicates traditional non-public schools will not contribute to the future decline in the Duluth Public School District's enrollment. The long-range plan's investment in new and remodeled buildings, along with enhanced programming partially funded from the plan's savings, are key strategies that will support this enrollment trend.

Home schooling also has not significantly contributed to the decline in enrollment. In 2005, 266 District residents were home schooled. This represents 2% of the District's school-age residents, which is comparable to the State average of 1.9%. Although the percentage of home-schooled children is likely to increase both in Duluth and across Minnesota, the sheer number is not material for long-range planning purposes.

Finally, there is no evidence to support that enrollment has been significantly impacted by local industry growth or decline. In fact, between 2000 and 2005, the number of households in Duluth Public School District increased from 37,897 to 38,615. During that same time period, the District enrollment declined each year.

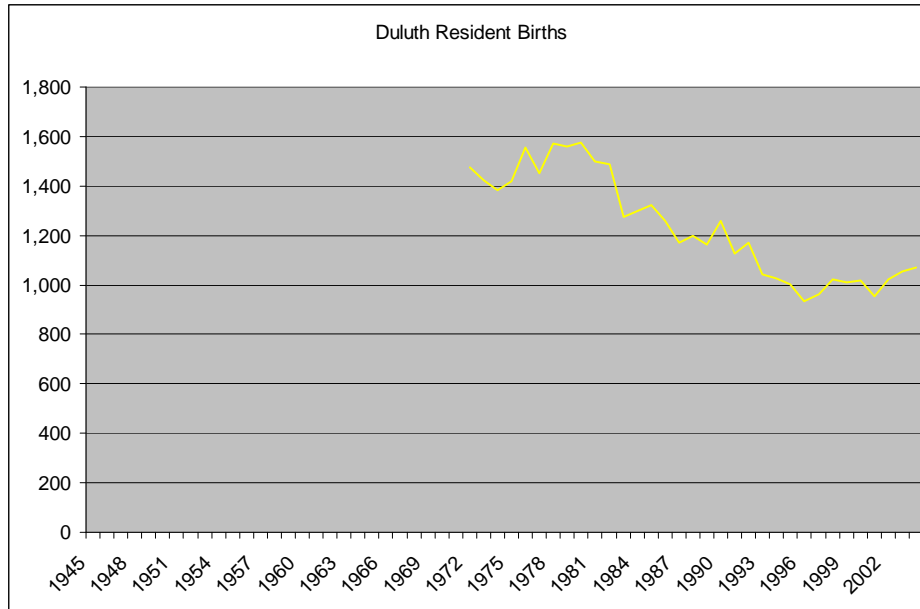
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## A) Demographics

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### Light at the End of the Tunnel

The good news is the end of the decline is in sight. Looking at the resident birth chart below, you can see it trending upwards. Secondly, when looking at the enrollment history on the previous page, you can see that kindergarten classes are larger than the older elementary grades.



### Enrollment Projections

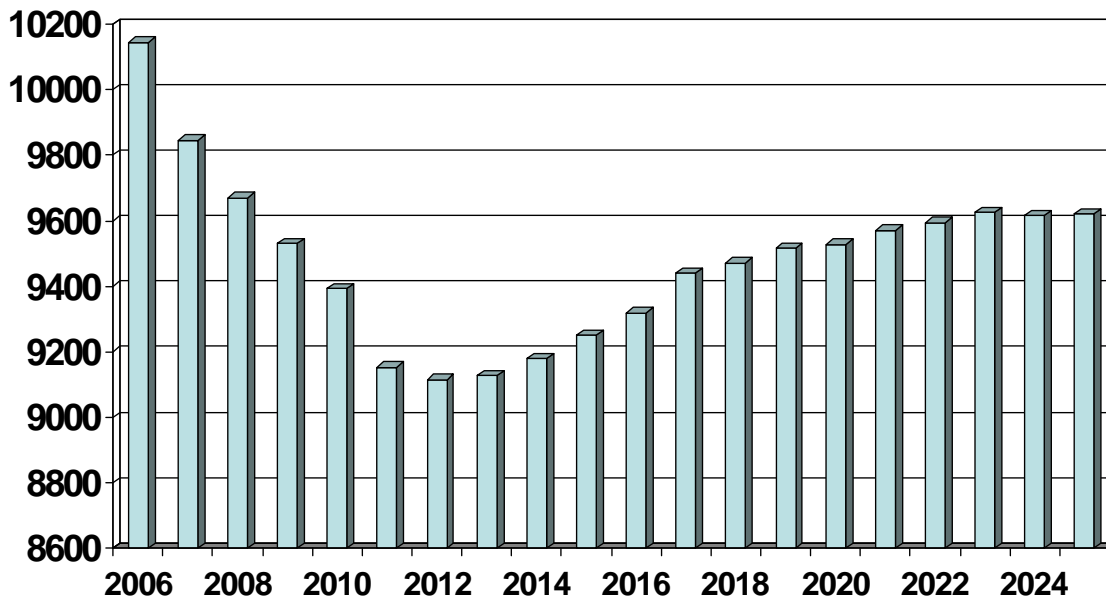
The demographic projections were calculated by two different methods: the Cohort Survival Method and the Housing Unit Method. The results were not statistically different from one another. As such, they are considered reliable. The results of the Cohort Survival Method are shown on the following chart.

# A) Demographics

## 2007-2017 ENROLLMENT PROJECTIONS

Fall	Low K Net Out Migration	High K Net Out Migration	Low K Net In Migration	High K Net In Migration
2006	10,144	10,144	10,144	10,144
2007	9,826	9,842	9,845	9,861
2008	9,586	9,619	9,669	9,702
2009	9,392	9,442	9,530	9,580
2010	9,205	9,274	9,393	9,462
2011	9,064	9,153	9,279	9,368
2012	9,006	9,115	9,218	9,327
2013	8,998	9,127	9,200	9,329
2014	9,030	9,179	9,242	9,391
2015	9,080	9,250	9,300	9,470
2016	9,130	9,320	9,356	9,543
2017	9,231	9,441	9,470	9,674

Note: Projections do not include Early Childhood



Doing the right things... for the right reasons... the right way!



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## A) Demographics

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### 10-Year Enrollment History

FALL ENROLLMENT HISTORY

Grade	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>K</b>	965	837	814	796	729	684	742	674	711	704
<b>1</b>	919	924	853	791	770	730	677	724	650	700
<b>2</b>	982	865	895	858	786	751	719	672	705	647
<b>3</b>	992	934	859	884	840	776	755	693	677	683
<b>4</b>	958	989	918	878	881	834	770	752	691	678
<b>5</b>	977	898	944	880	861	873	807	762	738	683
<b>6</b>	1,003	935	914	951	898	864	854	823	745	707
<b>7</b>	1,083	993	939	925	1,006	897	870	863	792	744
<b>8</b>	1,055	1,058	1,028	955	943	985	897	856	835	816
<b>9</b>	1,168	1,081	1,182	1,120	1,047	936	1,059	942	917	923
<b>10</b>	1,170	1,124	1,094	1,157	1,086	1,019	972	1,056	947	926
<b>11</b>	1,159	1,098	1,063	1,018	1,096	1,039	978	946	1,026	933
<b>12</b>	1,086	1,153	1,109	1,071	1,051	1,085	1,051	1,009	997	1,000
<b>Total</b>	13,517	12,889	12,612	12,284	11,994	11,473	11,151	10,772	10,431	10,144

Excludes Early Childhood or Pre-K; includes ALC students and students in other special programs

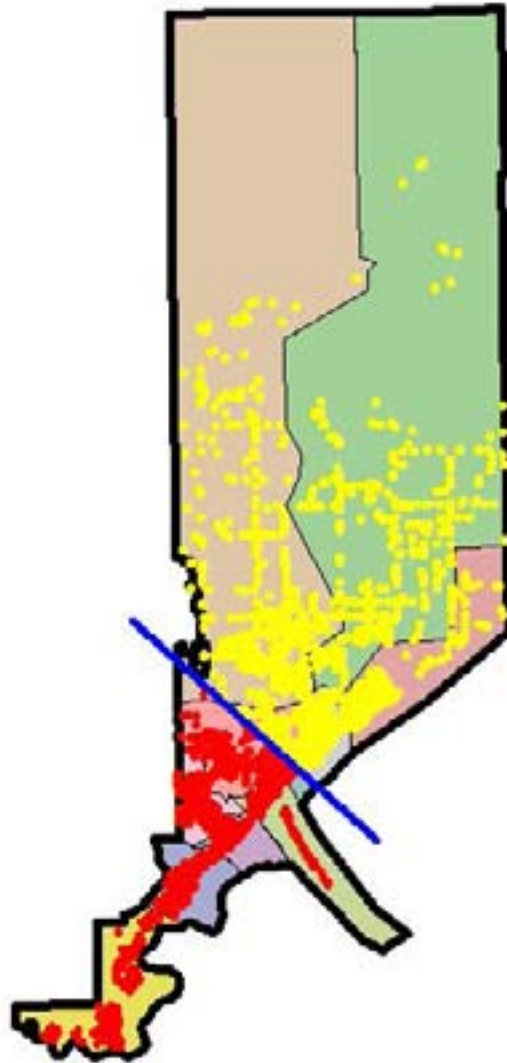
Source: Duluth School District

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The District will experience its sharpest decline in student enrollment at the high school level. As you can see in the above chart, the class sizes in grades 9-12 are much larger than elementary class sizes. This sharp decline is the key reason a reduction from three high schools to two high schools is part of the long-range plan. Some elementary schools are actually starting to grow in enrollment, and the building construction plans need to be sized for these future enrollments.

### Where Duluth Students Currently Live

A geographic information Systems specialist with Technology Information and Education Services (TIES), was brought to the planning team to assist with drawing new attendance boundaries and locating schools where the students live. As you can see on the following map, Duluth's 10,144 K-12 students are spread across the community. Each dot on the map represents one student.



The midway mark of where Duluth students live is approximately 14<sup>th</sup> Avenue East. If you extend a line along 14<sup>th</sup> Avenue East to the northern border of the District, you find that half of the students live west of that line with the remaining half living to the east of it. More detailed use of this tool allowed us to dissect the grade populations and identify what schools are located in population centers. The tool was also invaluable in redrawing boundaries and understanding the impact on school size and demographic makeup.

**(B)**

*Existing Facilities*

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## *B) Existing Facilities*

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### **School Facilities**

1. Lincoln Park Elementary School
  - a. Built 1889, additions in 1915, 1930, 1951, 1959, 1966, 1979, 1992, 1993, 1994, 1999
  - b. K-8 Elementary/Middle School for 451 students
  - c. 170,596 square feet
2. Nettleton Elementary School
  - a. Built in 1905, additions in 1945 and 1987
  - b. K-5 Elementary School for 362 students
  - c. 90,024 square feet
3. Laura MacArthur Elementary School
  - a. Built in 1914, additions in 1957, 1990 and 1994
  - b. K-5 Elementary School for 474 students
  - c. 155,406 square feet
4. Morgan Park Middle School
  - a. Built in 1916, additions in 1939, 1955, 1966, 1976, 1983, 1993, 1999 and 2000
  - b. 6-8 Middle School for 491 students
  - c. 127,331 square feet
5. Lester Park Elementary School
  - a. Built in 1917, addition in 1954
  - b. 2-5 Elementary School for 327 students
  - c. 48,430 square feet
6. Grant Elementary School
  - a. Built in 1918, additions in 1982, 1991 and 1993
  - b. K-5 Elementary School for 242 students
  - c. 60,074 square feet
7. Denfeld High School
  - a. Built in 1926, addition in 1987. Public Schools Stadium built in 2001
  - b. 9-12 High School for 1.151 students
  - c. 266,360 square feet
8. East High School
  - a. Built in 1926, additions in 1958, 1967, 1987 and 1992
  - b. 9-12 High School for 1.314 students
  - c. 200,340 square feet
9. Congdon Park Elementary School
  - a. Built in 1928, additions in 1964 and 1987
  - b. K-5 Elementary School for 512 students
  - c. 66,520 square feet

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## *B) Existing Facilities*

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10. Homcroft Elementary School
  - a. Built in 1952, additions in 1956, 1963, 1987 and 2005
  - b. K-5 Elementary School for 348 students
  - c. 48,126 square feet
  
11. Ordean Middle School
  - a. Built in 1936, additions in 1956, 1979, 1981, 1992, 1994 and 2001
  - b. 6-8 Middle School for 767 students
  - c. 138,068 square feet
  
12. Woodland Middle School
  - a. Built in 1958, additions in 1079, 1994 & 2005
  - b. 6-8 Middle School for 701 students
  - c. 119,920 square feet
  
13. Lowell Elementary School
  - a. Built in 1960, additions in 1962 and 1993
  - b. K-5 Elementary School for 526 students
  - c. 98,873 square feet
  
14. Piedmont Elementary School
  - a. Built in 1950, additions in 1964 and 1980
  - b. K-5 Elementary School for 199 students
  - c. 47,910 square feet
  
15. Rockridge Elementary School
  - a. Built in 1965, addition in 1992
  - b. K-1 Elementary School for 170 students
  - c. 30,671 square feet
  
16. Central High School
  - a. Built in 1971, additions in 1977, 2002 & 2003
  - b. 9-12 High School for 1,062 students
  - c. 231,205 square feet
  
17. Lakewood Elementary School
  - a. Built in 1992
  - b. K-5 Elementary School for 297 students
  - c. 50,440 square feet
  
18. Stowe Elementary School
  - a. Built in 1992, additions in 1994 and 1996
  - b. K-5 Elementary School for 378 students
  - c. 70,232 square feet

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## *B) Existing Facilities*

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### 19. Secondary Technical Center

- a. Upper Building built in 1994 and main campus building built in 1995
- b. Vocational training for 400 students throughout the district
- c. 16,000 and 52,775 square feet

Average year built: 1953

Average age: 54 years

Average size: 98,148 square feet

### **Support Buildings**

### 20. Central Administration

- a. Built in 1890, additions in 1926, 1938, 1973
- b. Houses district administration and Unity ALC High School (50 students)
- c. 158,660 square feet

### 21. Facilities Management

- a. Built in 1889, addition in 1989
- b. Houses facilities planning, operations & maintenance staff
- c. 23,390 square feet

### 22. Transportation

- a. Built in 1948, addition in 1991
- b. Bus department offices & maintenance garages
- c. 13,572 square feet

### 23. Garfield Building

- a. Built in 1949
- b. Last used as cold storage for district supplies (unused now)
- c. 37,356 square feet

### **Additional Properties**

### 24. Chester Ballfield Property

- a. 20<sup>th</sup> Ave. East & 8<sup>th</sup> St.
- b. 3.09 acres

### 25. Hartley Field Property

- a. Woodland Ave. & Northfield St.
- b. 29.61 acres

### 26. Kensington Place Property

- a. Arrowhead Rd. & Rice Lake Rd.
- b. 26.51 acres

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## *B) Existing Facilities*

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### 27. Kenwood Building

- a. Built in 1926, additions in 1953, 1964, 1977, 1986, 1987 and 1998
- b. Leased to Edison Charter School
- c. 43,387 square feet

### **Alternate Facilities**

The long-range facilities plan focused on:

- Establishment of high-quality learning environments equitably across the District
- Reinvestment in existing buildings where financially prudent
- Construction of new buildings where no viable existing building exists
- Locating schools near student centers and bring communities together
- Creating buildings of sufficient size to drive operational and educational efficiencies
- Matching District capacity to long-term enrollment projections
- Elimination of excess square footage

Based on the information included in this report, alternate facilities within the District boundaries as well as those within adjacent districts are not applicable to this project. The unused properties listed on the previous page seem, at first glance, to be viable sites for new schools. Unfortunately, the locations of these sites are not consistent with where students live. These sites are best disposed of or swapped with sites nearer the population centers.

(C)

*Facility Deficiencies*

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## *C) Facility Deficiencies*

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### **Assessment Scope**

The District took a very in-depth look at the deficiencies of its facilities from two points of view. The first was educational adequacy - how well does the layout of the facility meet the educational methods of today and in the future? The second focused on the facility and site itself - what needs to be repaired/replaced and when. This ranged from parking lots to mechanical/electrical systems to floorings to building envelope. Over 620 deficiencies were identified within the facilities we plan to keep.

### **What Does “Educational Adequacy” Mean?**

With Duluth’s facilities being an average of 54 years old, nearly all were built during times when teaching and learning were done differently than they are today. At the time, school designs properly met the needs for effective education. As the decades have passed, many changes have occurred in what constitutes adequate design for effective education. For example, 50 years ago no one ever dreamed of computer work stations for students. Handicap access to all floors and rooms was not taken into consideration. Strong security measures were not needed in those simpler times. Today, those and many other enhancements are needed for a school to be considered adequate in providing an effective, modern learning environment.

### **Educational Adequacy Evaluation**

During a six month period, multiple specialists spent 500 hours inspecting all school buildings. Principals were interviewed and building spaces were evaluated against MDE’s “Guide for Planning School Construction Projects”, Council for Educational Facilities Planning International best practices, and architectural standards. Here are the 13 areas they analyzed, with brief descriptions of how adequacy was determined:

1. Classroom Size – Classroom size refers to the physical dimensions (in square feet) of the classroom. The size requirements of modern classrooms has increased as teaching methods have changed from lecture-styles, where children sit in rows of desks listening to a teacher standing in the front of the classroom, to participatory-styles, where children work in groups on a variety of activities arranged around the classroom. The new methods require the physical dimensions to be large enough to allow a variety of activities to occur simultaneously. In addition to the traditional student desk/chair space requirements, classrooms should be designed to accommodate the following components: teacher work station, computer work stations, storage.

Square footage guidelines are provided by the Minnesota Department of Education. Utilizing these guidelines along with priorities established by the Duluth Public Schools, Johnson Controls established the following criteria to objectively evaluate the classrooms in each school:

- Green – above 900 square feet
- Yellow – above 800 square feet
- Red – below 800 square feet

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## C) Facility Deficiencies

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2. Cafeteria/Serving – The cafeteria area within educational environments needs to provide a safe, comfortable and healthy place for students to dine. The standard for the exact size of the dining area is defined by allowing for three lunch periods and approximately 12 square feet per elementary student, 14 square feet per middle school student, and 16 square feet per high school student. Serving areas for food service need to provide flexible space to allow for the easy adjustments of equipment and be large enough to ensure students have a minimum wait in line.
  - Green – All dining, kitchen and serving areas meet requirements.
  - Yellow – Dining area acceptable, but kitchen and serving areas are below best practices
  - Red – Dining area, kitchen and serving areas below best practices
  
3. Security/Supervision – Security and proper supervision are major concerns in today’s schools. Many of the concerns can be addressed with electronic viewing and monitoring. Main daytime entries to the facilities need to be located adjacent to the main administration area and should be monitored at all times. All other doors into the facility should be locked during school hours.
  - Green – Acceptable location or control of front entry
  - Yellow – Limited supervision of front entry
  - Red – Very limited or no supervision of front entry
  
4. Science Lab (Quantity) – Modern curriculums require additional science courses. As such, there is greater demand for properly equipped lab spaces than there were 50 years ago. Furthermore, these spaces need to be flexible to meet the evolving needs of a variety of programs.
  - Green – Acceptable in regards to current curriculum and Minnesota Department of Education guidelines (i.e. best practices)
  - Yellow – Not acceptable for current curriculum and best practices, but using other spaces to accommodate
  - Red – Not acceptable for current curriculum and best practices
  
5. Art – The evolution of curriculum is very evident in the area of Art. The influx of technology combined with the diverse requirements of traditional art programs all occurring within the same space causes some challenges. Easy access for delivery and outdoor learning is also important. Based on input from Duluth Public Schools’ staff and Minnesota Department of Education guidelines, Johnson Controls established the following criteria to objectively evaluate the schools’ art spaces:
  - Green – Acceptable
  - Yellow – Acceptable space, but limited amenities and incorrect location
  - Red – Unacceptable space, amenities and location

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## C) Facility Deficiencies

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6. Teacher Planning (TPC) – As teaching delivery methods have evolved and increased in complexity, there is greater emphasis on teacher preparation and collaboration between teachers. Modern facilities accommodate these new methods by providing professional work environments that promote collaboration and teamwork. Depending on the grade level and the initiatives of the particular group of staff members, this could be as small as a conference room to a combination office/work area/ collaboration space. Based on the school (elementary, middle school, high school) and the best practices used in modern schools, Johnson Controls established the following evaluation criteria:
  - Green – Acceptable and appropriate spaces available
  - Yellow – Approximately half of required space available
  - Red – Appropriate spaces are not available
7. Student Break-out Areas – Students either need specialized additional attention or they are required to work in small groups more and more frequently. Student break-out areas provide flexible and supervised educational environments for staff and students to work in a variety of different modes.
  - Green – Acceptable location and quantity available
  - Yellow – Some acceptable space available per best practices
  - Red – No acceptable spaces available per best practices
8. Gymnasiums – Flexible space for physical education classes that allows for safe participation of required activities by all students is very important. These spaces can also double as performance spaces for a variety of school events. Well-designed gymnasium spaces often are the center of many community groups and events. As the number of extra-curricular activities has increased, so has the need for adequate gym space. Based on Minnesota Department of Education guidelines, the following criteria were used to evaluate the gymnasium space available across the district:
  - Green – Meets or exceeds MDE guidelines for # of stations and station size
  - Yellow – Meets MDE guidelines for # of stations but not station size
  - Red – Does not meet # of stations requirement
10. Auditoriums – Performing Arts spaces play an important role in the educational system. It is important that the facilities be safe while allowing students to challenge themselves within the drama and music curriculum and extra curricular activities. It is also important that these facilities be easily accessible for the community to encourage attendance while allowing for overall building security.
  - Green – acceptable amenities, size and location
  - Yellow – acceptable amenities, unacceptable location or size
  - Red – Unacceptable amenities, size and location
11. Site Suitability – Amenities – In regards to the site, or the area around the buildings themselves, it is important to provide the appropriate areas and equipment to allow for safe use. Such as adequate green space and playground equipment, or acreage for fields.
  - Green – Acceptable amenities
  - Yellow – Partially acceptable amenities
  - Red – Very little or no amenities

## C) Facility Deficiencies

12. Site Suitability – Circulation – Safety is the utmost concern in regards to site circulation. At the beginning and the end of the school day, there are students walking to and from school, students being picked up in cars and students riding the busses. All of this traffic needs to be carefully considered to ensure safe and efficient use of the area around the building.

Green – Acceptable traffic circulation

Yellow – acceptable amount of space allocated, but separation could be improved

Red – unacceptable circulation and separation

13. Parking Capacity – Based on the age group that the building is serving, there are a number of concerns for parking of vehicles on the site. There should be sufficient parking for the staff and a dedicated area for any visitors to the building in addition to any student parking that may be required.

Green – No parking in neighborhoods, meets event requirements

Yellow – Limited parking in neighborhoods, event parking troublesome

Red – significant parking in neighborhoods at all times

### Summary of Educational Adequacy Deficiencies

Overall Square Footage		Congdon Park Elementary	Grant Magnet	Homecroft Elementary	Lakewood Elementary	Laura MacArthur Elementary	Lester Park Elementary	Lincoln Park K-8 School	Lowell Magnet	Nettleton Magnet	Piedmont Elementary	Rockridge Elementary	Stowe Elementary	Morgane Park Middle	Ordean Middle	Woodland Middle	Central High	Denfield High	East High
1.0	Classroom size	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Red	Red	Red
2.0	Cafeteria/Serving	Red	Red	Red	Red	Red	Red	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Green	Red	Yellow	Red	Yellow
3.0	Security/Supervision	Yellow	Green	Green	Green	Red	Red	Yellow	Yellow	Red	Green	Yellow	Green	Yellow	Red	Yellow	Green	Yellow	Yellow
4.0	Science Lab (Q quantity)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Red	Red	Red
5.0	Art	Green	Green	Green	Green	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Green	Green	Yellow	Yellow	Green	Yellow	Yellow	Yellow
6.0	Physical Attributes	Red	Red	Red	Green	Red	Red	Red	Green	Yellow	Red	Green	Green	Red	Red	Red	Red	Red	Red
7.0	Teacher Planning (TPC)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Red
8.0	Student Break-out Areas	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Red
9.0	Gymnasiums	Red	Yellow	Green	Green	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Red	Red	Red	Green	Green	Green
10.0	Auditoriums	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Yellow
11.0	Site Suitability - Amenities	Red	Red	Yellow	Green	Red	Red	Red	Green	Red	Yellow	Yellow	Green	Yellow	Green	Green	Green	Red	Red
12.0	Site Suitability - Circulation	Red	Red	Red	Green	Red	Red	Red	Yellow	Red	Green	Yellow	Green	Red	Red	Yellow	Green	Yellow	Red
13.0	Parking Capacity	Red	Red	Red	Green	Yellow	Red	Red	Green	Red	Yellow	Yellow	Green	Red	Yellow	Red	Green	Red	Red

Doing the right things... for the right reasons... the right way!



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## *C) Facility Deficiencies*

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### **What Does ‘Facilities Assessment’ Mean?**

Information was gathered about all 23 facilities in the Duluth Public Schools system to determine the existing condition of each and, where there were areas needing upgrades, what it would cost to upgrade each facility and achieve equity across the District. The assessments identified all major capital expenses the District will need to make in its facilities over the next 10 years.

Over the course of six months, Johnson Controls led 40 analysts from 18 firms, many of whom were from Duluth, in reviewing a wide variety of aspects about school facilities. These experts dedicated more than 7,000 hours to this in-depth process, supported by many additional hours of support from members of the Duluth Public Schools. The result is a 1,600-page report outlining the facility deficiencies found at all buildings.

### **Facilities Assessment Scope & Criteria**

The assessments were broken into 12 categories. The categories and assessment criteria are defined below.

1. **Accessibility:** Conditions that violate American with Disabilities Act guidelines (Examples: Non-compliant building entrances, plumbing fixtures, and door hardware).
2. **Air and Water Quality:** Conditions that affect the quality of the water or indoor environment (Examples: Insufficient ventilation, lack of pool water chemical treatment, discoloration of drinking water).
3. **Appearance:** Problems with the facility’s appearance that are not functional in nature, but rather aesthetic (Examples: Peeling paint, worn carpet, substandard grounds and overgrown landscaping).
4. **Asbestos:** Visible observance of suspected Asbestos Containing Materials (ACMs) that are in need of abatement. Most of the asbestos was previously identified in past studies conducted by the District.
5. **Beyond Rated Life:** A component or system that has exceeded its rated life (Example: Switchgear that has an expected useful life of 30 years and is 35 years old).
6. **Building Code:** Any conditions that do not comply with current building, electrical, mechanical, and plumbing codes (Example: Ventilation systems that do not bring in the required amount of fresh air).
7. **Capacity:** Problems with the system’s ability to keep up with demand load (Examples: Heating equipment that cannot adequately keep the building warm, electrical distribution systems that cannot keep up with today’s electrical power demands).
8. **Deferred Maintenance:** Components or systems that are broken, worn-out, or in poor condition (Examples: Leaking roofs, mechanical equipment in disrepair).

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## *C) Facility Deficiencies*

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9. Energy and Operational Efficiency: Conditions that adversely affect energy use (Examples: Inefficient lighting, single-pane windows, pipe insulation).
10. Life Safety: Conditions that violate the National Fire Protection Agency (NFPA) 101 Safety Code (Example: Any conditions that endanger life in the event of fire, smoke, or fumes).
11. Occupant Security: Conditions that compromise the protection of the facility or its occupants (Examples: Broken locks, poor lighting, the need for security cameras).
12. Upgrades: Items that represent a sensible improvement to the existing conditions. These items are not required for the most basic function of a facility; however, upgrades may improve the overall usability and/or reduce long-term maintenance (Examples: Adding electrical outlets in classrooms or adding air conditioning).

### **Assessment Team**

Johnson Controls partnered with the following 18 agencies, many of whom were from Duluth, to conduct assessments related to their respective areas of expertise. A special thank you goes to the Duluth Public Schools' facilities management team. Their preparation, willingness to share information, and commitment to the process were key components that contributed to the quality of the facility assessment.

Agency	Area of Expertise
APi Electric	Electrical, fire, and security systems
Bob Swanfield	Asbestos identification & abatement planning
Earl F. Anderson	Playground equipment
Hydrametrics	Performance and efficiency of water systems
ISD 709 Facilities Department	Needs identification and data gathering
Inspec	Roofing, masonry, & hardscapes
John Ivey Thomas & Associates	Interior condition (paint, floor covering, cabinetry)
Julee Quarve-Peterson	Accessibility
Northern Lights Landscaping	Landscaping and grounds
RD-7 Engineering	Energy & operational efficiency
Schindler Elevator	Elevators & lifts
Stout Mechanical, Inc.	Refrigeration systems (coolers & freezers)
Strategic Solution Engineering	Mechanical & plumbing systems
The Retrofit Companies	Lighting
U.S. Acquatics	Pools
Vanderweil Facility Advisors	Web-based information management
Westlund Group	Technology infrastructure
HGA Architects	Educational Adequacy

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## *C) Facility Deficiencies*

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### **Unused Properties**

It is well documented that Duluth Public School District has not reduced facility square footage adequately to match declining enrollment. This project will reduce the number of the facilities operated by the District from 23 to 16. The facilities not included in the long-range facility plan were eliminated based on at least one of the following reasons:

1. Based on population (where the kids are), the facility did not make sense at its current location.
2. The cost to remedy the deficiencies at the facility were greater than the cost to build new.
3. The facility has too much square footage to efficiently serve the students and community.

The following facilities will now be unused, surplus facilities and sold by the District.

- Facilities Management
- Central High School (may be used as Western MS site)
- Morgan Park Middle School
- Woodland Middle School
- Lincoln Park Elementary
- Nettleton Elementary
- Piedmont Elementary
- Rockridge Elementary
- Garfield Building

These buildings were evaluated by the assessment teams but their deficiencies are not included in this review & comment as we are not asking to make an investment in them.

### **Facility Deficiency Summaries**

Following is a summary of facility deficiencies for those District facilities that are included in the long-range plan. A complete list of all identified deficiencies, for all buildings, is available on the District's website:

([http://duluth.mn.schoolwebpages.com/education/components/docmgr/default.php?sectiondetailid=9067&sc\\_id=1176298844](http://duluth.mn.schoolwebpages.com/education/components/docmgr/default.php?sectiondetailid=9067&sc_id=1176298844)).

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## *C) Facility Deficiencies*

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### **Congdon Park Elementary**

Congdon Park is a beautiful older school in generally good condition. The building is situated on a significantly sloping site, with the front of the building located on a major thoroughfare. The overall size of the site is acceptable for the residents in this urban location. The size of the site provides a number of challenges in regards to safety and circulation. There is no safe location for students who do not ride the bus to be dropped off without inter-mixing with local traffic. The amount of on-site parking is significantly below the need of the school, and requires staff to park in non-designated areas as well as throughout the neighborhood streets.

Classroom spaces throughout the facility tend to be slightly smaller than recommended standards, but are acceptable to staff. General educational support spaces such as teacher planning centers and storage, are not available and should be addressed. Students are required to work in small groups throughout the day, and the facility should be modified to provide adequate space for those activities.

Cafeteria dining space is at the recommended standard, while the kitchen and serving areas are undersized and in need of updating. The existing gymnasium is too small; it is recommended that there be an addition to the existing space or an additional physical education space created. Administration is currently located to allow for supervision of both the front and back entries from the on-site parking area. One entry should be clearly identified that serves as the main visitors' entrance.

Looking at the Congdon Park facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. Over 50 deficiencies were identified at this facility/site and are included in this plan.

The parking lots and play areas need resurfacing. Accessibility issues will be resolved during this process. Exterior lighting is inadequate in some locations and needs to be replaced for increased safety. The exterior walls are in need of extensive restoration, and entry doors are beyond their useful life.

The ventilation systems in the 1929 and 1964 additions need to be replaced. The main steam heating plant and distribution system is outdated and unreliable. There is no mechanical means to dehumidify the facility. The kitchen exhaust systems & main electrical service panels need improvements. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the carpet should be replaced.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. Audio and visual systems are not up to current standards and are impacting the learning environments.

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## *C) Facility Deficiencies*

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### **Grant Elementary**

Grant Magnet School is a historic school house design nestled on an elongated “L-shaped” site. The building is located within a residential neighborhood on a dead-end street. The building is in relatively good condition and provides an adequate learning environment.

The site contains a minimal amount of parking, small playgrounds/hard surface play areas, and very little green space.

The classroom areas of the building are generally adequate but not excessive. Educational support spaces for storage and teacher planning should be addressed. Other support areas such as student break-out areas for individual tutoring (Reading Partners) and small group work are in great need based on the programs currently being offered. The kitchen and cafeteria serving areas need expansion and updating. The gymnasium, media center and other support spaces are small but adequate for the small number of students attending the school.

The administration area is small and is not situated to monitor the school’s entrance for security and safety purposes. The designated entrance for daytime access to the school should be changed; administration should be relocated or electronic surveillance installed. The lack of on-site parking is addressed with street parking. Bus traffic is separated from other traffic on the dead-end street in front of the school.

Looking at the Grant facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 55 deficiencies identified at this facility/site and are included in this plan.

The parking lots need repairs and resurfacing. Playground equipment is outdated and should be replaced. Exterior lighting is inadequate in some locations and needs to be replaced for increased safety. The exterior walls are in need of extensive restoration.

The ventilation systems in the 1918 and 1982 additions need to be replaced. The main steam heating plant and distribution system is outdated and in need of replacement. There is no mechanical means to dehumidify the facility. The kitchen exhaust systems need replacement. Underground sanitary sewer lines are far beyond useful life and are failing. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the carpet and ceiling tile should be replaced. Some of the vestibule doors are not to code, and a second exit is needed from the boiler room.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. Audio and visual systems are not up to current standards, and upgrades would improve learning environments.

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## *C) Facility Deficiencies*

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### **Homecroft Elementary**

Homecroft Elementary School is efficiently organized and generally meets the educational needs of students and staff.

Classroom sizes are small to the point of being minimally adequate. Specialized programs are delivered in general purpose classrooms that have been modified with furniture and other equipment. The educational support spaces for teacher planning and student break-out areas for team learning are not present.

The site, much like the building, is small and minimally adequate. Site traffic is not separated for cars and buses, which creates a potential safety concern. More green space should be introduced near the front of the building to soften its “urban” feel from the street and better define the building entrance.

Cafeteria, kitchen and serving areas are adequately sized but are in need of updating and reorganization. Updating the space could include the introduction of more natural light and a clearly-defined circulation pattern.

Looking at the Homecroft facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 54 deficiencies identified at this facility/site and are included in this plan.

The south and east parking lots and play area need replacement. The playground equipment is outdated and should be replaced. Much of the roof is beyond its useful life and needs replacement soon. The exterior walls are in need of extensive restoration.

The ventilation systems in the 1952 addition and classroom unit ventilators need to be replaced. The main steam heating plant and distribution system is outdated and requires frequent repair. There is no mechanical means to dehumidify the facility. The kitchen exhaust systems do not meet current codes. Galvanized domestic water piping is deteriorated and underground sanitary sewer lines are beyond useful life and failing. The electrical distribution system requires updates. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the carpet and ceiling tile should be replaced. The portable classroom should be demolished. Some of the toilet rooms need to be enlarged to meet code.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards, and upgrades would improve learning environments.

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## *C) Facility Deficiencies*

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### **Lakewood Elementary**

Lakewood Elementary is a newer facility that was well-built and is well maintained. Most, if not all, educational needs of staff, students and the community are being met.

The site is adequately sized, has the recommended amenities, and provides a safe traffic flow. On-site parking is slightly less than recommended, but does not seem to be an issue based on its current use/enrollment, and could be addressed within the existing site boundaries.

Educational support spaces for teacher planning and student break-out areas are not present, and do not appear to be needed unless they become a District-wide standard for educational facilities. The media center is centrally located, and is slightly undersized for the student population. Cafeteria, kitchen and gymnasium space are adequate for the current student population.

This building is one of the District's own examples of a modern educational space meeting today's elementary needs. The building is nearly at capacity. The site is large enough to allow for future expansion if needed.

Looking at the Lakewood facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 37 deficiencies identified at this facility/site and are included in this plan.

Parking lots should be resurfaced. Playground equipment is outdated and should be replaced. Exterior doors and frames need to be replaced, and exterior walls are in need of extensive restoration.

The main steam heating plant and distribution system requires modification. There is no mechanical means to dehumidify the facility. The kitchen walk-in freezer is beyond its rated life and should be replaced.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. Accessibility issues will be resolved during this process.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. The fire protection sprinkler system requires modification. Audio and visual systems are not up to current standards, and upgrades would improve learning environments.

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## *C) Facility Deficiencies*

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### **Lowell Elementary**

Lowell Magnet School is the standard by which many of the elementary school buildings in the District are measured. This facility, or at least the majority of it, meets the educational needs of the staff and students, and is in very good condition. There are a few areas that could be addressed, but improvements to those areas are not required for this building to be an effective educational facility for many years.

The site is generally well laid out and is adequately sized. Bus traffic is not separated from the car traffic, and may be a safety concern. The separation of the playground and parking could be stronger and more defined. The media center is slightly undersized, but is acceptable if student enrollment numbers do not increase.

Teacher planning and student break-out spaces are not available, and would only be needed if the District decided this was needed on a District-wide basis.

Looking at the Lowell facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 50 deficiencies identified at this facility/site and are included in this plan.

Parking lots need to be repaired and resurfaced. Playground equipment is outdated and should be replaced. There are drainage issues that need to be resolved. Exterior lighting is inadequate in some locations and needs to be replaced for increased safety. There are windows and some hollow metal exterior doors that need replacement and some exterior walls that need extensive restoration. The roof is beyond its useful life.

The classroom unit ventilators need to be replaced. The main steam heating plant and distribution system is outdated and unreliable. There is no mechanical means to dehumidify the facility. Galvanized domestic water piping has deteriorated and underground sanitary sewer lines are beyond useful life and failing.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the carpet should be replaced, and asbestos-containing material should be removed. Accessibility issues will be resolved during this process.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of upgrade to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards. Upgrades would improve learning environments.

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## *C) Facility Deficiencies*

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### **Stowe Elementary**

Stowe Elementary meets the needs of the students and the staff of this area of the community and the facilities specialize spaces support the curriculum being taught. There are no significant deficiencies in regards to educational adequacy that need immediate attention.

The site appears to be adequately sized to meet the needs of the school, and successfully separates car and bus traffic. There is a need for additional staff parking, but that is not a pressing issue based on current enrollment. The cafeteria and kitchen areas are minimally adequate; they could be more efficient with some additional equipment.

Educational support spaces, such as student break-out areas, are not present. This facility is well maintained, and is capable of meeting the District's needs for many years.

Looking at the Stowe facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. Over 40 deficiencies were identified at this facility/site and are included in this plan.

Parking lots need to be repaired and concrete sidewalks need replacement. Playground equipment is outdated and should be replaced. Exterior lighting is inadequate in some locations and needs to be replaced for increased safety. Exterior walls need extensive restoration—there is wall water damage that needs to be corrected. Some of the roof sections are beyond their useful life.

The main steam heating plant and distribution system requires repairs. There is no mechanical means to dehumidify the facility. Some of the underground finned tube piping is leaking and needs replacement. The kitchen walk-in freezer is beyond its rated life and should be replaced. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the classroom and corridor carpet should be replaced. A number of entry mats and VCT (tile) are in need of deferred maintenance need.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards. Upgrades would improve learning environments.

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## *C) Facility Deficiencies*

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### **Ordean Middle School**

The site for Ordean Middle School has a number of amenities above and beyond current middle school requirements. This facility is used regularly by high school students for sports practice and competition. The site is adequately sized to meet the needs of the current middle school competition. Car drop-off traffic often mixes with bus traffic and students who walk to school, which can create an unsafe environment. There needs to be better, more defined separation of these different traffic flows.

Building entrance security is a major concern. The entrance near visitor parking is not close to the main administration area. As such, access to the school is not monitored or controlled. The administration area needs to be relocated near the rear parking entry or the street entrance clearly defined as the daytime access point.

The four-lane pool is used strictly for practice and cannot be used for competition. Most pool systems need replacement. The cafeteria dining and kitchen areas are large enough, but need updating to be more efficient. The auditorium is used regularly for school and community functions, and needs to be restored to increase safety and flexibility. The media center was replaced in the last few years, and is an adequate media and technology hub for the building. The available size and quantity of gymnasium space is below MDE recommendations.

Teacher planning and student break-out areas, which are standard in most current middle schools, are not available in most areas of the building. Classroom spaces are minimally adequate, and will be better suited if other alternative learning areas are developed throughout the building.

Looking at the Ordean facility (includes the old field house and concessions booth) and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. Over 80 deficiencies were identified at this facility/site.

Parking lots need to be repaired, and sidewalks and stairs have unsafe attributes. Playground equipment is outdated and should be replaced. Exterior and stadium lighting has deteriorated in some locations and needs to be replaced for increased safety. The majority of the roof is beyond its useful life and needs replacement and/or repair. The exterior grade level walls are in need of extensive restoration.

The ventilation systems for the gym/auditorium/cafeteria, classrooms, kitchen and shops need to be replaced. The main steam heating plant and distribution system needs replacement. There is no mechanical means to dehumidify the facility. The galvanized domestic water piping is deteriorated and underground sanitary sewer lines are beyond useful life and failing. The main electrical service needs replacement. The elevator needs repairs. There is no back-up generator to operate the facility during power outages. The pool needs extensive repairs (filtration system, inlets and grout replacement).

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## *C) Facility Deficiencies*

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Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the carpet should be replaced, and asbestos-containing materials should be removed. Locker sections need replacement, and accessibility issues will be resolved during this process. Gymnasium bleachers and auditorium seating is also in need of replacement.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standard, and upgrades would improve learning environments.

### **Denfeld High School**

The history and character of Denfeld High School are captured by the exterior architecture as well as the detail and materials of the main corridor. These are aspects of educational facilities that are not often preserved as well as they are at Denfeld. However, from an educational viewpoint, the building falls significantly short of meeting the needs of current high school students and staff.

The core classroom spaces at Denfeld are very small and need to be enlarged to meet current standards. Enlarging the classrooms would decrease enrollment capacity. High school students and staff would benefit from teacher planning centers throughout the building and student break-out areas for small group work and teaming. These spaces could be incorporated into the existing facility while maintaining the original character of the historic main corridor.

The cafeteria dining, serving and kitchen areas are significantly undersized, and do not allow for the efficient preparation and serving of a variety of foods. This redevelopment could include the creation of a food court system allowing students to have quick choices and a variety of options.

The existing physical education and athletic spaces were updated with the new field house and stadium. They will meet most of the needs for these programs for many years. The recent renovation of the auditorium space will continue as this is an important piece of the community. The music spaces, while marginally adequate, are conveniently located near the auditorium.

Looking at the Denfeld facility (includes the stadium) and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. Over 80 deficiencies were identified at this facility/site and are included in this plan.

Parking lots, sidewalks and the west ball fields need to be repaired. Exterior lighting is deteriorated in some locations, and needs to be improved for increased safety. Sections of the roof are beyond its useful life and needs replacement and repairs. Exterior grade-level walls are in need of extensive restoration. The clock tower windows should be replaced.

The ventilation systems for the 1926 addition, kitchen & woodshop need to be replaced. The main steam heating plant and distribution system is outdated and at the end of useful life. There is no mechanical means to dehumidify the facility. Galvanized domestic water piping is deteriorated and underground

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## *C) Facility Deficiencies*

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sanitary sewer lines are beyond useful life and failing. The main electrical service and distribution systems have reliability concerns and need replacement. The elevator needs repairs. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the carpet should be replaced, and asbestos-containing materials should be removed. Wood doors, window blinds and damaged ceiling tile need replacement. Auditorium and toilet room accessibility issues will be resolved as part of this plan.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards, and updates would improve the learning environments.

### **East High School**

For every one of the architecturally significant positives that surround East High School, there are at least two educational adequacy negatives. While this facility has a long history of character and memories, it does not meet the current needs of high school students.

General purpose classrooms are very small. They do not allow for the flexible learning environments necessary for today's students and staff. Student break-out areas and teacher planning centers would be beneficial to small group and individual work currently occurring in the hallways. Creation of these spaces within the confines of the existing building would decrease enrollment capacity.

The site for the school is too small for the amenities necessary for a modern high school. There is one useable field on campus for physical education and athletic activities. Although many teams use other community facilities, this offers a number of challenges regarding safety and transportation. The small size of the site puts student and staff parking at a premium—most students park on neighborhood streets. There is very little, if any, realistic opportunity for site expansion.

Security and safety are issues both in regards to site layout and building configuration. Visitors enter the building near the athletic wing, which is too far away to be monitored by administration; therefore, someone needs to be assigned to monitor the entrance. The administration area is located in the center of the building. The daytime public entrance should be located near administration.

Looking at the East facility and site, several repairs are needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 69 deficiencies identified at this facility/site and are included in this plan.

Parking lots, sidewalks, stairs and drives need to be repaired. Athletic surfaces for the track and football field need repair and/or replacement. Exterior lighting is deteriorated in some locations and needs to be replaced for increased safety. Sections of the roof are beyond its useful life and need repair and/or replacement. The exterior roof level walls are in need of extensive restoration.

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## *C) Facility Deficiencies*

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The ventilation systems for the 1926 addition, kitchen, library, 1958 music addition and the classroom unit ventilators need to be replaced. The main steam heating plant and distribution system is outdated and needs replacement for reliability. There is no mechanical means to dehumidify the facility. Galvanized domestic water piping is deteriorated and underground sanitary sewer lines are beyond useful life and failing. The elevators need repairs. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the computer stations should be replaced, and asbestos-containing materials should be removed. There is a leaking wall the needs to be repaired. Accessibility issues will be resolved as part of this plan.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards, and upgrades would improve learning environments.

### **Secondary Technical Center**

The Secondary Technical Center (STC) is a shining example of the breadth and quality of programs offered by Duluth Public School District. STC is one reason why the District enjoys a positive open enrollment ratio in the upper grades.

STC is housed in two buildings. The upper building houses the construction, auto systems and auto technology programs. The lower, or main, building houses N.J.R.O.T.C., Graphic Arts, Medical Occupations, Business Computing, Agri-Business, Interior Design, Child Care, Small Engines and Culinary Arts programs.

Students from across Duluth Public Schools District utilize these sites beginning as early as 8th grade. The site currently meets all the needs of students and staff based on the current programs offered.

The success of STC has fueled the desire for expansion of programs. An additional computer lab and expanded Medical Occupations Program are desired in the near future. An Engineering Technology lab is foreseen two to three years out. All of these expansions require additional or reconfigured space.

Looking at the STC main facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 25 deficiencies identified at this facility/site and are included in this plan.

The ventilation systems for the kitchen, classroom, Graphic Arts and Small Engine areas need to be replaced. There is no mechanical means to dehumidify the second floor. The elevator needs a few repairs. The exterior walls are in need of restoration.

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## *C) Facility Deficiencies*

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Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. The majority of the computer stations should be reconstructed and countertops replaced. Accessibility issues will be resolved as part of this plan.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards, and upgrades would improve learning environments.

### **Historic Old Central High School**

Looking at the Historic Old Central High School facility and site, there are several repairs needed to provide a comfortable and safe environment for students, staff and the community for many years to come. There were 54 deficiencies identified at this facility/site and are included in this plan.

Parking lots need resurfacing. Life safety issues with the exterior stairs, concrete sidewalks and the stone retaining wall need to be addressed. Exterior lighting has deteriorated in some locations and needs to be replaced for increased safety. Sections of the roof are beyond its useful life and need repair and/or replacement, and snow guards should be added for safety. Exterior roof level walls are in need of extensive restoration. The overhead doors are beyond their useful life.

The ventilation systems for the storage and print shop areas are inadequate and need replacement. There is no mechanical means to dehumidify the facility. Galvanized domestic water piping has deteriorated underground sanitary sewer lines are beyond useful life and failing. The elevators need repairs to meet code. The electrical service has reliability issues and needs replacement. There is no back-up generator to operate the facility during power outages.

Some of the interior finishes and furnishings (flooring, casework, countertops, ceiling panels, etc.) are beyond their useful life and need replacement. Extensive wall patching is needed, and asbestos-containing materials should be removed. The acoustical tile in the gym is worn out. The window blinds are old and should be replaced. The clock tower stairway and area should be refurbished. Accessibility issues will be resolved as part of this plan.

The current communication and security systems (fire alarm, clock, CCTV, security, visual and audio systems, etc) are in need of replacement to ensure occupant safety. The fire alarm system is outdated. Audio and visual systems are not up to current standards, and upgrades would improve learning environments.

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## *C) Facility Deficiencies*

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### **Transportation Center**

Looking at the Transportation Center and site, there are several repairs and upgrades needed to provide a comfortable and safe environment for staff and the community for many years to come. There were 22 deficiencies identified at this facility/site and are included in this plan.

The parking area should be resurfaced. Exterior lighting is deteriorated in some locations and needs to be improved for increased safety & security. The office roof is beyond its useful life and needs replacement. The office exterior walls are in need of restoration. The steel windows are inefficient and should be replaced. The entire garage section has major deficiencies and should be replaced completely.

The ventilation systems for the office and the shop are inadequate. There is no mechanical means to dehumidify the office area. Galvanized domestic water piping is deteriorated and underground sanitary sewer lines are beyond useful life and failing. The boiler plant is old and should be replaced. Accessibility issues with the door hardware will be resolved as part of this plan.

The current communication systems (CCTV, visual and audio systems, etc) are in need of replacement.

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## *C) Facility Deficiencies*

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### **Benefits of New & Renovated Facilities**

The benefits of this project are best described, not on a site-by-site basis, but as a whole for the entire District. From the beginning, it was the District's goal to develop a long-range facilities plan that impacts all the District facilities. Specific benefits of the plan include:

- Improved health and safety of students and staff
- School occupants are more protected during emergency situations
- Healthy indoor learning environments
- Facilities that comply with all applicable codes and regulations
- High performance learning environments
- Classroom dimensions conducive to learning and teaching styles
- State-of-the-art laboratory and vocational facilities
- Improved classroom technology capabilities (e.g., internet, e-boards, wireless)
- Expanded athletic facilities for a variety of activities
- Improved facility infrastructure
- Reduced cost of operations and maintenance
- Increased energy efficiency of facilities and equipment
- Improved reliability of technology systems and infrastructure
- Facilities that can be easily modified and/or expanded in the future
- Facilities designed for increased community use
- Integrated early childhood education into the schools
- Creation of spaces for use by schools as well as community organizations/businesses
- Facilities that address the needs of all students
- Adequate building access to students with special needs
- Learning spaces designed for integration of students with special needs
- Facilities designed to respond to a variety of learning styles/approaches
- Supports the increased use of assistive technology in the classroom
- Facility and educational equity across the District
- Program equity between schools across the District
- Schools located in population centers
- Eliminate investment in buildings where reinvestment doesn't make financial sense due to age/condition of buildings
- Utilize excess property—proceeds from the sale of surplus properties redirected to offset the total cost of the plan
- Better able to meet the needs of: Early Childhood, Special Education, Technology, and Music/Art/PhyEd/Media programs
- Maximize energy efficiency and green design for new buildings
- Realize transportation efficiencies
- Provide full-time art, music, physical education and media specialists at each site due to increased building/enrollment size

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## *C) Facility Deficiencies*

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### **Capacity Analysis**

During the assessment phase of the planning process, overall student capacity was evaluated. The following spreadsheet shows existing general education classroom capacity for 12,323 students. Our long-term enrollment projection is 9,600 students. This means Duluth Public School District has an excess classroom capacity of 2,700 students, or 28% too much space.

Rightsizing the District is a primary goal of this plan. Rightsizing means school closings. This is a politically and emotionally-charged subject that is very difficult to accomplish. Other Minnesota urban city districts with declining enrollment have failed at this endeavor. Duluth Public School District's Board has made it happen. A positive review and comment will embark the District on completing the "unsolvable problem."

**Summary of Building Capacity Analysis**

**Corrected Classroom Sizes**

School Building	Gross Square Feet School Area	Oct-06 Enrollment	Total Number of Teaching Spaces	Space Allowance for Special Ed. Rooms	Space Allowance for Title 1, Headstart Kid Connect, ECFE, etc. Rooms	Specialty Room Allowance for Computer, Music, & Art Rooms	Net # of General Classrooms	Assumed Average # of Students per Classroom	Classroom Schedule Rate	Total Gross Student Capacity	Existing Gymnasium Space (ft^2)	Current # of Gym Stations	# of Gym Stations needed per MDE and Current Enrollment	Existing Media Center Area (ft^2)	Media Center Student Capacity per Guidelines	Existing Cafeteria Space (ft^2)	MDE Cafeteria Guideline ft^2/student	Cafeteria Student Capacity (3 serving periods)
Note 1			A	B	C	D	E = A-B-C-D	F	G	E x F x G	Note 2			Note 3		Note 4		
Congdon Park	66,520	512	31	3	2	3	23	23	1.0	529	2713	1	2	3000	480	2000	12	500
Grant	60,074	242	28	3	2	3	20	23	1.0	460	2500	1	1	2400	384	1400	12	350
Homecroft	46,921	348	21	1	2	3	15	23	1.0	345	4283	1	1	1600	256	3500	12	875
Lakewood	50,440	297	17	1	2	3	11	23	1.0	253	4740	2	1	1800	288	2500	12	625
Laura MacArthur	155,406	474	42	5	6	3	28	23	1.0	644	9200	3	2	2300	368	3000	12	750
Lester Park	48,430	327	19	0	2	3	14	23	1.0	322	2125	1	1	1200	192	1500	12	375
Lowell	98,873	526	32	1	2	3	26	23	1.0	598	8200	3	2	3400	544	2100	12	525
Nettleton	90,024	362	42	4	4	3	31	23	1.0	713	4850	1	1	2600	416	1800	12	450
Piedmont	47,910	199	17	3	2	3	9	23	1.0	207	2666	1	1	1600	256	1600	12	400
Rockridge	30,671	170	14	0	2	3	9	23	1.0	207	1824	1	1	1600	256	1800	12	450
Stowe	70,232	378	34	2	2	3	27	23	1.0	621	5442	2	2	4000	640	2100	12	525
	765,501	3836	297	23	28	33	213			4899								
Lincoln Park	170,596	451	62	7	7	6	42	25	1.0	1050	8468	3	3	2200	352	4300	12	1075
	170,596	451	62	7	7	6	42			1050								
Morgan Park	127,331	491	39	3	0	4	32	27	0.90	778	5600	1	2	2700	120	3200	14	686
Ordean	127,985	767	44	4	0	4	36	27	0.90	875	6000	1	2	3600	429	4400	14	943
Woodland	120,087	701	43	6	0	4	33	27	0.90	802	5234	1	2	4500	737	4200	14	900
	375,403	1958	126	13	0	12	101			2454								
STC	68,775	NA	24	0	0	0	24	29	0.85	592	0	0	0	0	0	0	0	0
Central HS	228,826	1062	62	11	0	4	47	29	0.85	1159	17000	3	3	7200	1395	7000	16	1313
Denfeld HS	258,798	1151	50	7	0	4	39	29	0.85	961	16400	3	3	6600	1215	5000	16	938
East HS	199,140	1314	58	5	0	4	49	29	0.85	1208	18200	3	3	6000	1035	7300	16	1369
	755,539	3526	194	23	0	12	159			3919								
<b>District Totals:</b>	<b>2,067,039</b>	<b>9771</b>	<b>679</b>	<b>66</b>	<b>35</b>	<b>63</b>	<b>515</b>			<b>12323</b>								

NOTE 1: Approximately 375 of the District's students are enrolled at other alternative sites (Merritt Creek, Unity, Chester Creek, Woodland Hills, AJC, etc)

NOTE 2: Gymnasium capacity is determined by the number of "stations" available per building. For all practical purposes, a station can be considered as a "court". The MDE guidelines state each elementary school should have two stations so two individual Middle Schools have more athletics and therefore also require two stations of larger dimensions than an elementary. To accommodate physical education classes, junior varsity and varsity athletics, as well as student body gatherings, High Schools require three gym stations.

NOTE 3: The analysis for elementary media centers used a simplified version of the MDE formula of 75 square feet per student, for 8% of the current enrollment. The secondary school analysis used the MDE formula that allowed for seating, circulation, stacks, computers, workroom, storage, conference, and classroom space.

NOTE 4: The cafeteria analysis divided the current square footage by the MDE recommended ft^2/student and multiplied by 3 for three serving periods. The MDE guidelines don't account for serving space.

**(D)**

*District Priorities*

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## D) District Priorities

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### Ideation Sessions



Beginning May 2006, Duluth Public School District and its professionals led several information-gathering sessions to gain input about future needs from teachers, principals, the school board, school administrators, students, parents, representatives from early childhood, representatives of maintenance, food service and educational assistant unions, as well as from special education, desegregation/integration and citizens advisory groups.

Meetings started with reviewing results from previous facilities planning efforts and documenting lessons learned. The stakeholder groups then defined their long-term vision for the District and desired outcomes from the planning process. Needs were prioritized, strategies were discussed, and measures of success were defined.

Needs and improvements identified include:

#### **Protect the health and safety of students and staff**

*Protect all school occupants during emergency situations*  
*Assure healthy indoor learning environments*  
*Comply with all applicable codes and regulations*

#### **Provide high performance learning environments**

*Keep class sizes small*  
*Provide state-of-the-art laboratory and vocational facilities in schools*  
*Provide basic technology capabilities in all classrooms (e.g. internet, video, e-boards, wireless)*  
*Provide state-of-the-art athletic facilities for a variety of events*

#### **Improve facility infrastructure**

*Facilities are easy to operate and maintain*  
*Improve the energy efficiency of facilities and equipment*  
*Provide flexibility to easily update technology in the future*  
*Improve the reliability of technology systems and infrastructure*  
*Facilities that can be easily modified and/or expanded in the future*

#### **Increase community usage and collaboration**

*Increase collaboration between schools and the City of Duluth*  
*Design facilities for increased community use*  
*Integrate early childhood education into the schools*  
*Increase collaboration between schools and community organizations/businesses*  
*Increase community services in each school (e.g. fitness center, clinic, library)*

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Doing the right things... for the right reasons... the right way!



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## *D) District Priorities*

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### **Provide facility and educational equity across the District**

*Provide program equity between schools across the District*  
*Locate schools in a manner that encourages diversity and integration*  
*Assure adequate input from under-represented community groups*  
*Assure that all facility decisions are made in a fair/equitable manner*

### **Provide facilities that address the needs of all students**

*Provide adequate building access to students with special needs*  
*Design all learning spaces for integration of students with special needs*  
*Design facilities to respond to a variety of learning styles/approaches*  
*Support the increased use of assistive technology in the classroom*

### **Maintain effective financial stewardship**

*Assure that all projects are completed in a fiscally-responsible manner*  
*Secure adequate funding for capital investments*  
*Assure high levels of facility performance after construction/renovation*  
*Complete facility projects on budget/schedule*  
*Right-size the district's square footage to that needed for planned enrollment*

### **Secure high levels of community support**

*Create a vision the community can embrace*  
*Maintain high levels of communication with all key stakeholder groups*

These needs and improvements established the roadmap for the planning efforts. These were shared with the community throughout the process, allowing continued community input to help further enhance community needs. The professionals also focused their detailed assessments on the above criteria to help the District provide a long-term plan that best accomplishes the above goals and objectives. There was a Facility Assessment Report (1,600 page report available on the District website) which identifies, by building, improvements. In addition, an Educational Adequacy Report (also available on the District website) identifies individual educational adequacy improvements by building. These reports provided the supporting documentation for the District's long-range facility plan and how it impacts the community needs listed above.

Planning efforts included over a dozen input meetings with Early Childhood/Headstart and Special Education administrators/teachers/parents/stakeholders and the District to assure they were represented in the planning process as well as making sure the plan incorporated their needs into the final solutions approved by the community.

Planning efforts included many meetings with the City of Duluth Planning Department as well as presentations and input from the City of Duluth Planning Commission. In the Spring of 2006, the City of Duluth developed a new comprehensive plan which was an integral part of the District's planning efforts by providing a clear understanding of the City of Duluth's current and future planned land use. It was an important part in validating the District's demographic analysis. It also helped assure the City of Duluth's future growth areas identified were taken into account when determining where schools should be located.

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Doing the right things... for the right reasons... the right way!



**(E)**

*Community Use*

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## *E) Community Use*

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### **Local Partnerships**

As shown in Section D, one of the key Community/District needs that came forward as part of the planning process was the need to increase community usage and collaboration as described below.

- Increase collaboration between schools and the City of Duluth
- Design facilities for increased community use
- Integrate early childhood education into the schools
- Increase collaboration between schools and community organizations/businesses
- Increase community services in each school (e.g. fitness center, clinic, library)

Therefore, this became a key focal point for the District and Johnson Controls, Inc. as part of the long-range facility plan.

### **Improved Entrances & Ability to Monitor Community Access**

With today's school safety challenges, the Duluth Public School District's facilities have significant challenges with allowing community access to their facilities. With the District's average facility age of 54 years old, many of the schools are not designed for community use as is found in many districts throughout Minnesota. Examples include the lack of separate or secure entrances for community use. Presently, it is very difficult for the District to protect the students from unauthorized access. As part of the long-range plan, new entrances are being added to several schools where there currently is not a clear entrance designated for the school and/or general community. Administration areas will be located at or near entrance areas to allow staff to monitor community access. The three schools where this is of major concern are Lester Park Elementary, Laura McArthur Elementary and Lincoln Park School. It has been proposed that all three of these buildings be replaced with new schools. Card access systems are also included in the plan to allow for after school hour access by authorized community users. This will greatly enhance the District's ability to safely open their schools to more community use which has truly been a problem in the past.

### **Non-Profit Use of Facilities**

During the assessment phase of the planning efforts, it was discovered that the District had significantly more space than it needed due to many years of declining enrollment. Declining enrollment has opened areas for use by many non-profit organizations (positive and negative). These non-profits have moved into leftover areas. Many of these non-profits are doing wonderful things for the community as well as enhancing opportunities for the children. Examples include the Boys and Girls club, who moved into Lincoln Park, where they assist in after-school programs for children; the YMCA's 21st Century Program which provides after school programs for children; the Valley Youth Center provides services for the community and children out of Laura McArthur Elementary. The long-range facilities plan will allow the District to provide affordable spaces for non-profit entities.

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## *E) Community Use*

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Another challenge for the District with the non-profits is that funding for many of these non-profits comes from local foundations that will only fund programs year-to-year or up to 3-year commitments. This provides a level of uncertainty for the District as to whether these programs and ‘tenants’ are sustainable. During the process, the District and professionals met extensively with both the non-profits (YMCA, Boys and Girls Club, the Duluth Area Youth Coalition, etc) to gain insight on their goals and challenges, and how the long-range plan can help them. Their main challenges were facility condition and access. The District and professionals also met with the local foundations (Northland Foundation, Ordean Foundation, etc.) to gain insight to their goals and challenges. A couple of specific challenges for them include:

1. Their funding is stretched too thin as they try to help fund programs in 19 school buildings.
2. They cannot provide long-term funding commitments due to the current uncertainty of the District with the lack of a long-range facilities plan.

The adoption of this long-range facilities plan provides solutions to both their challenges by reducing the number of school buildings from 19 to 13, allowing them to provide more funding per school. It will also allow them to provide longer commitments knowing the school facilities will be there for the next 20-30 years.

### **New Swimming Pools**

Throughout the community input phase of the process, the need for community-wide pools was continually requested. During the facility assessment, the professionals determined the District’s current pools (Woodland, Laura McArthur, Morgan Park, Ordean and Lincoln Park) were in poor shape and in need of significant costly improvement and, in many cases, didn’t meet current pool safety standards. It was clear there were community and school needs for proper, competition-sized swimming facilities. As such, two new competition-sized swimming pools have been included in the long-range facilities plan. These pools are to be located at the two middle schools, allowing them to incorporate swimming into their middle school curriculum. These pools will be open to community-wide usage as well as the possibility for additional partnerships with higher educational institutions and neighboring school districts. Regionally, Duluth will be able to host competitive swimming events. Additional partnership opportunities also exist for both the healthcare industry for therapy as well as the senior population for usage of the aquatic facilities.

### **Surplus Property Disposition**

During community input, it was suggested that the plan be as thoughtful about surplus properties as the community’s future schools. Further input centered around suggesting the District not just focus on getting the highest offer for each property, rather consider how the surplus properties can enhance the community. The District and Johnson Controls has brought on a local leading real estate company to assist in providing their local expertise to assist the District with this important charge.

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## *E) Community Use*

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### **Other Notable Community Partnerships**

There are several strong community programs within our schools that are of significant importance. Mentor Duluth has individual one-on-one volunteer reading programs for Grant Elementary as well as others. The Grant Collaborative, PTA groups, YMCA Summer programs, the District's Community Education Programs have all had input into the process, and are enhanced as part of the future of Duluth Public School District's long-range facilities plan.

### **Additional Governmental Collaboration**

The American Indian Council, City of Duluth Planning, LISC, Community Action Duluth, Duluth Schools Race Culture and Achievement Group, Duluth Preservation Alliance, City of Duluth Community Neighborhood Dept (Keith Hamre), DOT, St. Louis County, Duluth Parks and Recreation, SVENDA, West Duluth Business Development, Lester Park Business Development, UMD, St. Scholastic, and Lake Superior College all had input throughout the long-range facilities planning process.

**(F)**

*Description of Projects*

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## F) Project Descriptions

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### Solid Options Considered

Nearly a year ago, the Duluth Public School District, a volunteer citizens group and Johnson Controls started working with the community to begin public conversations and research necessary to draft a long-range facilities plan. The goal: to provide quality educational spaces for our children for the next 20-30 years by creating a plan that puts children first. The plan is fact-based, objective, and identifies all financial resources necessary for execution.

After months of research and conversation, the community and school board have adopted a plan for implementation. It provides all children with improved educational spaces while increasing the efficiency of the buildings and the school system. Furthermore, we've developed a sound financial solution to fund the plan. In summary:

- ***The plan is data-driven***, based on more than 10,000 hours of expert analysis, over 120 meetings with organizations and groups, and months sharing with and receiving information from the community.
- ***The plan provides improved educational spaces for all children*** with extensive repairs to existing facilities and the addition of new school buildings.
- ***The plan provides plenty of planning time*** for building design, transition plans, transportation plans, as well as discussion for future educational programs and facility repairs. While repairs could begin almost immediately, the earliest parents, students and staff will see major building changes is the 2009-2010 school year. The plan will be implemented over a five-year period.
- ***The plan is efficient and cost-effective for taxpayers.*** Through cost savings and alternate funding sources, the cost to taxpayers is reduced by over 40%.
- ***Operational savings.*** The plan realizes up to \$5.3 million in annual operational savings through system efficiencies.
- ***The plan represents change*** – and that's not easy. Deciding which school facilities should close, which should be kept, and where they should be located, was difficult. Duluth has great public school tradition with strong loyalties to our neighbors, alma maters and memories. For many people, the symbol of Duluth and life's opportunities is their old school; however, the public as a whole realized that change is needed. The vast majority of Duluth citizens realize that the greater good for all is the ultimate goal.

Following is a brief overview of what we've learned in the past year. We have also included a summary of each project with their respective budgets.

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## *F) Project Descriptions*

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### **Factors Leading to this Plan**

***A Need to Do Our Best for Our Children*** – During more than 120 meetings with citizens throughout the community as well as calls, letters and e-mails to the District, it's clear that the citizens of Duluth overwhelmingly support making the changes necessary to improve educational facilities in the most logical, future-looking and cost-effective manner.

***A Need For Stability*** – Without a long-range plan, facility questions arise every year; every year opinions differ as to what should be done. A long-range facilities plan lays out what's occurring in the District for years into the future. It will help those who maintain facilities use District resources wisely.

***A Need for Equity*** – Some students go to school in older buildings that don't meet today's educational needs, while some go to school in newer buildings that do. A long-range facilities plan will provide equity across the District.

***A Need to Address Aging Infrastructure*** – Johnson Controls, a facilities management expert, worked with 40 analysts from 18 firms over a six-month period to conduct a thorough analysis of all schools. Where buildings have an average age of 54 years old, 1,600 deficiencies relating to such areas as air and water quality, accessibility, building code compliance, etc. were identified.

***A Need To Improve Educational Adequacy of Buildings*** – During a six-month period, multiple experts from Johnson Controls' team spent 500 hours inspecting District facilities, reviewing the ability of each building to meet current educational programs and needs. All but four facilities were found to need repairs. District-wide, 78 areas were identified as "not acceptable." Twenty-two (22) of the "not acceptable" rankings were in the three high schools; the other 56 were spread among Duluth's remaining 15 schools.

***A Need to Address Declining Enrollment*** – Former State Demographer, Dr. Hazel Reinhardt, created an in-depth analysis of Duluth's enrollment. K-12 enrollment has declined throughout the state and nation due in large part to Generation X being smaller than previous generations. The two main reasons for Duluth's declining enrollment are, first and foremost, the size of the different generations and, to a lesser extent, the emergence of competition, specifically charter schools.

In Duluth, K-12 enrollment declined 25% during the past 10 years to today's enrollment of 10,140. This trend will continue until 2013, when enrollment will stabilize between 8,998 and 9,329. From 2013 to 2022, enrollment is projected to increase modestly and fluctuate at around 9,600 students. In other words, Duluth's enrollment is not expected to return to its current level.

***A Need to Address Excess Capacity*** – Duluth's schools have space to accommodate 12,323 students. Based on today's enrollment, the District is currently operating buildings with 28% more space than necessary.

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## *F) Project Descriptions*

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### **Duluth School District Residential Opinion Survey Findings**

In May of 2007, Dr. Bill Morris of Decision Resources, Ltd. was hired to conduct a citizen's opinion survey. Here is a summary of what he found:

***Duluth School District residents solidly support the “Red Option” -- two high schools and remodeling/expanding Denfeld High School.***

- By an 81%-9% margin, residents support two high schools rather than one high school serving the District.
- By a 57%-10% margin, residents support remodeling and expanding Denfeld High School instead of building a new facility.
- Fifty-seven percent prefer the “Red Option,” while 12% choose the “Blue Option,” and 10%, the “White Option.”

***Residents support the Duluth Public Schools issuing bonds for the facilities plan, if the District uses the plan's cost savings and property sales revenue to reduce the total cost to the taxpayer.***

- By a very solid 69%-24% margin, residents favor the School District issuing bonds to finance the reduced cost of the new construction and renovation of school facilities.
  - In fact, 46% would favor issuing bonds to finance the full cost of the new construction and renovation, if the plan's cost savings and property sales revenue were applied to educational programs, curriculum upgrades, and technology opportunities.
- 71% report the absence of a bond referendum has no impact at all on their support or opposition to issuing bonds. Nineteen percent are “less likely” to support the issuing of bonds without a referendum and six percent are “more likely” to do so.

***Most residents are aware of the School District discussions taking place about current and future space needs as well as improvements in its academic programs.***

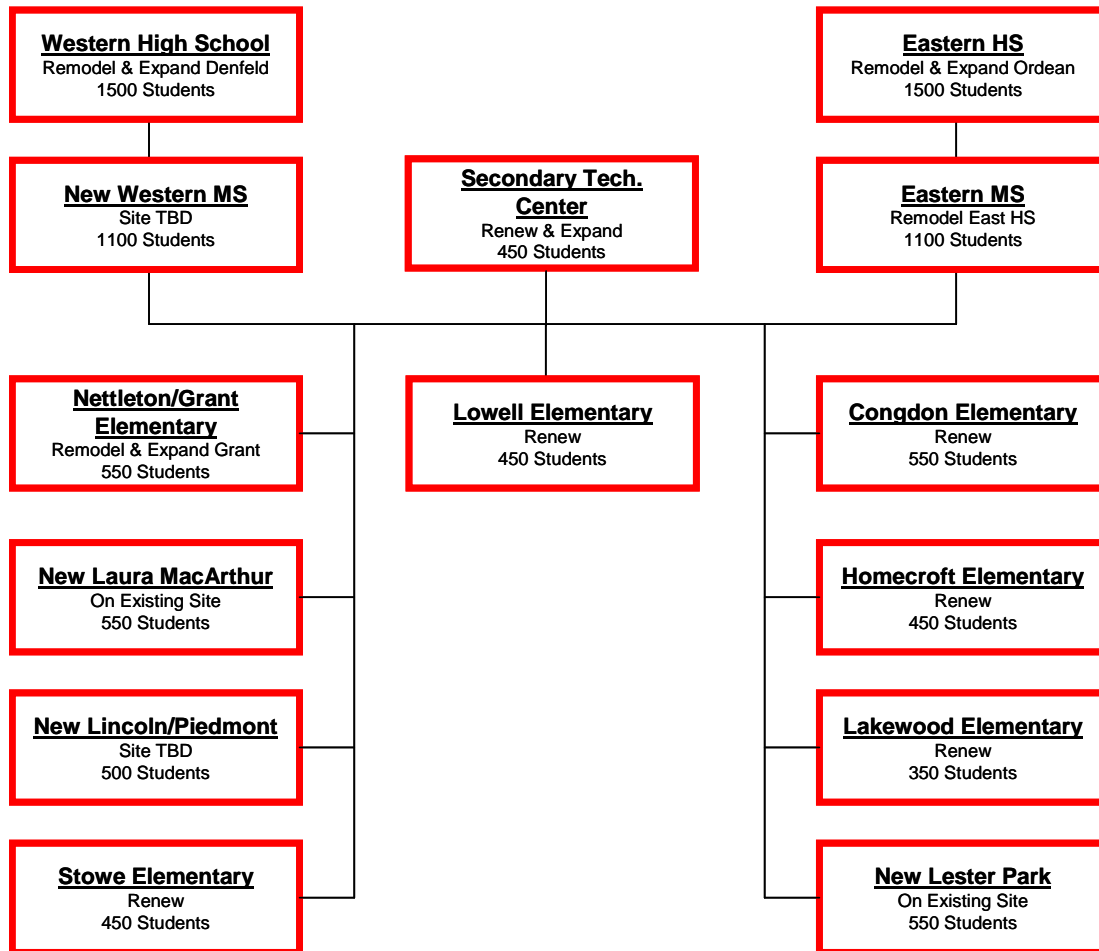
- An unusually high 78% report awareness of the discussions.
- 63% feel they are either “very familiar” or “somewhat familiar” with the discussions and reports to date.
  - The public information process has achieved impressive results.

## *F) Project Descriptions*

### Provide Improved Schools for Every Child

The Board-approved plan can each be implemented for \$257 million in today's dollars. While that's certainly a lot of money, by identifying a variety of savings and areas for new revenues, over 40% of that total is, in effect, already paid for. Based on the \$125,100 median cost for a home in Duluth, implementing the chosen plan would cost each Duluth homeowner between \$9 and \$12 per month depending on how much of the plan-generated operational savings is used to fund the plan.

### Approved Plan:



Buildings/sites not used: Central High School (possible Western MS site), Morgan Park, Woodland, Nettleton, Rockridge, existing Piedmont, Lincoln, Facilities Management and any unused properties.

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## *F) Project Descriptions*

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### **The Plan Reduces The Number of Buildings While Making Major Improvements**

The Plan includes building four new schools, remodeling five schools and renewing four schools. They also include closing one administrative building and repairing two administrative buildings. Surplus or, in other words, unused properties, will be sold. The following provides a before and after summary comparison of the District's properties:

#### **Current**

##### ***19 school buildings***

- 11 elementary/1 K-8
- 3 middle / 1 K-8
- 3 high schools/ 1 Vo. Tech.

##### ***3 administrative buildings***

##### ***5 additional properties***

#### **Proposed Plan**

##### ***14 school buildings***

- 9 elementary schools
- 2 middle schools
- 2 high schools/ 1 vocational

##### ***2 administrative buildings***

##### ***1 additional property***

The plan includes refreshing the Secondary Technical Center and Historic Old Central High School and remodeling the Transportation Center.

### **Surplus / Unused Properties**

The plan includes disposing of unused or surplus properties. The proceeds from these dispositions would be used to offset the capital costs of the long-range facilities plan. The following properties are slated for disposition:

- Arrowhead Property
- Central High School (possible Western MS site)
- Chester Property
- Garfield Storage
- Hartley Property
- Facilities Management
- Lincoln Park
- Morgan Park
- Nettleton
- Piedmont
- Rockridge
- Woodland

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## *F) Project Descriptions*

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### **Rationale for Implementing the Plan**

1. The plan provides an opportunity to repair and rebuild to meet community needs for the next 20-30 years. Repairs are needed to:
  - A. Protect the health and safety of students and staff
  - B. Protect all school occupants during emergency situations
  - C. Assure healthy indoor learning environments
  - D. Comply with all applicable codes and regulations
  - E. Provide high performance learning environments
  - F. Keep class sizes small
  - G. Provide state-of-the-art laboratory and vocational facilities in the schools
  - H. Provide classroom technology capabilities (e.g., internet, e-boards, wireless)
  - I. Provide state-of-the-art athletic facilities for a variety of activities
  - J. Improve facility infrastructure
  - K. Reduce the cost of operations and maintenance
  - L. Improve the energy efficiency of facilities and equipment
  - M. Provide flexibility to easily repair technology in the future
  - N. Improve the reliability of technology systems and infrastructure
  - O. Design facilities that can be easily modified and/or expanded in the future
  - P. Design facilities for increased community use
  - Q. Integrate early childhood education into the schools
  - R. Increase collaboration between schools and community organizations/businesses
  - S. Provide facilities that address the needs of all students
  - T. Provide adequate building access to students with special needs
  - U. Design all learning spaces for integration of students with special needs
  - V. Design facilities to respond to a variety of learning styles/approaches
  - W. Support the increased use of assistive technology in the classroom
  - X. Provide facility and educational equity across the District
  - Y. Provide program equity between schools across the District
  - Z. Locate schools in a manner that encourages diversity and integration
2. Eliminate investment in buildings where reinvestment doesn't make financial sense due to age/condition of buildings.
3. Focus on equity across the District and community.
4. Utilize excess property, i.e. proceeds from the sale of surplus properties redirected to offset the total cost of the plan.
5. The ability to better meet the needs of Early Childhood, Special Education, Technology and Music/Art/PhyEd/Media Programs.
6. Maximize energy efficiency and green design for new buildings.
7. Realize transportation efficiencies.
8. Provide fulltime art, music, physical education and media specialists at each site.

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## *F) Project Descriptions*

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9. Provide budget-neutral and tax-sensitive solutions:
  - A. Grants/Rebates
  - B. Sell excess land and properties; direct proceeds towards improvements
  - C. Utilize operational savings to self fund improvements
  - D. Utilize District's existing alternative facilities levy authority

### **Project Implementation Timeline**

The implementation timeline provides plenty of planning time, time for the District and its consultants to work with the community on building designs, transition plans and even host discussions on educational programs and schools of the future. While repairs could begin immediately, the earliest parents, students and staff will begin to see major building changes is the 2009-2010 school year. The total plan will be implemented over a period of five years.

### **Project Narratives by Building**

The following pages outline each building and the project(s) identified as well as budget dollars. All budgets include hard construction costs as well as all soft costs (fees, permits, general conditions, etc.).

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## F) Project Descriptions

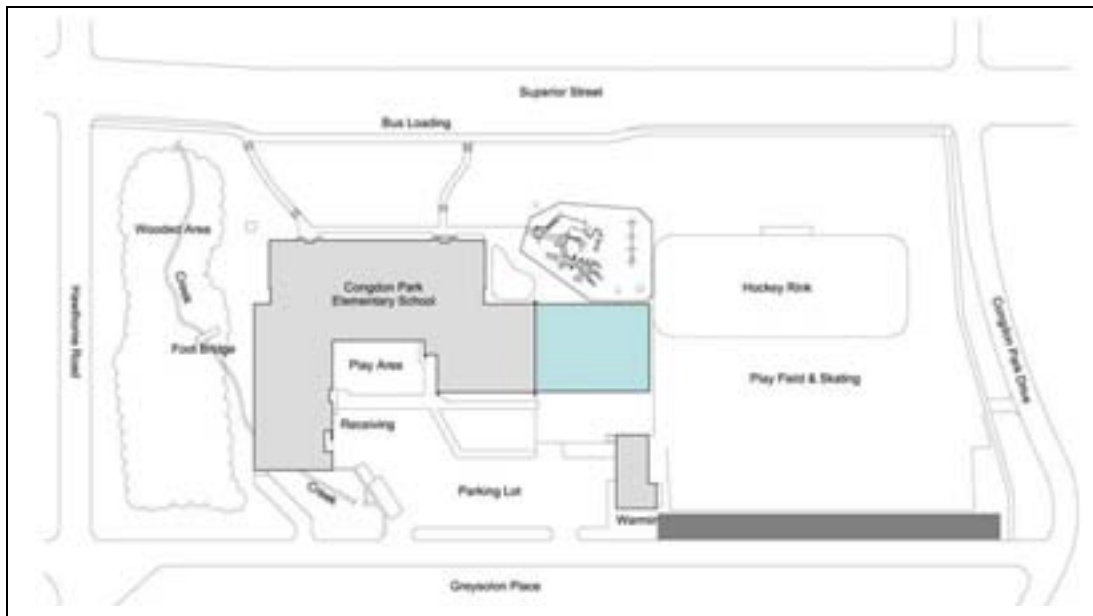
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### **Congdon Park Elementary**

Plan Grade Configuration:	K-5
Plan Site Area:	4.69 acres
Plan Design Enrollment:	550 students
Plan Square Footage:	73,120
Total Proposed Investment:	\$8,011,779

To meet the overall educational adequacy needs for this “built to last” east side neighborhood anchor school, there will be a few strategic facility adjustments, including the creation of a new gymnasium space with appropriate support functions. In addition, the existing gymnasium will be repurposed into a new, centrally-located media center. The existing media center space will be converted to educational spaces to best meet the long-term needs of students.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 3,747,490**

- New gymnasium space and main entrance
- Repurposing of the existing gymnasium into a new, centrally-located media center
- Convert existing media center space into educational spaces
- Modify cafeteria serving area
- Additional parking
- Smart-board installation in classrooms
- Installation of CCTV and card access systems
- Dehumidify all classrooms, media center, computer labs and administration

**Funded by Alternative Facilities Levy: \$ 4,264,289**

- Site repairs (lots, sidewalks, fields, playgrounds, etc.) \$ 59,862
- Exterior wall repairs \$ 591,342
- HVAC system replacement \$ 1,804,928
- Electrical system repairs \$ 113,870
- Elevator, lift, ramp repairs & replacement \$ 144,520
- General refurbishment (ceilings, walls, floors, casework, etc.) \$ 262,988
- Interior & exterior lighting systems replacements \$ 97,401
- Plumbing systems repairs & replacement \$ 271,648
- Roofing replacement \$ 246,345
- Heating system replacement \$ 481,523
- Fire alarm system replacement \$ 76,936
- Clock systems, PA, and sound systems replacements, and cabling repairs \$ 112,926

**Total planned investment in Congdon Park Elementary: \$ 8,011,779**

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## F) Project Descriptions

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### **Grant Elementary**

Plan Grade Configuration:	K-5
Plan Site Area:	8.3 acres
Plan Design Enrollment:	550 students
Plan Square Footage:	81,000
Total Proposed Investment:	\$12,120,846

Student safety, site amenities and learning space flexibility led to the decision to maintain Grant as an elementary learning environment. As a sturdy and centrally-located school, an addition to include new administration and support spaces to increase supervision and security in addition to new parking/student drop off area, will allow this facility to meet the needs of Grant students for many years to come. Working together with the City of Duluth, a plan will be developed to utilize adjacent green space for expanding and improving the playground area.

#### **Funded by Lease Levy:**

**\$ 5,080,950**

21,000 square foot addition:

- Additional classrooms and support spaces
- New gymnasium space with appropriate support functions
- New main entrance
- Expanded site for building addition and parking



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 2,382,826**

- Relocate administration for better security monitoring
- Expand kitchen and cafeteria areas
- Provide student breakout learning areas
- Smart-board installation in classrooms
- Dehumidify all classrooms, media center, computer and office areas
- Installation of CCTV and card access systems

**Funded by Alternative Facilities Levy: \$ 4,657,070**

- |  |              |
|--|--------------|
| • Site repairs (lots, sidewalks, fields, playgrounds, etc.)              | \$ 189,263   |
| • Exterior wall repairs  | \$ 607,700   |
| • HVAC system replacement  | \$ 2,438,353 |
| • Electrical system repairs  | \$ 98,767    |
| • Elevator repairs   | \$ 64,770    |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 691,768   |
| • Interior and exterior lighting systems repairs                         | \$ 63,440    |
| • Plumbing systems repairs and replacement                               | \$ 209,817   |
| • Roofing repairs  | \$ 47,811    |
| • Fire alarm system replacement  | \$ 48,616    |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 196,765   |

**Total planned investment in Grant Elementary: \$12,120,846**

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## *F) Project Descriptions*

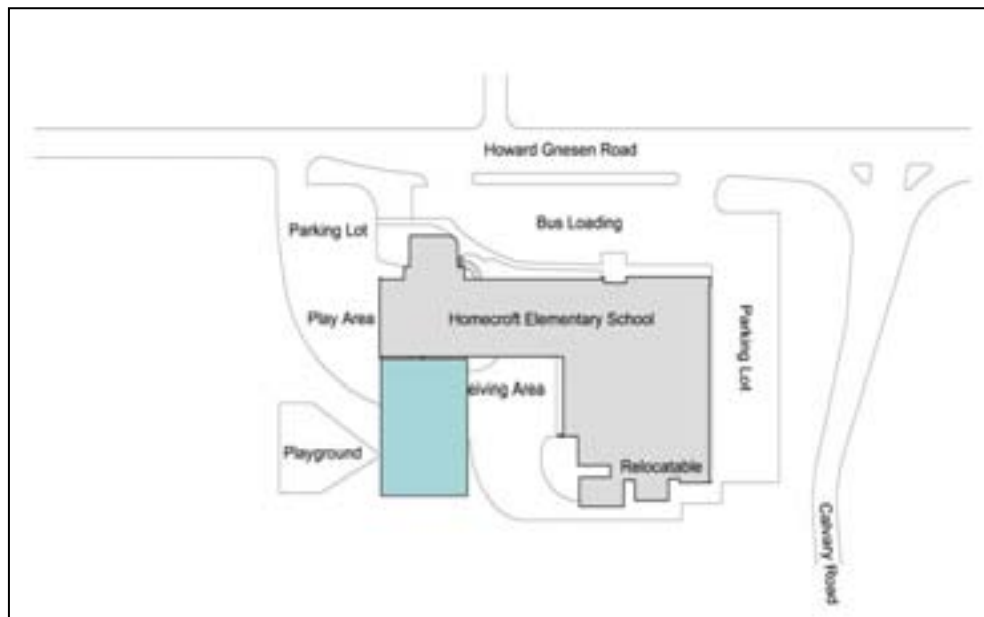
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### **Homecroft Elementary**

Plan Grade Configuration:	K-5
Plan Site Area:	6.69 acres
Plan Design Enrollment:	450 students
Plan Square Footage:	55,000
Total Proposed Investment:	\$7,664,989

The District has invested in Homecroft with additions and renovations as recently as 2005. This educationally-sound facility would be improved with a newly-remodeled cafeteria/kitchen space and small classroom addition to meet the needs of the newly-formed attendance boundary. Site improvements include reconfiguration for improved student safety and additional parking.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 3,317,477**

- New addition comprised of classrooms for 100 students
- Remodeling of cafeteria and serving space
- Modified parking and site circulation
- Smart-board installation in classrooms
- Dehumidify classrooms, media center, computer and office areas
- Installation of CCTV and card access systems

**Funded by Alternative Facilities Levy: \$ 4,347,512**

- |  |              |
|--|--------------|
| • Site repairs (lots, sidewalks, fields, playgrounds, etc.)              | \$ 381,514   |
| • Exterior wall repairs  | \$ 238,301   |
| • HVAC system replacement  | \$ 1,952,523 |
| • Electrical system repairs  | \$ 132,608   |
| • Elevator repairs   | \$ 42,323    |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 315,848   |
| • Interior and exterior lighting systems repairs                         | \$ 57,224    |
| • Plumbing systems repairs and replacement                               | \$ 254,160   |
| • Roofing replacement  | \$ 480,301   |
| • Fire alarm system replacement  | \$ 50,032    |
| • Heating system replacement   | \$ 337,422   |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 105,256   |

**Total planned investment in Homecroft Elementary: \$ 7,664,989**

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## F) Project Descriptions

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### **Lakewood Elementary**

Plan Grade Configuration:	K-5
Plan Site Area:	10.5 acres
Plan Design Enrollment:	350 students
Plan Square Footage:	50,440
Total Proposed Investment:	\$2,669,264

Lakewood is a newer facility which is in very good condition. It serves its intended enrollment very well. System repairs, paving work and new playground equipment are all that is needed for this building over the next 5 years.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 959,080**

- Smart-board installation in classrooms
- Dehumidify classrooms, media center, computer and office areas
- Installation of CCTV and card access systems

**Funded by Alternative Facilities Levy: \$ 1,710,184**

- |  |            |
|--|------------|
| • Site repairs (lots, sidewalks, fields, playgrounds, etc.)              | \$ 449,817 |
| • Exterior door replacement and wall repairs                             | \$ 384,680 |
| • HVAC and refrigeration systems repairs                                 | \$ 167,430 |
| • Electrical system repairs  | \$ 30,888  |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 35,243  |
| • Interior and exterior lighting systems repairs                         | \$ 64,718  |
| • Plumbing systems repairs and replacement                               | \$ 242,484 |
| • Fire alarm system replacement  | \$ 70,800  |
| • Heating system repairs   | \$ 99,161  |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 164,963 |

**Total planned investment in Lakewood Elementary: \$ 2,669,264**

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## F) Project Descriptions

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Building Layout  
To be Determined

### **New Elementary** *(Existing Laura MacArthur Site)*

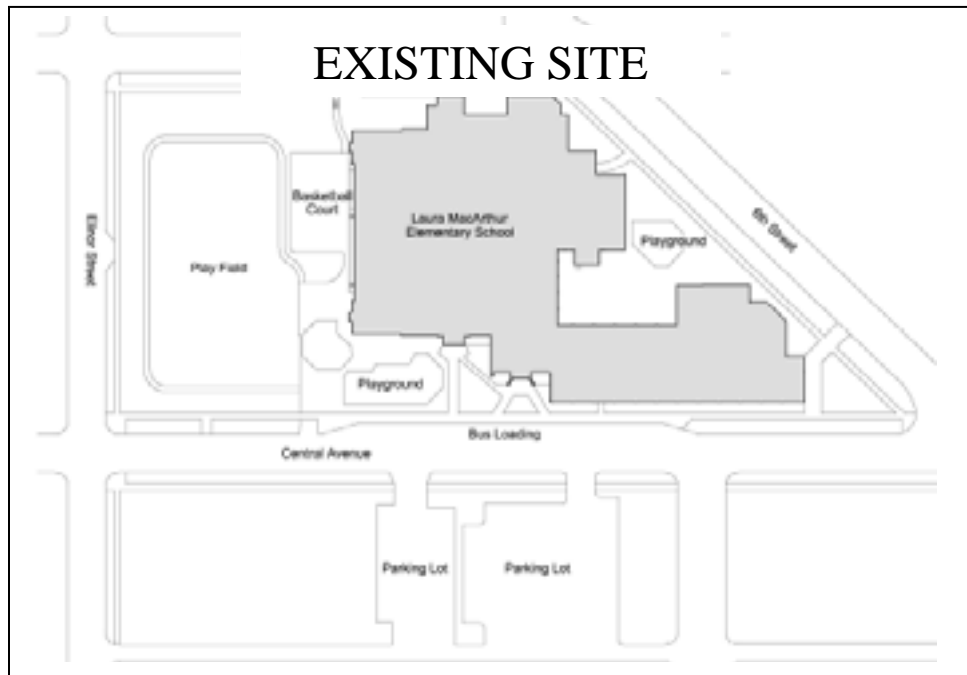
Plan Grade Configuration:	K-5
Plan Site Area:	5.1 acres
Plan Design Enrollment:	550 students
Plan Square Footage:	82,750
Total Proposed Investment:	\$18,038,861

The renewed attendance boundaries strongly indicate the need for an elementary facility in this area of the District. This fact, in addition to the challenges of the existing building to adequately meet the current and future needs of the community, led to the decision to construct a new elementary facility on the existing Laura MacArthur property. The constrained site will require the acquisition of adjacent properties to insure student safety and adequate site amenities.

#### **Funded by Lease Levy:**

**\$18,038,861**

- New elementary building sized for 550 students
- Demolition of old building and property acquisition to expand existing site by >1.25 acres



## F) Project Descriptions

### Space Requirement Summary - ESTIMATED

#### 4 Section Elementary School

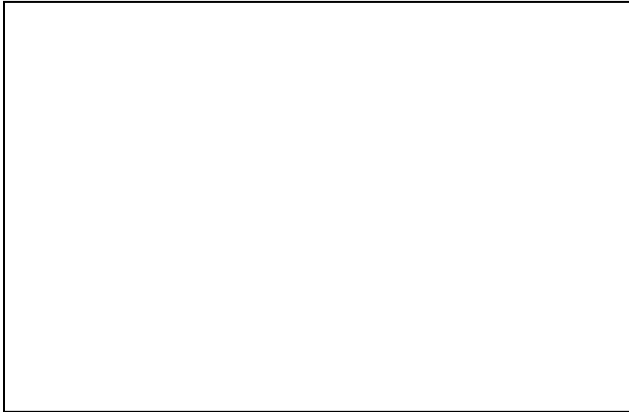
		Qty	Square Feet	Total Square Feet
.01	Administration	1	1,480	1,480
.02	Media Center	1	3,800	3,800
.03	Kindergarten	5	1,400	7,000
.04	First Grade	4	900	3,600
.05	Second Grade	4	900	3,600
.06	Third Grade	4	900	3,600
.07	Fourth Grade	4	900	3,600
.08	Fifth Grade	4	900	3,600
.09	Special Education Suite	2	1,400	2,800
.10	ECFE/ Head Start	2	1,400	2,800
.11	Art	1	1,400	1,400
.12	Computer	1	1,200	1,200
.13	Music	1	1,600	1,600
.14	Gymnasium	1	6,000	6,000
.15	Cafeteria/Kitchen	1	4,700	4,700
.16	Support/Faculty	4	800	3,200
.17	Educational Support	5	800	4,000
Subtotal (Net Square Feet-ESTIMATED)				57,980
Total (Gross Square Feet - ESTIMATED)				82,750

Programs to be verified by District and Site Based Advisory Groups

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## F) Project Descriptions

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### **New Elementary** *(Existing Lester Park Site)*

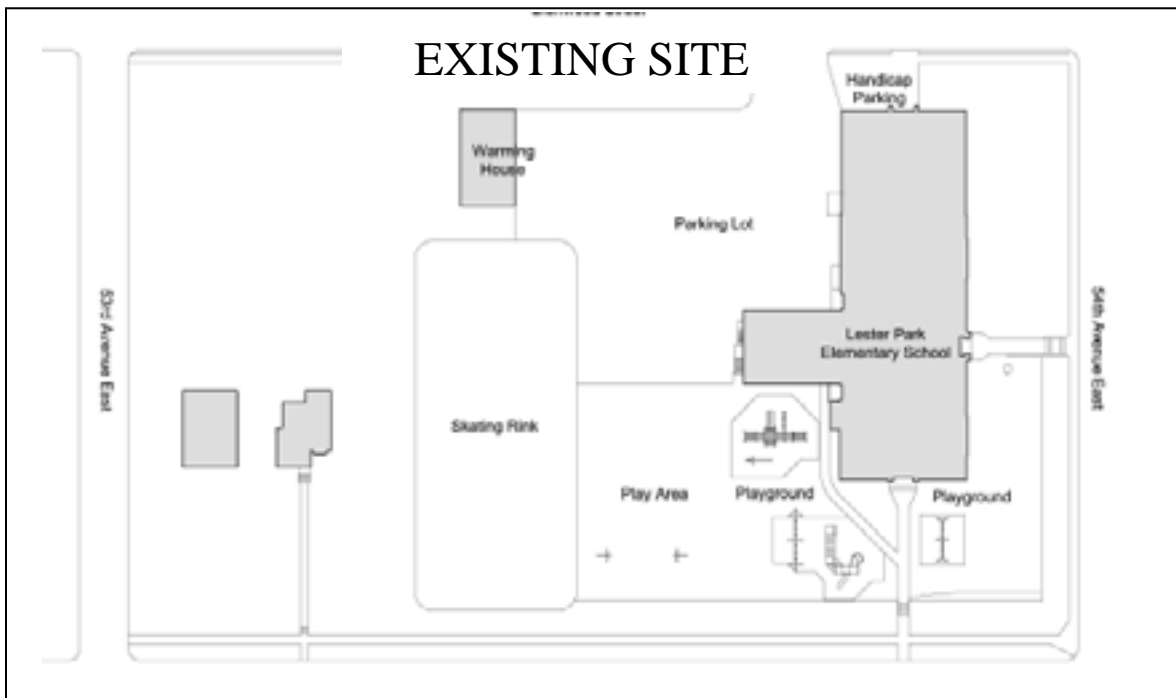
Plan Grade Configuration:	K-5
Plan Site Area:	3.5 acres
Plan Design Enrollment:	550 students
Plan Square Footage:	82,750
Total Proposed Investment:	\$ 16,639,710

The renewed attendance boundaries strongly showed the need for an elementary facility in this area of the District. This realization, combined with the desire to maintain a neighborhood elementary school and the challenges of the existing building to adequately meet the current and future needs of the community, led to the decision to construct a new elementary facility on the existing property. Minimal site acquisitions are needed to insure student safety, appropriate circulation patterns and adequate site amenities.

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#### **Funded by Disposition & General Fund Savings: \$16,639,710**

- New elementary building sized for 550 students
- Demolition of old building and property acquisition to expand existing school site by .64 acres



## F) Project Descriptions

### Space Requirement Summary - ESTIMATED

#### 4 Section Elementary School

		Qty	Square Feet	Total Square Feet
.01	Administration	1	1,480	1,480
.02	Media Center	1	3,800	3,800
.03	Kindergarten	5	1,400	7,000
.04	First Grade	4	900	3,600
.05	Second Grade	4	900	3,600
.06	Third Grade	4	900	3,600
.07	Fourth Grade	4	900	3,600
.08	Fifth Grade	4	900	3,600
.09	Special Education Suite	2	1,400	2,800
.10	ECFE/ Head Start	2	1,400	2,800
.11	Art	1	1,400	1,400
.12	Computer	1	1,200	1,200
.13	Music	1	1,600	1,600
.14	Gymnasium	1	6,000	6,000
.15	Cafeteria/Kitchen	1	4,700	4,700
.16	Support/Faculty	4	800	3,200
.17	Educational Support	5	800	4,000
Subtotal (Net Square Feet-ESTIMATED)				57,980
Total (Gross Square Feet - ESTIMATED)				82,750

Programs to be verified by District and Site Based Advisory Groups

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## F) Project Descriptions

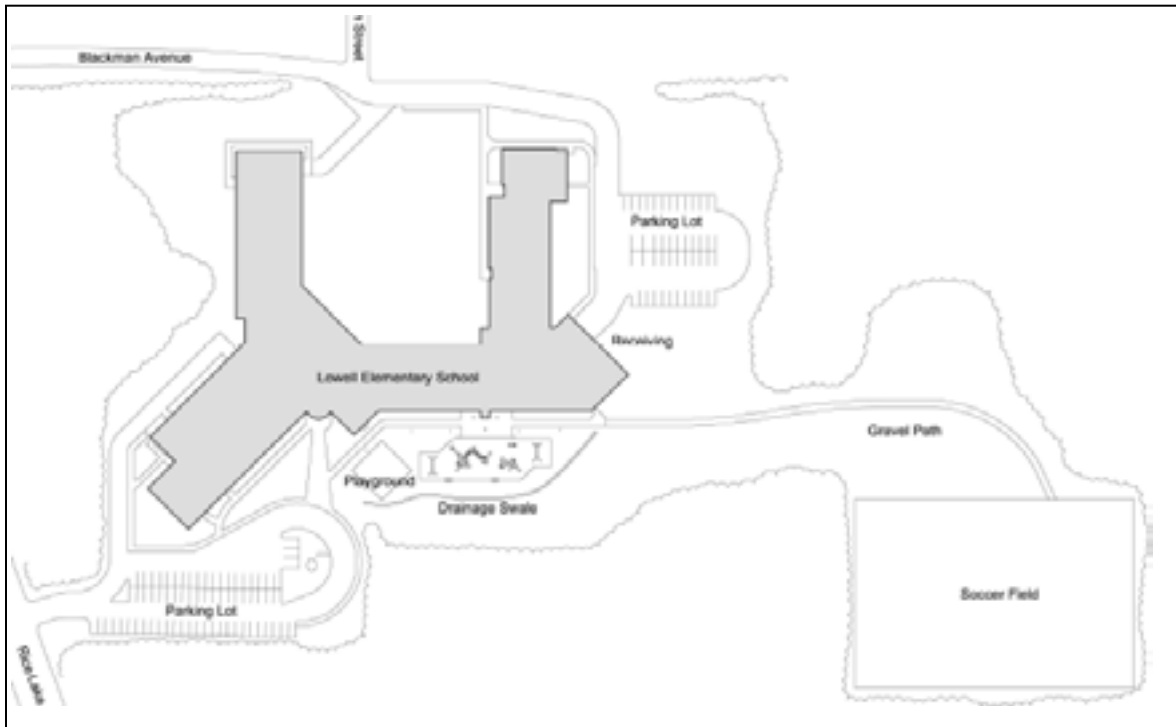
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### **Lowell Elementary**

Plan Grade Configuration:	K-5
Plan Site Area:	19.94 acres
Plan Design Enrollment:	450 students
Plan Square Footage:	98,873
Total Proposed Investment:	\$6,804,496

Lowell Elementary is connected to the older Barnes facility. The majority of interior finishes are in good condition. There are several exterior items in need of repair/replacement.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 2,486,903**

- Smart-board installation in classrooms
- Dehumidify all classrooms, media center, computer, and office areas
- Installation of CCTV and card access systems

**Funded by Alternative Facilities Levy: \$ 4,317,593**

- |  |              |
|--|--------------|
| • Site repairs (lots, sidewalks, fields, playgrounds, etc.)              | \$ 484,625   |
| • Exterior door and window replacement, wall repairs                     | \$ 563,030   |
| • HVAC system replacement  | \$ 938,336   |
| • Electrical system repairs  | \$ 38,822    |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 217,659   |
| • Interior and exterior lighting systems repairs                         | \$ 76,478    |
| • Plumbing systems repairs and replacement                               | \$ 194,579   |
| • Roofing replacement  | \$ 1,280,935 |
| • Heating system repairs   | \$ 230,017   |
| • Fire alarm system replacement  | \$ 81,656    |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 211,456   |

**Total planned investment in Lowell Elementary: \$ 6,804,496**

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## F) Project Descriptions

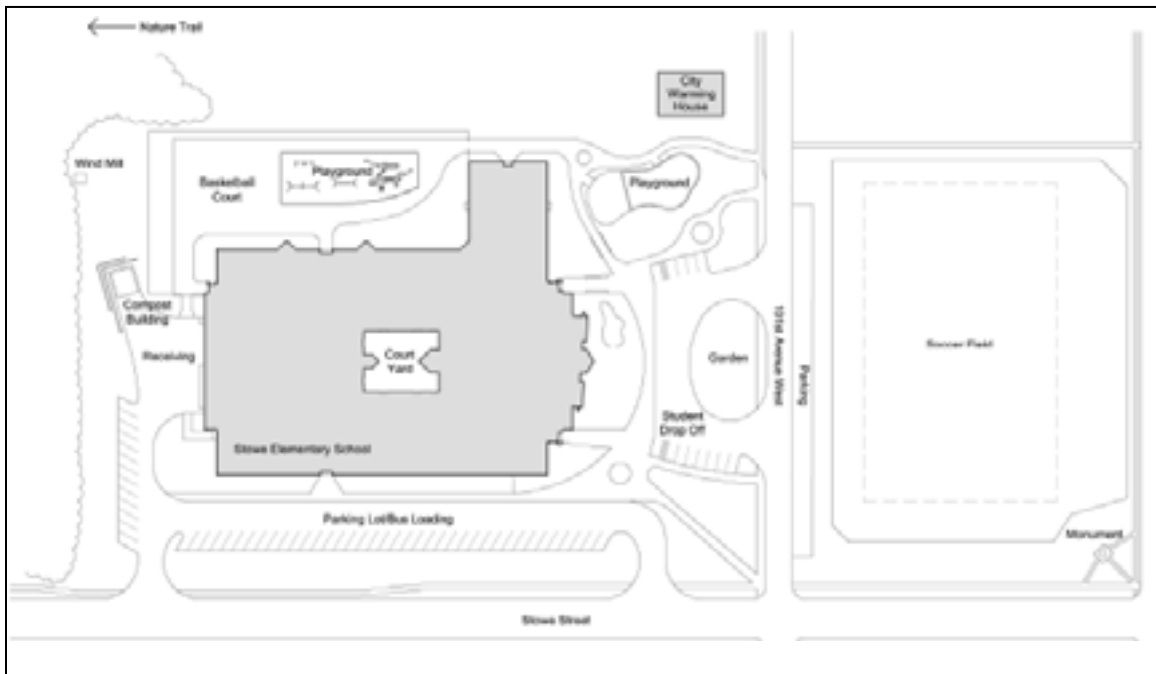
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### **Stowe Elementary**

Plan Grade Configuration:	K-5
Plan Site Area:	8.9 acres
Plan Design Enrollment:	450 students
Plan Square Footage:	70,232
Total Proposed Investment:	\$4,134,307

This well-designed and well-maintained elementary school is educationally adequate, and meets the community's needs. The only area of concern is food service. The recommendation is to expand the current cafeteria space to provide for a more efficient serving space to meet the needs of the anticipated student enrollment.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 1,180,650**

- Smart-board installation in classrooms
- Dehumidify all classrooms, media center, computer, and office areas
- Installation of CCTV and card access systems

**Funded by Alternative Facilities Levy: \$ 2,953,657**

- |  |            |
|--|------------|
| • Site repairs (lots, sidewalks, fields, playgrounds, etc.)              | \$ 265,582 |
| • Exterior wall repairs  | \$ 177,000 |
| • HVAC system repairs  | \$ 361,965 |
| • Electrical system repairs  | \$ 102,601 |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 253,793 |
| • Interior and exterior lighting systems repairs                         | \$ 67,469  |
| • Plumbing systems repairs and replacement                               | \$ 103,367 |
| • Roofing replacement  | \$ 974,632 |
| • Heating system repairs   | \$ 327,085 |
| • Fire alarm system replacement  | \$ 80,240  |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 239,923 |

**Total planned investment in Stowe Elementary: \$ 4,134,307**

## F) Project Descriptions

Building Layout  
To be Determined

### **New Elementary** *(To be Located Between Lincoln/Piedmont)*

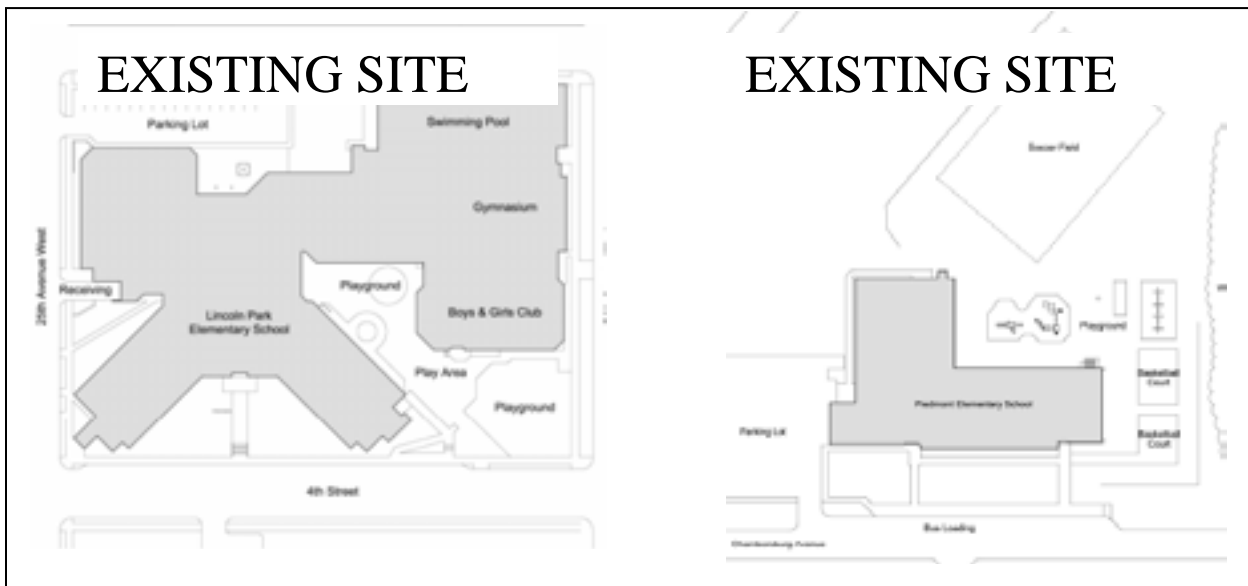
Plan Grade Configuration: K-5  
Plan Site Area: TBD  
*(5 sites being evaluated ranging from 10 to 40 acres)*  
Design Enrollment: 500 students  
Plan Square Footage: 82,750  
Total Proposed Investment: \$16,595,875

The Plan's newly-formed school boundaries recognize the need for a viable elementary school in the Lincoln Park/Piedmont area of the District. The recommended boundaries for this area include consolidation of existing elementary attendance areas from both schools. Neither of the existing sites is near the center of the planned population. The existing Piedmont facility is undersized to efficiently deliver elementary education, and is located in an area that does not lend itself to realistic expansion. The existing Lincoln facility is vastly oversized for an elementary (88,000 sq. ft. too big) and offers significant challenges in regards to supervision, access for all students and an efficient delivery of education. The size and configuration of the sloping site adds to this site's inability to efficiently meet the educational needs of the surrounding community. Any future use of this parcel of land as a District educational facility would require the acquisition of significant housing properties and careful site coordination with its remaining neighbors. The recommendation is for a new elementary school to serve this geographic area on a "to be determined" site.

#### **Funded by Lease Levy:**

**\$16,595,875**

- New elementary building sized for 500 students
- Property acquisition for new building site centrally located in attendance area



Doing the right things... for the right reasons... the right way!



## F) Project Descriptions

### Space Requirement Summary - ESTIMATED

#### 4 Section Elementary School

		Qty	Square Feet	Total Square Feet
.01	Administration	1	1,480	1,480
.02	Media Center	1	3,800	3,800
.03	Kindergarten	5	1,400	7,000
.04	First Grade	4	900	3,600
.05	Second Grade	4	900	3,600
.06	Third Grade	4	900	3,600
.07	Fourth Grade	4	900	3,600
.08	Fifth Grade	4	900	3,600
.09	Special Education Suite	2	1,400	2,800
.10	ECFE/ Head Start	2	1,400	2,800
.11	Art	1	1,400	1,400
.12	Computer	1	1,200	1,200
.13	Music	1	1,600	1,600
.14	Gymnasium	1	6,000	6,000
.15	Cafeteria/Kitchen	1	4,700	4,700
.16	Support/Faculty	4	800	3,200
.17	Educational Support	5	800	4,000
Subtotal (Net Square Feet-ESTIMATED)				57,980
Total (Gross Square Feet - ESTIMATED)				82,750

Programs to be verified by District and Site Based Advisory Groups

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## F) Project Descriptions

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### **Ordean High School**

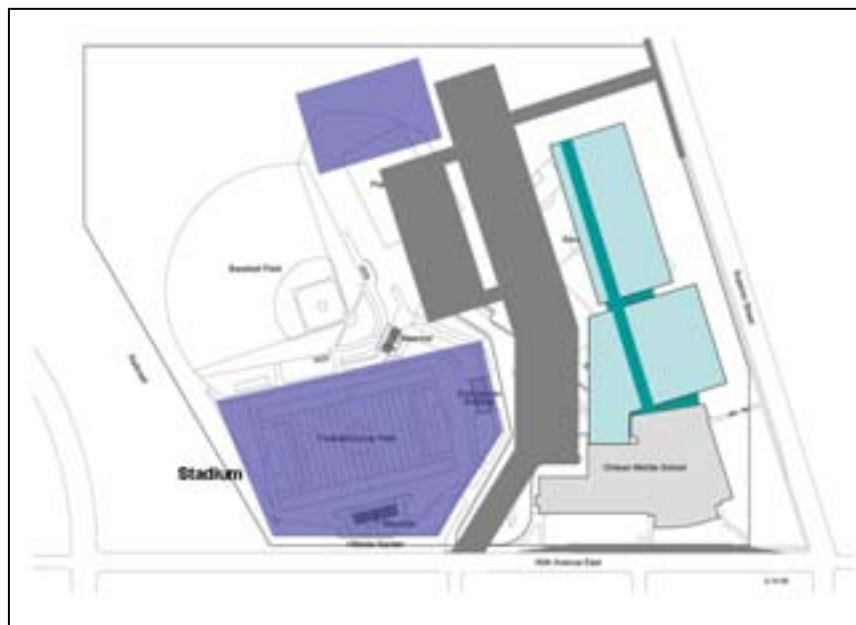
Plan Grade Configuration:	9-12
Plan Site Area:	26 to 36 acres
Plan Design Enrollment:	1,500 students
Plan Square Footage:	268,000
Total Proposed Investment:	\$51,048,885
Reprogram from a MS to HS	

The well-designed classroom portion of this facility, the updated media center, the size of the property and its location within the community are all factors that make this facility a logical location for the eastern high school. The academic areas of the facility are easily modified to meet current educational standards, and the core areas of the building provide a framework for a variety of potential grade configurations. As a high school, the ability to add significant additions to the building while maintaining a logical organization as well as the existing site amenities are key factors to its success. The site may be expanded for additional athletic fields if land can be acquired cost effectively. Tennis courts, softball field and a soccer field will all be considered.

### **Funded by Lease Levy:**

**\$32,155,550**

- New 140,000 sq. ft. addition comprised primarily of classrooms and gym space
- Property acquisition to expand the site for athletics and additional parking



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$ 8,668,879**

- Turf for football field and enhanced seating area
- Update auditorium
- Create breakout learning spaces in existing building
- Relocate cafeteria
- Smart-board installation in classrooms
- Dehumidify all existing educational spaces
- Installation of CCTV and card access systems

**Funded by Alternative Facilities Levy: \$ 8,689,854**

- |  |              |
|--|--------------|
| • Site repairs (lots, sidewalks, fields, etc.)                           | \$ 105,202   |
| • Exterior wall repairs  | \$ 507,401   |
| • HVAC system repairs  | \$ 3,393,209 |
| • Electrical system repairs  | \$ 350,990   |
| • Elevator repair  | \$ 64,380    |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 1,787,966 |
| • Interior and exterior lighting systems repairs                         | \$ 382,061   |
| • Plumbing systems repairs and replacement                               | \$ 541,260   |
| • Roofing replacement  | \$ 268,529   |
| • Heating system repairs   | \$ 475,446   |
| • Fire alarm system replacement  | \$ 156,916   |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 656,494   |

**Total planned investment in Ordean High School: \$51,048,885**

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## *F) Project Descriptions*

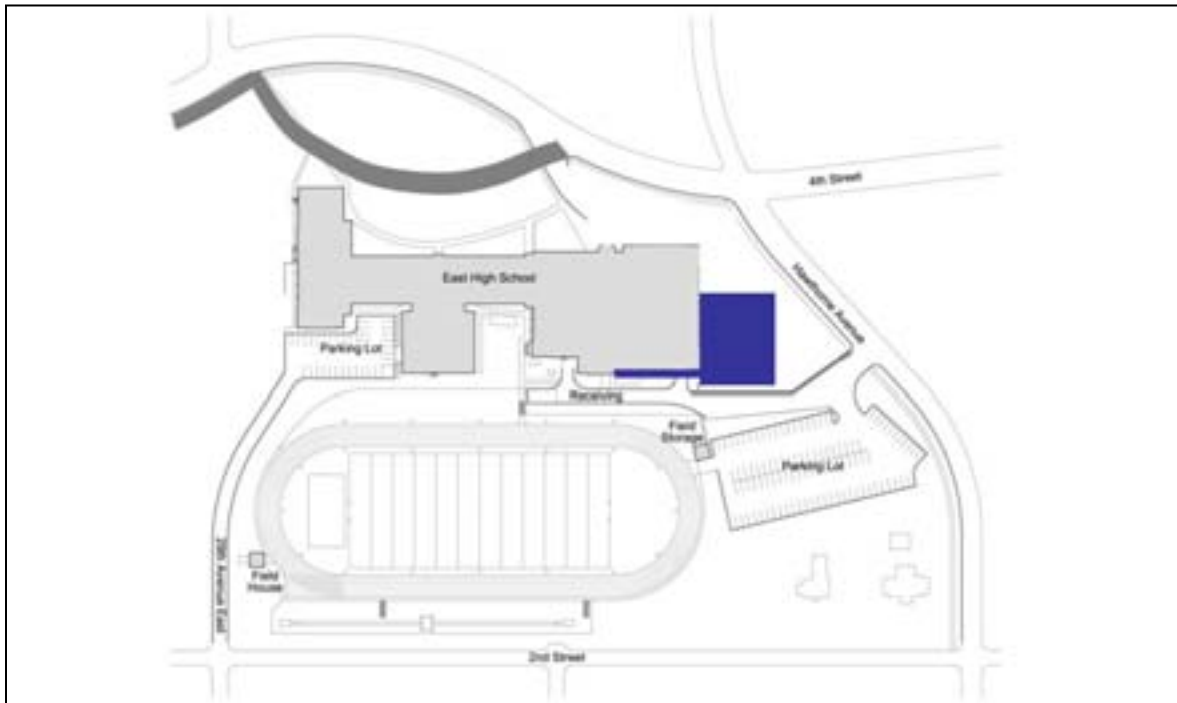
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### **East Middle School**

Plan Grade Configuration:	6-8
Plan Site Area:	12.71 acres
Plan Design Enrollment:	1,100 students
Plan Square Footage:	217,000
Total Proposed Investment:	\$22,521,769
Reprogram from HS to a MS	

Because the existing facility does not meet the educational adequacy needs and is located on an extremely small site, the recommendation is for this facility to be reprogrammed from a high school to a middle school. With a number of modifications to meet current needs, including classroom size and flexible teaming areas, this building will provide an effective and safe middle school environment. The long-lasting quality of the building and its position within the context of the neighborhood solidify it as a key component of the overall plan in the eastern portion of the District.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$12,127,274**

- Turf for field and new aquatics center
- Create student breakout areas and teacher planning centers
- Additional science labs
- Expand physical size of individual classrooms
- Relocate main entrance for security supervision
- Smart-board installation in classrooms
- Dehumidify classrooms, media center, computer labs, and administration
- Installation of card access system

**Funded by Alternative Facilities Levy: \$10,394,495**

- |  |              |
|--|--------------|
| • Site repairs (lots, sidewalks, fields, etc.)                           | \$ 705,939   |
| • Exterior wall renovations  | \$ 241,900   |
| • HVAC system repairs  | \$ 5,150,057 |
| • Electrical system repairs  | \$ 228,684   |
| • Elevator repair & replacement  | \$ 242,907   |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 656,143   |
| • Interior & exterior lighting systems repairs                           | \$ 328,997   |
| • Plumbing systems repairs & replacement                                 | \$ 994,812   |
| • Roofing repairs  | \$ 240,257   |
| • Heating system repairs   | \$ 809,421   |
| • Fire alarm system replacement  | \$ 102,896   |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 692,482   |

**Total planned investment in East Middle School: \$22,521,769**

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## F) Project Descriptions

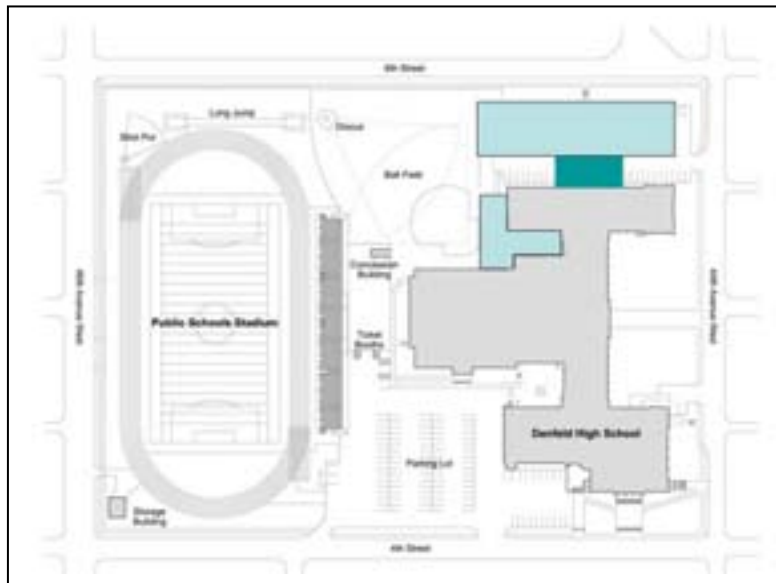
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### **Denfeld High School**

Plan Grade Configuration:	9-12
Plan Site Area:	15.35 acres
Design Enrollment:	1,500 students
Plan Square Footage:	318,000
Total Proposed Investment:	\$33,758,610

The architectural character of the building, the quality of the craftsmanship and the emotional bond of the neighboring community to the building are key elements to the role of the Denfeld campus in the overall plan recommendations. The District has invested dollars in the auditorium, gymnasium and stadium. It is likely that the campus (at least these three components) will continue to be used by the community. The age of the original building and size of the site offers some challenges in regards to Denfeld's continued educational use. The existing general purpose educational spaces are significantly below the adequacy standards; major renovations are needed for it to meet current space allocations and configurations. An addition to the building is needed to adequately handle the increased student capacity as well as the purchase of adjacent properties for increased parking.



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings: \$18,748,550**

- New 55,000 sq. ft. classroom addition
- Cafeteria addition
- Property acquisition to expand the site for additional parking
- Expand physical size of individual classrooms
- Student breakout spaces and teacher planning centers
- Additional science labs
- Smart-board installation in classrooms
- Dehumidify entire building except for athletic areas
- Installation of card access system

**Funded by Alternative Facilities Levy: \$15,010,060**

- |  |              |
|--|--------------|
| • Site repairs (lots, sidewalks, fields, etc.)                           | \$ 374,117   |
| • Exterior wall renovations and window replacements                      | \$ 1,996,726 |
| • HVAC system repairs  | \$ 6,080,132 |
| • Electrical system repairs  | \$ 391,169   |
| • Elevator repair & replacement  | \$ 183,069   |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 1,918,526 |
| • Interior and exterior lighting systems repairs                         | \$ 229,692   |
| • Plumbing systems repairs and replacement                               | \$ 1,527,888 |
| • Roofing repairs  | \$ 254,203   |
| • Heating system repairs   | \$ 1,034,429 |
| • Fire alarm system replacement  | \$ 158,828   |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 861,281   |

**Total planned investment in Denfeld High School: \$33,758,610**

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## *F) Project Descriptions*

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### **Secondary Technical Center**

Plan Grade Configuration:	9-12
Plan Site Area:	3.6 acres
Plan Design Enrollment:	500 students
Plan Square Footage:	73,000
Total Proposed Investment:	\$4,386,813

This building currently serves its intended population very well, and the program is extremely successful. Only system repairs are needed for the existing building over the next five years. A major addition is planned to house programs currently located in the upper STC building as well as future additional programs.

#### **Funded by Lease Levy:**

**\$ 3,100,000**

- New 20,000 sq. ft. addition
- Necessary site work for addition, parking and vehicle circulation



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## *F) Project Descriptions*

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**Funded by Disposition & General Fund Savings:** **\$ 313,921**

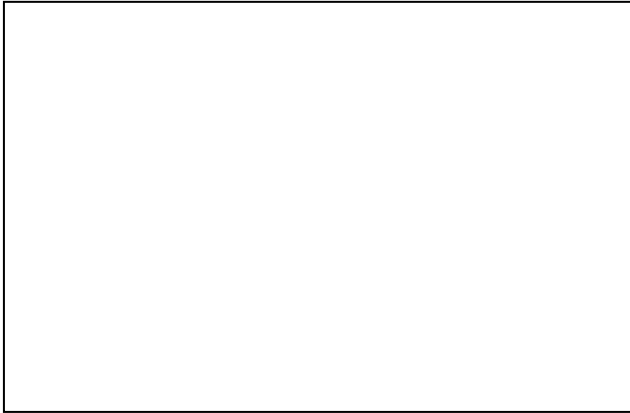
- Smart-board installation in classrooms
- Dehumidify 2<sup>nd</sup> floor and kitchen area
- Installation of CCTV & card access systems

**Funded by Alternative Facilities Levy:** **\$ 972,892**

- |  |            |
|--|------------|
| • Exterior wall repairs  | \$ 94,400  |
| • HVAC system repairs  | \$ 383,500 |
| • Electrical system repairs  | \$ 27,022  |
| • Elevator repairs   | \$ 8,567   |
| • General refurbishment (ceilings, walls, floors, casework, etc.)        | \$ 136,821 |
| • Interior and exterior lighting systems repairs                         | \$ 48,045  |
| • Plumbing systems repairs and replacement                               | \$ 44,744  |
| • Fire alarm system replacement  | \$ 19,588  |
| • Clock systems, PA, and sound systems replacements, and cabling repairs | \$ 210,205 |

**Total planned investment in Secondary Technical Center:** **\$ 4,386,813**

## F) Project Descriptions



### **New West Middle School**

Plan Grade Configuration: 6-8  
 Plan Site Area: TBD  
*(6 sites being evaluated ranging from 19 to 54 acres)*  
 Design Enrollment: 1,100 students  
 Plan Square Footage: 198,000  
 Total Proposed Investment: \$44,793,016

District curriculum experts concluded that larger middle schools were needed to offer a broad and equal curriculum across the District. The proposed consolidation of four middle schools attendance zones into two creates a need for larger buildings. There are no existing buildings in the western part of the District that are of sufficient size, location or condition to be used as the western middle school. As such, a new, state-of-the-art middle school will be built to serve the western half of the District.

#### **Funded by Lease Levy:**

**\$44,793,016**

- New 198,000 sq. ft. middle school
- Site acquisition, necessary site work for addition, parking and vehicle circulation

### **Space Requirement Summary - ESTIMATED**

1100 Student Middle School				
		Qty	Square Feet	Total Square Feet
.01	Administration	1	2,680	2,680
.02	Media Center	1	6,980	6,980
.03	Instructional - General Programs	1	36,800	36,800
.04	Instructional Support Spaces	1	7,600	7,600
.05	Instructional - Special Programs	1	4,120	4,120
.06	Instructional - Elective Programs	1	3,600	3,600
.07	Instructional - Vocational Arts	1	1,980	1,980
.08	Instructional - Fine Arts	1	11,700	11,700
.09	Physical Education/Athletics	1	42,000	42,000
.10	Food Service	1	5,540	5,540
.11	Building Support Spaces	1	8,200	8,200
Subtotal (Net Square Feet-ESTIMATED)				131,200
Total (Gross Square Feet - ESTIMATED)				198,000

Programs to be verified by District and Site Based Advisory Groups



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## *F) Project Descriptions*

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### **Transportation Center**

Plan Site Area:	2.6 acres
Plan Square Footage:	14,000
Total Proposed Investment:	\$1,930,993

The Transportation Center has served the Duluth Public School District for many years. It serves as the home for transportation staff, and houses the District's bus and transportation fleet. There is adequate square feet allocated for each of the functions, and repairing the facility will help day-to-day tasks. However, the garage area will need replacement to adequately serve the District for the long term.

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**Funded by Disposition & General Fund Savings: \$ 703,904**

- Demo and replace garage
- Installation of CCTV system

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**Funded by Alternative Facilities Levy: \$ 1,227,089**

• Exterior wall repairs	\$ 85,145
• Parking lot paving	\$ 295,000
• HVAC system repairs	\$ 571,212
• Heating plant repairs	\$ 98,884
• Roofing replacement	\$ 47,570
• General refurbishment (ceilings, walls, floors, doors, etc.)	\$ 9,416
• Interior and exterior lighting systems repairs	\$ 23,276
• Plumbing systems repairs and replacement	\$ 75,818
• PA and cabling repairs and replacements	\$ 20,768

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**Total planned investment in Transportation Center: \$ 1,930,993**

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## *F) Project Descriptions*

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### **Central Administration - HOCHS**

Plan Site Area:	3.83 acres
Plan Square Footage:	158,660
Total Proposed Investment:	\$6,292,157

This well-built and well-maintained architectural legacy within the community of Duluth has been the face of Duluth Public School District for many years. It serves as the home for Central Administration, Central District Services and the District's Alternative High School. Central Administration functions are well served within the building, although department proximity could be viewed as an issue. Adequate square footage is allocated for each department, and facility improvements will help with public and user orientation. Central Services' facilities are adequate, and will benefit from repaired utility infrastructure and system repairs. Some additional District-wide support functions, e.g. Facilities Department, will be relocated to this building as part of the plan. The educational spaces used for the Alternative High School are adequately sized, and will be updated to meet current educational standards. HOCHS also houses a few specialty spaces that will remain within the facility.

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#### **Funded by Disposition & General Fund Savings:** **\$ 1,280,111**

- Dehumidify unity classrooms and office areas
- Installation of CCTV and card access systems (central hub)

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#### **Funded by Alternative Facilities Levy:** **\$ 5,012,046**

- |  |              |
|--|--------------|
| • Exterior wall repairs, door and blind replacement            | \$ 468,175   |
| • Site repairs (lots, sidewalks, steps, etc.)                  | \$ 922,356   |
| • HVAC system repairs  | \$ 745,495   |
| • Electrical system repair                                     | \$ 175,819   |
| • Roofing replacement  | \$ 604,680   |
| • Elevator repairs   | \$ 73,987    |
| • General refurbishment (ceilings, walls, floors, doors, etc.) | \$ 342,085   |
| • Interior and exterior lighting systems repairs               | \$ 210,075   |
| • Plumbing systems repairs and replacement                     | \$ 1,001,445 |
| • PA and cabling repairs and replacements                      | \$ 467,929   |

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#### **Total planned investment in Central Administration:** **\$ 6,292,157**

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Doing the right things... for the right reasons... the right way!



## *F) Project Descriptions*

### Overall Budget Breakdown by Funding Source

Building	Lease Levy	General Fund Savings	Alt. Facilities Levy	Total
Congdon	\$ -	\$ 3,747,490	\$ 4,264,289	\$ 8,011,779
Grant	\$ 5,080,950	\$ 2,382,826	\$ 4,657,070	\$ 12,120,846
Homecroft	\$ -	\$ 3,317,477	\$ 4,347,512	\$ 7,664,989
Lakewood	\$ -	\$ 959,080	\$ 1,710,184	\$ 2,669,264
New Laura Mac	\$ 18,038,861	\$ -	\$ -	\$ 18,038,861
New Lester Park		\$ 16,639,710	\$ -	\$ 16,639,710
Lowell	\$ -	\$ 2,486,903	\$ 4,317,593	\$ 6,804,496
Stowe	\$ -	\$ 1,180,650	\$ 2,953,657	\$ 4,134,307
New Piedmont/Linc.	\$ 16,595,875	\$ -	\$ -	\$ 16,595,875
Ordean HS	\$ 32,155,550	\$ 10,203,481	\$ 8,689,854	\$ 51,048,885
East MS	\$ -	\$ 12,127,274	\$ 10,394,495	\$ 22,521,769
Denfeld HS	\$ -	\$ 18,748,550	\$ 15,010,060	\$ 33,758,610
STC	\$ 3,100,000	\$ 313,921	\$ 972,892	\$ 4,386,813
New West MS	\$ 44,793,016	\$ -	\$ -	\$ 44,793,016
Transportation	\$ -	\$ 703,904	\$ 1,227,089	\$ 1,930,993
Central Admin.	\$ -	\$ 1,280,111	\$ 5,012,046	\$ 6,292,157
<b>Totals:</b>	<b>\$ 119,764,252</b>	<b>\$ 74,091,377</b>	<b>\$ 63,556,741</b>	<b>\$ 257,412,370</b>
Construction Inflation:	\$ 16,766,995	\$ 10,372,793	\$ 8,897,944	\$ 36,037,732
<b>Project Totals:</b>	<b>\$ 136,531,247</b>	<b>\$ 84,464,170</b>	<b>\$ 72,454,685</b>	<b>\$ 293,450,102</b>

(G)

*Sources of Financing*

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## *G) Sources of Financing*

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### **Making the Plan Affordable**

At the outset of the planning process, it was determined that a plan without a funding source is nothing more than a study. The District's planning team has devised a funding solution that keeps the monthly tax impact on the average Duluth home to \$9-12 per month.

After a lengthy and thoughtful discussion, the Board consciously elected to forgo a referendum to secure bonding and levying authority to fund the long-range facilities plan. Prior to making this decision, the Board received a detailed report from Dr. Bill Morris of Decision Resources that contained the results of a public opinion survey that his firm conducted. The survey results are statistically accurate within +/- 5.5%. The survey report can be found in the appendix. In summary, the results showed:

1. 78% of the public reports awareness of the long-range plan discussions
2. Residents and parents decisively favored the "Red Option"
3. By a very solid 69% - 24% margin, residents favor the District issuing bonds to finance the cost new construction and renovation
4. Nearly 8 of 10 residents report the lack of an election has very little impact on their support levels for issuing bonds
5. Regardless of the outcome, an election will delay the construction process. At today's rates of construction cost inflation, the project's cost increases at an amazing \$50,000 per day. Add to that the wasted operational dollars of \$15,000 per day and the total cost of the program increases at \$65,000 per day. A six month delay will cost the community an extra \$10 - \$15 million.

In lieu of bond referendum, the financing strategy for Duluth Public School District's long-range facilities plan will utilize the following Minnesota statutes: Alternative Facilities Bonding (123B.59), Lease Levy (126C.40, subdivision 6), and Lease Purchase (465.71).

Attachment A (Appendix) includes the District's Bond Counsel's opinion on the application of these statutes. Although the final financing package will be completed this fall pending the review and comment, the preliminary package is as follows:

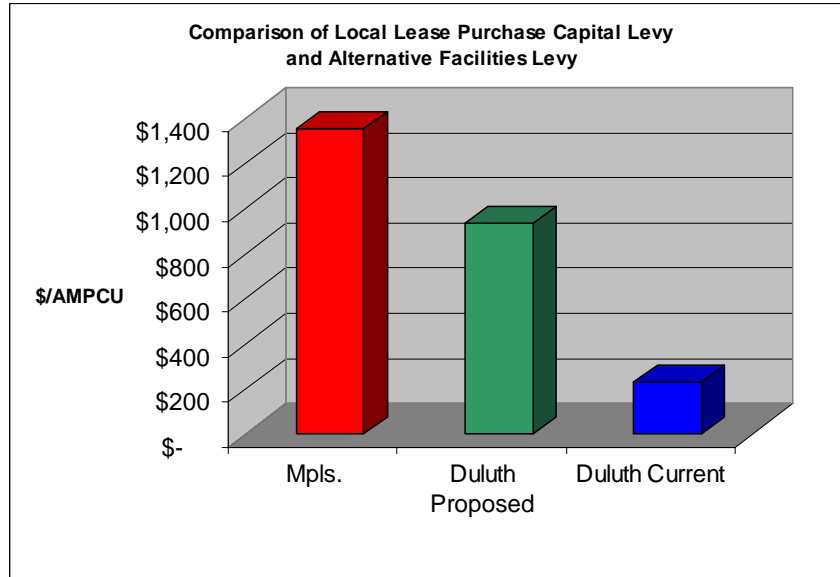
<b>Funding Source</b>	<b>Financing Method</b>	<b>Budget \$ Funded</b>
Lease Levy	20 yr. capital lease	\$136,531,246
Alternative Facilities Levy	20 yr. gen. obligation bonds	\$ 72,454,685
General Fund Savings	20 yr. capital lease	\$ 60,594,171
Property Disposition Proceeds	NA	\$ 23,370,000
Utility Rebates/Grants	NA	\$ 500,000
<b>Total</b>		<b>\$293,450,102</b>

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## G) Sources of Financing

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As one of three “Cities of the First Class,” Duluth Public School District has unique statutory authority. Use of the aforementioned statutes to fund a comprehensive facilities plan, including new building construction, is not unprecedented in Minnesota. Comparing Minneapolis Schools’ local lease purchase and alternative facilities levy amounts to those in Duluth, results in the following graph:



Even after implementation of the long-range facilities plan, Duluth Public School District’s tax burden from these programs will be far below that of Minneapolis Public Schools.

Furthermore, a comparison of cities with populations over 9,000 outside of the Twin Cities Metropolitan Area showed that Duluth’s school taxes as a percentage of average home market value ranked 33<sup>rd</sup> out of 35 communities. After applying the tax impact of the long-range facilities plan, Duluth will still be in the lower third of the same 35 communities.

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## *G) Sources of Financing*

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### **General Fund Savings**

Implementation of the plan will result in \$5.3M annual operational savings (see Section H). This preliminary funding plan has the District allocating 70% of these savings (\$3,720,745) towards funding the plan. The remaining savings can then be used to fund desegregation and educational programs.

The school board has not made a final decision on how much of the savings to allocate towards the plan. They understand this affects the tax impact to homeowners and will make a final decision in November pending the review & comment.

### **Disposition Proceeds**

Disposition proceeds from the sale of unused properties will also be used as a funding source for the plan. A Duluth real estate appraisal specialist was brought on to the planning team to develop realistic disposition values. The complete real estate market value report can be found on the District's website. The values outlined on the following chart were used in the financial plan:

**ISD #709 EXCESS PROPERTY VALUES**

<b>PROPERTY</b>	<b>Bldg. Sq. Ft. Area</b>	<b>Land (acre)</b>	<b>Disposition Value</b>
Ball Field (old Chester site)		3.09	\$170,000
Central High School (& upper STC)	247,205	76.84	\$10,000,000
Facilities Management Bldg.	23,390	0.48	\$500,000
Garfield Avenue building	33,356	1.35	\$800,000
Hartley Field property (unused)		29.61	\$800,000
Kensington Place property, Arrowhead Rd & Arlington Ave		26.51	\$600,000
Lincoln Park Elementary School	170,596	2.75	\$610,000
Morgan Park Middle School	130,871	9.99	\$465,000
Undeveloped Site		2.23	\$35,000
Nettleton Elementary School	90,024	3.34	\$480,000
Piedmont Elementary School	47,910	4.38	\$280,000
Rockridge Elementary School	30,671	13.03	\$1,780,000
Excess Land		5.46	\$150,000
Woodland Middle School	120,207	17.72	\$6,700,000
	894,230	331.22	\$23,370,000

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## *G) Sources of Financing*

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### **Financial Documents**

Following are the detailed schedule of payments and tax impact of the plan as calculated by Northland Securities.

The first spreadsheet, titled “Dollars Available for Construction,” outlines the preliminary funding package. The overall project cost of \$293,450,102 will be funded as follows:

- \$65,954,685 of net bond proceeds,
- \$6,500,000 of bond investment earnings,
- \$116,646,602 from lease levy,
- \$68,447,686 from an installment lease,
- \$12,031,129 from lease escrow earnings,
- \$23,370,000 in proceeds from divestiture of assets, and
- \$500,000 in utility rebates and grants.

The general obligation bonds are currently planned as a single issuance of \$67,095,000 sold in December of 2007. The capital lease associated with the lease levy (126c.40, subd 6) is currently planned for a December 2007 closing. The installment lease associated with the lease purchase (465.71) is currently planned for a December 2008 closing.

The annual property tax summary estimate sheet shows the annual tax impact on a \$125,000 Duluth home to be \$139.93, or \$11.66 per month.

Due to the extremely low amount of outstanding debt, Duluth Public School District will not qualify for any debt equalization as a result of this plan.

**DOLLARS AVAILABLE FOR CONSTRUCTION**

Est. Project	Available Construction Proceeds from Bond Issue	Anticipated Bond Investment Earnings	Lease Levy	Installment Lease	Anticipated Lease Escrow Earnings	Divesture of Assets	Rebates / Grants
293,450,102	65,954,685	6,500,000	116,646,602	68,447,686	12,031,129	23,370,000	500,000

**PROJECTED DOLLARS AVAILABLE FOR PAYMENTS**

	Existing Alt Fac	New Alt Fac	Total Alt Fac	126c.40 subd 6	General Fund	Total Lease	Alt Fac & Lease	
				Lease Levy	Installment Lease		Total Project	
1	FY 2009	1,696,912	1,408,247	3,105,159	5,675,000	3,720,745	9,395,745	12,500,904
2	FY 2010	1,798,727	1,519,981	3,318,708	6,015,500	3,877,549	9,893,049	13,211,757
3	FY 2011	1,906,650	1,610,657	3,517,308	6,376,430	4,040,961	10,417,391	13,934,699
4	FY 2012	2,021,049	1,706,476	3,727,525	6,759,016	4,211,261	10,970,276	14,697,801
5	FY 2013	2,142,312	1,811,023	3,953,335	7,164,557	4,388,737	11,553,293	15,506,628
6	FY 2014	2,270,851	1,917,624	4,188,475	7,594,430	4,573,692	12,168,122	16,356,597
7	FY 2015	2,407,102	2,034,753	4,441,855	8,050,096	4,766,442	12,816,538	17,258,393
8	FY 2016	2,551,528	2,155,402	4,706,930	8,533,102	4,967,315	13,500,417	18,207,347
9	FY 2017	2,704,620	2,286,838	4,991,458	9,045,088	5,176,654	14,221,742	19,213,199
10	FY 2018	2,866,897	2,422,380	5,289,278	9,587,793	5,394,814	14,982,608	20,271,885
11	FY 2019	3,038,911	2,568,542	5,607,453	10,163,061	5,622,169	15,785,230	21,392,682
12	FY 2020	3,221,246	2,723,574	5,944,820	10,772,844	5,859,105	16,631,950	22,576,770
13	FY 2021	3,414,520	2,889,590	6,304,110	11,419,215	6,106,027	17,525,242	23,829,352
14	FY 2022	3,619,392	3,058,368	6,677,760	12,104,368	6,363,354	18,467,722	25,145,482
15	FY 2023	3,836,555	3,246,820	7,083,375	12,830,630	6,631,527	19,462,157	26,545,532
16	FY 2024	4,066,748	3,440,802	7,507,550	13,600,468	6,911,000	20,511,468	28,019,018
17	FY 2025	4,310,753	3,646,517	7,957,270	14,416,496	7,202,252	21,618,748	29,576,018
18	FY 2026	4,569,398	3,862,792	8,432,190	15,281,486	7,505,778	22,787,264	31,219,454
19	FY 2027	4,843,562	4,097,245	8,940,808	16,198,375	7,822,096	24,020,470	32,961,278
20	FY 2028	5,134,176	4,343,539	9,477,715	17,170,277	8,151,744	25,322,021	34,799,736
		62,421,911	52,751,168	115,173,079	208,758,230	113,293,222	322,051,452	437,224,531

## ISD 709 - Duluth, Minnesota

General Obligation School Building Bonds, Series 2008A

\$67,095,000

PRELIMINARY - (08/08/07 rates plus 25 basis points)

## Sources & Uses

Dated 12/01/2007 | Delivered 12/01/2007

### Sources Of Funds

Par Amount of Bonds	\$67,095,000.00
Investment Earnings	6,500,000.00
<b>Total Sources</b>	<b>\$73,595,000.00</b>

### Uses Of Funds

Costs of Issuance	439,351.50
Gross Bond Insurance Premium ( 12.0 bp)	138,903.69
Deposit to Capitalized Interest (CIF) Fund	562,059.44
Deposit to Project Construction Fund	72,454,685.33
Rounding Amount	0.04
<b>Total Uses</b>	<b>\$73,595,000.00</b>

## ISD 709 - Duluth, Minnesota

General Obligation School Building Bonds, Series 2008A

\$67,095,000

PRELIMINARY - (08/08/07 rates plus 25 basis points)

### Net Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S
02/01/2008	-	-	-	-	-	-
02/01/2009	-	-	3,685,158.75	3,685,158.75	(580,000.00)	3,105,158.75
02/01/2010	160,000.00	4.000%	3,158,707.50	3,318,707.50	-	3,318,707.50
02/01/2011	365,000.00	4.050%	3,152,307.50	3,517,307.50	-	3,517,307.50
02/01/2012	590,000.00	4.100%	3,137,525.00	3,727,525.00	-	3,727,525.00
02/01/2013	840,000.00	4.150%	3,113,335.00	3,953,335.00	-	3,953,335.00
02/01/2014	1,110,000.00	4.200%	3,078,475.00	4,188,475.00	-	4,188,475.00
02/01/2015	1,410,000.00	4.250%	3,031,855.00	4,441,855.00	-	4,441,855.00
02/01/2016	1,735,000.00	4.350%	2,971,930.00	4,706,930.00	-	4,706,930.00
02/01/2017	2,095,000.00	4.400%	2,896,457.50	4,991,457.50	-	4,991,457.50
02/01/2018	2,485,000.00	4.500%	2,804,277.50	5,289,277.50	-	5,289,277.50
02/01/2019	2,915,000.00	4.550%	2,692,452.50	5,607,452.50	-	5,607,452.50
02/01/2020	3,385,000.00	4.600%	2,559,820.00	5,944,820.00	-	5,944,820.00
02/01/2021	3,900,000.00	4.650%	2,404,110.00	6,304,110.00	-	6,304,110.00
02/01/2022	4,455,000.00	4.700%	2,222,760.00	6,677,760.00	-	6,677,760.00
02/01/2023	5,070,000.00	4.750%	2,013,375.00	7,083,375.00	-	7,083,375.00
02/01/2024	5,735,000.00	4.800%	1,772,550.00	7,507,550.00	-	7,507,550.00
02/01/2025	6,460,000.00	4.800%	1,497,270.00	7,957,270.00	-	7,957,270.00
02/01/2026	7,245,000.00	4.850%	1,187,190.00	8,432,190.00	-	8,432,190.00
02/01/2027	8,105,000.00	4.850%	835,807.50	8,940,807.50	-	8,940,807.50
02/01/2028	9,035,000.00	4.900%	442,715.00	9,477,715.00	-	9,477,715.00
<b>Total</b>	<b>\$67,095,000.00</b>	<b>-</b>	<b>\$48,658,078.75</b>	<b>\$115,753,078.75</b>	<b>(580,000.00)</b>	<b>\$115,173,078.75</b>

Present Value of Options - Annual Compounding			
Enter Annual PV % (25 basis points above current)		5.1500000%	
Enter Starting Date		12/1/2007	
Date	Future Value	Present Value Factor	Present Value
12/1/07		1.000000000	0.00
12/1/08	5,675,000.00	0.9510223490	5,397,051.83
12/1/09	6,015,500.00	0.9044435083	5,440,679.92
12/1/10	6,376,430.00	0.8601459899	5,484,660.69
12/1/11	6,759,015.80	0.8180180598	5,528,996.99
12/1/12	7,164,556.75	0.7779534568	5,573,691.69
12/1/13	7,594,430.15	0.7398511239	5,618,747.68
12/1/14	8,050,095.96	0.7036149538	5,664,167.90
12/1/15	8,533,101.72	0.6691535461	5,709,955.28
12/1/16	9,045,087.82	0.6363799773	5,756,112.78
12/1/17	9,587,793.09	0.6052115809	5,802,643.41
12/1/18	10,163,060.68	0.5755697393	5,849,550.19
12/1/19	10,772,844.32	0.5473796855	5,896,836.14
12/1/20	11,419,214.98	0.5205703143	5,944,504.33
12/1/21	12,104,367.88	0.4950740032	5,992,557.86
12/1/22	12,830,629.95	0.4708264414	6,040,999.84
12/1/23	13,600,467.75	0.4477664683	6,089,833.41
12/1/24	14,416,495.81	0.4258359185	6,139,061.74
12/1/25	15,281,485.56	0.4049794755	6,188,688.01
12/1/26	16,198,374.69	0.3851445321	6,238,715.44
12/1/27	17,170,277.17	0.3662810576	6,289,147.28
<b>Totals</b>	208,758,230.08		116,646,602.41

Present Value of Options - Annual Compounding			
Enter Annual PV % (25 basis points above current)		5.1500000%	
Enter Starting Date		12/1/2008	
Date	Future Value	Present Value Factor	Present Value
12/1/08		1.0000000000	0.00
12/1/08	3,720,745.00	1.0000000000	3,720,745.00
12/1/09	3,877,549.11	0.9510223490	3,687,635.87
12/1/10	4,040,961.46	0.9044435083	3,654,821.36
12/1/11	4,211,260.52	0.8601459899	3,622,298.85
12/1/12	4,388,736.53	0.8180180598	3,590,065.74
12/1/13	4,573,691.94	0.7779534568	3,558,119.46
12/1/14	4,766,441.97	0.7398511239	3,526,457.45
12/1/15	4,967,315.11	0.7036149538	3,495,077.19
12/1/16	5,176,653.68	0.6691535461	3,463,976.17
12/1/17	5,394,814.45	0.6363799773	3,433,151.90
12/1/18	5,622,169.21	0.6052115809	3,402,601.92
12/1/19	5,859,105.44	0.5755697393	3,372,323.79
12/1/20	6,106,026.91	0.5473796855	3,342,315.09
12/1/21	6,363,354.45	0.5205703143	3,312,573.42
12/1/22	6,631,526.59	0.4950740032	3,283,096.41
12/1/23	6,911,000.36	0.4708264414	3,253,881.71
12/1/24	7,202,252.06	0.4477664683	3,224,926.97
12/1/25	7,505,778.03	0.4258359185	3,196,229.88
12/1/26	7,822,095.56	0.4049794755	3,167,788.16
12/1/27	8,151,743.73	0.3851445321	3,139,599.52
<b>Totals</b>	113,293,222.11		68,447,685.85

**ASSUMPTIONS**

NTC Growth 6.00%

**PROJECTED PAYMENTS AND ASSOCIATED TAX IMPLICATIONS**

Year of Borrowing Program	Levy Year	Payable Year	Fiscal Year	100% Estimated New Debt Payments	105% Over Levy on New Debt	100% Estimated New Lease Payments	NTC	Tax Rate on New Debt @ 105%	Tax Rate on New Lease
	2005	2006	2007		-		56,298,147.00		
	2006	2007	2008		-		60,286,216.00		
1	2007	2008	2009	1,408,246.75	1,478,659.09	5,675,000.00	63,903,388.96	2.31%	8.88%
2	2008	2009	2010	1,519,980.78	1,567,378.63	6,015,500.00	67,737,592.30	2.31%	8.88%
3	2009	2010	2011	1,610,657.18	1,661,421.35	6,376,430.00	71,801,847.84	2.31%	8.88%
4	2010	2011	2012	1,706,475.66	1,761,106.63	6,759,015.80	76,109,958.71	2.31%	8.88%
5	2011	2012	2013	1,811,022.70	1,866,773.03	7,164,556.75	80,676,556.23	2.31%	8.88%
6	2012	2013	2014	1,917,623.96	1,978,779.41	7,594,430.15	85,517,149.60	2.31%	8.88%
7	2013	2014	2015	2,034,752.90	2,097,506.18	8,050,095.96	90,648,178.58	2.31%	8.88%
8	2014	2015	2016	2,155,401.77	2,223,356.55	8,533,101.72	96,087,069.29	2.31%	8.88%
9	2015	2016	2017	2,286,837.58	2,356,757.94	9,045,087.82	101,852,293.45	2.31%	8.88%
10	2016	2017	2018	2,422,380.38	2,498,163.42	9,587,793.09	107,963,431.06	2.31%	8.88%
11	2017	2018	2019	2,568,541.55	2,648,053.22	10,163,060.68	114,441,236.92	2.31%	8.88%
12	2018	2019	2020	2,723,574.40	2,806,936.41	10,772,844.32	121,307,711.14	2.31%	8.88%
13	2019	2020	2021	2,889,589.66	2,975,352.60	11,419,214.98	128,586,173.80	2.31%	8.88%
14	2020	2021	2022	3,058,368.44	3,153,873.75	12,104,367.88	136,301,344.23	2.31%	8.88%
15	2021	2022	2023	3,246,819.95	3,343,106.18	12,830,629.95	144,479,424.89	2.31%	8.88%
16	2022	2023	2024	3,440,801.64	3,543,692.55	13,600,467.75	153,148,190.38	2.31%	8.88%
17	2023	2024	2025	3,646,516.74	3,756,314.10	14,416,495.81	162,337,081.80	2.31%	8.88%
18	2024	2025	2026	3,862,791.55	3,981,692.95	15,281,485.56	172,077,306.71	2.31%	8.88%
19	2025	2026	2027	4,097,245.14	4,220,594.53	16,198,374.69	182,401,945.11	2.31%	8.88%
20	2026	2027	2028	4,343,538.90	4,473,830.20	17,170,277.17	193,346,061.82	2.31%	8.88%
				<u>52,751,167.61</u>	<u>54,393,348.72</u>	<u>208,758,230.08</u>			

**Preliminary**

**ISD #709, DULUTH, MINNESOTA  
PLANNING INFORMATION  
Annual Property Tax Impact Summary Estimates**

Description:	GO School Building Bonds
Par Amount:	\$67,095,000
Term:	20
Est. NTC Rate Increase:	2.3139%

Description:	Lease
Amount:	\$116,646,602
Term:	20
Est. NTC Rate Increase:	8.8806%

Residential Homestead Property Value	Bond Tax		Total Tax Impact
	Impact (NTC) @ 105%	Lease Tax Impact (NTC)	
\$30,000	\$6.94	\$26.64	\$33.58
\$40,000	\$9.26	\$35.52	\$44.78
\$50,000	\$11.57	\$44.40	\$55.97
\$60,000	\$13.88	\$53.28	\$67.17
\$70,000	\$16.20	\$62.16	\$78.36
\$80,000	\$18.51	\$71.04	\$89.56
\$90,000	\$20.83	\$79.93	\$100.75
\$100,000	\$23.14	\$88.81	\$111.94
\$125,000	\$28.92	\$111.01	\$139.93
\$150,000	\$34.71	\$133.21	\$167.92
\$250,000	\$57.85	\$222.01	\$279.86
\$500,000	\$115.69	\$444.03	\$559.72

Commercial / Industrial Property Value	Bond Tax		Total Tax Impact
	Impact (NTC) @ 105%	Lease Tax Impact (NTC)	
\$30,000	\$10.41	\$39.96	\$50.38
\$40,000	\$13.88	\$53.28	\$67.17
\$50,000	\$17.35	\$66.60	\$83.96
\$60,000	\$20.83	\$79.93	\$100.75
\$70,000	\$24.30	\$93.25	\$117.54
\$80,000	\$27.77	\$106.57	\$134.33
\$90,000	\$31.24	\$119.89	\$151.13
\$100,000	\$34.71	\$133.21	\$167.92
\$125,000	\$43.39	\$166.51	\$209.90
\$150,000	\$52.06	\$199.81	\$251.88
\$250,000	\$98.34	\$377.43	\$475.77
\$500,000	\$214.04	\$821.45	\$1,035.49

Apartment Bldgs. (2 or more Reg Units) Property Value	Bond Tax		Total Tax Impact
	Impact (NTC) @ 105%	Lease Tax Impact (NTC)	
\$50,000	\$14.46	\$55.50	\$69.97
\$100,000	\$28.92	\$111.01	\$139.93
\$150,000	\$43.39	\$166.51	\$209.90
\$200,000	\$57.85	\$222.01	\$279.86
\$250,000	\$72.31	\$277.52	\$349.83
\$300,000	\$86.77	\$333.02	\$419.79
\$400,000	\$115.69	\$444.03	\$559.72
\$500,000	\$144.62	\$555.04	\$699.66

Seasonal / Recreational Property Value	Bond Tax		Total Tax Impact
	Impact (NTC) @ 105%	Lease Tax Impact (NTC)	
\$50,000	\$11.57	\$44.40	\$55.97
\$100,000	\$23.14	\$88.81	\$111.94
\$150,000	\$34.71	\$133.21	\$167.92
\$200,000	\$46.28	\$177.61	\$223.89
\$250,000	\$57.85	\$222.01	\$279.86
\$300,000	\$69.42	\$266.42	\$335.83
\$400,000	\$92.56	\$355.22	\$447.78
\$500,000	\$115.69	\$444.03	\$559.72

Homestead Agricultural Land						
Dwelling	100,000	Value Per Acre	1,700	Bond Tax		
Acres	Total EMV	RMV	NTC	Impact (NTC) @	Lease Tax	Total Tax
				105%	Impact (NTC)	Impact
40	\$168,000	\$101,700	\$1,382	\$31.97	\$122.70	\$154.67
80	\$236,000	\$101,700	\$1,756	\$40.62	\$155.91	\$196.54
160	\$372,000	\$101,700	\$2,504	\$57.93	\$222.34	\$280.27
320	\$644,000	\$101,700	\$4,000	\$92.55	\$355.19	\$447.74

Non-Homestead Agricultural Land						
Dwelling	0	Value Per Acre	1,700	Bond Tax		
Acres	Total EMV	RMV	NTC	Impact (NTC) @	Lease Tax	Total Tax
				105%	Impact (NTC)	Impact
40	\$68,000	\$1,700	\$680	\$15.73	\$60.39	\$76.12
80	\$136,000	\$1,700	\$1,360	\$31.47	\$120.78	\$152.25
160	\$272,000	\$1,700	\$2,720	\$62.94	\$241.55	\$304.49
320	\$544,000	\$1,700	\$5,440	\$125.88	\$483.10	\$608.98

**Debt Capacity**

*Debt Limit equals 15% of Actual Market Value of property in the School District*

2006 Market Value	5,742,595,373
Total Debt Limit	861,389,306
Less: Debt Outstanding	23,020,000
Net Debt Limit	838,369,306

**Debt Outstanding (as of 6/30/07)**

Debt Outstanding	Amount	Final Payment Date
Series 2000A		2/1/2016
Series 2001A		2/1/2014
Series 2001B		2/1/2016
Series 2003		2/1/2011
<b>Totals</b>	23,020,000	

**(H)**

***Operational Budget***

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## *H) Operational Budget*

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### Effects of Plan on Operating Budget

Implementation of the long-range facilities plan will result in an operating expenditure reduction. A net reduction of 500,000 sq. ft. of unnecessary space, replacing old buildings with new, efficient buildings and consolidating attendance zones to create larger schools will produce over \$5 million in annual savings as outlined in the following table:

<b>Facility Operation &amp; Maintenance</b>	<b><u>Annual Savings</u></b>
Utilities Reduction	\$ 833,753
Outside Purchased Facilities Products & Services	\$ 355,949
Buildings-Based Operations Labor	\$ 785,721
District-Based Maintenance Labor	\$ 105,000
Food Service	<u>\$ 243,935</u>
	<b>\$ 2,324,358</b>
<b>Educational Operations</b>	
Principal / Assistant Principal	\$ 868,000
Clerical	\$ 401,400
Counselors	\$ 560,000
Paras	\$ 228,000
Activities Directors	\$ 40,000
Coaches, Assistants, Intramurals	\$ 158,711
Activities	\$ 25,533
Elem. Choir, AV, Computer, Patrol	\$ 15,748
Playground Monitors	\$ 29,600
PE, Art, Media, and Music Specialists	\$ 400,000
Nurse Assistant	<u>\$ 264,000</u>
	<b>\$ 2,990,992</b>
<b>Total Annual Savings from Plan:</b>	<b>\$ 5,315,350</b>

These dollar amounts were developed by the administration and planning team using actual expenditure data. In the preliminary financing package, 70% of these savings are being allocated towards paying for the projects.

### Size of Schools is Important

It was determined during the planning process that elementary schools of at least three sections, middle schools of at least 1,000 students, and high schools of at least 1,400 students provided the critical mass to efficiently deliver full educational programs. While schools of this size are larger than what Duluth is accustomed, they are below the national and state averages for urban schools.

**(I)**

*Site Issues*

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## I) Site Issues

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### Site Size

All renovations and site work for this project will take place on sites the District either currently owns or is in the process of acquiring. A variety of situations will occur within the scope of this project, including existing sites remaining intact, existing sites expanded by the purchase of adjacent property, and the purchase of new sites for new facilities. The superintendent, school board, program manager and architectural firm will continue dialogue with city, county and state entities to address and resolve issues of school site road access, insuring the safety of students, staff, parents and patrons as they enter or depart from the District's facilities.

The City of Duluth Department of Public Works will be notified of potential construction vehicle activity for all sites during the course of the project.

Following is the best information currently available that depicts each site and their size as a result of this project:

- Congdon Park Elementary School (4.69 acres)
- Grant Elementary School (7.86 acres plus planned property acquisition)
- Homcroft Elementary School (6.69 acres)
- Lakewood Elementary School (16.91 acres)
- Laura MacArthur Elementary School (3.83 acres plus planned property acquisition)
- Lester Park Elementary School (2.85 acres plus planned property acquisition)
- Lincoln-Piedmont Elementary School (currently 5 sites being considered, sites ranging from 10 acres to 40 acres)
- Lowell Elementary School (19.94 acres)
- Stowe Elementary School (25.94 acres)
- East Middle School (12.71 acres)
- West Middle School (currently 6 sites being considered, sites ranging from 19 acres to 54 acres)
- Denfeld High School (13.15 acres plus planned property acquisition)
- Ordean High School (26.0 acres plus planned property acquisition)

When looking at the Minnesota Guide for Planning School Construction Projects, it is apparent that many of Duluth's sites are undersized. Many site issues were identified during the Educational Adequacy Report regarding bus drop-off safety, etc. Many of these issues existed in the schools that are now listed as surplus properties (e.g. Nettleton, etc). Denfeld High School and the Lester Park and Laura Mac sites have planned property acquisitions to aid in additional parking and transportation needs.

The following paragraph is from the same section in the Minnesota Guide for Planning School Construction Projects:

Selecting a new school site is different than assessing an existing school site in an existing neighborhood, where school site issues may already exist. Selecting a new school site in a suburban or inner-city setting is different than selecting a site in a rural setting because of unique local issues that may impact school site possibilities and the final decision.

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## I) Site Issues

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The following paragraph that specifically references Duluth:

**Special local circumstances such as the unusually high cost of available land and the lack of suitable sites may preclude school districts from meeting the above site size guidelines. For example, in an urban or other unique setting (Minneapolis, St. Paul, Duluth, Rochester, Winona, etc.) the lack of available land and suitable school sites may necessitate a multi-story school on fewer acres, while sharing other spaces (e.g. playground, athletic) with other public agencies or private owners.**

Every effort will be made to maximize the size of sites used in the plan. Nearly \$9 million dollars is planned for additional land acquisition.

### **Transportation Officials Meetings**

The District and its professionals formally met with the City of Duluth Planning Department four times throughout the planning process to review existing school sites, potential new school sites and to discuss property acquisition around those schools where parking or safety issues exist. The City has committed to working closely with the project teams as we begin the schematic design phase to ensure all traffic concerns are addressed.

On May 22<sup>nd</sup>, the District and its professionals met with the Minnesota Department of Transportation, SEH Architects and Engineers, City of Duluth Planning and Duluth Community Police regarding reprogramming the Ordean Site to a high school. The group stated that they didn't see it as a major impact on traffic congestion, but felt it was important for the entire group to continue to work together (City, State, DOT and consultants) to make the site work with the community. It was suggested that we get together once the project is approved to develop a traffic study to assist in site planning.

It was agreed that this is a great opportunity for city, state and District to work together for improvement of our community. Most importantly, all those in attendance felt the site would be workable as a high school. One community member suggested a second road entrance to the Ordean site to assist in keeping traffic away from the community and to help keep cars out of the neighborhoods. This second access plan has been discussed with City Planning, and will continue to be explored during the design phase. The Ordean site is twice as large as two of the existing high school sites that have been in existence for many years. One of the reasons the professionals recommended East High School as the Eastern Middle School and the Ordean site as the Eastern High School, is the limited parking and expansion challenges at the East site.

**(J)**

***IAQ Insurance***

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## J) IAQ Liability Insurance

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### Indoor Air Quality & Engineer Liability Insurance

The Plan prepared by the District's program manager (Johnson Controls Inc.), included an analysis of the District's existing mechanical systems. Alternatives were weighed and recommendations tendered to the school board and superintendent.

As experienced school systems design engineers, Johnson Controls has developed a standard for building systems which addresses the growing concerns regarding indoor air quality. Proposed solutions include centralized air systems that can be easily operated and maintained to provide adequate air changes throughout the facility. These systems are fully ducted (supply and return) with outdoor intakes located away from any contamination sources. Proper piping and ductwork insulation will be specified to prevent condensation.

All new systems will be designed to meet current ventilation codes as well as other applicable codes and ASHRAE standards. Monitoring of outdoor air and total airflow will be included in the scope of the building automation system. The commissioning work proposed for these projects include the state-required mechanical system operational verification.

Interior paints and adhesives will be specified as low volatile organic compound (VOC)-emitting, and an adequate "bake-out" time will be allotted in the construction phasing to allow for off-gassing prior to occupancy.

The project architects will design the building shell with proper use of vapor barriers. Special care will be given to wall cavity, low wall/high wall intersections, roof/wall intersections, roof flashing and window/wall flashing details to prevent moisture intrusion.

Care will be taken during construction to keep dust and debris out of ductwork and untouched adjacent spaces. A clean-to-dirty air flow transfer will be maintained. Building materials will be kept dry during construction to prevent growth of fungi and bacteria.

All engineers and architects hired by the District for these projects will be required to maintain professional liability insurance in the amount of \$1,000,000 and have significant experience in preventing indoor air quality issues in Minnesota school facilities.

Signature Certification:



MN# 25760

**(K)**

***ASHRAE Standards***

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## *K) HVAC Certification*

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### **Written Certification Signed by the Engineer**

The District's engineering firm, Johnson Controls Inc., as required under Minnesota Statute 123B.72 (2001), hereby certifies all HVAC improvements will meet or exceed code standards. All necessary certifications will be submitted along with proper commissioning documentation that the HVAC systems meet mechanical code standards, airflow monitoring requirements and filtration guidelines as addressed in Minnesota Statute 123B.71 and 123B.72.

Signature Certification:



MN# 25760

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**(L)**

*Desegregation*

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## L) Desegregation

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### Summary

The Duluth Public School District has invested considerable human and financial resources into its desegregation/integration program. The District receives ongoing counsel and advice from its Desegregation/Integration Advisory Council (DIAC) which is comprised of leadership from local African American, American Indian, Hispanic and Asian American communities along with District and school staff. The DIAC helped develop the District's Comprehensive Desegregation/Integration Program, its Desegregation/Integration Plan and the goals that align the District's desegregation programs with Minnesota Rule 3535.

The centerpiece of the District's Desegregation/Integration Plan strives to encourage maximum participation from community members representing the diversity within the District. Its philosophy, mission statement and goals direct the course of action relative to desegregation/integration efforts, and establish guidelines for the allocation of desegregation revenues.

The District's Desegregation/Integration Comprehensive Program features voluntary magnet schools; African American, American Indian, Hispanic and Asian American Cultural Resource Centers; recruitment and retention programs for staff of color, student transitional programs and administrative support for all desegregation program areas.

The DIAC has been extensively involved throughout the long-range facilities planning process. Duluth's Race, Culture and Achievement Gap Group organized meetings in the Central Hillside and Lincoln Park communities to provide input and feedback to the planning process. There were also meetings with Duluth's Indian Commission and the Indian Education Parent Advisory Committee regarding the planning process.

By engaging the community in our process, we learned that newer and, in some cases, larger facilities are needed to effectively and efficiently advance Duluth's desegregation/integration program. Consolidating schools like Lincoln Park and Piedmont into a new school will positively impact our desegregation/integration program. Similarly, remodeling and expanding Grant Elementary so that it is on par with Lowell Elementary will improve our capture rate at the Grant site. Across the District, there are numerous examples of how the long-range facilities plan will help us make some great strides towards our desegregation goals and objectives.

However, we have also listened to and learned from the community that a facility plan alone cannot solve all desegregation issues. With this in mind, in addition to implementation of the long-range facilities plan, through continued conversations with the community we will gather significant input on how we can achieve our desegregation goals and objectives through programming and other means. To signify their commitment to this important issue, as part of the adoption of the Plan, the school board included the following language in their long-range facilities plan resolution:

*"The Board is committed through establishment of attendance boundaries and school populations, transportation or other means combined with school-specific programming to creating a positive school culture in each of our schools and addressing the ongoing need to reduce the achievement gap among underprivileged groups."*

Finally, the long-range facilities plan will provide District-wide efficiencies, resulting in more dollars to designate towards programming to support efforts to reduce and ultimately close the achievement gap.

## *L) Desegregation*

### **Present Minnesota Rule 3535 & Elementary School Capture Rate**

The District currently has three schools (Nettleton, Grant and Lincoln Elementary) that do not meet Minnesota Rule 3535. Use of magnet schools has been a District-wide modification utilized over the years to further work towards these standards. There are examples where the magnet approach is working, and examples where Caucasian students are leaving the attendance area for various reasons. For example, at Grant Elementary, many students leave for Lowell Elementary—a much newer elementary school. Grant needs to be expanded and remodeled to compete. As part of the long-range facilities plan, the ‘capture rate’ (defined by the students that reside in an attendance area and are enrolled in that school) of each elementary school was determined to assist in planning. ‘Capture rates’ by school are as follows:

<b>School</b>	<b>Attend</b>	<b>Reside</b>	<b>Capture %</b>
<b>Lakewood</b>	256	288	89%
<b>Stowe</b>	344	402	86%
<b>Lester/Rockridge</b>	451	528	85%
<b>Piedmont</b>	126	148	85%
<b>Congdon Park</b>	388	495	78%
<b>Laura MacArthur</b>	377	490	77%
<b>Homecroft</b>	322	422	76%
<b>Lowell</b>	260	353	74%
<b>Lincoln Park</b>	208	303	69%
<b>Nettleton</b>	146	249	59%
<b>Grant Magnet</b>	116	253	46%

The District believes that improving the quality of existing facilities to like-new and the addition of new facilities will positively impact the future capture rate of all buildings. Parents indicated that they wanted safe, comfortable and aesthetically-pleasing learning environments for their children. The District is keenly aware that students perform up to 11% better on achievement tests in high performance learning environments.

### **Elementary Schools & Boundaries**

The long-range facilities plan helps the District meet the Desegregation Standards. Specifically, the new Piedmont/Lincoln Park School is a significant improvement for the District in terms of desegregation. In fact, after implementation of the long-range facilities plan, there will only be one school not meeting Minnesota’s Rule 3535 – Grant-Nettleton. However, this new school, as shown below, will still be making progress towards desegregation guidelines.

#### *BEFORE*

Building	Stowe	Laura Mac	Lincoln Park	Piedmont	Nettleton	Grant	Lowell	Congdon	Homecroft	Lester Park	Rockridge	Lakewood
Oct. 1 2006 Enrollment	378	474	210	198	359	240	524	513	349	328	171	297
# of Students of Color	29	69	79	15	175	132	81	53	12	10	11	6
## Students of Color	8%	15%	38%	8%	49%	55%	15%	10%	3%	3%	6%	2%



# L) Desegregation

AFTER

Building	Stowe	New Laura Mac	New Lincoln/ Piedmont	Grant/ Nettleton	Lowell	Congdon	Homecroft	New Lester/ Rockridge	Lakewood
# of Students within Boundary	402	490	444	465	396	495	422	492	325
# of Students of Color	45	86	120	214	57	73	19	29	11
% Students of Color	11%	18%	27%	46%	14%	15%	5%	6%	3%

It is important to note that the three highest students of color elementary schools (Grant-Nettleton, Lincoln-Piedmont and Laura MacArthur) are getting significant investment from the community as a result of the plan.

During implementation of the long-range facilities plan, the District will continue to work with a group of Grant-Nettleton parents and others in the community who have identified some proactive solutions to social-economic challenges that may further enhance the overall plan.

With respect to the establishment of new elementary boundaries, several factors were considered: keeping neighborhoods together, attempts to minimize major boundary changes for parents, balance enrollment levels to allow for equitable programming, keeping schools where the children are, minimize district and parent transportation costs and distances. Proposed boundaries for the elementary schools resulted in minor modifications to existing boundaries as shown in the boundary maps below:

**Existing Elementary Boundaries**

**Proposed Elementary Boundaries**



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## L) Desegregation

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### Secondary Schools & Boundaries

The following tables describe the District's current enrollment and students of color distribution by high school and middle school

MS Students – Using Current Enrollment #s				
Building	Morgan	Lincoln	Woodland	Ordean
Oct. 1, 2006 Enrollment	453	237	676	735
# of Students of Color	50	68	114	53
% Students of Color	11%	29%	17%	7%

HS Students – Using Current Enrollment #s			
Building	Denfeld	Central	East
Oct. 1, 2006 Enrollment	1,140	1,052	1,314
# of Students of Color	138	170	83
% Students of Color	12%	16%	6%

Several proposed boundaries for the high school/middle school split have been presented to the Board for consideration. The preliminary proposed boundary modification which, essentially, splits the District down the middle, is shown below.



This boundary improves the District's desegregation percentages over the current District configuration; however, we believe that it can be even better. Furthermore, the high school/middle school-specific boundary modifications will not go into effect until high school and middle school construction is complete. The earliest this could occur is fall of 2010. As such, this boundary modification has not been finalized by the Board.

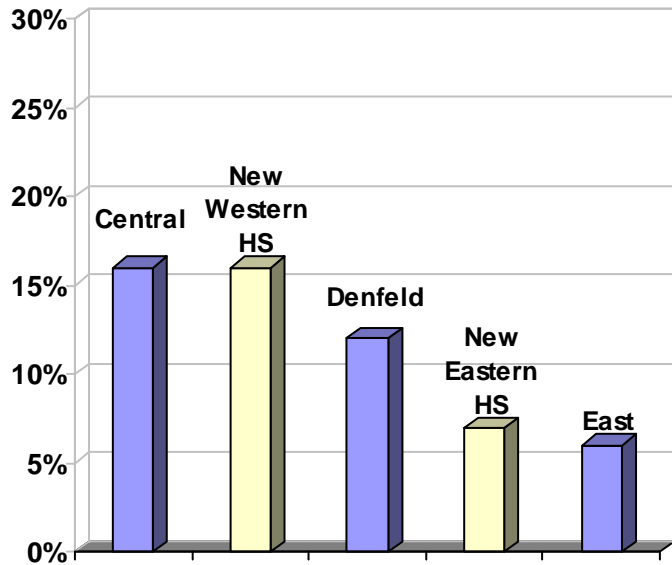
## L) Desegregation

The following tables illustrate the District’s current enrollment and students of color distribution by high school and middle school with the preliminary boundary changes (as shown above):

<b>MS Students – Proposed Boundary</b>		
<b>Building</b>	Western	Eastern
<b># of Students within Boundary</b>	1062	1092
<b># of Students of Color</b>	208	82
<b>% of Students of Color</b>	20%	8%

<b>HS Students – Proposed Boundary</b>		
<b>Building</b>	Western	Eastern
<b># of Students within Boundary</b>	1,671	1,746
<b># of Students of Color</b>	272	120
<b>% of Students of Color</b>	16%	7%

The chart on the right illustrates the percentage of students of color compared to the total students at each high school – presently and preliminarily proposed. The Plan does not significantly alter the percentage for the new Western High School compared to the existing Central High School; however, the new Eastern High School will be more diverse than the existing East High School (students of color increase from 83 to 120 – a 45% improvement).



We will continue meaningful conversations with our community in hopes of finding a final boundary that even further improves our desegregation percentages while providing better learning opportunities for all of Duluth’s children. Additionally, we have learned that the precise boundary locations should be determined in concert with programming changes.

During the coming year, the District will also engage the community in a series of programming discussions. Then based on community input, the Board will attempt to finalize the precise locations of the middle / high school boundaries. In addition to programming and further desegregation, sincere attempts will be made to balance other key considerations, such as:

- The unique geographical layout and size of the District
- The geographical distance/time for student/parents to their schools & transportation costs
- Equitable-sized enrollments to allow for equitable curriculum across District

Regardless, the precise locations of the middle school / high school boundaries will not have a material impact on the building plans for the middle school or high school facilities.



**(M)**

*Sustainable Design*

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## *M) Sustainable Design*

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### **Building Green**

Both the District and community believe in doing what they can to reduce environmental impact (footprint) through sustainable design. This includes new construction as well as modifications to existing facilities. For this project, the design team will be guided by programs developed by the U.S. Green Building Council (USGBC), in particular the “LEED for Schools” Rating System.

The LEED for Schools Rating System recognizes the unique nature of the design and construction of K-12 schools. The LEED for Schools Rating System emphasizes:

- classroom acoustics
- master planning
- indoor air quality
- mold prevention
- energy efficiency
- water conservation

By addressing the uniqueness of school spaces and children’s health issues, LEED provides a unique, comprehensive tool for schools that wish to build green with measurable results. LEED is the recognized third-party standard for high performance schools that is healthy for students, comfortable for teachers and cost effective.

LEED gives parents, teachers and the community a “report card” for their school buildings by verifying that schools are built healthy, efficient and comfortable. Students will learn better, teachers will be more satisfied and schools will run more efficiently.

LEED is accompanied by a full suite of support resources, including a comprehensive LEED Reference Guide and workshops focused on school construction. LEED gives school administrators, school boards, community leaders, teachers, professors and parents the tools to have an immediate and measurable impact on the health of their children, the health of their educational system and the health of the environment.

The USGBC LEED for Schools Rating System is provided on the following two pages.

# M) Sustainable Design

Yes ? No **Sustainable Sites** 16 Points

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1	<b>Construction Activity Pollution Prevention</b>	Required
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 2	<b>Environmental Site Assessment</b>	Required
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 1	<b>Site Selection</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 2	<b>Development Density &amp; Community Connectivity</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 3	<b>Brownfield Redevelopment</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 4.1	<b>Alternative Transportation, Public Transportation Access</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 4.2	<b>Alternative Transportation, Bicycle Use</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 4.3	<b>Alternative Transportation, Low-Emitting &amp; Fuel-Efficient Vehicles</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 4.4	<b>Alternative Transportation, Parking Capacity</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 5.1	<b>Site Development, Protect or Restore Habitat</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 5.2	<b>Site Development, Maximize Open Space</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 6.1	<b>Stormwater Design, Quantity Control</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 6.2	<b>Stormwater Design, Quality Control</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 7.1	<b>Heat Island Effect, Non-Roof</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 7.2	<b>Heat Island Effect, Roof</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 8	<b>Light Pollution Reduction</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 9	<b>Site Master Plan</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 10	<b>Joint Use of Facilities</b>	1

Yes ? No **Water Efficiency** 7 Points

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 1.1	<b>Water Efficient Landscaping, Reduce by 50%</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 1.2	<b>Water Efficient Landscaping, No Potable Use or No Irrigation</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 2	<b>Innovative Wastewater Technologies</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 3.1	<b>Water Use Reduction, 20% Reduction</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 3.2	<b>Water Use Reduction, 30% Reduction</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 3.3	<b>Water Use Reduction, 40% Reduction</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 4	<b>Process Water Use Reduction</b>	1

**Energy & Atmosphere** 17 Points

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1	<b>Fundamental Commissioning of the Building Energy Systems</b>	Required
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 2	<b>Minimum Energy Performance</b>	Required
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 3	<b>Fundamental Refrigerant Management</b>	Required
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 1	<b>Optimize Energy Performance (2 pt minimum)</b>	1 to 10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		10.5% New Buildings or 3.5% Existing Building Renovations	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		14% New Buildings or 7% Existing Building Renovations	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		17.5% New Buildings or 10.5% Existing Building Renovations	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		21% New Buildings or 14% Existing Building Renovations	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24.5% New Buildings or 17.5% Existing Building Renovations	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		28% New Buildings or 21% Existing Building Renovations	6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		31.5% New Buildings or 24.5% Existing Building Renovations	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		35% New Buildings or 28% Existing Building Renovations	8
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		38.5% New Buildings or 31.5% Existing Building Renovations	9
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		42% New Buildings or 35% Existing Building Renovations	10
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 2	<b>On-Site Renewable Energy</b>	1 to 3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2.5% Renewable Energy	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7.5% Renewable Energy	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		12.5% Renewable Energy	3
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 3	<b>Enhanced Commissioning</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 4	<b>Enhanced Refrigerant Management</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 5	<b>Measurement &amp; Verification</b>	1
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Credit 6	<b>Green Power</b>	1

continued...



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# M) Sustainable Design

Yes ? No **Materials & Resources** **13 Points**

<b>Y</b>	Prereq 1	<b>Storage &amp; Collection of Recyclables</b>	Required
	Credit 1.1	<b>Building Reuse</b> , Maintain 75% of Existing Walls, Floors & Roof	1
	Credit 1.2	<b>Building Reuse</b> , Maintain 100% of Existing Walls, Floors & Roof	1
	Credit 1.3	<b>Building Reuse</b> , Maintain 50% of Interior Non-Structural Elements	1
	Credit 2.1	<b>Construction Waste Management</b> , Divert 50% from Disposal	1
	Credit 2.2	<b>Construction Waste Management</b> , Divert 75% from Disposal	1
	Credit 3.1	<b>Materials Reuse</b> , 5%	1
	Credit 3.2	<b>Materials Reuse</b> , 10%	1
	Credit 4.1	<b>Recycled Content</b> , 10% (post-consumer + ½ pre-consumer)	1
	Credit 4.2	<b>Recycled Content</b> , 20% (post-consumer + ½ pre-consumer)	1
	Credit 5.1	<b>Regional Materials</b> , 10% Extracted, Processed & Manufactured Regiona	1
	Credit 5.2	<b>Regional Materials</b> , 20% Extracted, Processed & Manufactured Regiona	1
	Credit 6	<b>Rapidly Renewable Materials</b>	1
	Credit 7	<b>Certified Wood</b>	1

Yes ? No **Indoor Environmental Quality** **20 Points**

<b>Y</b>	Prereq 1	<b>Minimum IAQ Performance</b>	Required
<b>Y</b>	Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>	Required
<b>Y</b>	Prereq 3	<b>Minimum Acoustical Performance</b>	Required
	Credit 1	<b>Outdoor Air Delivery Monitoring</b>	1
	Credit 2	<b>Increased Ventilation</b>	1
	Credit 3.1	<b>Construction IAQ Management Plan</b> , During Construction	1
	Credit 3.2	<b>Construction IAQ Management Plan</b> , Before Occupancy	1
	Credit 4	<b>Low-Emitting Materials</b>	1 to 4
	Credit 5	<b>Indoor Chemical &amp; Pollutant Source Control</b>	1
	Credit 6.1	<b>Controllability of Systems</b> , Lighting	1
	Credit 6.2	<b>Controllability of Systems</b> , Thermal Comfort	1
	Credit 7.1	<b>Thermal Comfort</b> , Design	1
	Credit 7.2	<b>Thermal Comfort</b> , Verification	1
	Credit 8.1	<b>Daylight &amp; Views, Daylighting</b>	1 to 3
		<input type="checkbox"/> 75% of classrooms ( <i>required for either points below</i> )	1
		<input type="checkbox"/> 90% of classrooms	2
		<input type="checkbox"/> 75% of other spaces	3
	Credit 8.2	<b>Daylight &amp; Views</b> , Views for 90% of Spaces	1
	Credit 9	<b>Enhanced Acoustical Performance</b>	1 to 2
	Credit 10	<b>Mold Prevention</b>	1

Yes ? No **Innovation & Design Process** **6 Points**

	Credit 1.1	<b>Innovation in Design</b> : Provide Specific Title	1
	Credit 1.2	<b>Innovation in Design</b> : Provide Specific Title	1
	Credit 1.3	<b>Innovation in Design</b> : Provide Specific Title	1
	Credit 1.4	<b>Innovation in Design</b> : Provide Specific Title	1
	Credit 2	<b>LEED® Accredited Professional</b>	1
	Credit 3	<b>School As A Teaching Tool</b>	1

Yes ? No **Project Totals (pre-certification estimates)** **79 Points**  
**Certified:** 29-36 points, **Silver:** 37-43 points, **Gold:** 44-57 points, **Platinum:** 58-79 point

Doing the right things... for the right reasons... the right way!



**(N)**

***Background Noise***

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# *N) Acoustical Performance*

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## **Introduction**

Excessive noise and reverberation interfere with speech intelligibility, resulting in reduced understanding and reduced learning. Studies identify that many classrooms foster poor speech intelligibility. It is estimated that many classrooms have a speech intelligibility of 75% or less. This means that only 75% of the words read from a list can be understood by normal-hearing listeners in a classroom. The mission of these guidelines is to create more productive learning environments by creating spaces with improved acoustical quality. It is believed that when this is accomplished, a direct impact on learning outcomes will be made.

The purpose of these guidelines is to provide the construction and renovation design team with reasonable acoustic performance standards, and to help identify potential noise problems and solutions. These guidelines are a reference for architects, engineers and facility planners to use in the design of new school buildings and renovation of existing facilities. They should be used as an aid in understanding desirable acoustical conditions in classrooms. They do not replace the services or responsibilities of the design team or an acoustical consultant. The focus of these guidelines is on classrooms and other teaching spaces. They do not address the special design criteria for performance spaces such as music rooms and auditoriums. Professional acoustical consultants need to be involved with the development of these spaces.

The following Acoustical Design Guidelines outline performance standards to be implemented to provide improved acoustical quality in new school and major renovation projects. The guidelines are separated into three sections: 1) Environmental Noise, 2) Architectural Systems and 3) Mechanical Systems. In order to obtain the goal of improved acoustical quality, all three should be considered together in the planning and design phase. Each component can have a direct impact on or relationship to the other.

## **Section 1: Environmental Noise**

The location for new school sites and additions to existing facilities should be evaluated to determine whether interior performance standards can be accomplished and at what dollar cost. These factors should be considered prior to final selection of a proposed site.

### **Environmental Performance Standards**

- Noise from any source at the proposed property for a new school or an addition to an existing school should not exceed an average of *60 dBA* ( $L_{50}$ ) of *65 dBA* ( $L_{10}$ ) during the time of day the school is in session.

Environmental noise monitoring should be completed to determine site suitability. Sites exceeding these standards are acceptable if a sound reduction plan is submitted and approved.

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# N) Acoustical Performance

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## **Section 2: Architectural Systems**

Architectural systems should be designed to provide improved acoustical quality. In order to accomplish this, considerations for speech intelligibility, reverberation time, sound transmission and impact isolation need to be incorporated into the design. By focusing design criteria on controlling reverberation time and sound transmission, speech intelligibility of approximately 90% can be achieved. Numerous design techniques can be used to accomplish this, including the location of teaching spaces, the size and shape of the room, building surfaces, etc. Noise Criterion (NC) will also have an impact on speech intelligibility, and will be addressed in Section 3 of these guidelines.

The reverberation time of a room is defined as the time it takes for sound to decay by 60 dB once the source has stopped. Reverberation is caused by sounds reflecting off hard surfaces. The cumulative result of many strong reflections is long reverberations times. Reverberation masks the sound of the spoken message and increases background sound levels. The longer the reverberation time, the greater the impact on speech intelligibility.

Sound is transmitted between rooms through several paths including walls, floors, ceilings, doors, plenums, chases, mechanical penetrations and ductwork. Architectural systems should be designed to minimize the transmission of sound. The amount of sound transmitted through a building component is dependent on the Sound Transmission Class (STC) of the building component. It is also dependent upon the area of the component, the quality of construction and the acoustical characteristics of the receiving room. STC is a laboratory rating of the amount of sound isolation provided by a building component.

### **Architectural Performance Standards**

- Architectural systems would be designed and constructed to achieve the following reverberation times (RT) in an unfurnished and unoccupied room:

<b>Space Type</b>	<b>RT</b>
Classrooms/Teaching Spaces	<= 0.6 Seconds
Media Center	<= 0.6 Seconds
Industrial Arts	<= 1.0 Seconds
Cafeteria	<= 1.0 Seconds
Commons/Non-Teaching	<= 1.0 Seconds
Corridors	<= 1.0 Seconds
Private Offices	<= 0.6 Seconds
Open Offices	<= 0.6 Seconds
Conference room	<= 0.6 Seconds
Gymnasium	1.2 thru 1.6 Seconds

The RT requirements identified in this document refer to the RT60 at the octave band centered at 500 Hz. The RT in the octave band centered at 125 Hz shall be no more than 1.7 times the RT at 500 Hz, and the RT in the octave band centered at 4000 Hz shall be no more than 0.8 times the RT at 500 Hz.

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## *N) Acoustical Performance*

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- Architectural systems should be designed and constructed to provide a Field Sound Transmission Class (FSTC) of 45 in teaching spaces. Sound isolation values for teaching space walls should be designed at an STC 50.

### **Section 3: Mechanical Systems**

Mechanical systems should be designed to provide improved acoustic quality. High ambient noise from mechanical equipment can be disruptive to the learning environment and decrease speech intelligibility. Noise Criterion (NC) is a rating system for the quietness of a room, and is typically associated with HVAC noise; however, it also includes all ambient noise present in a room when it is measured. Minimizing the NC rating of mechanical systems in teaching spaces will contribute to improved speech intelligibility.

#### **Mechanical Performance Standards**

Mechanical Systems are to be designed and constructed to achieve the following maximum Noise Criterion (NC):

<b>Space Type</b>	<b>NC</b>
Classrooms/Teaching Spaces	30
Media Center	30
Industrial Arts	35
Cafeteria	30
Commons/Non-Teaching	35
Corridors	35
Private Offices	30
Open Offices	35
Conference room	30
Gymnasium	35

Note: Field evaluation of NC values can be measured by using a sound level meter. The NC rating is approximately 6 dBA less than the measured decibel level using an “A” – weighted scale.

# *Appendix*

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Fryberger, Buchanan, Smith & Frederick, P.A.



# MEMO

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To: Independent School District No. 709

From: Robert E. Tofey

Subject: Options for Financing Long-Range Facilities Plan

Date: June 6, 2007

Minnesota Statutes Chapter 475 provides the general rules for municipalities, including school districts, to incur debt. Section 475.58 provides that obligations of a municipality may be issued upon obtaining the approval of a majority of electors voting on the question of issuing the obligations, but such a bond referendum is not required for nine specific reasons, including "(6) under the provisions of a law which permits the issuance of obligations of a municipality without an election..."

The following are several options to finance portions of the Long-Range Facilities Plan by Independent School District No. 709, which do not require a bond referendum:

1. **Minnesota Statute Section 126C.40, Subdivision 6 – Installment Contracts and Lease Purchase Agreements**

- (a) Type of Obligation. Installment contract or lease purchase agreement (may sell certificates of participation). Upon payment of the contract or agreement the District would own the financed facilities without additional payments.
- (b) Eligibility Requirements. (1) A district, for purposes of this statute, means a school district required to have a comprehensive plan for the elimination of segregation, determined to be in compliance by the Commissioner of Education (the "Commissioner"). (2) Application to and approval by the Commissioner in accordance with the procedures and limits in Section 126C.40 subd. 1 (a) and (b).

Subpart (a), referred to above, provides that when a district finds that it is economically advantageous to rent or lease a building for any instructional purposes and it determines that the operating capital revenue authorized under Section 126C.10, subd. 13, is insufficient for this purpose, it may apply to the Commissioner to make an additional capital expenditure levy for this purpose.

Subpart (b), referred to above, sets out the criteria for approval of the application to the Commissioner. The criteria includes reasonableness of the price, feasibility

of transporting students, appropriateness of space needs and the financial condition of the district.

- (c) Projects Eligible to be Financed. Real and personal property for instructional purposes.
- (d) Sources of Revenue to Pay Debt Service. The installment contract or lease purchase agreement payments are payable from a capital levy under Section 126C.40; such levy is not subject to annual appropriation.
- (e) Procedural Requirements. Application to and approval by the Commissioner for authority to enter into a lease purchase agreement or installment contract and a capital levy to provide for payments under such agreement.
- (f) Other Limitations. Proceeds may not be used to acquire a facility to be primarily used for athletic or school administration purposes.

## 2. **Minnesota Statute Section 123B.59-Alternative Facilities Bonding**

- (a) Type of Obligation. General obligation bonds.
- (b) Eligibility Requirements. A district qualifies to participate in alternative facilities bonding and levy program if the district has: (1) more than 66 students per grade; (2) over 1,850,000 square feet of space and the average age of building space is 15 years or older, or over 1,500,000 square feet of space and the average age of building space is 35 years or older; (3) insufficient funds from projected health and safety revenue and capital facilities revenue to meet the requirements for deferred maintenance, to make accessibility improvements, or to make fire, safety or health repairs; and (4) a 10-year facilities plan approved by the Commissioner.
- (c) Projects Eligible to be Financed. Projects eligible to be financed for (1) health and safety revenue; (2) disabled access levy; and (3) deferred capital expenditures and maintenance projects necessary to prevent further erosion of facilities. Project to be financed must be included in the facilities plan
- (d) Source of Revenue to Pay Debt Service. Principal and interest on the bonds are payable from a debt service levy under Section 475.61.
- (e) Procedural Approvals. (1) Approval of a 10-year facilities plan by the Commissioner; (2) at least 20 days before the earliest of solicitation of bids, the issuance of the bonds, or final certification of levies under Section 123B.59, subd. 5 (the debt service levy), the district must publish notice of the intended projects, the amount of the bond issue, the total amount of district indebtedness and the Commissioner's review and comments, if applicable.
- (f) Other Limitations. The alternatives facilities aid will be reduced by the amount of the debt service levy to pay principal and interest on the alternative facilities bonds.

**3. Minnesota Statute Section 123B.61 – General Obligation Certificates of Indebtedness or Capital Notes**

- (a) Type of Obligation. General obligation certificates of indebtedness or capital notes.
- (b) Eligibility Requirements. This statute may be used by any school district.
- (c) Projects Eligible to be Financed. (1) Purchase vehicles, computers, telephone systems, cable equipment, photocopy and office equipment, technological equipment for instruction, and other capital equipment having an expected useful life of at least as long as the terms of the certificates or notes. (2) Purchase computer hardware and software, without regard to the expected useful life, whether bundled with machinery or equipment or unbundled, together with application development services and training related to the use of the computer. (3) Prepayment of special assessments.
- (d) Source of Revenue to Pay Debt Service. Principal and interest on the certificates or notes are payable from a debt service levy under Section 475.61. The District's general fund levy must be reduced by the amount of the debt service levy for the certificates or notes, consequently, the net levy for the District is zero.
- (e) Procedural Approvals. District resolution.
- (f) Other Limitations. (1) The maximum maturity of the certificates or notes is 5 years (other than prepayment of special assessments, which is 20 years). (2) The sum of the tax levies to pay principal and interest of such certificates or notes and Section 123B.62 for each year must not exceed the lesser of the amount of the District's total operating capital revenue or the sum of the District's levy in the general and community service funds excluding the adjustments under Section 123B.61 for the year preceding the year of the initial debt service levies are certified. (3) The District's general fund levy for each year must be reduced by the sum of (i) the amount of the tax levies for the debt service certified each year for payment of principal and interest on such certificates or notes, (ii) the amount of tax levies for debt service certified for each year for payment of principal and interest on bonds issued under Section 123B.62 (bonds for certain capital facilities), and (iii) certain excess amounts in debt redemption fund.

**4. Minnesota Statute Section 123B.62 – General Obligation Bonds for Certain Capital Projects**

- (a) Type of Obligation. General obligation bonds.
- (b) Eligibility Requirements. This statute may be used by any school district, but with approval of the Commissioner.

Prior to issuing such bonds, the District must publish a notice of intended projects, the amount of the bond issue and the total amount of the District

indebtedness. A bond issue tentatively authorized by the Board under this Section becomes finally authorized unless a petition signed by more than 15% of the registered voters of the District is filed with the School Board within 30 days of the Board's adoption of a resolution stating the Board's intention to issue the bonds.

- (c) Projects Eligible to be Financed. Capital improvements (1) under Section 126C.10, subd. 14, total operating capital revenue uses specified clauses (4), (6), (7), (8), (9) and (10) which are as follows: (4) to improve and repair school sites and buildings, and equip and reequip school buildings with permanent attached fixtures, including library media centers; (6) to eliminate barriers or increase access to school buildings by individuals with a disability; (7) to bring school buildings into compliance with the State Fire Code adopted according to chapter 299F; (8) to remove asbestos from school buildings, encapsulate asbestos, or make asbestos-related repair; (9) to clean up and dispose of polychlorinated biphenyls found in school buildings; and (10) to clean up, remove, dispose of, and make repairs related to storing heating fuel or transportation fuels such as alcohol, gasoline, fuel oil and special fuel as defined in Section 296A.01; and
  - (2) the cost of energy modifications; and
  - (3) improving disability accessibility to school buildings; and
  - (4) bringing school buildings into compliance with life and safety codes and fire codes.
- (d) Source of Revenues to Pay Debt Service. Principal and interest on the bonds are payable from a debt service levy under Section 475.61. The District's general fund levy must be reduced by the amount of the debt service levy for such bonds; consequently, the net levy for the District is zero.
- (e) Procedural Approvals. (1) Approval by the Commissioner to issue the bonds. (2) Publish required notice. (3) No petition for referendum filed.
- (f) Other Limitations. The bonds must be paid within 10 years of issuance. The sum of the tax levies for the debt service for such bonds and tax levies under Section 123B.61 for each year must not exceed the limit specified in Section 123B.61.

**5. Minnesota Statute Section 123B.65 –Installment Payment Contracts for Purchase and Installation of Energy Conservation Measures**

- (a) Type of Obligation. Typically an installment payment contract under Section 465.71 (may issue certificates of participation in the installment payment contract).
- (b) Eligibility Requirements. This statute may be used by any school district.

- (c) Projects Eligible to be Financed. Energy conservation measures may be financed and include facility alterations designed to reduce energy consumption or operating costs and includes (1) insulation of the building structure and systems within the building; (2) storm windows and doors, caulking or weather-stripping, multiglazed windows and doors, heat absorbing or heat reflective glazed coated windows and door systems, additional glazing, reduction in glass area, and other window and door system modifications that reduce energy consumption; (3) automatic energy control systems; (4) heating, ventilating, or air conditioning systems modifications or replacements; (5) replacement or modifications of lighting fixtures to increase the energy efficiency of the lighting system without increasing the overall illumination of a facility, unless such increase in illumination is necessary to conform to the applicable state or local building code for the lighting system after the proposed modifications are made, (6) energy recovery systems; (7) cogeneration systems that produce steam or forms of energy such as heat, as well as electricity, for use primarily within a building or complex of buildings; and (8) energy conservation measures that provide long-term operating cost reductions.
- (d) Source of Revenue to Pay Debt Service. Contract payments will be made from reduced energy or operating costs or from a guaranteed energy savings contract, if projected energy and operating costs savings are not achieved.
- (e) Procedural Requirements. A district may enter into a guaranteed energy savings contract with a qualified provider to significantly reduce energy or operating costs. The Board must comply with the following prior to awarding such a contract: (1) the Board must seek proposals from multiple qualified providers by published notice of the proposed guaranteed energy savings contract in the Board's official newspaper and other publications if the Board determines that additional publication is necessary to notify multiple qualified providers; (2) the School Board must select the qualified provider that meets the needs of the Board; (3) the contract between the Board and the qualified provider must describe the methods that will be used to calculate the cost of the contract and operational and energy savings attributable to the contract; (4) the qualified provider shall issue a report to the Board giving a description of all costs of installation, modification or remodeling, including costs of design, engineering, installation, maintenance, repairs or debt service and shall detail calculations of the amount by which the energy or operating costs will be reduced and projected pay back schedule in years; and (5) the Board must provide published notice of the meeting in which it proposes to award the contract, the name of the parties to the proposed contract and the contract's purpose. The Board may request the Commissioner to review and provide an evaluation to the Board on the proposed contract.

The District must make findings that the amount it would spend on energy conservation measures recommended in the report is not likely to exceed the amount to be saved in energy and operation costs over 15 years from the date of installation if the recommendations in the report were followed, and the qualified

provider provides a written guarantee that the energy or operation costs savings will meet or exceed the cost of the system.

- (f) **Other Limitations.** (1) The installment payment contract must provide for payment of not less than 1/15 of the price to be paid within two years of the date of first operation and the remaining costs to be made monthly, not to exceed a 15-year term from the date of first operation. (2) If the installment contract is issued pursuant to Section 465.71, (a) the contract will be subject to annual appropriation of monies to pay the installment payments by future Boards, and (b) the District must have the right to terminate the contract at the end of any fiscal year during the term.

**6. Minnesota Statute Section 465.71 – Installment Contracts and Lease Purchase Agreements, subject to annual appropriations**

- (a) **Type of Obligation.** Installment contract or lease purchase agreement.
- (b) **Eligibility Requirements.** This statute may be used by any school district.
- (c) **Projects Eligible to be Financed.** Any purchase of real or personal property.
- (d) **Sources of Revenue to Pay Debt Service.** The payments under the contract or lease will be from the District's general funds.
- (e) **Procedural Approvals.** Resolution by the Board authorizing the contract or lease.
- (f) **Other Limitations.** (1) The District must have the right to terminate the contract or lease at the end of any fiscal year during the term. (2) The contract or lease will be subject to annual appropriation of monies to pay the rent or installment payments by future Boards.

Projects under the Long-Term Facilities Plan to be financed are subject to review and comment under Sections 123B.70 and 123B.71.

11/17/2010 10:00 AM

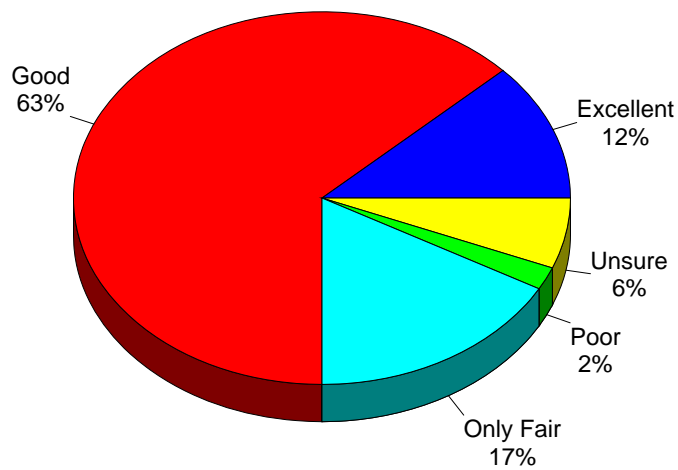
# Duluth Public Schools Space Needs

2007 Duluth School District Study

Decision Resources, Ltd.

## Quality of Education

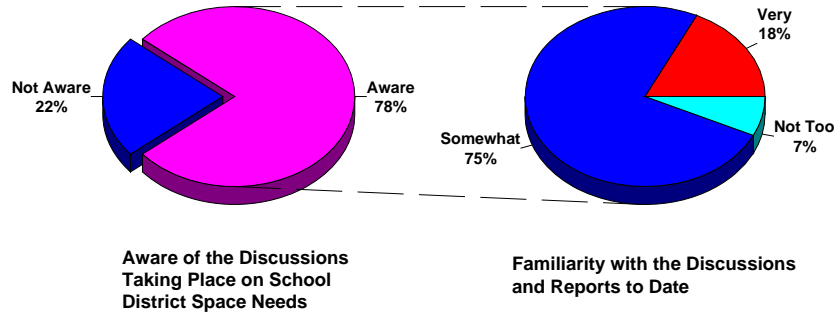
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# Current and Future Space Needs Discussions

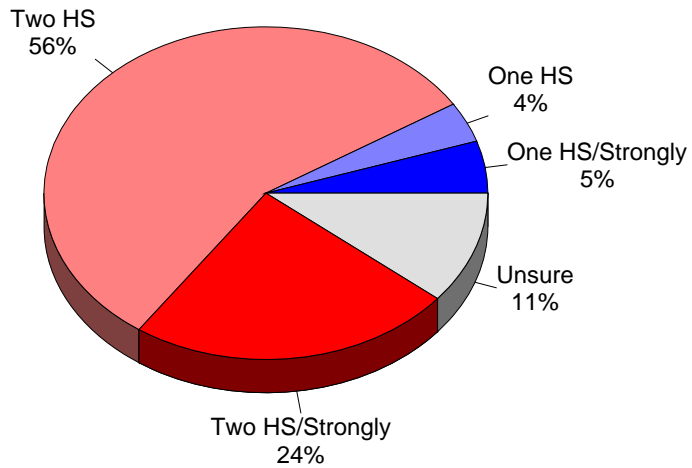
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# One (Blue) or Two (Red & White) High Schools

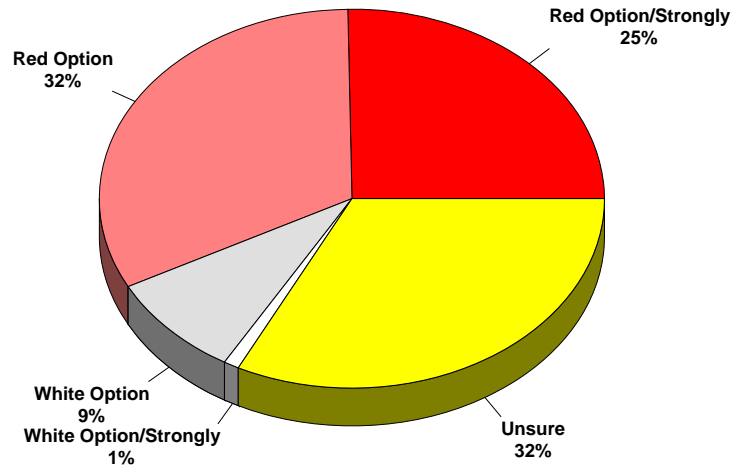
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# Denfeld High School Building

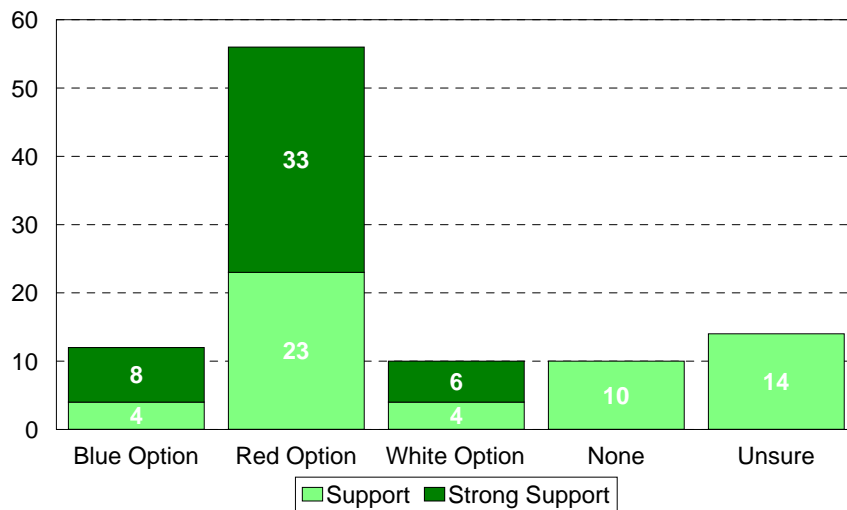
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# Most Preferred Alternative

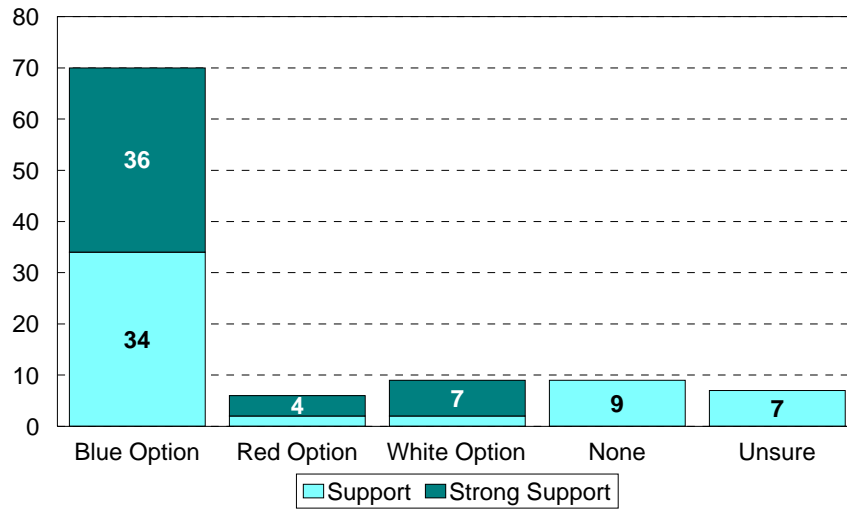
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## Most Opposed Alternative

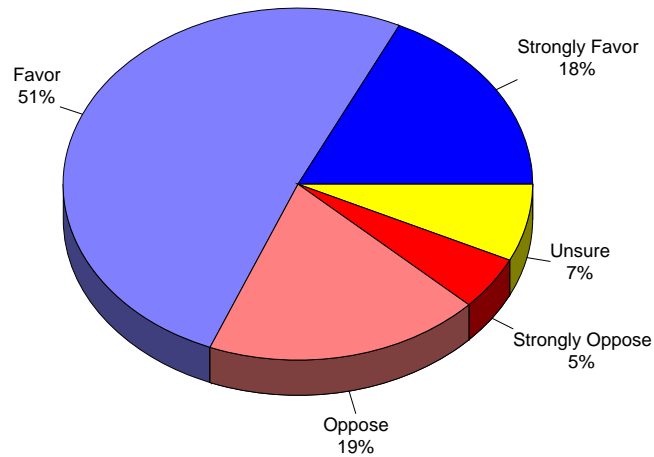
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## Issuing of Bonds with Buydown

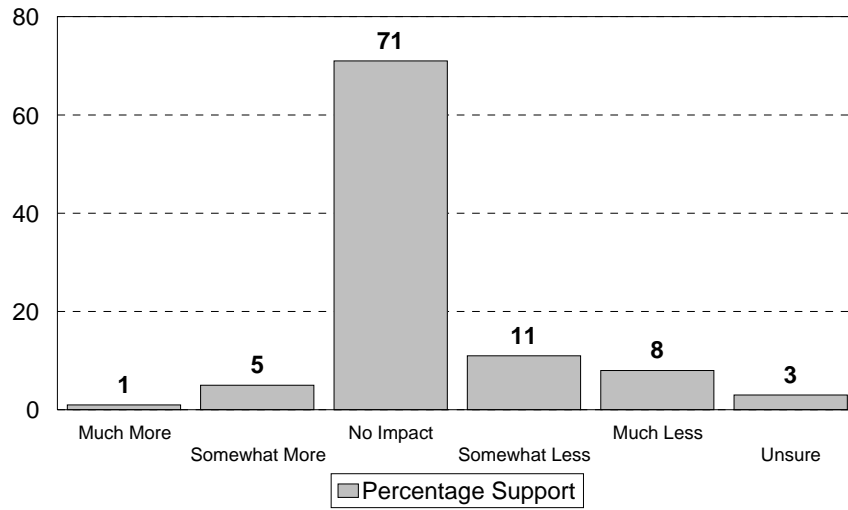
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# Absence of Bond Referendum Vote

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August 13, 2007



### ***Long Range Facilities Project***








Since April 2006, a lot of work has been done related to the Long Range Facilities Project by Johnson Controls, the Citizens Group, and many people involved in the Duluth Public Schools. Assessments were conducted, in-depth reports compiled, and effort invested in communicating with the community and gathering important feedback related to our facilities. This includes






10,000 hours of expert analysis and over 120 meetings with organizations including parents, community members, staff and students. In addition, we've held twelve open community meetings and gathered information via email, fax, phone conversations. Information regarding this project has appeared over 250 times in broadcast, print and online media. We will continue to share information and considerations throughout this important project.

**During its regular meeting June 19, 2007, the school board approved the long range facilities plan for the Duluth Public Schools.** At that time, the board directed our administration and Johnson Controls to proceed with several tasks: preparation of a Review & Comment document for the Minnesota Department of Education; continuing work on possible boundary adjustments for the eastern and western high schools; development of specific implementation plans and detailed design projects; identification of and negotiation for land acquisition - design consultants; evaluating different facility and site needs; development of new transportation plans; and for use upon completion of the long range facilities plan.

We continue to invite your thoughts and ideas as we begin to implement the long range facilities plan by emailing Keith Dixon at <mailto:keith.dixon@duluth.k12.mn.us>. You can also write a letter to Keith Dixon, Superintendent, Duluth Public Schools, 215 North 1st Avenue, Duluth, MN 55802.

### **Categories**

-  Demographic Report (3)
-  Educational Adequacy Report (1)
-  Facility Assessment Report (22)
-  Implementing The Plan - Next Steps (1)
-  Needs Assessment Summary (1)
-  Professional Public Opinion Survey (3)
-  Project Overview (1)

-  Property Value Report (2)
-  Socioeconomic Information (1)
-  Survey Feedback (1)
-  Three Options Report (1)
-  List All (37)

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Last updated: Aug 09 2007 09:07:26 am Central