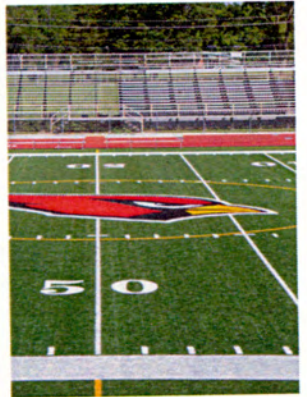


ADEL DESOTO MINBURN

COMMUNITY SCHOOL DISTRICT



frk architects + engineers

June 10, 2013

Adel DeSoto Minburn Master Planning Study

ADM Community School District

DRAFT, MAY 2013

Table of Contents

Introduction

- Master Planning Committee Page 3
- Additional Resources: RSP Enrollment Report and the ICAT Facility Review and Recommendations Report Page 4
- Overview of the ADM School District Facilities Page 4
- District Ideal Classroom Size Page 5
- Master Planning Study Report Page 7

I. Part One: Evaluation of District Facilities

Adel Elementary Page 9

DeSoto Intermediate Page 12

ADM Middle School Page 15

ADM High School Page 17

Decommissioned Minburn Elementary Page 19

Decommissioned Adel Middle School Page 20

II. Part Two: Recommendations

Observations Page 22

Growth Projections for District Page 22

Adel Elementary Recommendations Page 27

DeSoto Intermediate Recommendations Page 28

ADM Middle School and High School Recommendations page 29

Decommissioned Minburn Elementary Recommendations Page 32

Decommissioned Adel Middle School Recommendations Page 32

Additional District Capital Projects Page 32

III. Part Three: Additional Information

Glossary/Abbreviations Page 35

Attachments Page 35

- Meeting Minutes
- Master Planning Options
- Master Planning Costing Options

Introduction

ADM Community School District Master Planning Committee

After a few years of declining or steady student enrollment, the Adel DeSoto Minburn (ADM) School District has been experiencing growth in numbers, with projections for increased enrollment for the foreseeable future. **frk** architects + engineers was enlisted in the summer of 2012 to begin working with the District to provide Master Planning services to explore options for consideration to address the expected growth and to explore other District facility improvements. The Master Planning process initially involved meetings with the District administrative staff with regular reporting to the School Board. In the winter of 2013 a District Master Planning Committee was formed. The recommendations of this report reflect the hard work and dedication of the Master Planning Committee.

ADM Master Planning Committee Members:

Dave Baccus
Ron Brenner
Jenny Felt
Nick Hasty
Eric Hetiz,
Karen Jacobsen
Kevin Juhnke
John Kelly
Ben Madison
Shirley McAdon
Butch Ostrander
Mike Pace
Jim Peters
Pat Steele

ADM Community School District Representatives:

- Greg Dufoe, Superintendent of Schools
- Nancy Gee, Business Manager
- Doug Gee, Activities Director
- Carole Erickson, Adel Elementary Principal
- Jodi Banse, DeSoto Intermediate Principal
- Kim Timmerman, ADM Middle School Principal
- Lee Griebel, ADM High School Principal
- Kim Roby, School Board Vice President
- Kelli Book, School Board Member

frk architects + engineers:

- Tom Wollan, Project Architect
- Dave Briden, Principal In Charge

Additional Resources

RSP & Associates Enrollment Report 2012/2013

RSP & Associates, a demographic firm from Kansas City, provided an in-depth study of the enrollment projections for the next ten years for the District in 2012. References to numbers provided by RSP are from their Enrollment Report.

ICAT Facility Review and Recommendations

In 2009 the ADM Community School District engaged the Iowa Construction Advocate Team (ICAT) to complete a thorough study of the existing District facilities. Due to the declining enrollment numbers reported in this study, one of the results of this study was the recommendation to decommission two attendance centers: Minburn Elementary and Adel Middle School. Additional information provided by this report included recommendations about the existing facilities' infrastructure and capital improvements needs. The current Master Planning Committee uses this ICAT report to inform their recommendations.

Overview of the ADM School District Facilities

The District currently has 6 attendance centers:

- 1. Adel Elementary**
 - Located in Adel
 - Serves Kindergarten through 2nd Grade
 - 20 General Education Classrooms
- 2. DeSoto Intermediate**
 - Located in DeSoto
 - Serves 3rd Grade through 5th Grade
 - 15 General Education Classrooms
- 3. ADM Middle School**
 - Located in Adel in a shared facility with the High School
 - Serves 6th Grade through 8th Grade
 - 15 General Education Classrooms
- 4. ADM High School**
 - Located in Adel in a shared facility with the Middle School
 - Serves 9th Grade through 12th Grade
 - Contains 20 General Education Classrooms
 - Campus contains athletic venues and auditorium

5. Decommissioned Minburn Elementary

- Located in Minburn
- Closed for three years
- Most recently served elementary students
- Contains 7 General Education Classrooms
- Gymnasium still used for athletic program

6. Decommissioned Adel Middle School

- Located in Adel
- Closed for three years
- Most recently used for 6th and 7th Grade Students
- Contains 16 General Education Classrooms
- Gymnasium still used for athletic program

District Ideal Classroom Size

The District has a policy regarding the preferred number of students per classroom, which is as follows:

- Kindergarten: 18/19 students per class
- Grades 1-3: 18/19 students per class
- Grades 4-5: 20/22 students per class
- Grades 6-12: 24/26 students per class

This ideal classroom size is based on sound educational philosophy and informs student capacity for each attendance center. Research on classroom size supports the ADM School District's ideal classroom size. AdvancED, the Educational Resources Information Center, and the AIA Knowledge Community on Education are a few of the many organizations that support the District's goal. According to the AIA, ideal classroom sizes are 18 students for Kindergarten and 1st Grade, 20 students for 2nd and 3rd Grade, 22 students for 4th and 5th Grade, and 25 students for 6th through 12th Grade. Rather than fit more students into existing classrooms as the student population increases, additional space will need to be identified to accommodate student growth.

In terms of actual Building SF allocation for students, The 2007/2008 National Center for Education Statistics indicates a range of 150 SF/student for elementary schools and 160 SF/student for high schools. (School Planning and Management, May 2006). What these numbers represent is dividing the SF of the entire school's program space by the school's classroom capacity, which in the case of the ADM School District is represented by the ideal classroom size as discussed above. Other research spreads that number wider, with ranges from 111 SF/student for elementary schools to 225 SF/student for high schools (CEFPI - Council of Educational Facility Planners International, US Department of Education, School Planning and Management). Research indicates that as the number of students in a facility gets smaller, the SF/student number becomes larger. This reflects the fact that there is an economy of scale at play: the support services for students (cafeteria, media center, locker rooms, circulation) become more efficient when serving more students.

An analysis of the ADM School District's facilities indicates that the actual SF/student number for each building is below national averages, with the exception of Minburn Elementary. Minburn Elementary

has been a K-12 attendance center in the past, which is not needed for the elementary school program. Therefore, the SF/student number is higher than the average.

Another SF number which is a helpful tool in analyzing the school's facility performance is the SF/student per classroom. The SF/student number for classrooms in existing, older school buildings will generally be smaller than SF numbers for newer construction since the average size of a classroom has been steadily rising, in other words newer buildings will have larger classrooms than older buildings. Current standards are 900 SF to 950 SF per classroom. Given this number, using ADM School District's ideal class size, the following ideal space allocations per student would be applicable:

- Elementary: 950 SF/19 Students = 50 SF/Student
- Intermediate: 950 SF/22 Students = 43 SF/Student
- Middle School: 950 SF/26 Students = 37 SF/Student
- High School: 950 SF/26 Students = 37 SF/Student

Analysis of the ADM School District's facilities indicates that the SF/Student number per classroom is toward the low end, reflecting the age of some of the buildings. The average general education high school classroom size at ADM High School is 775 SF. The average classroom size in the 1925 building at DeSoto Intermediate is 785 SF.

We thus have two helpful numbers to analyze the amount of space allocated per student in school buildings: overall building SF/student and individual classroom SF/student. For the ADM School District these numbers are as follows (based on maximum ideal District capacity):

1. Adel Elementary

- Building Program SF per student: 112 SF/Student (below average)
- Average Individual Classroom SF for Kindergarteners: 67 SF/Student (above average)
- Average Individual Classroom SF for 1st and 2nd Graders: 44 SF/Student (below average)

2. DeSoto Intermediate

- Building Program SF per student: 109 SF/Student (below average)
- Average Individual Classroom SF: 37 SF/Student (below average)

3. ADM Middle School

- Building Program SF per student: 143 SF/Student (below average)
- Average Individual Classroom SF: 37 SF/Student (average)

4. ADM High School

- Building Program SF per student: 133 SF/Student (below average)
- Average Individual Classroom SF: 30 SF/Student (below average)

5. Decommissioned Minburn Elementary

- Building Program SF per student: 256 SF/Student (above average)
- Average Individual Classroom SF: 40 SF/Student (below average)

6. Decommissioned Adel Middle School

- Building Program SF per student: 80 SF/Student (below average)
- Average Individual Classroom SF: 30 SF/Student (below average)

Master Planning Study Report

This study is divided into two parts: First, the study evaluates the current status of each attendance center in sections devoted to each building. Second, recommendations are offered for the most efficient and educationally effective use of the District's facilities.

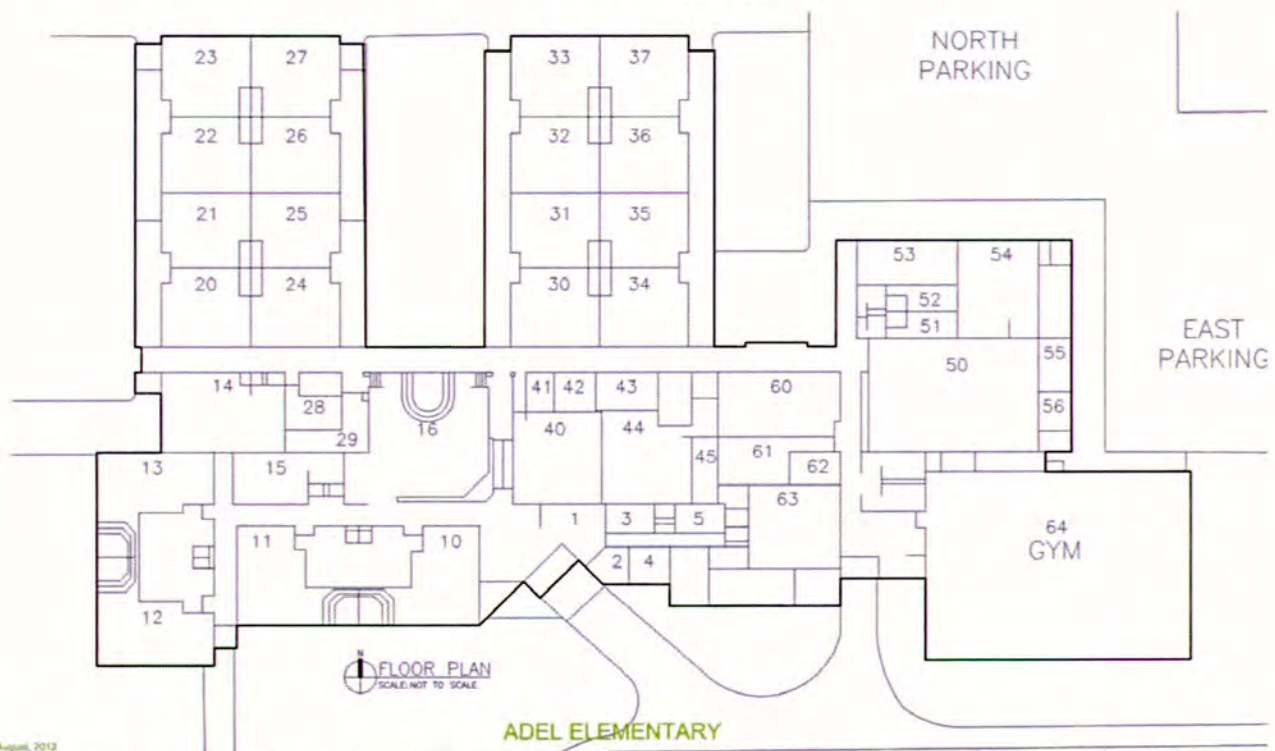
Part One:

Evaluation of District Facilities

Adel Elementary

Building Facts

- Location: Adel
- Construction
 - Original building, 1965. Original building houses classrooms, kitchen and cafeteria (former gymnasium).
 - Additions and renovations completed in 1969, 1990, and 2006. Additions house administration, gymnasium, media center, preschool, and classrooms.
- General Education Classrooms: 20
- 2012/2013 Enrollment: 377
- Building Total SF: 60,100 SF
- Grossing Factor: 1.4 (circulation, mechanical, storage, toilet rooms)
- Program Space: $60,100 \text{ SF} / 1.4 = 42,929 \text{ SF}$
- Actual Building SF/student: $42,929 \text{ SF} / 380 \text{ Students} = 112 \text{ SF/Student}$ (At maximum District ideal capacity)
- Desired Average Individual Classroom SF/Student: 50 SF/Student (At maximum District ideal capacity)
- Actual Average Individual Classroom SF/Student: 52 SF/Student (67 SF for Kindergarten, 44 SF for 1st and 2nd Grades at maximum District ideal capacity)



August, 2012

frk architects + engineers

MASTERPLANNING STUDY
ADEL DESOTO-WINNEBAGO COMMUNITY SCHOOL DISTRICT
DISTRICT OFFICE: ADEL, IOWA

Observations

Current ADM District has a K – 2nd grade Elementary School Configuration. Current ADM Ideal classroom size for Elementary School students is: 18/19 students per classroom for K – 2nd grade.

Kindergarten Program. There are 7 kindergarten classrooms at Adel Elementary for the 2012/13 school year. Five of these classrooms are larger sized classrooms than a typical elementary school classroom size, which is appropriate for a classroom serving kindergarten students. The average size of these classrooms is 1,440 SF. One of these classrooms is smaller than the others at 1,018 SF. Two typical elementary sized classrooms are also used for the kindergarten program. These rooms are significantly small than the average size for the 5 already indicated. These two classrooms are 843 SF. They are elementary level sized classrooms serving as kindergarten classrooms. This situation creates a parity issue for the kindergarten program: two classes are significantly smaller than the other five classrooms.

Square Foot Analysis. Based on the District recommended classroom size for kindergarten students, 18/19 students per class, the average SF of classroom space per kindergarten student at Adel Elementary is 67 SF per student at 19 students per class and 71 SF per student at 18 students per class. (8,900 SF divided by 133 ideal capacity). If all the kindergarten classrooms where the average size of the larger classrooms at Adel Elementary, or 1,440 SF, the average SF per student would be higher: 76 SF per student (1,440 SF times 7 classrooms equals 10,080 SF; 10,080 SF divided by 133 students is 76 SF per student)

First/Second Grade Program. There are 13 elementary classrooms at Adel Elementary for the 2012/13 school year; 7 first grade classrooms and 6 second grade classrooms. The typical size of each classroom is 843 SF, although some classrooms are slightly smaller. The average classroom size of all 13 classrooms is 831 SF.

Square Foot Analysis. Based on the District recommended classroom size for elementary students, 18/19 students per class, the average SF of classroom space per elementary student at Adel Elementary is 44 SF per student.

Class Size. The chart below illustrates that for the current 2012/2013 school year Adel Elementary exceeds the District recommended maximum class size for the Kindergarten and 2nd Grade levels, which is 19 students per classroom. Note: if the low end ideal classroom size figure is used (18 students per class) all grade levels at Adel Elementary would exceed the ideal classroom size. Looking ahead, by the 2016/2017 school year the ideal classroom size is exceeded at all levels by an average of 20% for the high end of the District's ideal classroom size and 24% of the low end of the ideal classroom size.

Existing Adel Elementary Space Allocation – see Chart One

Attendance Center	Program	Space (in SF)	SF Totals	Cap. at District Ideal	SF/Stud at Cap.	ACTUAL 12/13	RSP 13/14	RSP 14/15	RSP 15/16	RSP 16/17	RSP 17/18	RSP 18/19	RSP 19/20	RSP 20/21	RSP 21/22	RSP 22/23
Adel Elementary - 21 General Education Classrooms																
	Pre-K	970		27		27	27	27	27	27	27	27	27	27	27	27
	ECSE	1,576	2,546			13	13	13	13	13	13	13	13	13	13	13
	Total Pre-K/ECSC					40	40	40	40	40	40	40	40	40	40	40
(18/19 students/class)	Kindergarten	1,518		19	80											
Average room size:	Kindergarten	1,546		19	81											
1,271	Kindergarten	1,530		19	81											
	Kindergarten	1,540		19	81											
	Kindergarten	1,080		19	57											
	Kindergarten	843		19	44											
	Kindergarten	843	8,900	19	44											
	Low End of District Cap.			126	71	134	135	140	145	151	154	157	160	162	164	168
	High End of District Cap.			133	67	134	135	140	145	151	154	157	160	162	164	168
(18/19 students/class)	First Grade	843		19	44											
Average room size:	First Grade	843		19	44											
832	First Grade	843		19	44											
	First Grade	843		19	44											
	First Grade	843		19	44											
	First Grade	804		19	42											
	First Grade	804	5,823	19	42											
	Low End of District Cap.			126	46	127	134	137	143	149	154	152	155	158	160	161
	High End of District Cap.			133	44	127	134	137	143	149	154	152	155	158	160	161
(18/19 students/class)	Second Grade	843		19	44											
Average room size:	Second Grade	843		19	44											
830	Second Grade	843		19	44											
	Second Grade	843		19	44											
	Second Grade	804		19	42											
	Second Grade	804	4,980	19	42											
	Low End of District Cap.			108	46	116	131	138	142	149	154	156	155	153	161	163
	High End of District Cap.			114	44	116	131	138	142	149	154	156	155	153	161	163
Low End of Ideal Cap.	TOTAL GEN. ED CLASSROOM		19,703	387	51	404	427	442	457	476	489	492	497	500	512	519
High End of Ideal Cap.	TOTAL GEN. ED CLASSROOM		19,703	407	48	404	427	442	457	476	489	492	497	500	512	519
SPECIALS	Special Needs	843	843													
	Guidance	215	215													
	Title I/Reading Recovery	215	215													
	Speech	200	200													
	Art	1,005	1,005													
	Music	1,102	1,102													
	Media Center	2,021	2,021													
	Cafeteria	2,457	2,457													
	Gymnasium	6,160	6,160													

Chart One – Adel Elementary

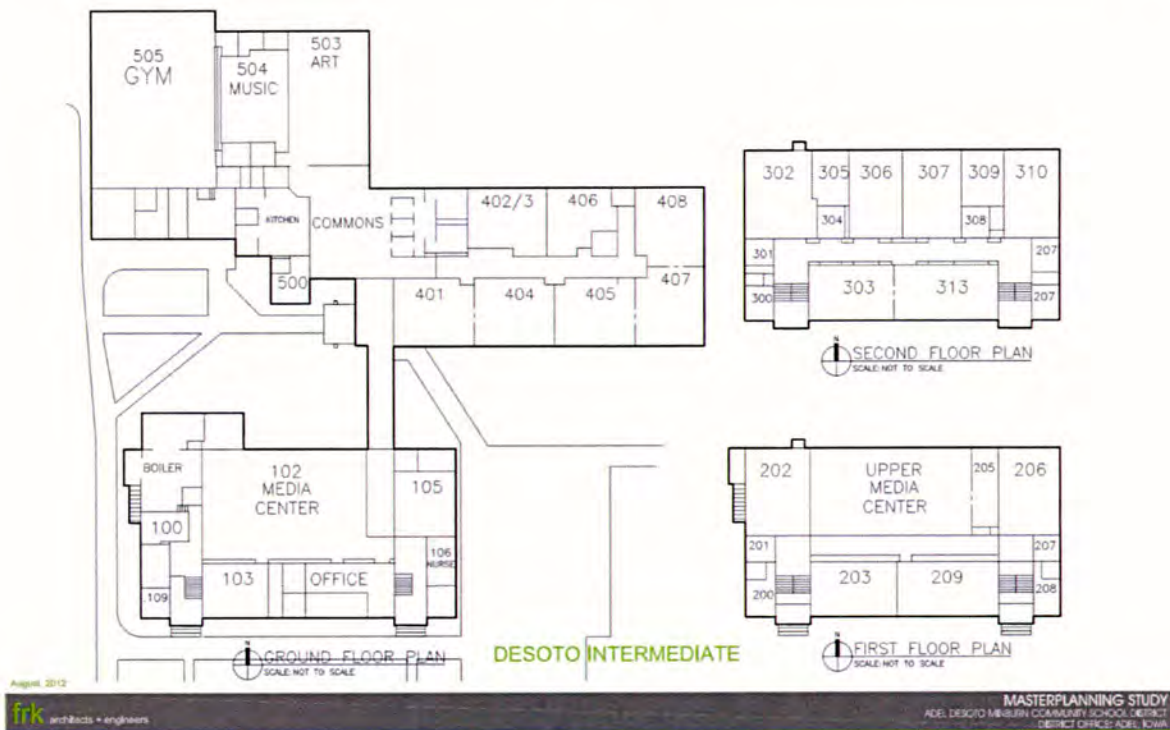
Notes:

- Red infill indicates number of students per classroom exceeds District ideal.
- Low end of District ideal indicates classroom capacity based on 18 students per class.
- High end of District ideal indicates classroom capacity based on 19 students per class.

DeSoto Intermediate

Building Facts

- Location: DeSoto
- Construction:
 - Original building, 1924. Original Building houses media center, administration, and classrooms.
 - Addition and renovation in 1990. Addition houses the gymnasium, art/cafeteria, kitchen, commons, and classrooms.
- General Education Classrooms: 15
- Building Total SF: 48,320 SF
- Main Level: 30,120 SF
- Second Level: 9,190 SF
- Third Level: 9,010 SF
- Grossing Factor: 1.4 (circulation, mechanical, storage, toilet rooms)
- Program Space: $48,320 / 1.4 = 34,516$ SF
- Actual Building SF/student: $34,516 \text{ SF} / 315 \text{ Students} = 109 \text{ SF/Student}$ (At maximum District ideal capacity)
- Desired Average Individual Classroom SF/Student: 43 SF/Student (At maximum District ideal capacity)
- Actual Average Individual Classroom SF/Student: 37 SF/Student (At maximum District ideal)



Observations

Current ADM District has a 3rd – 5th grade Intermediate School Configuration. Current ADM ideal classroom size for Intermediate School students is: 18/19 students per classroom for 3rd grade students and 20/22 students per classroom for 4th and 5th grade students.

Square Foot Analysis. Based on the District recommended classroom size for intermediate students, 18/19 students per class for 3rd graders and 20/22 students per class for 4th and 5th graders, the average SF of classroom space per 3rd grade student at DeSoto Intermediate is 41 SF per student at 19 students per class and 44 SF per student at 18 students per class. For 4th and 5th grade students, the average SF of classroom space is 35 SF per student at 22 students per class and 39 SF per student at 20 students per class.

Class Size. The chart below illustrates that for the current 2012/2013 school year DeSoto Intermediate exceeds the District recommended maximum class size for the 3rd grade students, which is 19 students per classroom. The 4th grade students are right at capacity at the 22 student per class level. Looking ahead, by the 2016/2017 school year the ideal classroom size is exceeded at all levels.

Existing School Space Allocation – See Chart Two

Attendance Center	Program	Space (in SF)	SF Totals	Cap. at high District Ideal	SF/Student at Cap.	ACTUAL 12/13	RSP 13/14	RSP 14/15	RSP 15/16	RSP 16/17	RSP 17/18	RSP 18/19	RSP 19/20	RSP 20/21	RSP 21/22	RSP 22/23
Desoto Intermediate - 16 Classrooms																
(18/19 students/class)	Third Grade 202	725		19	38											
Average room size:	Third Grade 206	725		19	38											
787	Third Grade 209	840		19	44											
	Third Grade 407	820		19	43											
	Third Grade 408	825	3,935	19	43											
	Low End of Ideal Cap.			90	44	102	119	135	143	148	154	157	159	158	155	163
	High End of Ideal Cap.			95	41	102	119	135	143	148	154	157	159	158	155	163
(20/22 students/class)	Fourth Grade 302	825		22	38											
Average room size:	Fourth Grade 310	710		22	32											
808	Fourth Grade 313	845		22	38											
	Fourth Grade 404	815		22	37											
	Fourth Grade 405	845	4,040	22	38											
	Low End of Ideal Cap.			100	40	110	102	119	136	146	150	155	160	158	160	157
	High End of Ideal Cap.			110	37	110	102	119	136	146	150	155	160	159	160	157
(20/22 students/class)	Fifth Grade 303	670		22	30											
Average room size:	Fifth Grade 306	700		22	32											
881	Fifth Grade 307	725		22	33											
	Fifth Grade 401	845		22	38											
	Fifth Grade 403	750		22	34											
	Fifth Grade 402	715	4,405	22	33											
	Low End of Ideal Cap.			120	37	117	113	105	124	141	150	154	153	164	160	162
	High End of Ideal Cap.			132	33	117	113	105	124	141	150	154	153	164	160	162
Low End of Ideal Cap.	TOTAL GEN. ED CLASSROOM		12,380	310	40	329	334	359	403	435	454	466	472	480	475	482
High End of Ideal Cap.	TOTAL GEN. ED CLASSROOM		12,380	337	37	329	334	359	403	435	454	466	472	480	475	482
SPECIALS	Special Needs 406	750														
	Special Needs 500	270														
	Special Needs 304	460														
	Special Needs 308	530	2,010													
	Guidance 207	120	120													
	Title I/Reading Recovery 307	120	120													
	Speech 201	120	120													
	Art/Cafeteria 503	1,660	1,660													
	Music 504	990	990													
	Media Center 102	2,720	2,720													
	Gymnasium 505	3,500	3,500													

Chart Two – DeSoto Intermediate

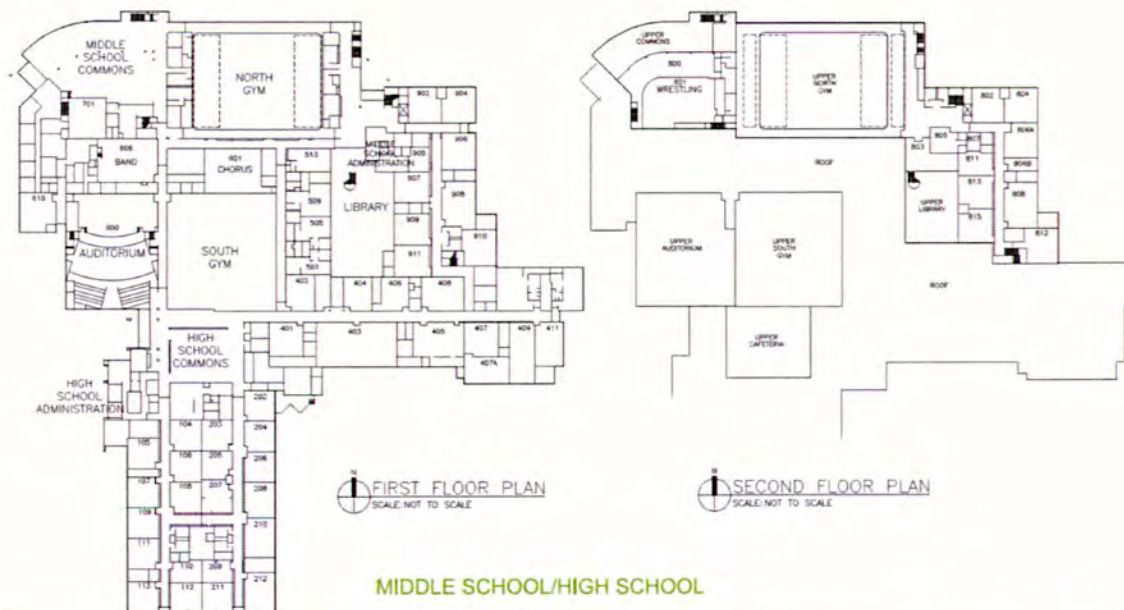
Notes:

- Red infill indicates number of students per classroom exceeds District ideal.
- Low end of District ideal indicates classroom capacity based on 18 or 20 students per class.
- High end of District ideal indicates classroom capacity based on 19 or 22 students per class.

ADM Middle School

Building Facts

- Location: Adel
- Configuration: Building is in a shared attendance center with the High School.
- Construction
 - The Middle School addition to the High School was completed in 2006. The Middle School addition houses Middle School classroom space, the Middle School cafeteria/commons, and additional shared space with the High School and the District.
- Middle School General Education Classrooms: 15
- Building Total SF: 55,810 SF (Middle School Use Only)
- Shared Space with High School: 68,541 SF (includes Music, PE, Athletics, Art, Media Center, Auditorium). Assume Middle School students use one third of the shared space allocation, or 22,620 SF.
- Grossing Factor: 1.4 (circulation, mechanical, storage, toilet rooms)
- Program Space: $78,430 / 1.4 = 56,020$ SF
- Actual Building SF/student: $56,020 \text{ SF} / 390 \text{ Students} = 143 \text{ SF/Student}$ (At maximum District ideal capacity)
- Desired Average Individual Classroom SF/Student: 37 SF/Student (At maximum District ideal capacity)
- Actual Average Individual Classroom SF/Student: 37 SF/Student



August, 2012

frk architects + engineers

MASTERPLANNING STUDY
ADEL DESOTO MINORITY COMMUNITY SCHOOL DISTRICT
DESIGN OFFICE-ADEL, IOWA

Observations

Current ADM District has a 6th through 8th grade Middle School Configuration. Current ADM ideal classroom size for Intermediate School students is: 24/26 students per classroom.

Square Foot Analysis. Based on the District recommended classroom size for Middle School students, the average SF of classroom space per student at ADM Middle School is 40 SF per student at 24 students per class and 37 SF per student at 26 students per class.

Class Size. The chart below illustrates that for the current 2012/2013 school year ADM Middle School has adequate space for students. Starting in the 2018/19 school year the student enrollment will exceed available classroom space at the high end of the District ideal classroom size.

Existing Space Allocation – See Chart Three

Attendance Center	Program	Space (in SF)	SF Totals	Cap. at high District Ideal	SF/Student at Cap.	ACTUAL 12/13	RSP 13/14	RSP 14/15	RSP 15/16	RSP 16/17	RSP 17/18	RSP 18/19	RSP 19/20	RSP 20/21	RSP 21/22	RSP 22/23
ADM Middle School - 15 Classrooms																
(24/26 students/class)	6th Grade Writing 902	920		26	35											
Average room size:	8th Grade Reading 904	910		26	35											
968	8th Grade Soc Studies 907	910		26	35											
	8th Grade Science 908	1,210		26	47											
	8th Grade Math 909	890		26	34											
	Low End of Ideal Cap.			120		118	117	113	105	125	142	151	155	155	165	163
	High End of Ideal Cap.			130		118	117	113	105	125	142	151	155	155	165	163
Average room size:	7th Grade Writing 804	910		26	35											
988	7th Grade Reading 802	920		26	35											
	7th Grade Math 906	980		26	38											
	7th Grade Geography 806A	900		26	35											
	7th Grade Science 808	1,230		26	47											
	Low End of Ideal Cap.			120		130	123	123	119	111	131	144	153	162	157	172
	High End of Ideal Cap.			130		130	123	123	119	111	131	144	153	162	157	172
Average room size:	8th Grade Writing 811	630		26	24											
895	8th Grade Reading 812	960		26	37											
	8th Grade Social Studies 813	850		26	33											
	8th Grade Science 411	1,145		26	44											
	8th Grade Math 815	890		26	34											
	Low End of Ideal Cap.			120		114	132	126	126	122	114	133	146	155	164	160
	High End of Ideal Cap.			130		114	132	126	126	122	114	133	146	155	164	160
Low End of Ideal Cap.	TOTAL GEN. ED CLASSROOM		14,255	360	40	362	372	362	350	358	387	428	454	472	486	495
High End of Ideal Cap.	TOTAL GEN. ED CLASSROOM		14,255	390	37	362	372	362	350	358	387	428	454	472	486	495
SPECIALS	Project Lead The Way 409	1,260														
	6th Grade Special Needs 905	390														
	7th/8th Special Needs 805	600														
	Middle School Level III 806B	300														
	Art 407	940														
	Computer Lab 910	960														
	Computer Lab 803	1,050														
	Cafeteria	4,870														

Chart Three– ADM Middle School

Notes:

- Red infill indicates number of students per classroom exceeds District ideal.
- Low end of District ideal indicates classroom capacity based on 24 students per class.
- High end of District ideal indicates classroom capacity based on 26 students per class.

ADM High School

Building Facts

- Location: Adel
- Configuration: Building is in a shared attendance center with the Middle School
- Construction
 - Original High School, 1986. The original building houses administration, classrooms, High School cafeteria, gymnasium and auditorium.
 - Addition and Renovation, 2006. The Addition and Renovation included program space for the Middle School, a competition gymnasium, media center, locker rooms, PE and athletic spaces, classrooms, and a District Administration Office complex.
- High School General Education Classrooms: 20
- Building Total SF: 51,837 SF (High School Use Only)
- Shared Space with High School: 68,541 SF (includes Music, PE, Athletics, Art, Media Center, Auditorium). Assume High School students use two thirds of the shared space allocation, or 45,237 SF.
- Grossing Factor: 1.4 (circulation, mechanical, storage, toilet rooms)
- Program Space: $97,074 / 1.4 = 69,340$ SF
- Actual Building SF/student: $69,340 \text{ SF} / 520 \text{ Students} = 133 \text{ SF/Student}$ (At maximum District ideal capacity)
- Desired Average Individual Classroom SF/Student: 37 SF/Student (At maximum District ideal capacity)
- Actual Average Individual Classroom SF/Student: 30 SF/Student (At maximum District idea)

Observations

Current ADM District has a 9th through 12th grade High School Configuration. Current ADM ideal classroom size for High School students is: 24/26 students per classroom.

Square Foot Analysis. Based on the District recommended classroom size for High School students, the average SF of classroom space per student at ADM High School is 32 SF per student at 24 students per class and 30 SF per student at 26 students per class. These numbers fall below the national average for ideal classroom size.

Class Size. The chart below illustrates that for the current 2012/2013 school year the High School has adequate space for students. Starting in the 2015/16 school year the student enrollment will exceed available classroom space at the high end of the District ideal classroom size.

Existing Space Allocation – See Chart Four

Attendance Center	Program	Space (in SF)	SF Totals	Cap. at high District Ideal	SF/Student at Cap.	ACTUAL 12/13	RSP 13/14	RSP 14/15	RSP 15/16	RSP 16/17	RSP 17/18	RSP 18/19	RSP 19/20	RSP 20/21	RSP 21/22	RSP 22/23
Adel High School - 20 Classrooms																
(24/26 students/class)	Language Arts 108	780		26	30											
Average room size:	Language Arts 111	750		26	29											
775	Language Arts 112	720		26	28											
	Language Arts 113	740		26	28											
	Language Arts 211	710		26	27											
	Foreign Language 104	760		26	29											
	Foreign Language 105	740		26	28											
	Foreign Language 107	740		26	28											
	Social Studies 106	750		26	29											
	Social Studies 203	750		26	29											
	Social Studies 109	750		26	29											
	Math 205	660		26	25											
	Math 207	780		26	30											
	Math 202	740		26	28											
	Math 206	750		26	29											
	Science 208	850		26	33											
	Science 210	980		26	38											
	Science 212	970		26	37											
	Computer 204	750		26	29											
	Business 402	820		26	32											
Low End Ideal Cap.	9th		17,570				116	135	129	130	126	116	132	149	157	167
High End Ideal Cap.	9th		17,570				116	134	129	130	126	116	132	149	157	167
Low End Ideal Cap.	10th		17,250				112	116	134	128	129	125	117	129	146	159
High End Ideal Cap.	10th		17,250				112	116	134	128	129	125	117	129	146	159
Low End Ideal Cap.	11th		16,840				134	116	120	139	133	126	123	118	126	148
High End Ideal Cap.	11th		16,840				134	116	120	139	133	126	123	118	126	148
Low End Ideal Cap.	12th		13,920				109	129	112	118	135	131	124	118	114	124
High End Ideal Cap.	12th		13,920				109	129	112	118	135	131	124	118	114	124
Low End Ideal Cap.	TOTAL GEN. ED CLASSROOM		15,490	480	32	458	471	496	495	515	523	498	496	514	543	598
High End Ideal Cap.	TOTAL GEN. ED CLASSROOM		15,490	520	30	458	471	496	541	515	523	498	496	514	543	598
SPECIALS	FCS 408	1,110														
	FCS 406	780														
	Technology 404	740														
	Chorus 601	2,100														
	Band 606	2,130														
	Project Lead The Way 401	930														
	Art 407A	970														
	Art 405	1,340														
	Industrial Technology 403	2,950														
	TOTAL SPECIALS		13,050													
	Special Needs Level III 911	870														
	Special Needs Level III 911	550														
	Special Needs Level III 911	580														
	Special Needs	630														
	TOTAL SPECIAL NEEDS		2,630													
	At Risk	410														
	Media Center	6,010														
	Cafeteria	4,950														
	North Gym	12,790														
	South Gym	10,150														

Chart Four– ADM High School

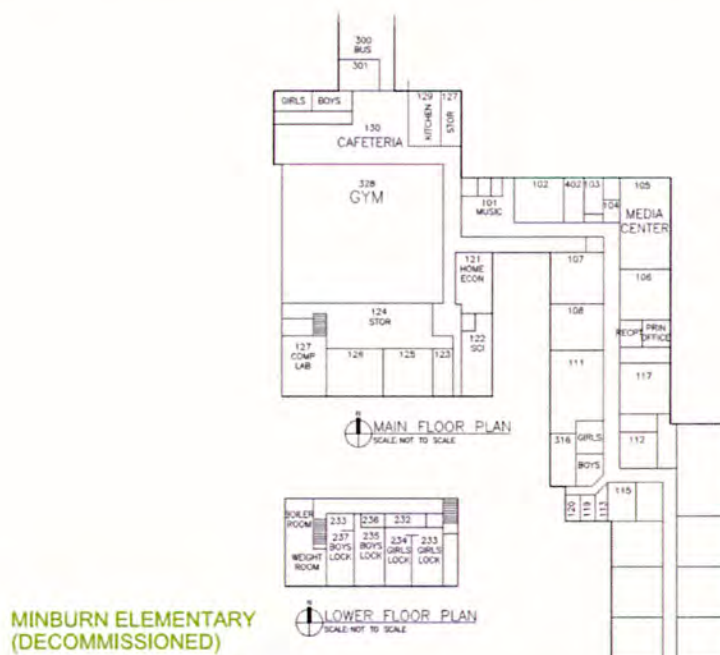
Notes:

- Red infill indicates number of students per classroom exceeds District ideal.
- Low end of District ideal indicates classroom capacity based on 24 students per class.
- High end of District ideal indicates classroom capacity based on 26 students per class.

Decommissioned Minburn Elementary

Building Facts:

- Location: Minburn
- Construction:
 - Original Building, 1956. Original building houses classrooms, administration, library.
 - Addition and Renovation, 1978. Addition and Renovation houses gymnasium, cafeteria, stage, and classrooms.
- General Education Classrooms: 7
- Building Total SF: 53,275 SF Total
- 47,585 SF Main Floor
- 5,690 SF Lower Level
- Grossing Factor: 1.4 (circulation, mechanical, storage, toilet rooms)
- Program Space: $53,275 / 1.4 = 38,054$ SF
- Actual Building SF/student: $38,054 \text{ SF} / 133 \text{ Students} = 256 \text{ SF/Student}$ (At maximum District ideal capacity)
- Desire Average Individual Classroom SF/Student: 37 SF/Student (At maximum District ideal capacity)
- Actual Average Individual Classroom SF/Student: 40 SF/Student



August 2012

frk architects + engineers

MASTERPLANNING STUDY
ADEL DISTRICT MINBURN COMMUNITY SCHOOL DISTRICT
DISTRICT OFFICE: ADEL, IOWA

Decommissioned Adel Middle School

Building Facts:

Location: Adel

- Construction
 - Original Building, 1914. Original Building houses administration, media center, classrooms.
 - Addition and Renovation, 1952. Addition and Renovation houses gymnasium, music, PE and athletic spaces, kitchen and cafeteria.
- Recent upgrades to interior finishes and electrical system.
- General Education Classrooms: 16
- Building Total SF: 47,500 SF
- 25,150 SF Main Level
- 12,000 SF Second Floor
- 10,350 SF Third Floor
- Grossing Factor: 1.4 (circulation, mechanical, storage, toilet rooms)
- Program Space: $47,500 / 1.4 = 33,400$ SF
- Actual Building SF/Student: $33,400 \text{ SF} / 416 \text{ Students} = 80 \text{ SF/Student}$ (At maximum District ideal capacity)
- Desired Average Individual Classroom SF/Student: 37 SF/Student (At maximum District ideal capacity)
- Actual Average Individual Classroom SF/Student: 30 SF/Student (At maximum District ideal capacity)



MAIN FLOOR PLAN
SCALE: NOT TO SCALE

ADEL MIDDLE SCHOOL
(DECOMMISSIONED)



SECOND FLOOR PLAN
SCALE: NOT TO SCALE



THIRD FLOOR PLAN
SCALE: NOT TO SCALE

August, 2012

trk architects + engineers

MASTERPLANNING STUDY
ADEL DESORO MISSOURI COMMUNITY SCHOOL DISTRICT
DISTRICT OFFICE: ADEL, IOWA

Part Two:
Recommendations

Observations

Throughout the Master Planning process the following key factors were identified:

- The need to address immediate capacity needs at the Adel Elementary and DeSoto Intermediate attendance centers.
- Due to uncertainty about enrollment projections, strategies for how to address capacity needs must be flexible.
- The importance of a look-ahead 5 years out and a look-ahead 10 years out.
- Decisions must be made regarding the decommissioned buildings.
- The need to address safety and security at all attendance centers, including improved site conditions and building security measures.
- Consideration of other capital projects identified by the District, including re-roofing projects, stadium improvements, infrastructure needs, etc..

To clarify the mission of the Master Planning process, at the April 11, 2013, Committee Meeting committee members were asked to identify guiding principles for the Master Planning process. The committee arrived at the following principles that would guide facility planning:

- Keep grades in the same building, do not split them up between buildings.
- Minimize the number of transitions students make from one building to another.
- Provide dedicated administrative leadership at each building, not shared.
- Avoid spreading instructors for specials programming too thin.
- Minimize bus travel time.
- Balance expansion for growth with flexibility, do not over-build.
- Arrive at thoughtful recommendations for the decommissioned attendance centers.
- Keep in mind that building facilities can provide a draw for families to move to the ADM District.
- Current grade configurations are optimal.

These guiding principles reflect research done on how other Iowa school districts of the same size as ADM Community School District configure their attendance centers.

Growth Projections for District

The chart at the right summarizes growth potential for each grade level. These numbers are based on the aforementioned RSP Enrollment report and reflect in-depth research on the population growth trends for the Adel, DeSoto and Minburn communities. The projections are that the District will add 300 students in 5 years, impacting the lower and intermediate grades initially the most. In 10 years, the projected growth indicates as many as 500 more students than current numbers. The Master Planning Committee understands

Grade	Current	2017/18	2022/23
Pre-K	27	27	27
Kind	134	154	168
1st	127	154	161
2nd	116	154	163
3rd	102	154	163
4th	110	150	157
5th	117	150	162
6th	118	142	163
7th	130	131	172
8th	114	114	160
9th	458	126	167
10th		129	159
11th		133	148
12th		135	124
Total	1553	1853	2094

the need to continually monitor these growth projections and track the actual population growth as it occurs. Many factors will contribute to the growth potential of the communities the District serves, including tax abatement programs making home construction attractive to new families, the westward expansion of the Des Moines metropolitan area, and the performance of the economy. The recommendations of the committee take these variables into considerations and suggest conservative interventions until more certain population growth numbers are available.

The Master Planning Committee used a number of resources to make their decisions. What follows is an explanation of these documents. They reflect the process the committee moved through to arrive at their final recommendations.

The "ADM Master Planning – Option A" document on page 24 was the main working document the Master Planning Committee used and was referred to again and again. The initial enrollment growth projections are addressed through additions to attendance centers so that by the 2017/18 school year, or 5 years out, student capacity needs are met. The next column, the 2022/23 school year, shows suggested interventions that address projected enrollment increases for 10 years out. The last column suggests what might occur after 10 years out. However, as mentioned above, the committee recommends continuously monitoring the actual population growth to determine what the most logical interventions will be. For all intents and purposes the 2017/18 column is the operative column and reflects the most pressing needs of the District.

It should be noted that the committee entertained 14 separate and distinct options before settling on Option A included in this document. The other options were rejected for various reasons including prohibitive cost, not addressing the guiding principles, not being flexible, etc.. The full set of Master Planning Options is included as an attachment to this Master Planning Report for reference.

Pricing information on page 25 also helped the committee arrive at its final conclusions. This report shows a chart with costing projections for implementing Option A, including site improvements. Costing opinions for many of the options is attached at the end of this document for reference. It should be noted that not all options were priced, as some were for study purposes only.



















Finally, the Phasing Study on page 26 shows a proposal for how Option A might be implemented, along with additional interventions discussed at committee meetings. This chart represents very closely the final recommendations of the committee and includes not only the additions and site work to Adel Elementary and DeSoto Intermediate, but also suggested re-purposing of the decommissioned attendance centers, the possible relocation of the Bus Barn to the Nile Kinnick Campus, potential stadium improvements, and possible future projects. Note that one of the future projects is a possible new attendance center to accommodate potential growth in the District. The size, location, and program of this attendance center is not able to be determined at this point. The committee believes that this phasing chart captures the guiding principles they arrived at, the need for flexibility, and the wise use of District dollars.



ADM Masterplanning

Option A

Additions to Existing Attendance Centers

2012/13	2017/18	2022/23	FUTURE
 Adel Elementary <ul style="list-style-type: none"> 6/7 Section Pre-K - 2nd 20 Classrooms 407 Student Capacity 404 Current Enrollment 	 Adel Elementary <ul style="list-style-type: none"> 8 Section Pre-K - 2nd 26 Classrooms 510 Student Capacity 489 Projected Enrollment 	 Adel Elementary <ul style="list-style-type: none"> 8 Section Pre-K - 2nd 26 Classrooms 510 Student Capacity 519 Projected Enrollment*** 	 Adel Elementary <ul style="list-style-type: none"> 9 Section Pre-K - 2nd 30 Classrooms 586 Student Capacity ??? Projected Enrollment
 DeSoto Intermediate <ul style="list-style-type: none"> 5/6 Section 3rd - 5th 16 Classrooms 337 Student Capacity 329 Current Enrollment 	 DeSoto Intermediate <ul style="list-style-type: none"> 8 Section 3rd - 5th 24 Classrooms 482 Student Capacity 454 Projected Enrollment 	 DeSoto Intermediate <ul style="list-style-type: none"> 8 Section 3rd - 5th 24 Classrooms 482 Student Capacity 482 Projected Enrollment 	 DeSoto Intermediate <ul style="list-style-type: none"> 9 Section 3rd - 5th 27 Classrooms 540 Student Capacity ??? Projected Enrollment
 ADM M.S. <ul style="list-style-type: none"> 6th - 8th 15 Classrooms 390 Student Capacity 362 Current Enrollment 	 ADM M.S. <ul style="list-style-type: none"> 6th - 8th 15 Classrooms 390 Student Capacity 387 Projected Enrollment 	 ADM M.S. <ul style="list-style-type: none"> 6th - 8th 19 Classrooms 494 Student Capacity 495 Projected Enrollment*** 	 ADM M.S. <ul style="list-style-type: none"> 6th - 8th 22 Classrooms 572 Student Capacity ??? Projected Enrollment
 ADM H.S. <ul style="list-style-type: none"> 9th - 12th 20 Classrooms 520 Student Capacity 458 Current Enrollment 	 ADM H.S. <ul style="list-style-type: none"> 9th - 12th 23 Classrooms** 598 Student Capacity 523 Projected Enrollment 	 ADM H.S. <ul style="list-style-type: none"> 9th - 12th 23 Classrooms 598 Student Capacity 598 Projected Enrollment 	 ADM H.S. <ul style="list-style-type: none"> 9th - 12th 27 Classrooms 702 Student Capacity ??? Projected Enrollment
 Decommissioned Minburn Elem <ul style="list-style-type: none"> K - 5th 10 Classrooms 224 Student Capacity* 			
 Decommissioned Adel M.S. <ul style="list-style-type: none"> 6th - 7th 14 Classrooms 359 Student Capacity* 			

Current Total Enrollment	1,553 Students
2017 Projected Enrollment	1,853 Students
2022 Projected Enrollment	2,094 Students
2022 Capacity with Proposed Additions	2,084 Students

* ICAT Information (subject to verification)
 ** Improves science
 *** Projected enrollment exceeds capacity

Master Document revised 5.6.13



ADM Masterplanning

April 30, 2013

Option A

Additions to Existing Attendance Centers

Adel Elementary

- Site Improvements
- 6 Classroom Addition (could open 2015)

2017/18

\$1,700,000
\$1,930,000

2022/23

--
--

DeSoto Intermediate

- Site Improvements
- 8 Classroom Addition, Administration Renovation, Specials Renovation (could open 2015)
- Elevator

\$1,636,000
\$3,275,000
\$120,000

--
--
--

ADM M.S.

- Site Improvements
- 4 Classroom Addition

???
\$965,000

--
--

ADM H.S.

- Site Improvements
- Science Classroom Addition

???
\$1,284,000

--
--

TOTALS

\$10,910,000

PROS

- Cost effective
- Uncomplicated, eases into capital projects.
- Maintains existing grade configuration
- Maintains existing building transitions
- Flexible

CONS

- Student density at Nile Kinnick campus
- Traffic congestion at Nile Kinnick campus
- Significant expenditure for site improvements on the tight Nile Kinnick Campus
- New location for District Office would be required at some point
- DeSoto remains a 3 story building

UNDETERMINED

- Plan for decommissioned buildings

GRAND TOTAL

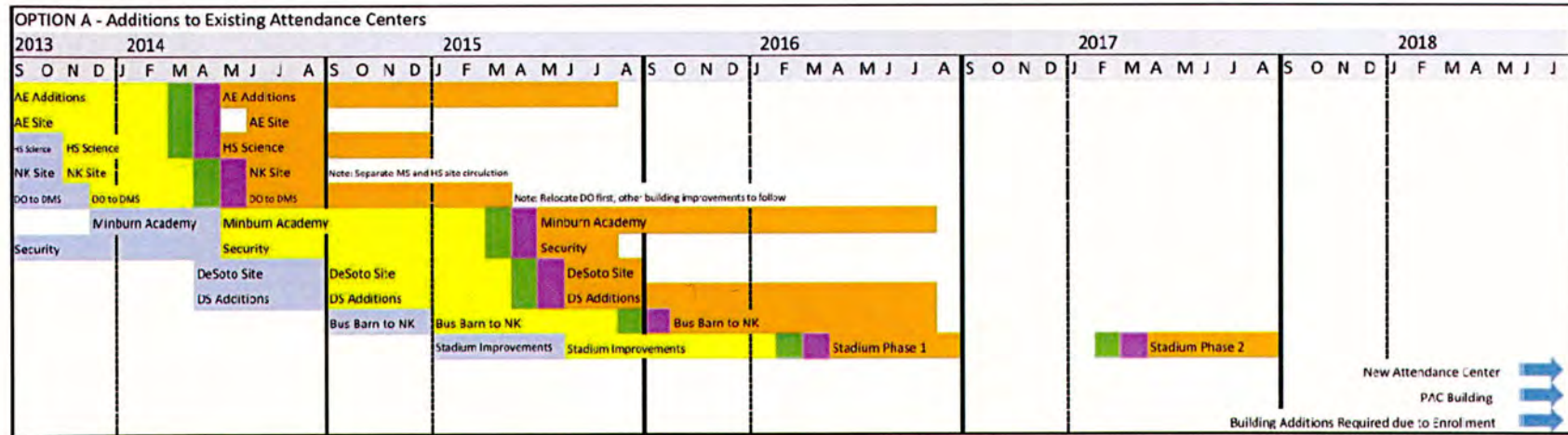
\$10,910,000



ADM Masterplanning
May, 2013
Phasing Study

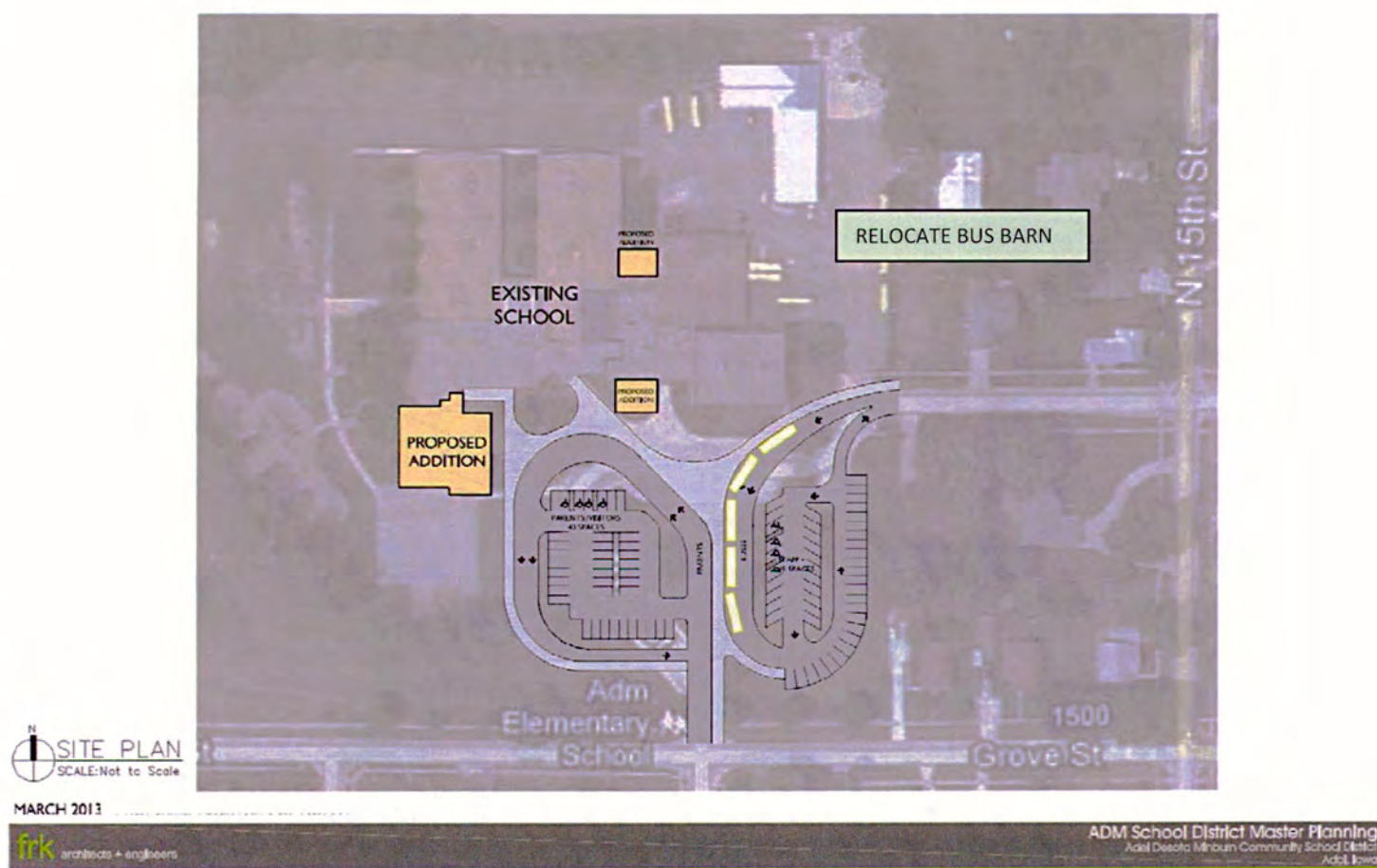
KEY

Study Phase	AE: Adel Elementary
Design Phase	DS: DeSoto
Bid Phase	NK: Nile Kinnick Campus
Contracts/Mobilization	DO: District Office
Construction Phase	DMS: Decommissioned Middle School
Future	PAC: Performing Arts Center



Adel Elementary Recommendations

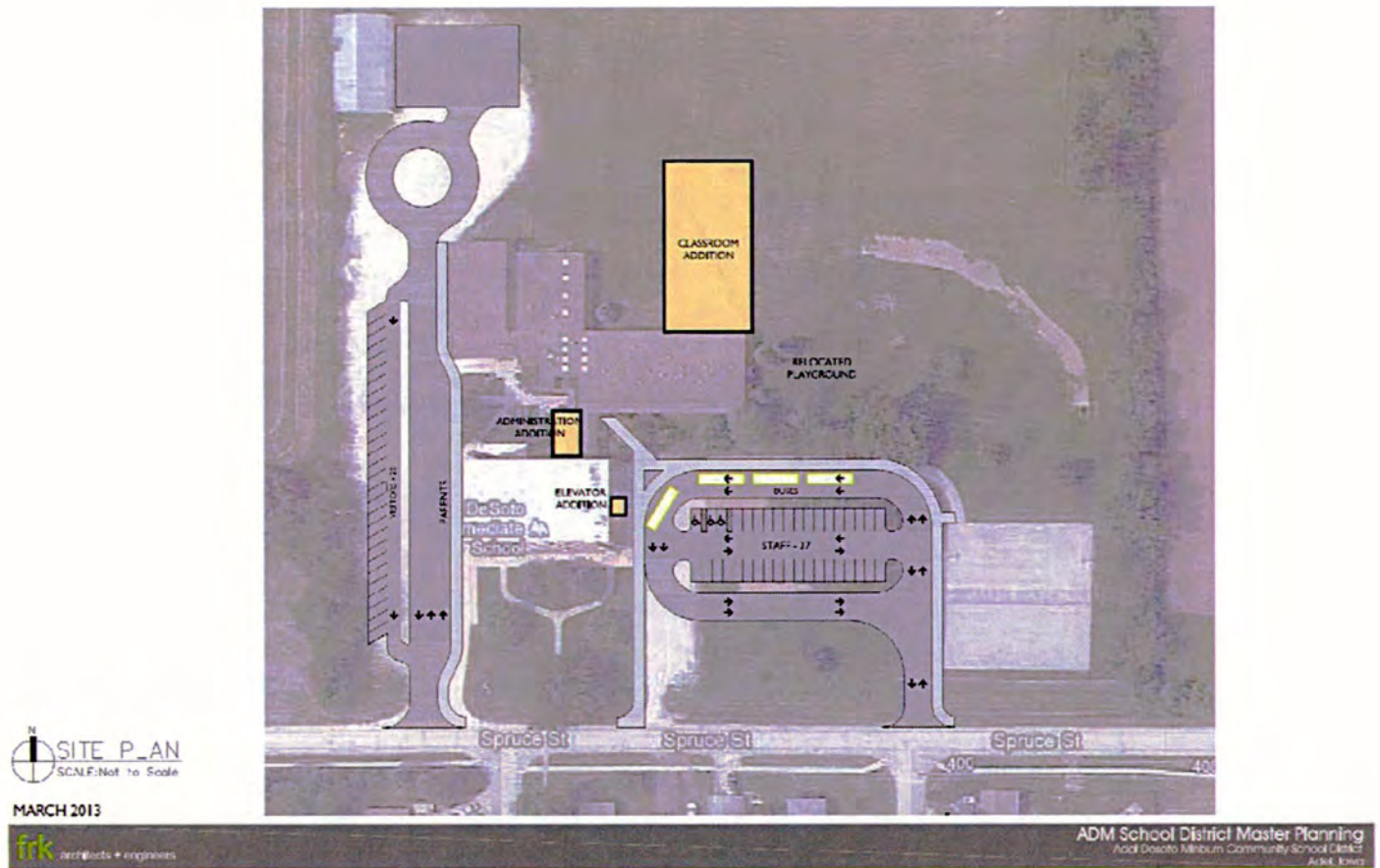
- Six additional classrooms would be added onto the school, bringing the capacity of the building to 510 students, 4 of them being sized and designed for kindergarten use.
- All kindergarten classes would be located in size appropriate classrooms.
- The Pre-K program would be expanded.
- The site would be reconfigured to separate bus drop off and pick up from parent drop off and pick up. Additional parking capacity would be provided.
- The Bus Barn would be relocated to the Nile Kinnick Campus.
- The school would be an 8 section Pre-K to 2nd grade attendance center.
- Construction completion: Summer, 2015.



Preliminary Schematic Option – Adel Elementary

DeSoto Intermediate Recommendations

- Eight additional classrooms would be added onto the school, bringing the capacity of the school to 482 students.
- The administration suite would be relocated to the main entrance of the building.
- The music, art, and cafeteria spaces would be renovated to create a more functional cafeteria for the increased student population.
- An elevator would be added to provide accessibility to the 3 levels of the original building.
- The site would be reconfigured to separate bus drop off and pick up from parent drop off and pick up. Additional parking capacity would be provided.
- The school would be an 8 section 3rd – 5th grade attendance center.
- Construction completion: Summer, 2016. Use temporary portable classrooms if needed before construction is complete.



Preliminary Schematic Option – DeSoto Intermediate

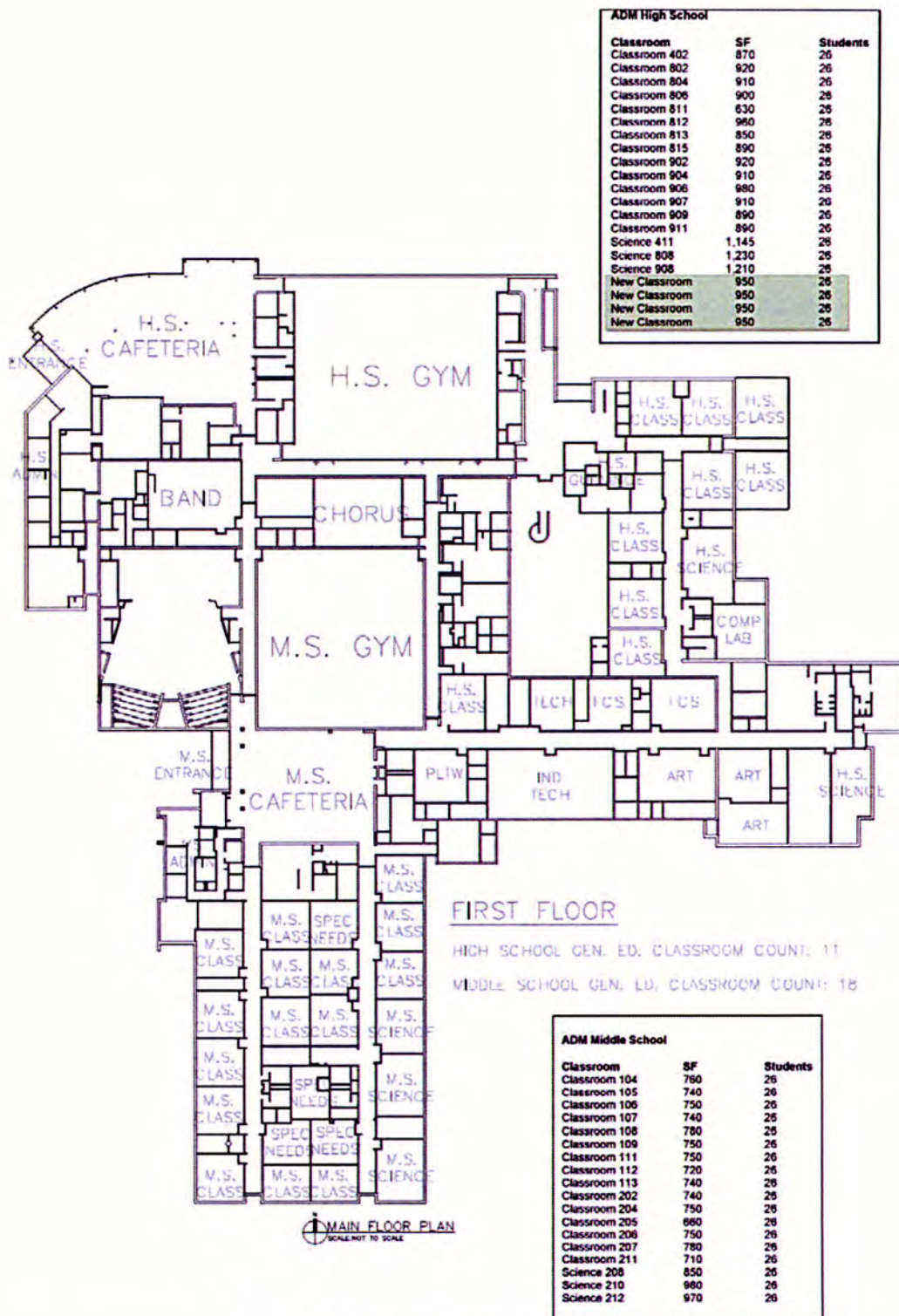
ADM Middle School and High School Recommendations

- Reconfigure Nile Kinnick Campus building to move Middle School program into High School program space and High School program into Middle School program.
- Renovate existing High School wing in preparation for Middle School program to occupy space.
- Move District Office to Decommissioned Adel Middle School Building.
- High School administration to occupy former District Office suite, Guidance program to occupy former Middle School administration suite, and Middle School administration to occupy former High School administration suite.
- New classroom addition to accommodate additional space needs at the High School program.
- Reconfigure site to safely separate Middle School site circulation from High School site circulation.
- See pages 30 and 31 for a proposal for accomplishing this reconfiguration.

Observations

The Committee makes the following observations in favor of reconfiguring the Middle School and High School programs within the Nile Kinnick campus building:

- The Nile Kinnick Campus was originally intended to become a 9-12 building at some point in the future. The most recent 2006 addition reflects this proposal with the large commons space, the wider circulation area, the larger classrooms and more appropriately sized science classrooms.
- The High School program can make use of the more appropriately sized science classrooms in the 2006 wing in lieu of construction of new science classroom space, which is more costly to construct.
- The size of the classrooms in the 2006 wing are more appropriate for high school students.
- By reconfiguring the programs it would be possible to create a more defined separation of the grade levels than is currently possible to do.
- The original south wing of the building is due for upgrades in HVAC, lighting and finishes. By addressing these needs this wing can become enhanced and updated to more than adequately accommodate the Middle School program.
- Relocating the District Office to the Decommissioned Adel Middle School Building is an economical way to provide the needed space for High School Administration and Guidance at the Nile Kinnick campus while at the same time providing a creative adaptive re-use of the Decommissioned Adel Middle School Building.

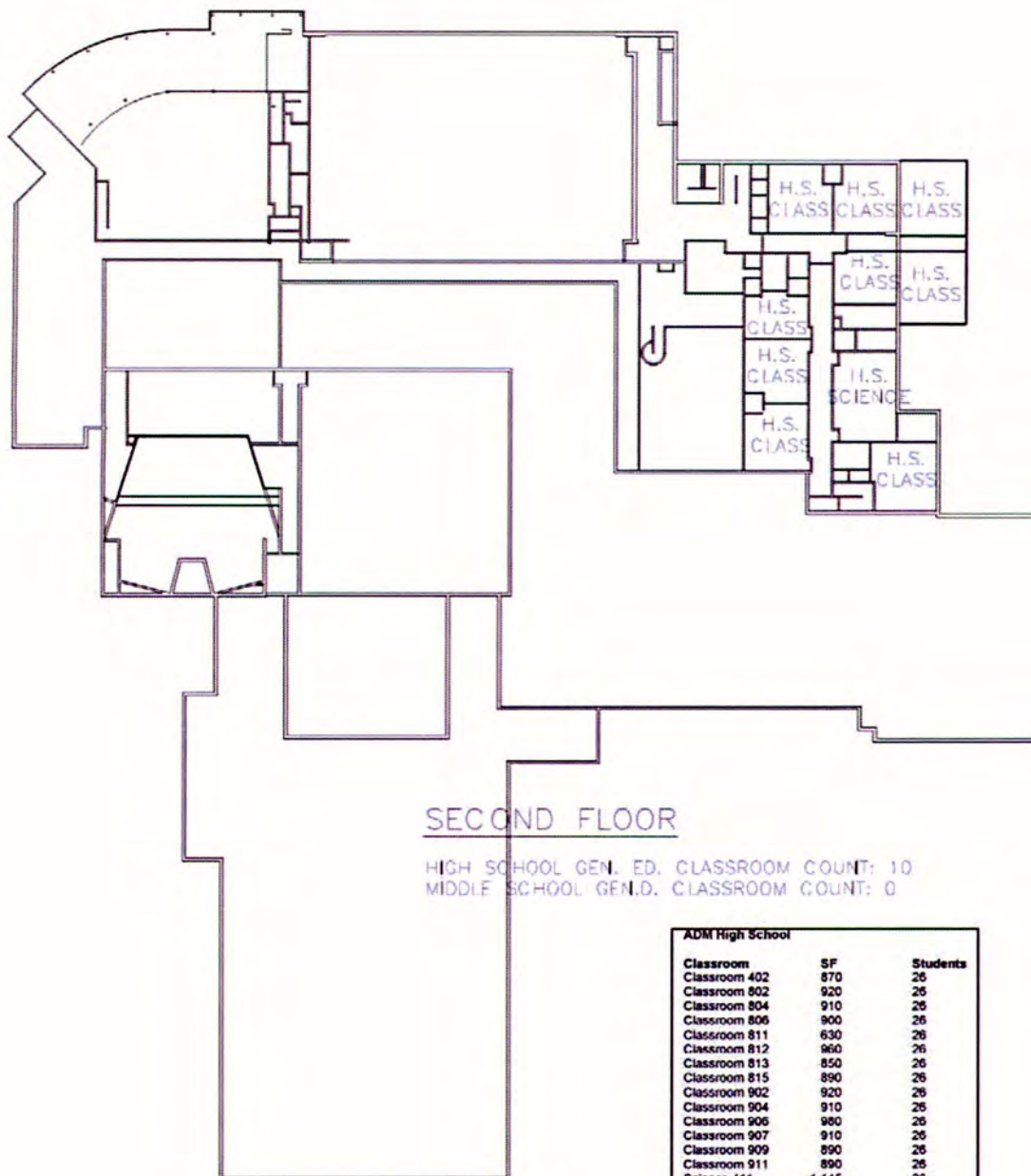


ADM MIDDLE SCHOOL/HIGH SCHOOL

March 2018

frk architects + engineers

MASTERPLANNING STUDY
ADEL DESOTO MINNAPOLIS COMMUNITY SCHOOL DISTRICT
DISTRICT OFFICE / ILL. / IOWA



SECOND FLOOR PLAN
SCALE: NOT TO SCALE

ADM High School		
Classroom	SF	Students
Classroom 402	870	26
Classroom 802	920	26
Classroom 804	910	26
Classroom 806	900	26
Classroom 811	630	26
Classroom 812	960	26
Classroom 813	850	26
Classroom 815	890	26
Classroom 902	920	26
Classroom 904	910	26
Classroom 906	980	26
Classroom 907	910	26
Classroom 909	890	26
Classroom 911	890	26
Science 411	1,145	26
Science 808	1,230	26
Science 908	1,210	26
New Classroom	950	26
New Classroom	950	26
New Classroom	950	26
New Classroom	950	26

ADM MIDDLE SCHOOL/HIGH SCHOOL

March 2013

frk architects + engineers

MASTERPLANNING STUDY

ADL DESIGN MIDDLE COMMUNITY SCHOOL DISTRICT
DISTRICT OFFICE / ADL, IOWA

Decommissioned Minburn Elementary Recommendations

- The ADM Community School District is to enter into discussions with potential partners (DMACC, other school districts) to consider converting the Minburn attendance center into a regional Agricultural Education Academy.
- The existing building will be evaluated for re-purposing. Portions would likely need to be razed and the remaining building thoroughly renovated.
- The athletic facilities could remain functional and continue to be used by the District and by community partners.

Decommissioned Adel Middle School Recommendations

- The building would be renovated to accommodate the following program space for District use:
 - District Offices
 - School Board conference room
 - District central receiving and storage
 - Athletic programming
 - Additional District office or educational space

Additional District Capital Projects

Adel Elementary

- HVAC upgrades
- Playground
- Secure entrances/classroom door locks
- Site circulation and parking
- Window replacement

DeSoto

- Administration remodel or relocation
- Original building toilet room remodel
- Conference room space
- Secure entrances (classroom doors in original building, classroom door locks in newer building)
- Site circulation and parking
- Window replacement in original building (including bay window)
- Art Room/Music Room/Cafeteria reconfiguration (cafeteria to no longer share space with art room)
- Roof replacement

ADM Middle School/High School

- Auditorium improvements (or new auditorium addition or new stand alone Performing Art Center)
- HVAC upgrades
- Roof replacement
- Secure entrances/classroom door locks/exterior doors
- Science classrooms renovation (if H.S. remains in south wing)
- Update lighting in H.S. wing
- Site circulation and parking
- Stadium improvements (track, bleacher expansion, concessions, restrooms, turf)

Part Three:
Additional Information

Glossary/Abbreviations

AIA - American Institute of Architects

CEFPI - Council of Educational Facility Planners International

Grossing Factor - A percentage used to indicate the ratio between program space (classrooms, library, administration, etc..) and non-program space (corridors, mechanical rooms, storage rooms, toilet rooms, thickness of walls, etc..) A typical grossing factor for educational facilities is 1.4. In other words, about 60% of the space in a building is program space and about 40% of a building is non-program space. Sometimes this ratio is called the Efficiency Factor.

HVAC - Heating Ventilation and Air Conditioning systems

NCES - National Center for Education Statistics

SF - Square Feet

TAG - Talented and Gifted

Attachments

- Meeting Minutes
- Master Planning Options
- Master Planning Costing Options