

FACILITY MASTER PLAN FOR

WALNUT GROVE R - V

SCHOOL DISTRICT | WALNUT GROVE, MO | 2019



**SAPP
DESIGN**
ARCHITECTS

PREPARED BY:

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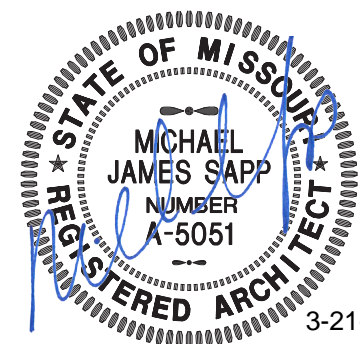
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Architect of Record



3-21-2019





BACKGROUND INFO

01

Executive Summary::

Sapp Design Associates Architects, P.C. was contracted by the Walnut Grove R-V School District in Walnut Grove, Missouri to develop a District Master Plan. The purpose of the plan was to evaluate the current utilization of educational spaces and campus layout, taking into consideration projected future changes in enrollment.

The primary objective of this Master Plan is to determine the most educationally-effective and resource-efficient way to provide an exemplary educational environment to benefit the students, teachers, and administrators of this District. The process that was conducted was focused on this goal throughout. The process was initiated with a study of the demographic nature of the District. Analysis of the facilities was also conducted to determine the most effective method of promoting a safe, secure, and comfortable educational environment for all involved. Growth was projected, program needs were assessed, and planning schemes were developed and coupled with funding options to achieve a logical and economical planning solution.

Several alternative directions were developed, and are presented herein. From these, Sapp Design Associates -- with input and direction from the Planning Committee, comprised of community members, faculty, and staff -- have determined the most effective scenario. We present it as our recommendation to the Board of Education for further study and refinement.

Facilities Planning::

Buildings, equipment, and grounds are essential for child development and are of the utmost importance to help make healthy, intelligent, and useful citizens. The School Board shall make the necessary provisions for the planning of facilities to carry out the goals and objectives of the Walnut Grove R-V School District.

The School Board will review procedures and recommendations for periodically updating the long-range school facilities program. This review will provide guidance for capital outlay expenditures and will assure that the school has well-planned facilities when needed and at reasonable costs.

Mission Statement::

“Learn Today, Lead Tomorrow - Building Community, Honoring Tradition.”

--Adopted by the Board of Education, 2016

District Goals::

Believing that education must seek to permit the individual to develop to his fullest capacities for adjustment in our continually changing society, the Walnut Grove R-V School has the following goals:

1. To encourage understanding and appreciation of rights in our society through our social studies program and student body standards.
2. To provide a climate in which the student will develop respect for others and respect for property, law, order and authority.
3. To provide an environment conducive to creative thinking and worthwhile activity through pleasant classrooms, laboratory and shop facilities and the availability of the school library.
4. To promote the most effective participation in a democratic society through democratic clubs and other school organizations so that the student might become an active, worthwhile citizen of his/her community.
5. To develop a strong sense of personal integrity based upon understanding correct moral concepts by cooperation of the school with church, home and community.
6. To stimulate intellectual curiosity and promote satisfaction in intellectual achievement through classroom activities, competitive events and recognition of outstanding students.
7. To cultivate the student's ability to think rationally - particularly through investigative type of laboratory work, creative writing and various kinds of problem solving.
8. To help the student develop aesthetic values through the fine arts program.
9. To promote the fullest possible realization of individual differences through a program of developmental reading, speech and special education.
10. To develop responsible followers as well as leaders through school organizations, sports and other competitive programs.

Planning Goals::

Flexibility

In anticipation of the growing momentum toward “21st Century Learning Environments,” as well as the fluctuations in enrollment experienced by the Walnut Grove R-V School District, flexibility has been a continuous factor in determining the longevity and multi-functionality of existing spaces. The objective to provide and maintain a level of flexibility in all of the existing and planned facilities has been influential in our recommendation for the Master Plan.

“Grow” into the Building

The Master Plan assessment assumes that there may be fluctuation in enrollment, as well as changes in educational methods and course content throughout the next ten years that may not be accounted for in today’s educational environment. These considerations indicate that the buildings should account for more than minimum standards. It is important during the master planning process to account for these considerations by recommending a solution that will allow Walnut Grove R-V School District to “grow” into their buildings instead of meeting a minimum standard with little room for growth or flexibility.

The “New Appropriate”

A new generation of students, with deep immersion in social and informational technologies, will excel in a media-rich and hands-on classroom environment. Laptops, interactive projectors, and hand-held devices have been added to the traditional tools of paper, pens, and whiteboards. These changes are driving the adoption of active learning instruction models that create more collaborative learning environments and give students more control over how content is learned and from whom they learn. Combining new learning methodologies with information and communication technologies and with the physical environment has become the “New Appropriate” for the learning experience.

Planning Standards

A collection of well-researched planning standards were analyzed and considered in relation to the teaching philosophy of the Walnut Grove R-V School District. After careful consideration and analysis, it was determined that the most appropriate and updated standards for K-12 educational facility spatial planning was the *Guide for Planning School Construction Projects in Minnesota*, published in January 2003 by the Minnesota Department of Children, Families & Learning. This standard shares many similarities to Missouri Department of Elementary and Secondary Education (DESE) planning guidelines, but provides more in-depth analysis and relevance to today’s learning environments.

Student : Teacher Ratios

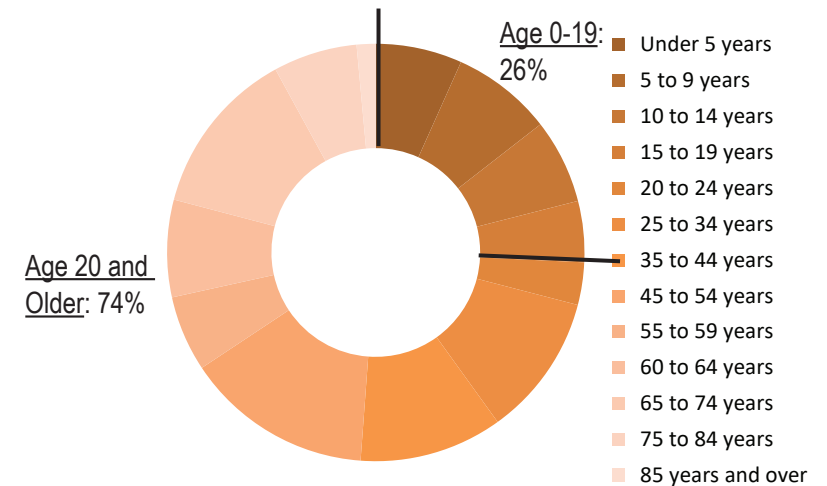
The Missouri School Improvement Program, as a component of the Missouri Department of Elementary and Secondary Education (DESE), was utilized as the Desirable Standards in determining the expected Student : Teacher Ratio (STR) for each grade throughout the District.

Classroom Size

The DESE recommended STR values were utilized in conjunction with the recommended classroom floor area (in square feet) to calculate a recommended area per student for each room type or grade level. Actual student counts were then compared to existing room sizes of classrooms and core spaces to determine the appropriate number of students per space and the actual area shortage or overage. It is important to consider that one important variable (e.g., poor location, small room size, or inadequate ventilation) might make an otherwise adequate classroom or lab less than adequate. Comments and assistance from building and District maintenance staff, principals, and teachers have been utilized in the assessment of existing facilities.

Subject	Walnut Grove R-V	
	Number	Pct
D1. AGE		
Universe: Total population		
Total population	2031	
Under 5 years	136	6.7
5 to 9 years	158	7.8
10 to 14 years	133	6.5
15 to 19 years	96	4.7
20 to 24 years	67	3.3
25 to 34 years	224	11
35 to 44 years	225	11.1
45 to 54 years	295	14.5
55 to 59 years	119	5.9
60 to 64 years	153	7.5
65 to 74 years	263	12.9
75 to 84 years	132	6.5
85 years and over	30	1.5
Median age in years	44	
5 years and over	1895	93.3
15 years and over	1604	79
Under 18 years of age	494	24.3
18 years and over	1537	75.7
21 years and over	1487	73.2
25 years and over	1441	71
62 years and over	528	26
65 years and over	425	20.9
D2. AGE AND SEX		
Universe: Total population		
Total population	2031	
Male	989	48.7
18 years old and over	737	74.5
65 years old and over	210	21.2
Female	1042	51.3
18 years old and over	800	76.8
65 years old and over	215	20.6

Subject	Walnut Grove R-V	
	Number	Pct
D3. RACE		
Universe: Total population		
Total population	2031	
One race	1995	98.2
White alone	1906	93.8
Black or African American	0	
American Indian and Alaska Native	5	0.2
Asian	26	1.3
Native Hawaiian and Other Pacific Islander	3	0.1
Some other race	55	2.7
Two or more races	36	1.8
White (alone or in combination)	1942	95.6
Black (alone or in combination)	3	0.1
American Indian (alone or in combination)	34	1.7
Asian (alone or in combination)	30	1.5
Native Hawaiian (alone or in combination)	3	0.1
Some other race (alone or in combination)	55	2.7



Demographic Profile::

Pre-School Age (under 5): 6.7% of District Population
 School Age (5-19): 19.1% of District Population
 New Parent Age (20-34): 14.3% of District Population
 All Others (35 and older): 59.9% of District Population
 Median Age of District Population: 44

This information was collected from the projected 2016 Census.

Subject	Walnut Grove R-V	
	Number	Pct
H1. HOUSING OCCUPANCY AND TENURE		
Universe: Housing units		
Total housing units	848	
Occupied housing units	785	92.6
Owner-occupied	618	78.7
Renter-occupied	167	21.3
Average household size of owner-occupied unit	2.59	
Average household size of renter-occupied unit	2.59	
Vacant housing units	63	7.4
For sale	0	
For rent	17	27
For seasonal, recreational, or occasional use	9	14.3
Total owner units	618	
Homeowner vacancy rate	0	
Total rental units	184	
Rental vacancy rate	9.2	
People living in owned homes	1598	78.7
People living in rental homes	433	21.3
H2. UNITS IN STRUCTURE		
Universe: Housing units		
Total housing units	848	
Single-family units	737	86.9
Single unit, detached	732	99.3
Single unit, attached	5	0.7
Duplexes	4	0.5
3 or 4 units	39	4.6
5 to 9 units	2	0.2
10 to 19 units	2	0.2
20 or more units	0	
Mobile home	64	7.5
Boat, RV, van, etc.	0	
Mobile homes per 1000 HUs	75	

Subject	Walnut Grove R-V	
	Number	Pct
H3. YEAR STRUCTURE BUILT		
Universe: Housing units		
Total housing units	848	
Built 2010 or later	13	1.5
Built 2000 to 2009	130	15.3
Built 1990 to 1999	173	20.4
Built 1980 to 1989	74	8.7
Built 1970 to 1979	94	11.1
Built 1960 to 1969	51	6
Built 1950 to 1959	59	7
Built 1940 to 1949	49	5.8
Built 1939 or earlier	205	24.2

Housing Profile::

Average Household Size: 2.59
 Occupied Housing Units: 92.6%
 Vacant Housing Units: 7.4%

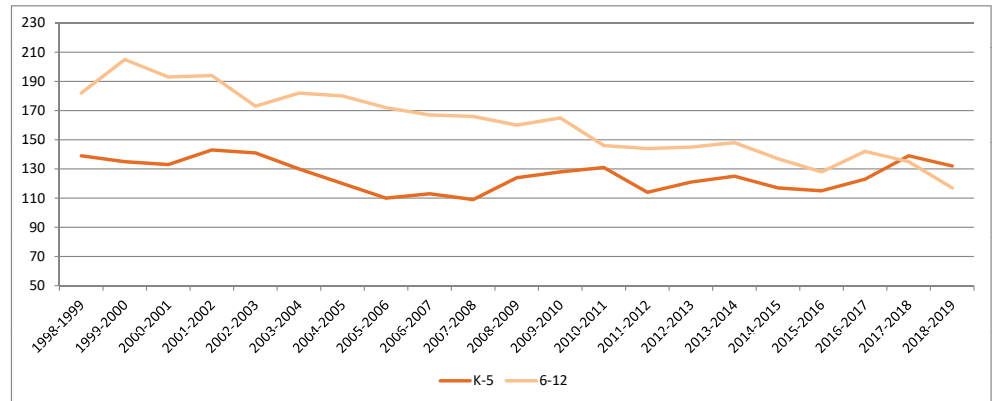
This information was collected from the projected 2016 Census.

Enrollment History::

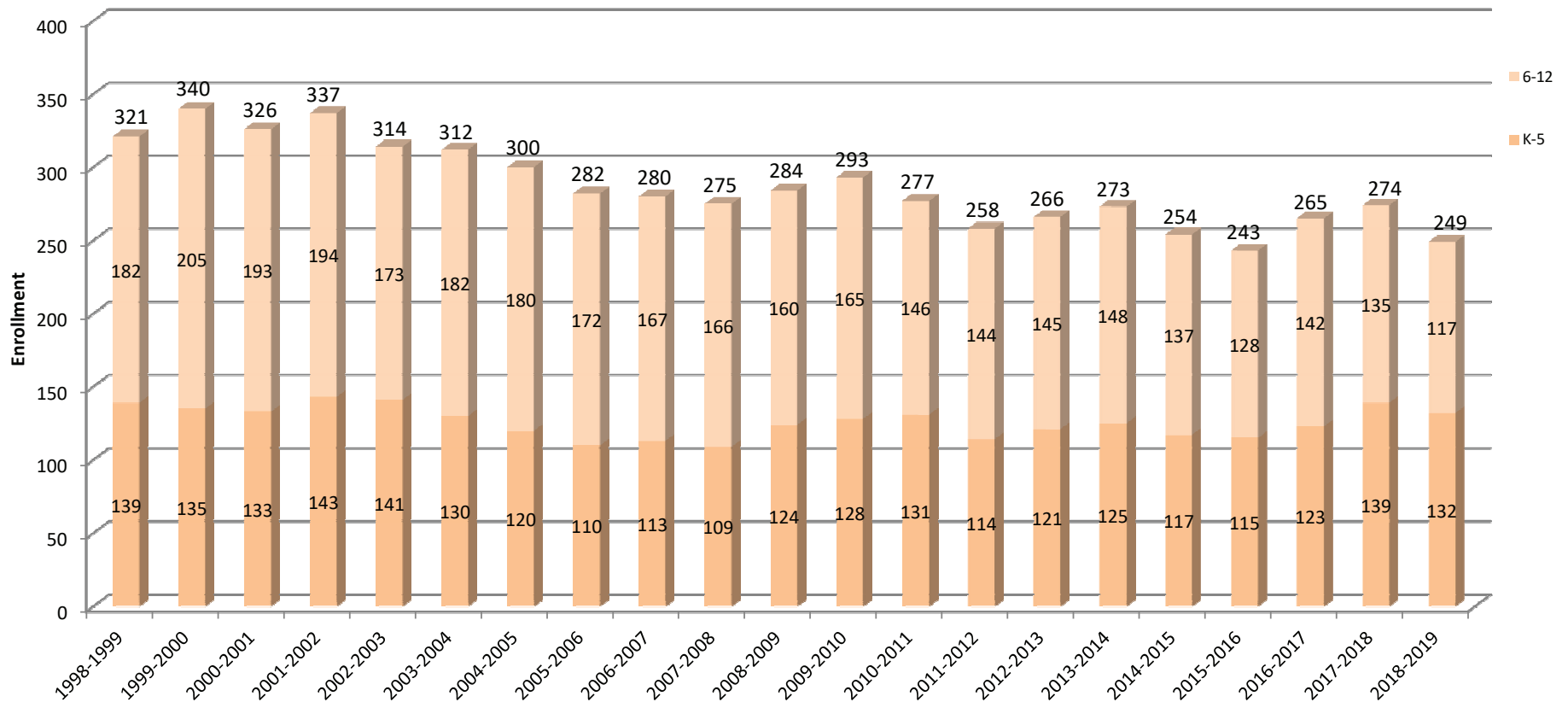
The charts contained in this section show some of the historical data used when developing a Master Plan. Enrollment history provides student enrollment numbers for the district over the past several years, as well as the percentage of increase or decrease from the previous year. This information can be used to more accurately estimate what type of future growth may occur.

The 10-year average annual growth is -1.14%. This equates to a 12% total drop from 2008-09, or a drop of 35 students.

The 20-year average annual growth is -1.14%. This equates to a 22% total drop from 1998-99, or a drop of 72 students.



Enrollment History



Cohort Survival Ratio::

	Change Ratio	K	Survival Ratio	1	Survival Ratio	2	Survival Ratio	3	Survival Ratio	4	Survival Ratio	5	Survival Ratio	6	Survival Ratio	7	Survival Ratio	8	Survival Ratio	9	Survival Ratio	10	Survival Ratio	11	Survival Ratio	12	Total	% Increase
1998-1999		27	23	18	18	21	32	24	24	39	26	28	21	20	321													
	85%		89%	113%	94%	117%	114%	106%	117%	121%	105%	96%	96%	100%														5.92%
1999-2000		23	24	26	17	21	24	34	28	29	41	25	27	21	340													
	78%		91%	104%	104%	94%	124%	88%	91%	114%	83%	83%	104%	93%														-4.12%
2000-2001		18	21	25	27	16	26	21	31	32	24	34	26	25	326													
	150%		83%	114%	100%	111%	138%	88%	119%	106%	94%	83%	106%	104%														3.37%
2001-2002		27	15	24	25	30	22	23	25	33	30	20	36	27	337													
	89%		100%	107%	108%	88%	87%	77%	113%	112%	73%	103%	95%	78%														-6.82%
2002-2003		24	27	16	26	22	26	17	26	28	24	31	19	28	314													
	63%		96%	107%	94%	96%	105%	104%	100%	108%	111%	113%	100%	111%														-0.64%
2003-2004		15	23	29	15	25	23	27	17	28	31	27	31	21	312													
	113%		93%	87%	97%	107%	100%	113%	89%	100%	93%	94%	104%	97%														-3.85%
2004-2005		17	14	20	28	16	25	26	24	17	26	29	28	30	300													
	141%		94%	107%	85%	89%	81%	112%	96%	100%	129%	96%	83%	86%														-6.00%
2005-2006		24	16	15	17	25	13	28	25	24	22	25	24	24	282													
	79%		96%	94%	107%	94%	96%	123%	93%	100%	96%	109%	112%	104%														-0.71%
2006-2007		19	23	15	16	16	24	16	26	25	23	24	28	25	280													
	95%		89%	109%	107%	100%	106%	113%	100%	88%	108%	117%	96%	82%														-1.79%
2007-2008		18	17	25	16	16	17	27	16	23	27	27	23	23	275													
	117%		106%	124%	100%	100%	138%	129%	93%	88%	104%	96%	89%	109%														3.27%
2008-2009		21	19	21	25	16	22	22	25	14	24	26	24	25	284													
	100%		119%	95%	100%	112%	94%	91%	109%	104%	136%	104%	100%	104%														3.17%
2009-2010		21	25	18	21	28	15	20	24	26	19	25	26	25	293													
	100%		81%	92%	106%	110%	100%	100%	105%	79%	92%	89%	100%	96%														-5.46%
2010-2011		21	17	23	19	23	28	15	21	19	24	17	25	25	277													
	76%		100%	94%	104%	84%	91%	96%	100%	81%	100%	113%	94%	92%														-6.86%
2011-2012		16	21	16	24	16	21	27	15	17	19	27	16	23	258													
	144%		106%	105%	113%	88%	125%	114%	89%	113%	94%	105%	100%	106%														3.10%
2012-2013		23	17	22	18	21	20	24	24	17	16	20	27	17	266													
	100%		109%	118%	86%	106%	90%	85%	117%	96%	88%	125%	100%	93%														2.63%
2013-2014		23	25	20	19	19	19	17	28	23	15	20	20	25	273													
	74%		96%	92%	90%	111%	84%	84%	88%	89%	109%	100%	100%	105%														-6.96%
2014-2015		17	22	23	18	21	16	16	15	25	25	15	20	21	254													
	88%		124%	105%	87%	94%	90%	100%	119%	80%	88%	104%	120%	75%														-4.33%
2015-2016		15	21	23	20	17	19	16	19	12	22	26	18	15	243													
	147%		107%	114%	104%	105%	94%	89%	113%	126%	125%	109%	92%	111%														9.05%
2016-2017		22	16	24	24	21	16	17	18	24	15	24	24	20	265													
	127%		82%	119%	100%	117%	105%	113%	100%	89%	88%	100%	96%	104%														3.40%
2017-2018		28	18	19	24	28	22	18	17	16	21	15	23	25	274													
	68%		111%	122%	89%	75%	89%	86%	78%	76%	88%	95%	100%	96%														-9.12%
2018-2019		19	31	22	17	18	25	19	14	13	14	20	15	22	249													

10-yr avg.: -1.14%
20-yr avg.: -1.14%

Projected Enrollment::

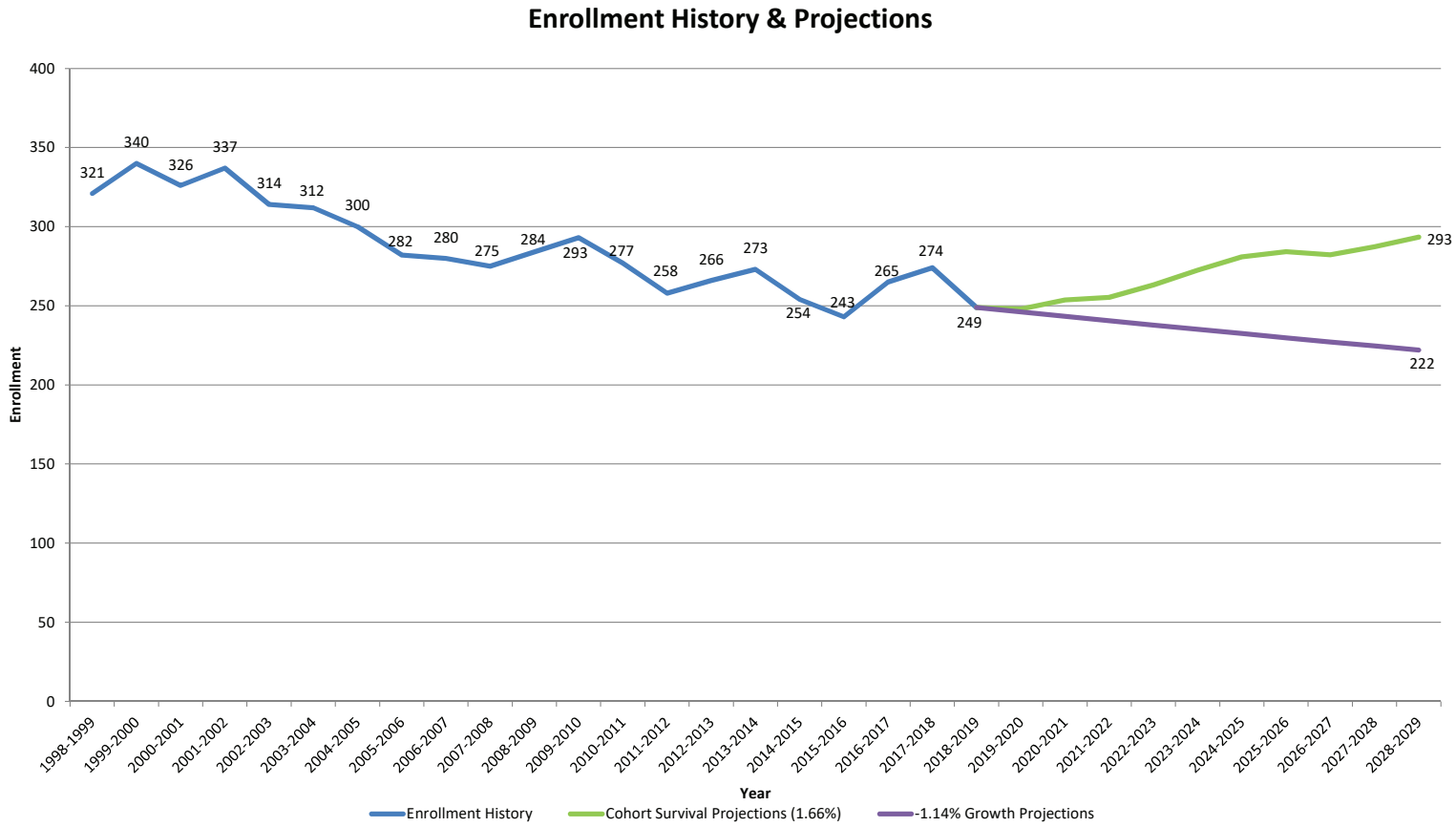
The charts and graphs contained in this section show the future data used when developing a long range Master Plan. Projected enrollment provides estimated student enrollment numbers for the district over the next ten years. This information can be used to better determine what type of future building accommodations may be required.

The Cohort Survival Ratio (below) forecasts future enrollment trends by projecting the district's current enrollment by grade based on each grade level's average annual change during the 20-year historical period. This projection takes into account a combination of "short term," or recent, information and "long term" information. The growth rate for Pre-K can be determined in part by the District, and therefore Pre-K enrollment is not included in the enrollment projections.

Cohort Survival Ratio::

	Change Ratio	K	Survival Ratio	1	Survival Ratio	2	Survival Ratio	3	Survival Ratio	4	Survival Ratio	5	Survival Ratio	6	Survival Ratio	7	Survival Ratio	8	Survival Ratio	9	Survival Ratio	10	Survival Ratio	11	Survival Ratio	12	Total	% Increase
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			-0.40%
2019-2020		19		19		33		22		17		18		25		19		14		13		14		20		15	248	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			2.29%
2020-2021		20		19		20		32		22		17		19		26		19		14		13		14		19	254	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			0.62%
2021-2022		20		19		20		20		32		22		18		19		25		19		14		13		14	255	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			3.13%
2022-2023		20		20		21		20		20		33		22		18		19		25		19		14		13	263	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			3.49%
2023-2024		21		20		21		20		20		20		33		23		18		19		26		19		14	272	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			3.10%
2024-2025		21		20		21		21		20		20		20		34		22		18		19		25		19	281	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			1.16%
2025-2026		21		21		22		21		21		21		21		20		33		22		18		19		25	284	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			-0.68%
2026-2027		22		21		22		21		21		21		21		21		20		33		23		18		18	282	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			1.81%
2027-2028		22		21		22		22		21		21		21		21		21		20		34		23		17	287	
	102%		99%		106%		99%		100%		103%		101%		101%		99%		100%		102%		99%		97%			2.12%
2028-2029		22		22		23		22		22		22		22		22		21		21		21		34		22	293	

Projected avg.: 1.66%



The Cohort Survival Ratio’s projected average annual change is 1.66%, which indicates that growth is a potential.

The Enrollment History & Projections graph (above) shows the past enrollment over the 20-year historical period, as well as potential future growth trends. The Cohort Survival projection is indicated by the green line. The purple line represents enrollment projections based on the district’s overall average annual change over the last 10 or 20 years. Either of these potential growth trends is a possibility, and therefore this graph provides a range of possible enrollment projections. Actual future enrollment may vary considerably. However, any increase in the number of students in any given grade, regardless of overall rate of growth, will inevitably result in the need for additional accommodations.

When assessing enrollment projections by school (K-5, 6-12) using both the Cohort Survival Ratio and the average annual growth during the historical period, the maximum enrollment over the next 10-year window is increasing from the 2018-2019 school year by (2) K-5 grade students at the Elementary School, and by (44) 6-12 grade students at the High School / Middle School.

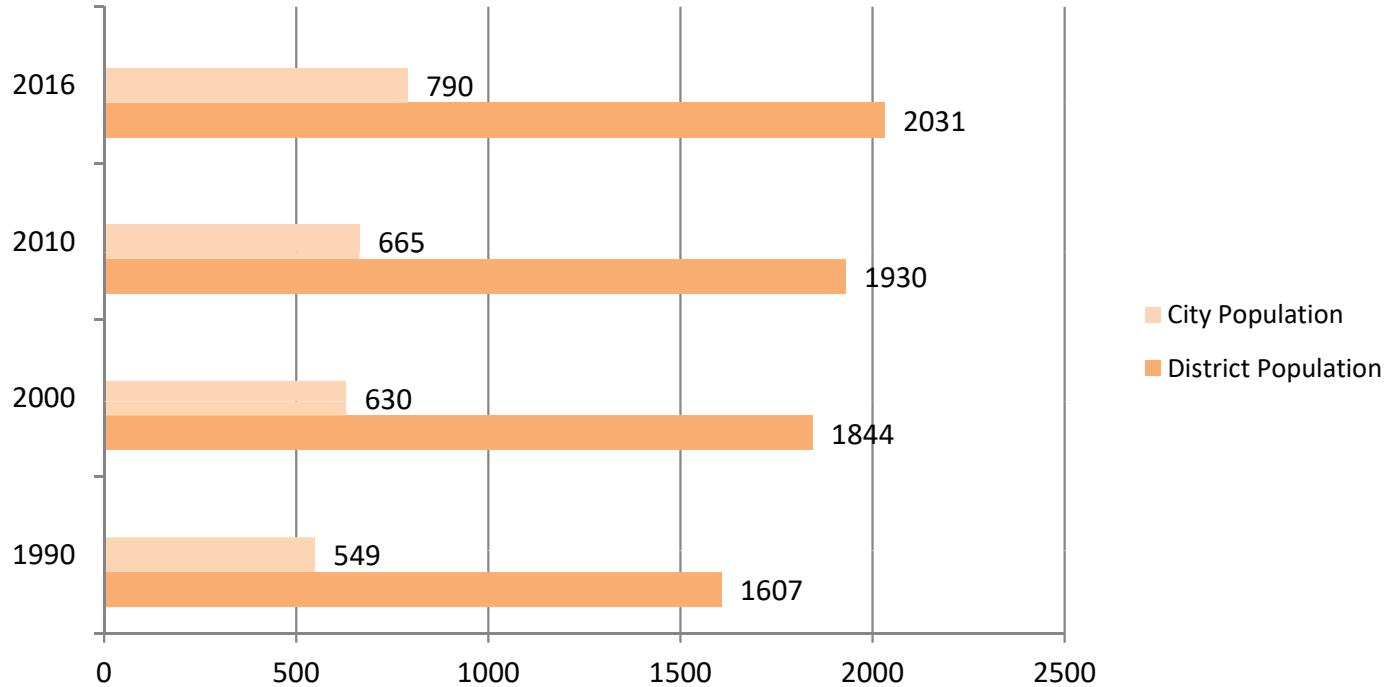
Area Population::

Changes in area population provide information that can be used to better estimate what type of future District growth may occur. The City population of Walnut Grove has seen continuous growth in each census, and the rate of growth appears to be increasing over recent years. The projected City population in 2016 has increased by over 43% since the 1990 Census.

The School District population has followed similar trends, but has not seen as much growth in recent years, indicating that rural areas around Walnut Grove are not growing at the same rate as the City. The projected population in 2016 has increased by over 26% since the 1990 Census.

Changes in City Population		
	Population	Increase
1990	549	
2000	630	15%
2010	665	6%
2016	790	19%

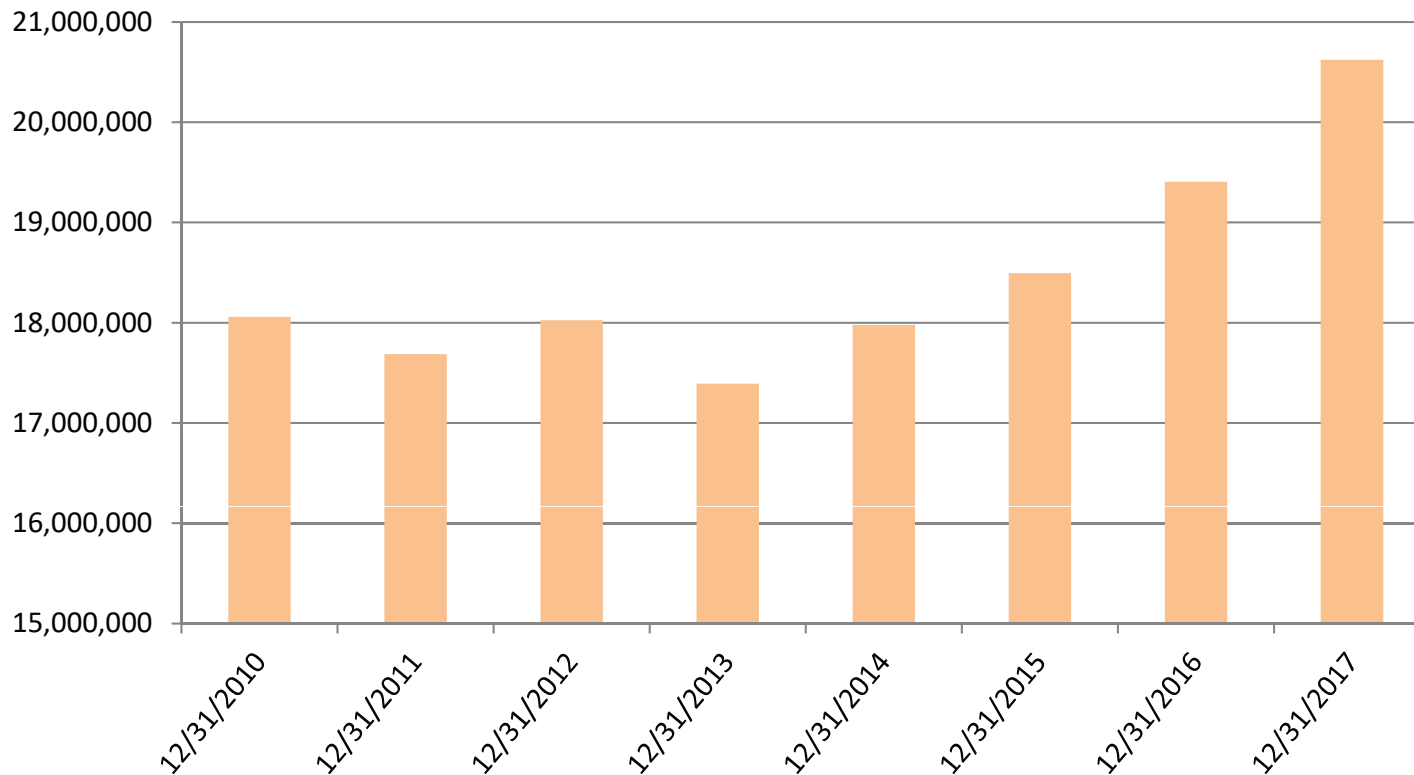
Changes in School District Population		
	Population	Increase
1990	1,607	
2000	1,844	15%
2010	1,930	5%
2016	2,031	5%



Assessed Valuation::

Assessed valuation history shows the data from previous years, indicating what the School District has been able to maintain for funding purposes. This data can be used to determine possible funding options for future facility projects. Assessed valuation has had a total increase of fourteen percent (14%) since 2010 and an average annual change of two percent (2%).

Assessed Valuation								
	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017
Assessed Valuation	18,058,870	17,687,085	18,024,370	17,391,520	17,978,835	18,494,862	19,407,270	20,622,227
Change		-2%	2%	-4%	3%	3%	5%	6%
8-Year Overall Change:							14%	
Average Annual Change:							2%	



District Financial Data::

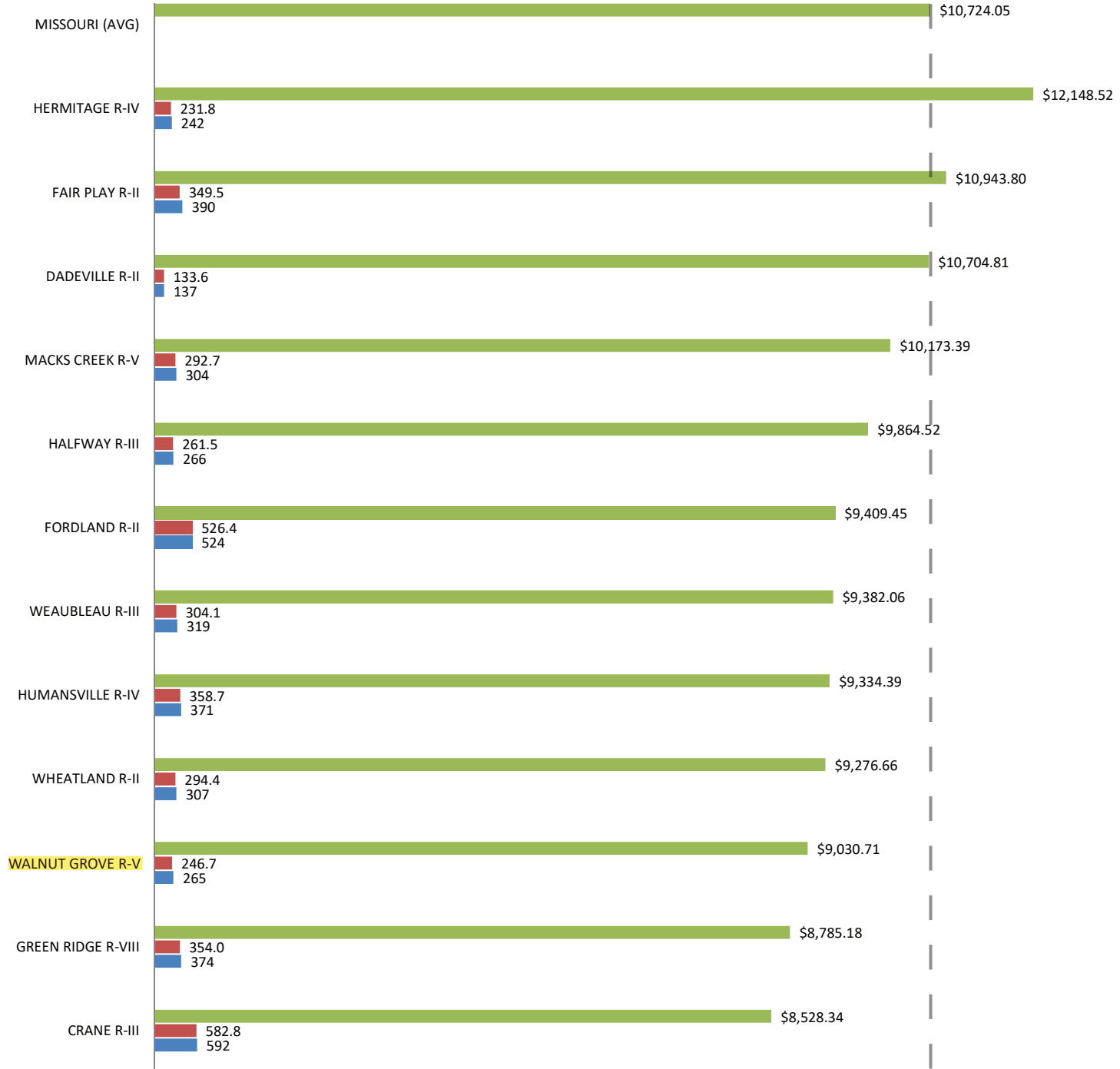
In comparing financial data, the charts shown here include eleven neighboring schools districts who compete athletically with the Walnut Grove R-V School District. Of these, Walnut Grove falls on the low side regarding total enrollment, assessed valuation, and current expenditure per average daily attendance, but it falls in the middle regarding tax levy values.

The district's tax levy and current expenditure per average daily attendance both fall below the State averages.

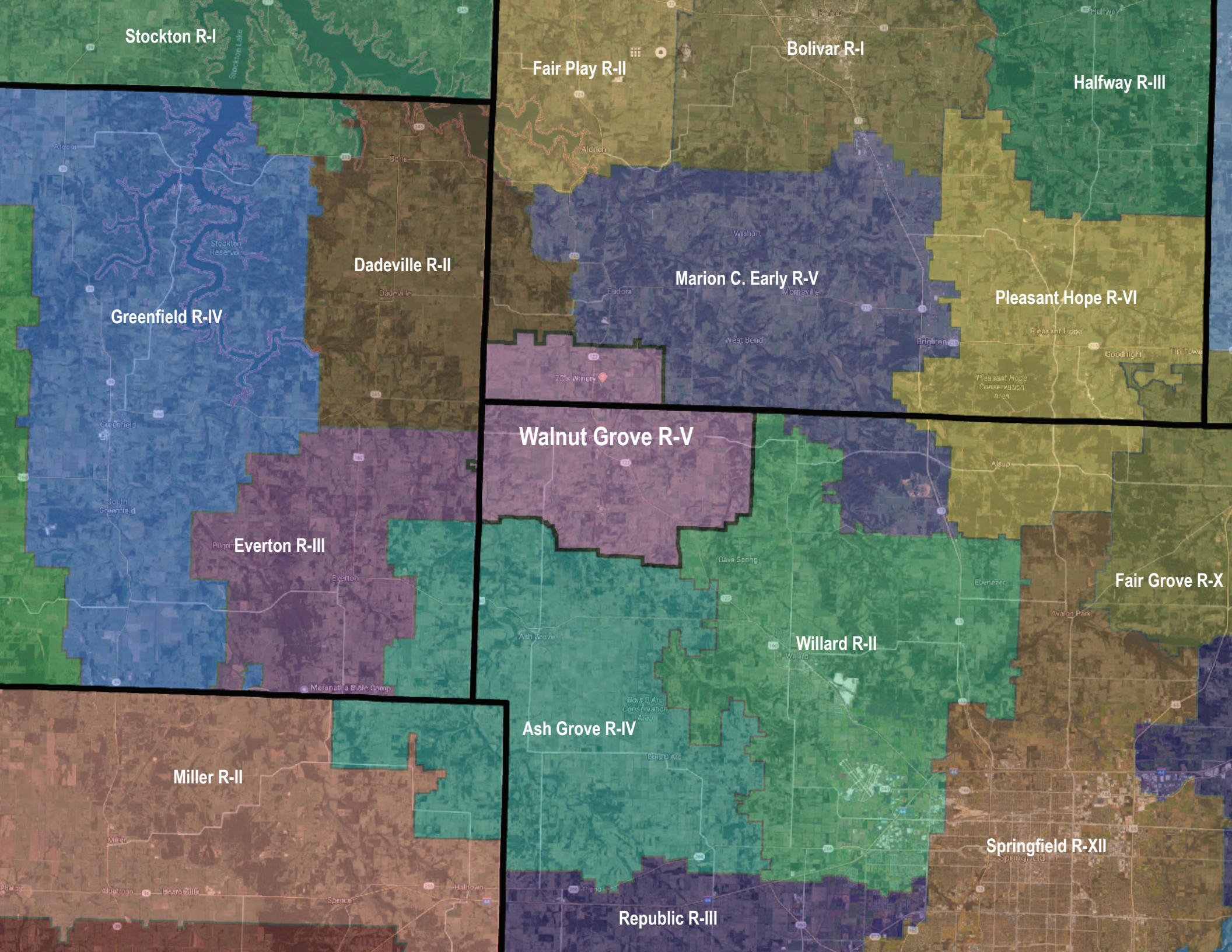
District Name	Dec. 2017 Assessed Valuation	Tax Levy	Tax Rate Ceiling Operating Funds	Adjusted Tax Rate				Total Enrollment	Average Daily Attendance (ADA)	Current Expenditure	Total Expenditure	Current Expenditure/ ADA
				Incidental	Teachers	Debt Service	Capital Projects					
CRANE R-III	27,671,634	4.2739	3.2939	3.2939	0.0000	0.9800	0.0000	592	582.8	\$4,970,228.58	\$6,019,888.11	\$8,528.34
GREEN RIDGE R-VIII	26,116,447	3.8307	3.4379	3.4379	0.0000	0.3928	0.0000	374	354.0	\$3,110,252.30	\$3,579,751.26	\$8,785.18
WALNUT GROVE R-V	19,407,270	3.8282	3.8282	3.8282	0.0000	0.0000	0.0000	265	246.7	\$2,227,446.54	\$2,777,744.75	\$9,030.71
WHEATLAND R-II	38,204,185	3.3256	2.9120	2.9120	0.0000	0.4136	0.0000	307	294.4	\$2,730,602.89	\$3,285,089.98	\$9,276.66
HUMANSVILLE R-IV	20,501,484	3.5172	3.0168	3.0168	0.0000	0.5004	0.0000	371	358.7	\$3,348,104.86	\$3,967,960.97	\$9,334.39
WEAUBLEAU R-III	24,115,405	3.6400	2.7500	2.7500	0.0000	0.8900	0.0000	319	304.1	\$2,853,078.25	\$3,731,796.15	\$9,382.06
FORDLAND R-II	33,248,628	3.5089	2.7500	2.7500	0.0000	0.7589	0.0000	524	526.4	\$4,952,969.21	\$7,789,628.55	\$9,409.45
HALFWAY R-III	19,924,270	4.1362	3.5162	3.5162	0.0000	0.6200	0.0000	266	261.5	\$2,579,540.95	\$3,019,657.18	\$9,864.52
MACKS CREEK R-V	32,353,350	3.8338	3.3435	3.3435	0.0000	0.4903	0.0000	304	292.7	\$2,978,215.52	\$4,911,106.85	\$10,173.39
DADEVILLE R-II	11,423,251	4.4200	3.8781	3.4300	0.0000	0.9900	0.0000	137	133.6	\$1,430,362.39	\$1,835,754.82	\$10,704.81
FAIR PLAY R-II	18,125,110	4.1000	3.5231	3.4300	0.0000	0.6700	0.0000	390	349.5	\$3,824,793.47	\$7,094,229.81	\$10,943.80
HERMITAGE R-IV	42,258,451	3.2000	2.7500	2.7500	0.0000	0.4500	0.0000	242	231.8	\$2,815,622.40	\$3,905,518.56	\$12,148.52
MISSOURI (AVG)		4.1007	3.6780	3.4105	0.1415	0.4741	0.0746					\$10,724.05

Current Expenditures / ADA 2017

■ Current Expenditure/ ADA ■ Average Daily Attendance (ADA) ■ Total Enrollment



District Location::



Stockton R-I

Fair Play R-II

Bolivar R-I

Halfway R-III

Dadeville R-II

Marion C. Early R-V

Pleasant Hope R-VI

Greenfield R-IV

Walnut Grove R-V

Willard R-II

Fair Grove R-X

Everton R-III

Ash Grove R-IV

Miller R-II

Republic R-III

Springfield R-XII





EXISTING CONDITIONS

02

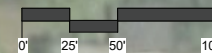
School Locations::



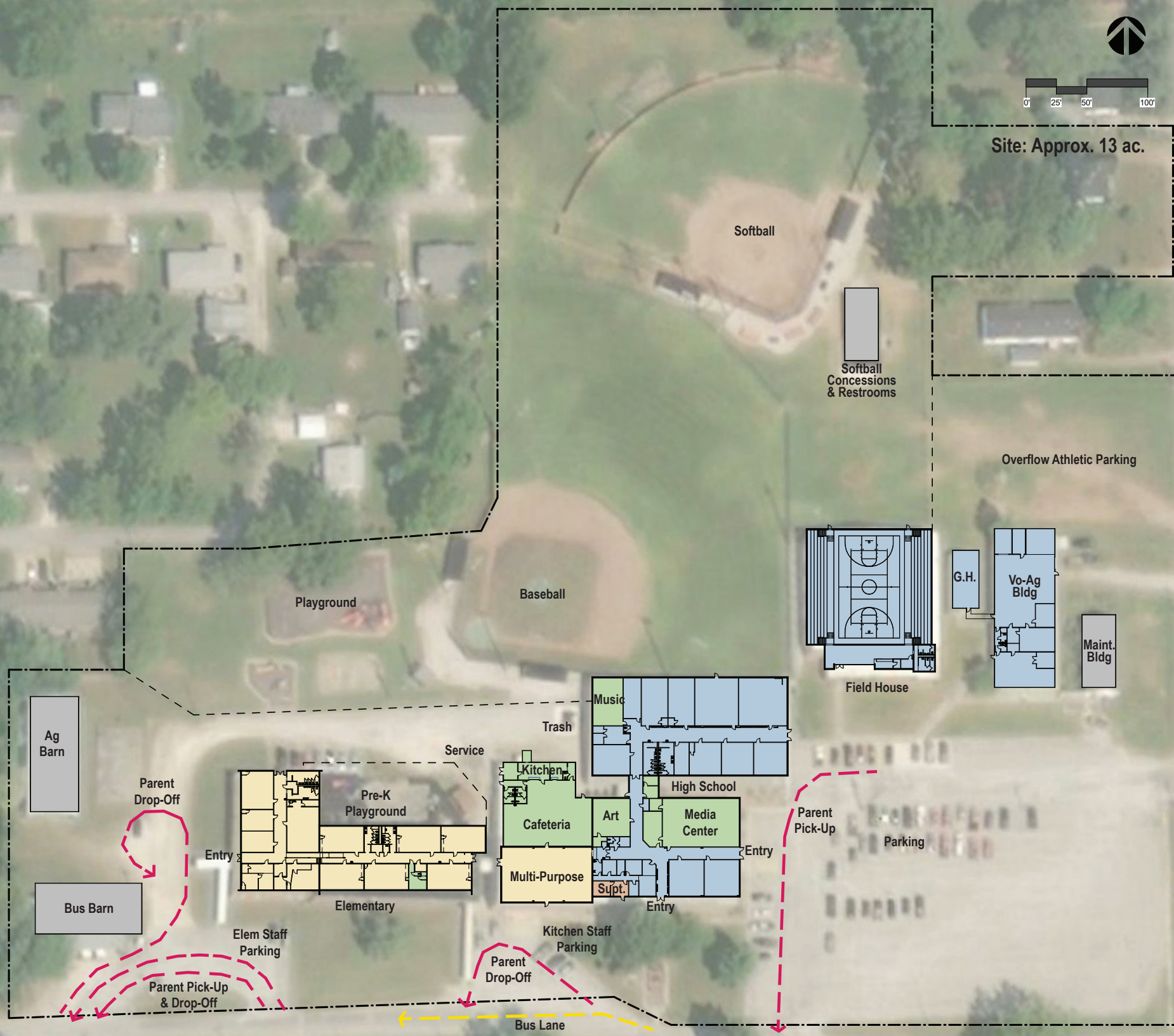
School Locations:

This map shows the locations of the Walnut Grove R-V campus within the city of Walnut Grove.

- A Elementary School (PreK-5)
- Middle School | High School (6-12)
- District Office



Site: Approx. 13 ac.



Existing Site Conditions Assessment of Needs::

Elementary | High School (PK-12)

School Site

Site General:

- Existing Site Area of Elementary | High School Campus: Approximately 13 acres.
- K-12 School Standards: 35 – 40 acres + 1 acre per 100 students enrolled.
- Site is undersized.
- Elementary classroom building is independent of High School building, but shares several core spaces with the High School Building, including the Elementary Gym/Multi-Purpose Room, Cafeteria/Kitchen, Media Center, Art Classroom, and Music Classroom. Elementary students must travel outside multiple times per day.
- The High School is comprised of three primary buildings, including the Field House and Vo-Ag Building, which are located adjacent to the main facility. High School students must travel outside multiple times per day.
- Weight Training Room is located in the Vo-Ag Building.
- Bus Barn and Maintenance Building are located on the campus. Both are in poor condition.
- There are various other outbuildings, including a Greenhouse, Ag Barn, and multiple Concessions buildings for athletics.

Athletics:

- The orientation of the baseball field is optimal. The orientation of the softball field is not optimal, but adequate. (It is desirable that the line from home base through the pitcher's plate to second base shall run East-Northeast.)
- No other athletic fields are present.

Parking / Drives:

- Parking areas are not striped.
- Service drives are unpaved.
- The parent drop-off lanes are scattered and undesignated.
- The parent pick-up lanes at the Elementary are double stacked.
- Busses pick-up and drop-off on the street.

Playground:

- The area of the playground is adequate.
- Playground equipment is in fair condition.
- Limited area for elementary sports activities on site.

Utilization of Space

Shared Areas:

- Kitchen/Cafeteria
- Media Center
- Art Classroom
- Music Classroom
- Conference/Meeting Room
- Nurse

Elementary:

Dedicated Elementary Area:	16,766 sf
Shared Area:	10,407 sf
Total Area:	27,173 sf

High School:

Dedicated High School Area:	17,940 sf
Field House (main level):	11,707 sf
Field House (lower level):	3,176 sf
Vo-Ag Building:	6,541 sf
Shared Area:	10,407 sf
Total Area:	49,771 sf

Existing Conditions Assessment of Needs:: Walnut Grove Elementary School (PK-5)

Facility

General:

- With 185 gross square feet per student, the overall building footprint is above the recommended area per student of 125 to 155 gross square feet per student. (Calculation includes both dedicated Elementary area and shared area.)
- Entry is not obvious; does not face street.
- Students must exit Elementary building to receive services in shared areas.
- No concerns with building acoustics, reverberation times, or sound transmission.

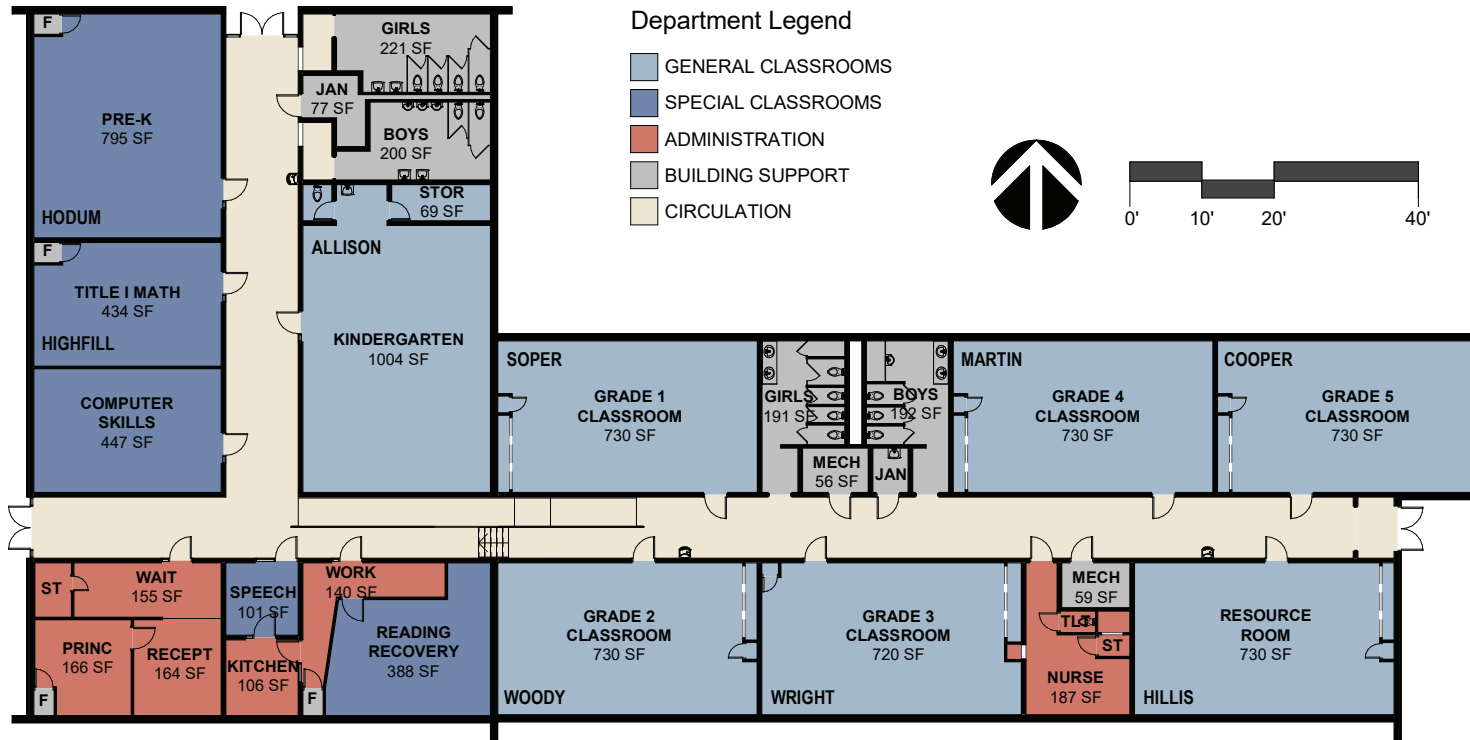
Mechanical/Electrical/Plumbing:

- All rooms in Elementary building have interior furnaces and AC wall units. Furnaces are aging and need replaced.

- Corridors are not air conditioned.
- Each classroom has its own AC controls, but furnaces are shared between multiple rooms.
- No concerns with existing light levels. All classrooms have natural daylighting, and the lower level of the Elementary has skylights in the corridor and restrooms.
- Miscellaneous non-compliant plumbing fixtures, clearances, and toilet stalls.
- Some plumbing lines are exposed.

Maintenance:

- Roofs at Elementary building are aging and leaky. Sections of EPDM butterfly roof at upper level are flat and hold water. Built-up roof at lower level has a very low slope. Connection between two roof areas is leaky.
- Water penetrating building through leaky roofs is causing mold, damaged and falling ceiling tile, and other maintenance issues.



Program

General Classrooms:

- General Classrooms are undersized, but due to low student-teacher ratios (STRs) in most classrooms, the area per student is adequate. Currently, 1st and 2nd Grade Classrooms have high student-teacher ratios. Area per student fluctuates based on yearly enrollment changes.

Specialty Classrooms:

- Shared Art is undersized for Elementary use (67% of recommended).
- Shared Music is undersized for Elementary use (64% of recommended).
- Speech room is undersized (22% of recommended).
- Title One is right-sized.
- Special Services classroom is over the recommended area.
- Computer Lab is undersized (47% of recommended).

Performing Arts:

- There is no dedicated performing arts space in the school.

Media Center:

- Shared Media Center is over the recommended size for Elementary use.

Athletics/Physical Education:

- The Multi-Purpose Gym is under the recommended area.
- No bleachers are present.
- Minimum storage is available.

Administration:

- The combined administrative rooms are undersized (31% of the recommended size).
- Shared Nurse and Counselor are separate from the main office, and both are undersized.

Kitchen/Cafeteria:

- Shared Cafeteria is above the recommended size for the current enrollment.
- All Elementary students eat together during one lunch period.
- The facility also serves breakfast.
- Shared Kitchen is undersized (33% of the recommended size).

Technology

- One Computer Skills Classrooms.
- Computer Lab is undersized (47% of the recommended size).
- Students utilize the 1:1 initiative in the classroom.

Health, Safety, & Security

- Administration has limited views of parking lot and site.
- Facility utilizes cameras for security.
- Facility requires visitors to be buzzed in at the front door.
- Building does not have a secure vestibule at the main entrance.
- Students and teachers must currently travel outside to access shared areas.
- Students (except Pre-K) must cross service drive to reach playground.
- Consider upgrading all classroom door hardware to intruder hardware.
- No tornado safe room.

Building Code & Accessibility

- A detailed code analysis was not conducted as part of the Master Plan.
- The facility does not exceed the adjusted allowable area prescribed by the International Building Code. However, if the Elementary building were tied to the adjacent High School building, a fire separation would be required.
- Facilities are not sprinklered.
- Miscellaneous non-compliant plumbing fixtures and clearances.
- No insulation on piping under lavatories in some locations.
- No ADA compliant toilet stalls in restrooms or ADA compliant toilet rooms.
- Miscellaneous drinking fountains are not ADA accessible.
- Miscellaneous non-compliant doors, door hardware, and door clearances.
- Exterior transition between the Elementary building and adjacent High School building is only accessed via stairs.

Facility Enrollment Projections

- Growth patterns indicate that over the next 10 years, enrollment at the Elementary School has the potential to increase by only a few students. Current classroom utilization indicates that the existing facility could accept an additional 25 students maximum to meet required student-teacher ratios, but that actual square foot per student is already at capacity.

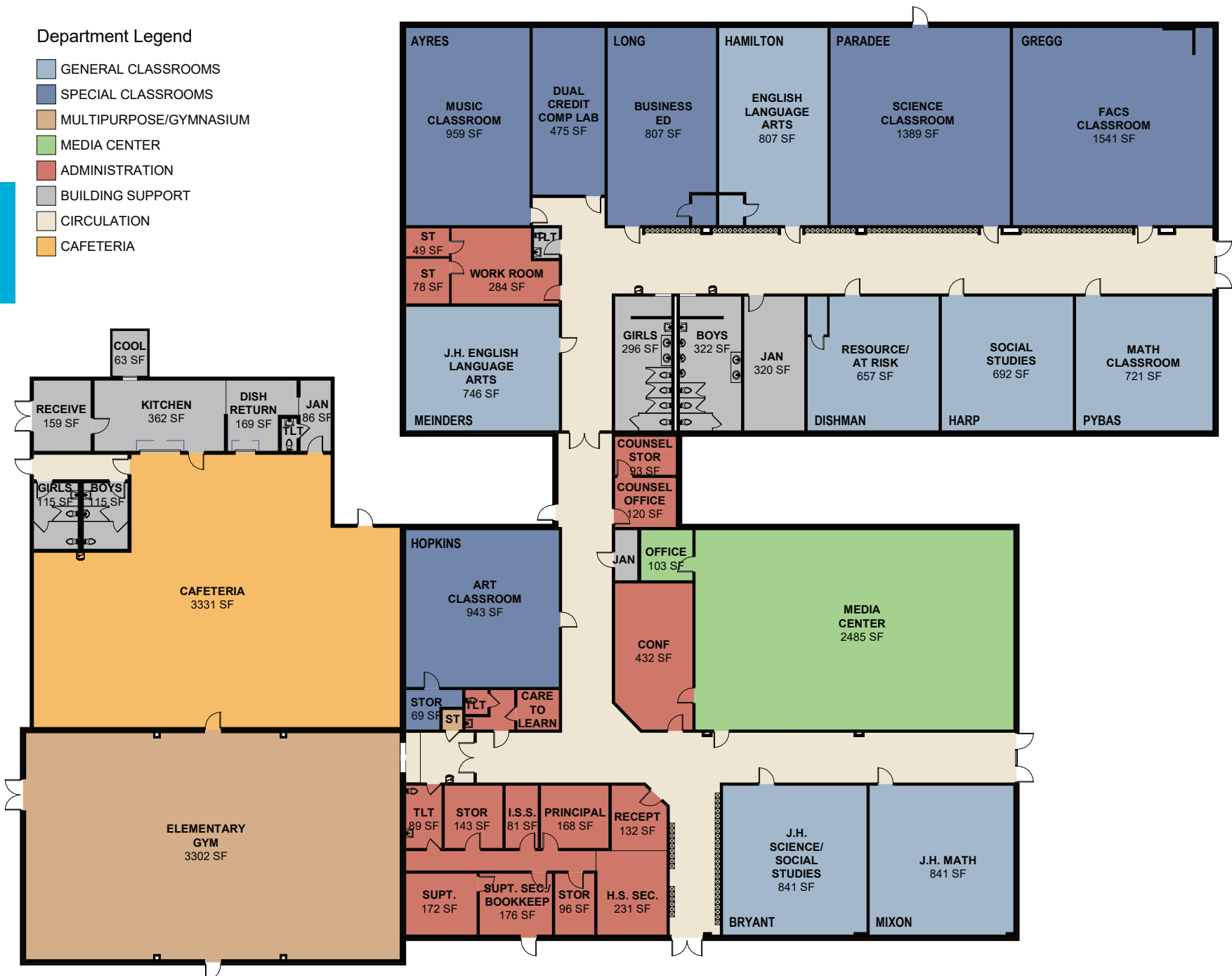
Elementary (PK-5) Space Evaluation::

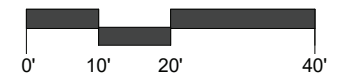
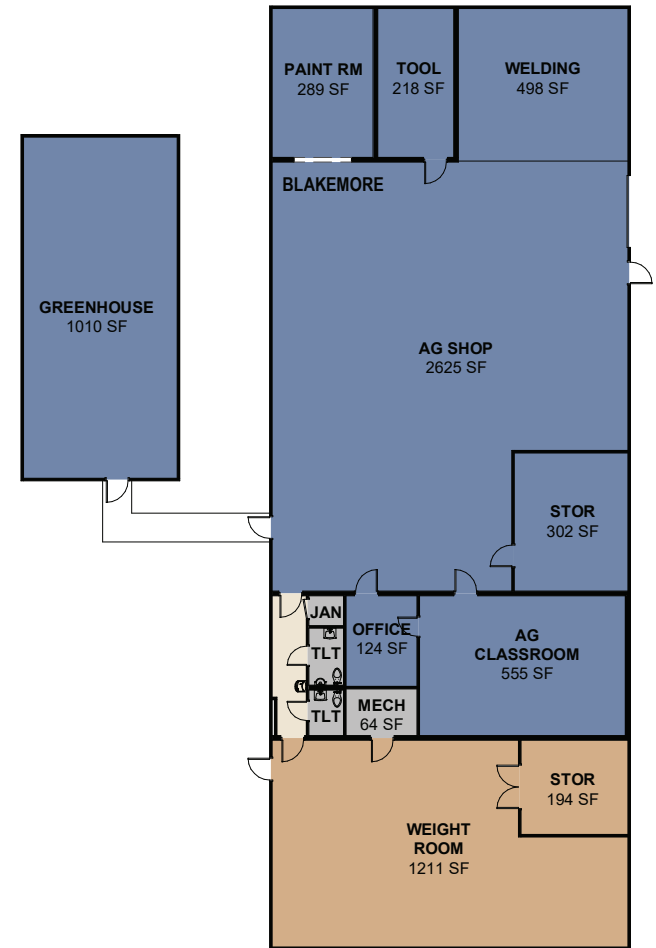
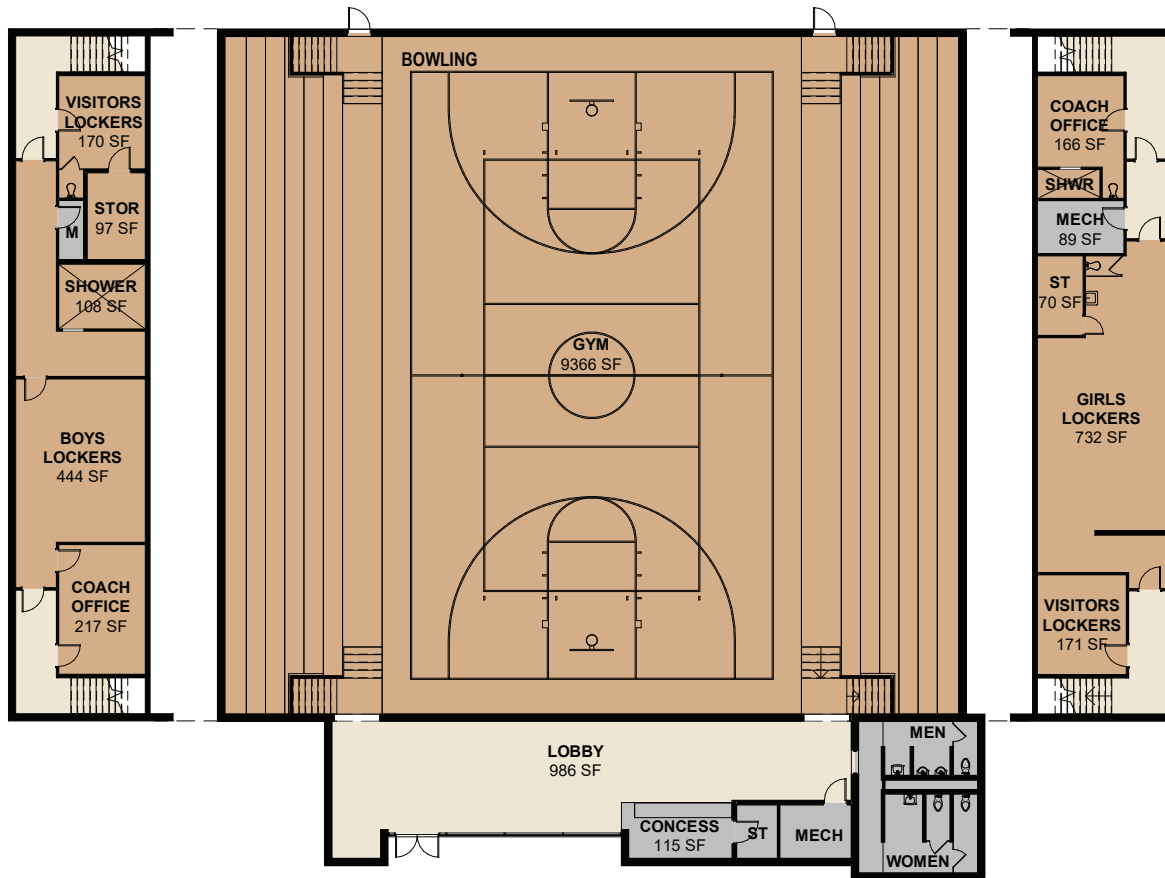
Space	EXISTING CONDITIONS						
	Number of Students	Number of Teachers	STR	Classrooms	S.F./ Space	Total S.F	S.F./ Student
Pre-K	15	1	15	1	795	795	53
Kindergarten	19	1	19	1	1093	1,093	58
First	31	1	31	1	752	752	24
Second	22	1	22	1	752	752	34
Third	17	1	17	1	746	746	44
Fourth	18	1	18	1	752	752	42
Fifth	25	1	25	1	752	752	30
Art (Shared)				1		1012	
Music (Shared)				1		959	
Media Center (Shared)	22	*15% of enrollment		1		2,588	117
Cafeteria (Shared)	147	*one lunch period		1		3,331	23
Kitchen (Shared)				1		859	
Gymnasium				1		3,318	
Admin						769	
Nurse (Shared)				1		232	
Speech				1		101	
Title One				1	434	434	
SPED/Resource				2	559	1,118	
Computer Lab						447	
			Avg. STR			Total Bldg Area	
Total Building	147	7	21			27,173	185

Space	ACCEPTED STANDARDS				ASSESSMENT			
	Dist. Preferred Student/Class	Recommended Student/Class	Recommended S.F./Student	Recommended S.F./Space	Student Excess/(Deficit) based on Classroom Size	Student Excess/(Deficit) based on STR	Area Excess/ (Deficit) S.F./Space	
Pre-K	20	20	60	1,200	2	(5)	(405)	66%
Kindergarten	20	20	60	1,200	1	(1)	(107)	91%
First	20	20	45	900	14	11	(148)	84%
Second	20	20	45	900	5	2	(148)	84%
Third	22	22	41	900	(1)	(5)	(154)	83%
Fourth	22	22	41	900	(0)	(4)	(148)	84%
Fifth	25	25	36	900	4	0	(148)	84%
Art (Shared)		30	50	1,500			(488)	67%
Music (Shared)		50	30	1,500			(541)	64%
Media Center (Shared)		45	40	1,800			788	144%
Cafeteria (Shared)		200 min	12	2,400			931	139%
Kitchen (Shared)				2,600			(1,741)	33%
Gymnasium		60	80	4,800			(1,482)	69%
Admin				2,480			(1,711)	31%
Nurse (Shared)				530			(298)	44%
Speech		5 to 8	55	450			(349)	22%
Title One		5 to 8	55	450			(16)	96%
SPED/Resource		5 to 8	55	450			109	124%
Computer Lab		25	38	950			(950)	47%
Total Building			125 - 155	22,785	25	(2)	4,388	119%

Department Legend

- GENERAL CLASSROOMS
- SPECIAL CLASSROOMS
- MULTIPURPOSE/GYMNASIUM
- MEDIA CENTER
- ADMINISTRATION
- BUILDING SUPPORT
- CIRCULATION
- CAFETERIA





Existing High School (6-12) Floor Plan

Existing Conditions Assessment of Needs::

High School (6-12)

School Facilities

General:

- With 425 gross square feet per student, the overall building footprint is far above the recommended area per student of 200 to 320 gross square feet per student. (Calculation includes both dedicated High School area and shared area.)

Mechanical/Electrical/Plumbing:

- Miscellaneous non-compliant plumbing fixtures, clearances, and toilet stalls.
- Some wall AC units at Weight Room.
- Mechanical equipment sitting exposed in Locker Rooms and other various locations.

Maintenance:

- Metal roof is experiencing leaks around roof top units and other penetrations. Metal roof was not properly crickets.
- Water damaged ceiling tiles.
- Chalk boards present in some of the classrooms.

Daylighting:

- All classrooms and most support spaces have natural daylighting.

Acoustics:

- No concerns with building acoustics, reverberation times, or sound transmission.

Program

General Classrooms:

- General Classrooms are right-sized, and low student-teacher ratios (STRs) allows area per student to be more than adequate.
- There is limited collaboration space outside of the classrooms, nor places for individual study.

Specialty Classrooms:

- Science Lab is right-sized, and the area per student is above recommended standards.
- Shared Art Classroom is undersized (49% of the recommended size for High School use), but the area per student is above recommended standards.
- Shared Music Classroom is undersized (31% of the recommended size for High School use), but the area per student is above the recommended standards. Instrument storage is kept in the classroom; no dedicated space.
- Business Lab is undersized (70% of the recommended size), and area per student is above recommended standards.
- FACS Classroom is above the recommended size, and area per student is high.
- Ag Classroom exceeds the recommended area, and area per student is high.

Performing Arts:

- There is no dedicated performing arts space in the school.

Media Center:

- Shared Media Center is undersized (78% of the recommended size for High School use), but area per student is above recommended standards.

Athletics/Physical Education:

- Gym and its ancillary spaces are undersized (67% of the recommended size), but area per student is above the recommended standards.
- Weight room is located in the Vo-Ag building.
- Gym locker rooms are small, accessed only by stairs, and need updated finishes. Showers and toilet facilities at locker rooms are not ADA accessible.
- PE and athletic storage is limited.

Administration:

- The combined administrative rooms are undersized (54% of the recommended size).
- Shared Nurse and Counselor are separate from the Administrative Suite and under the recommended area.
- Nurse's Office is located in the Elementary building.
- Superintendent's Office is located within the Administrative Suite.

Kitchen/Cafeteria:

- Shared Cafeteria is over the recommended area.
- Shared Kitchen is undersized (32% of the recommended size).
- Two lunch periods are utilized, for grades 6-8 and for grades 9-12, in addition to one elementary lunch period.
- One walk-in freezer only; reach-in coolers only.

Technology

- One Business Lab is utilized.
- A second dual credit Computer Lab is available.
- Utilize 1:1 technology in the classrooms.
- Business Lab is undersized (70% of recommended), but the area per student is above recommended.

Health, Safety, & Security

- Administration has limited views of parking lot and site.
- Building does not have a secure vestibule at the main entrance.
- Two entrances near the offices make it unclear where the main entry is.
- Consider upgrading all classroom door hardware to intruder hardware.
- No tornado safe room.

Building Code & Accessibility

- A detailed code analysis was not conducted as part of the Master Plan.
- The facility exceeds the adjusted allowable area prescribed by the International Building Code, and may require fire separations in order to safely add on to the facility.
- A fire separation is present between the two classroom wings, but the doors are improperly propped open and would not close automatically during a fire.
- Facilities are not sprinklered.
- Miscellaneous non-compliant plumbing fixtures and clearances.
- No insulation on piping under lavatories in some locations.
- No ADA compliant toilet stalls in restrooms at High School facility, but are available at Middle School wing.
- No ADA compliant toilet stalls or showers at locker rooms.
- Some drinking fountains are not ADA accessible.
- Locker rooms are not ADA accessible.
- Miscellaneous non-compliant doors, door hardware, and door clearances.

School Structure

- The Elementary School (PK-5) and High School (6-12) are able to share several key functions including Kitchen, Cafeteria, Elementary Multi-Purpose Gym, Media Center, Art Classroom, Music Classroom, Conference/Meeting Room, Nurse, parking, and other site features.

Facility Enrollment Projections

- Growth patterns indicate that over the next 10 years, enrollment at the High School has the potential to increase by 44 students. Current classroom utilization indicates that the existing facility could accept that growth without the need for additional classroom space.

High School (6-12) Space Evaluation::

Space	EXISTING CONDITIONS							ACCEPTED STANDARDS			
	Program Enrollment	Sections	Student : Teacher	Rooms	S.F./ Space	Total S.F.	S.F./ Student	Dist. Preferred Student/ Class	Recommended Student/ Class	Recommended S.F./ Student	Recommended S.F./ Space
Teaching Spaces											
Gen Ed	408	31	13.2	6	780	4,678	59	28	20 - 28	30	850
Science Lab	48	6	8.0	1	1,389	1,389	174	24	24	65	1,550
Physical Education	48	4	12.0	1	12,029	12,029	1002	60	2 Sections	298	17,900
Weight Training	9	1	9.0	1	1,211	1,211	135	40	40	25	1,000
Business	59	5	11.8	1	836	836	71	28	25 - 35	43	1,200
FACS	45	5	9.0	1	1,541	1,541	171	24	20 - 24	50	1,200
Agriculture	52	6	8.7	1	4,611	4,611	532	18	18	47	850
Art (Shared)	33	4	8.3	1	1,012	1,012	123	28	20 - 28	74	2,070
Music (Shared)	32	4	8.0	1	959	959	120	60	60 - 75	52	3,120
SPED/Dual Credit	56	7	8.0	2	581	1,162	73	8	5 - 8	100	800
Core Spaces											
Media Center (Shared)	117	10%	12	1	2,588	2,588	221	24	10%	138	3,310
Admin				1	1,090	1,090					2,020
Counselor (Shared)				1	213	213					1,230
Superintendent				1	348	348					
Cafeteria (Shared)	117	2	59	1	3,331	3,331	57	200	200 min.	15	3,000
Kitchen (Shared)				1	859	859					2,700
Avg. Student											
	Students	Teachers	: Teacher								
Total 6-12 School	117	14	11.0			49,771	425			200 - 320	37,440

Space	ASSESSMENT						
	Enrollment Capacity of Existing Spaces (based on S.F./ Student)	Enrollment (Overload)/ Under Capacity (based on S.F./ Student)	Required Area in S.F. (based on S.F./Student x Current Enrollment)	Area in S.F. Excess/(Deficit) (based on S.F./ Student & Current Enrollment)	Required Rooms (based on Current Enrollment)	Required Area in S.F. (based on Recommended S.F./ Space)	Area in S.F. Excess/(Deficit) (based on S.F./ Space & Current Enrollment)
Teaching Spaces							
Gen Ed	647	239	2,949	1,729	4	3,400	1,278
Science Lab	90	42	738	651	1	1,550	(161)
Physical Education	169	121	3,410	8,619	1	17,900	(5,871)
Weight Training	203	194	54	1,157	1	1,000	211
Business	82	23	602	234	1	1,200	(364)
FACS	129	84	536	1,005	1	1,200	341
Agriculture	108	56	585	4,026	1	850	3,761
Art (Shared)	57	24	581	431	1	2,070	(1,058)
Music (Shared)	77	45	396	563	1	3,120	(2,161)
SPED/Dual Credit	49	(7)	1,333	(171)	2	1,600	(438)
Core Spaces							
Media Center (Shared)					1	3,310	(722)
Admin					1	2,020	(930)
Counselor (Shared)					1	1,230	(1,017)
Superintendent							
Cafeteria (Shared)	222	164	878	2,454	1	3,000	331
Kitchen (Shared)					1	2,700	(1,841)
Total 6-12 School	230	113					

138%
90%
67%
121%
70%
128%
542%
49%
31%
73%

78%
54%
17%

111%
32%





INITIAL CONCEPTS

03

Initial Concepts::

A Master Plan is important when trying to project the future of a School District's physical facilities. The object of a Master Plan is to look beyond the immediate needs into what may be the needs of the School District in five and ten years. This process is beneficial to help determine the scope of work and funding necessary to accomplish stated goals. The preliminary scenarios in this section were studied with discussion focusing on academic philosophies, planning standards, and facility requirements. Preliminary monetary values are taken into consideration to confirm the viability of each plan.

The purpose of projecting ten years is to attempt to reasonably identify future needs so that the School District may plan for facilities necessary to accommodate the students and the community. Using a ten-year projection may identify a more prudent expenditure of funds, particularly in the instance that a facility will no longer be functional or is functioning in a different capacity. It will be possible to do improvements to that facility correctly so that future renovations or additions will not undo what has already been accomplished.

In this section, multiple Master Plan scenarios are presented that show the process taken to determine a final Master Plan for the School District. During this process of the investigation, steps were taken to insure that the District had input.

The research used to help determine these Master Plan scenarios can be found in the Background Information and Existing Conditions sections of this booklet. Some of the determining factors include student enrollment history, growth projections, staffing ratios, academic philosophy, recommended planning standards, and District goals. Each of these Master Plan scenarios helped to shape the final Master Plan, either by finding items that were worth further investigation or by deeming certain decisions inappropriate for consideration. All of the scenarios looked at what the total needs of the District may be over a ten-year period.

While one 10-year projection indicates that enrollment across the District has the potential to increase by about 44 students, another projection shows future enrollment declining. Growth patterns indicate that the Elementary enrollment may increase by only a few students in this period. The existing Elementary could accept up to 25 additional students based on desired student-teacher ratios. However, the actual classroom area per student is already low due to undersized classrooms. At the High School, growth patterns indicate that enrollment has the potential to increase by about 44 students. Current classroom utilization indicates that the existing facility could accept that growth without the need for additional classroom space.

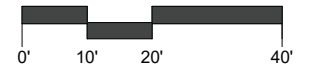
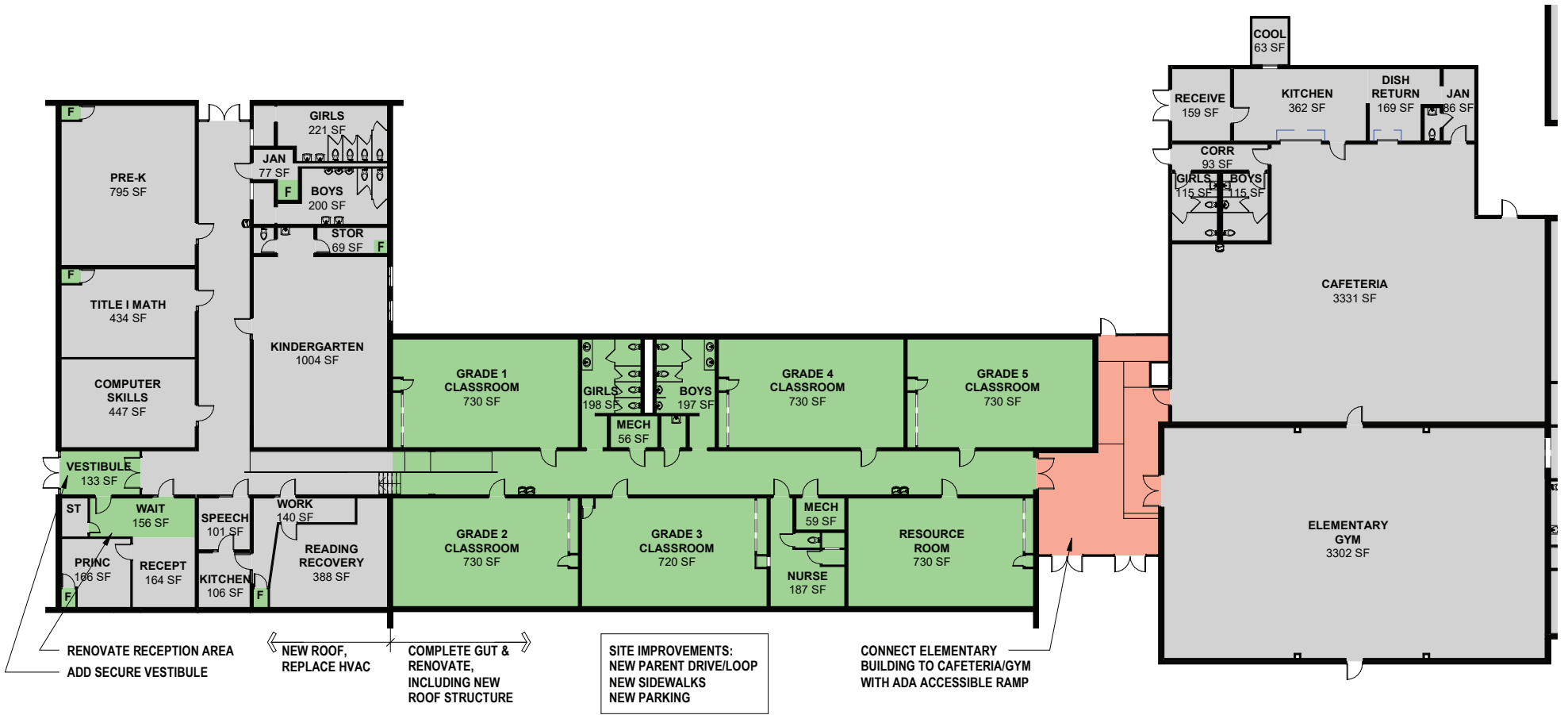
Priorities::

After studying the background information, growth projections, and existing conditions of the Walnut Grove School District, the planning committee developed a list of prioritized needs that should be addressed by the master plan. Four major themes can be deduced from the list of priorities: existing facility conditions, safety and security, educational suitability, and ADA compliance.

- New Elementary School
- Get all students under one roof
- Tornado safe room
- Improve site circulation (Pick-up and drop-off)
- Provide secure vestibule at main entrances
- Restroom upgrades and ramps for ADA compliance
- Improve gym seating
- Update gym lockers, restrooms, and lobby
- Renovate Elementary School
- Provide air conditioning at gym
- Bus barn improvements
- Playground access
- Classroom sizes
- Kitchen
- Junior High Science sink
- Nurse location
- Elementary HVAC

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary

1

Elementary Option 1

- Add secure vestibule at main entrance and renovate reception area.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Gut and renovate east side of Elementary building, including new roof structure.
- Connect Elementary building to High School building.
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Least expensive option.
- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through renovations to restrooms and ramp to High School building.
- Addresses deteriorating condition of Elementary building.
- Site improvements include a new parent pick-up and drop-off lane.

Cons

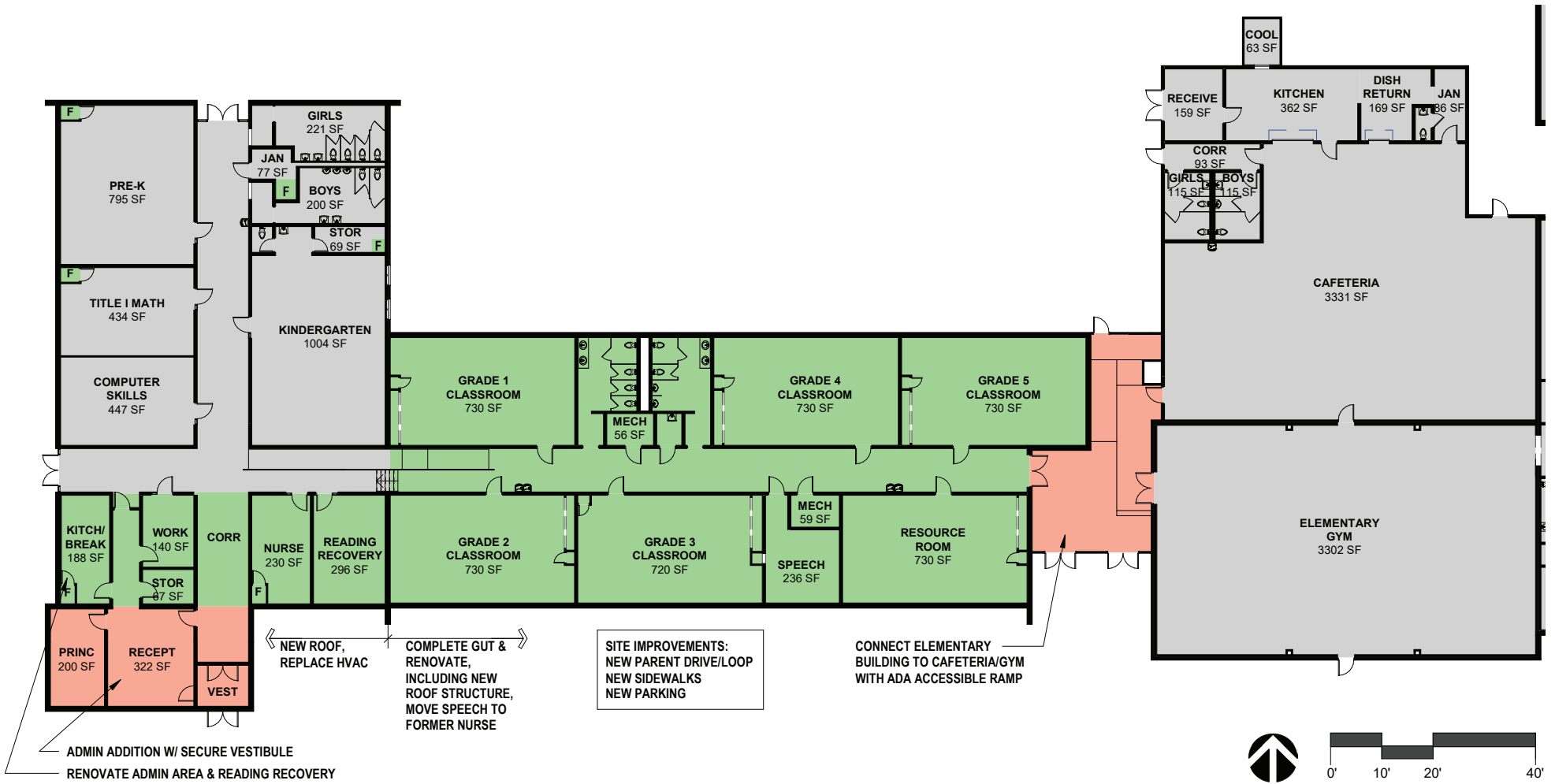
- Undersized Elementary classrooms are not addressed.
- Deficient restroom facilities are not addressed.
- Undersized Speech room is not addressed.
- Administration suite deficiencies are not addressed.
- No hardened space (safe room) provided.
- Temporary classrooms must be provided during construction.

Potential Totals

- Estimated total cost Option 1: \$2.3-\$2.7 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary Option 2

- Renovate existing Admin and adjacent classrooms.
- Admin addition with secure vestibule at west end of Elementary building.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Gut and renovate east side of Elementary building, including new roof structure
- Connect Elementary building to High School building.
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Less expensive option.
- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through renovations to restrooms and ramp to High School building.
- Addresses deteriorating condition of Elementary building.
- Expands undersized Administration suite.
- Provides improved and enlarged room for Speech.
- Provides improved access to Reading Recovery.
- Brings main entrance to front of building.
- Site improvements include a new parent pick-up and drop-off lane.

Cons

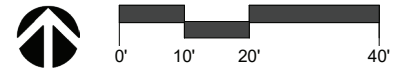
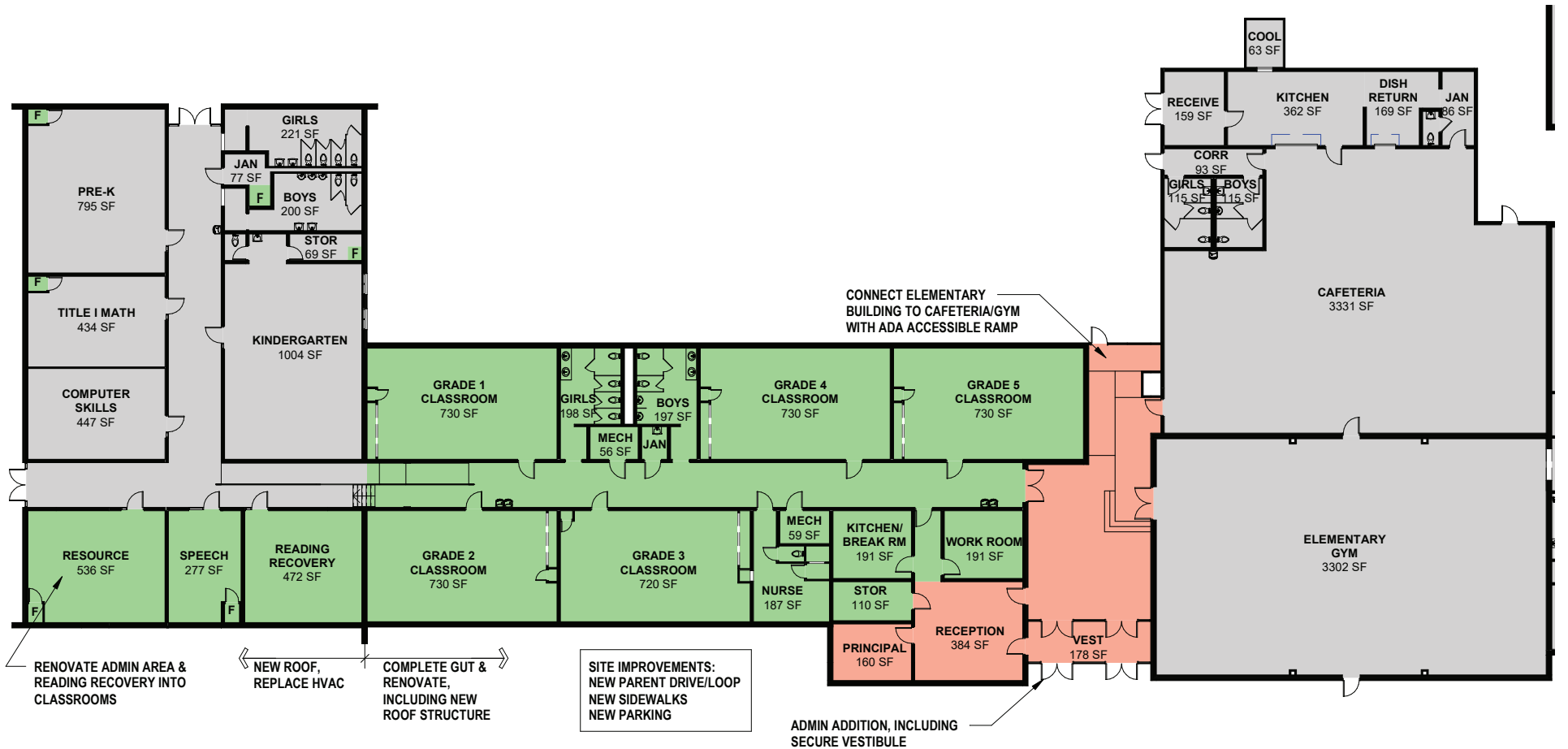
- Undersized Elementary classrooms are not addressed.
- Deficient restroom facilities are not addressed.
- No staff toilet.
- Shared Nurse's Office is too far from High School.
- No hardened space (safe room) provided.
- Temporary classrooms must be provided during construction.

Potential Totals

- Estimated total cost Option 1: \$2.6-\$3.1 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary Option 3

- Renovate existing Admin and adjacent classrooms into classrooms.
- Admin addition with secure vestibule at east end of Elementary building.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Gut and renovate east side of Elementary building, including new roof structure
- Connect Elementary building to High School building.
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Less expensive option.
- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through renovations to restrooms and ramp to High School building.
- Addresses deteriorating condition of Elementary building.
- Expands undersized Administration suite.
- Provides improved and enlarged room for Speech.
- Provides improved access to Reading Recovery.
- Brings main entrance to front of building.
- Site improvements include a new parent pick-up and drop-off lane.

Cons

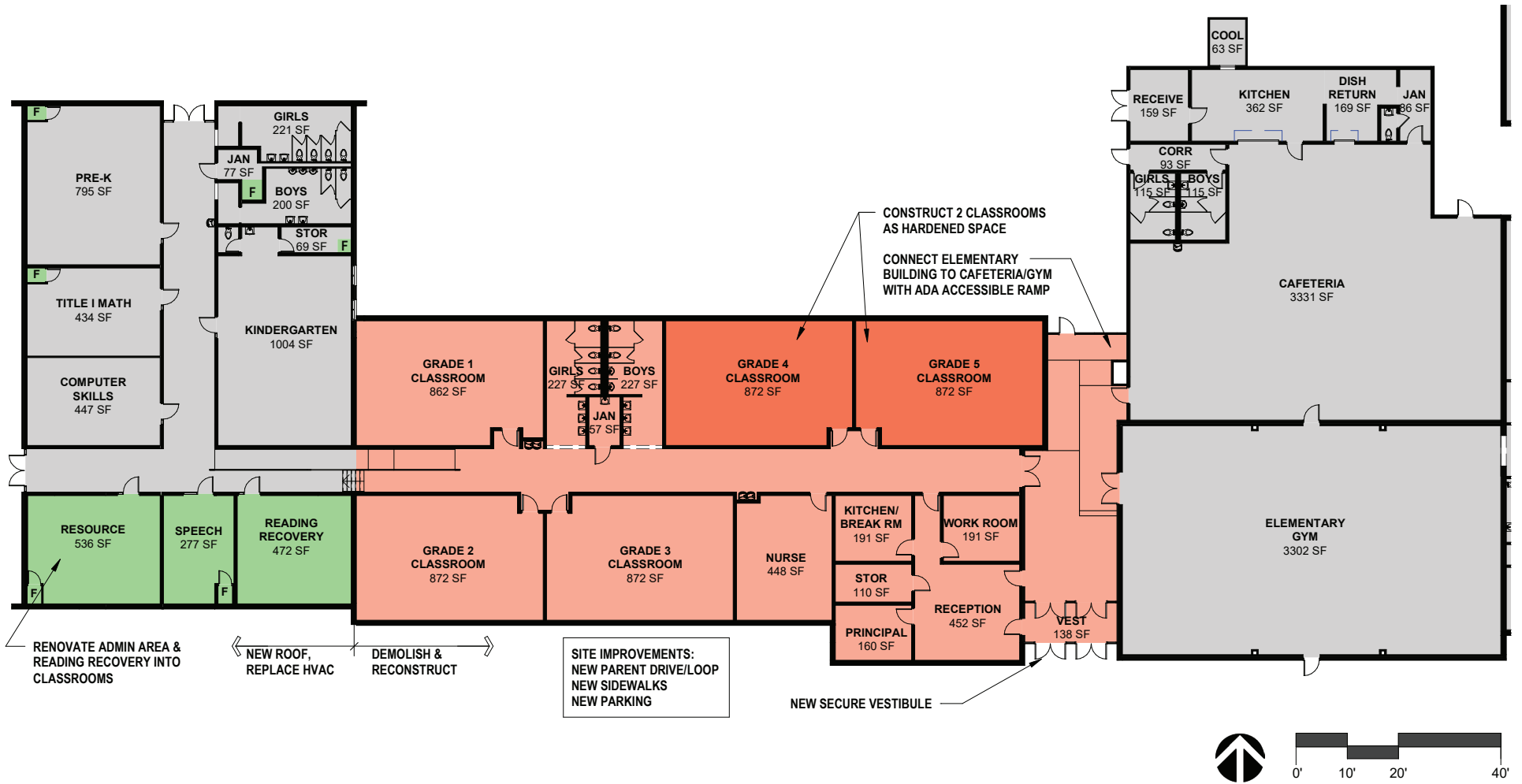
- Undersized Elementary classrooms are not addressed.
- Deficient restroom facilities are not addressed.
- No staff toilet.
- Resource Classroom is too far from High School.
- Pre-K Classroom is too far from the main entrance.
- No hardened space (safe room) provided.
- Temporary classrooms must be provided during construction.

Potential Totals

- Estimated total cost Option 1: \$2.6-\$3.1 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary Option 4

- Renovate existing Admin and adjacent classrooms into classrooms.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Demolish east side of Elementary building and rebuild with right-sized classrooms, new Administration suite, and main entrance with secure vestibule connected to existing High School building.
- Upgrade two new classrooms to hardened space (safe room).
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through replacement of restrooms and ramp to High School building.
- Addresses deteriorating condition of Elementary building.
- Expands undersized Administration suite.
- Provides improved and enlarged room for Speech.
- Provides improved access to Reading Recovery.
- Brings main entrance to front of building.
- New 4th and 5th Grade Classrooms are built as hardened space (safe room).
- New classrooms are appropriately sized.
- Site improvements include a new parent pick-up and drop-off lane.
- Better value.

Cons

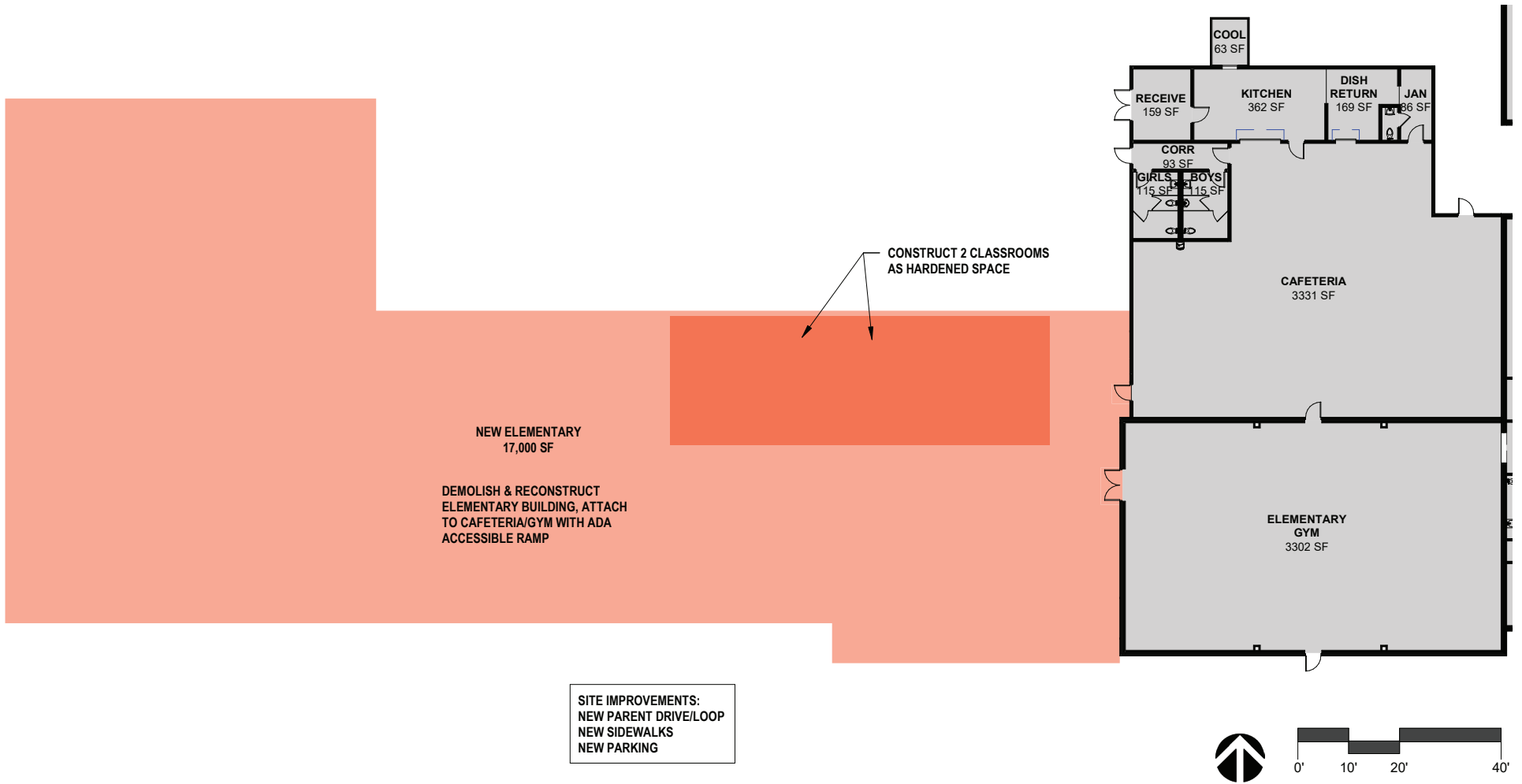
- Deficient restroom facilities are not addressed.
- No staff toilet.
- Resource Classroom is too far from High School.
- Pre-K Classroom is too far from the main entrance.
- Hardened space would be better suited to early childhood classrooms.
- Temporary classrooms must be provided during construction.

Potential Totals

- Estimated total cost Option 1: \$3.6-\$4.1 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary

5

Elementary Option 5

- Demolish Elementary building in its entirety and rebuild with right-sized classrooms, new Administration suite, and main entrance with secure vestibule connected to existing High School building.
- Upgrade two new classrooms to hardened space (safe room).
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- New facility addresses security concerns, ADA compliance, and condition of entire Elementary building.
- New facility addresses inadequate classroom sizes and support spaces.
- New facility addresses deficient restroom facilities for students and staff.
- New facility addresses access to the building and to individual rooms.
- Two new classrooms are built as hardened space (safe room).
- Site improvements include a new parent pick-up and drop-off lane.

Cons

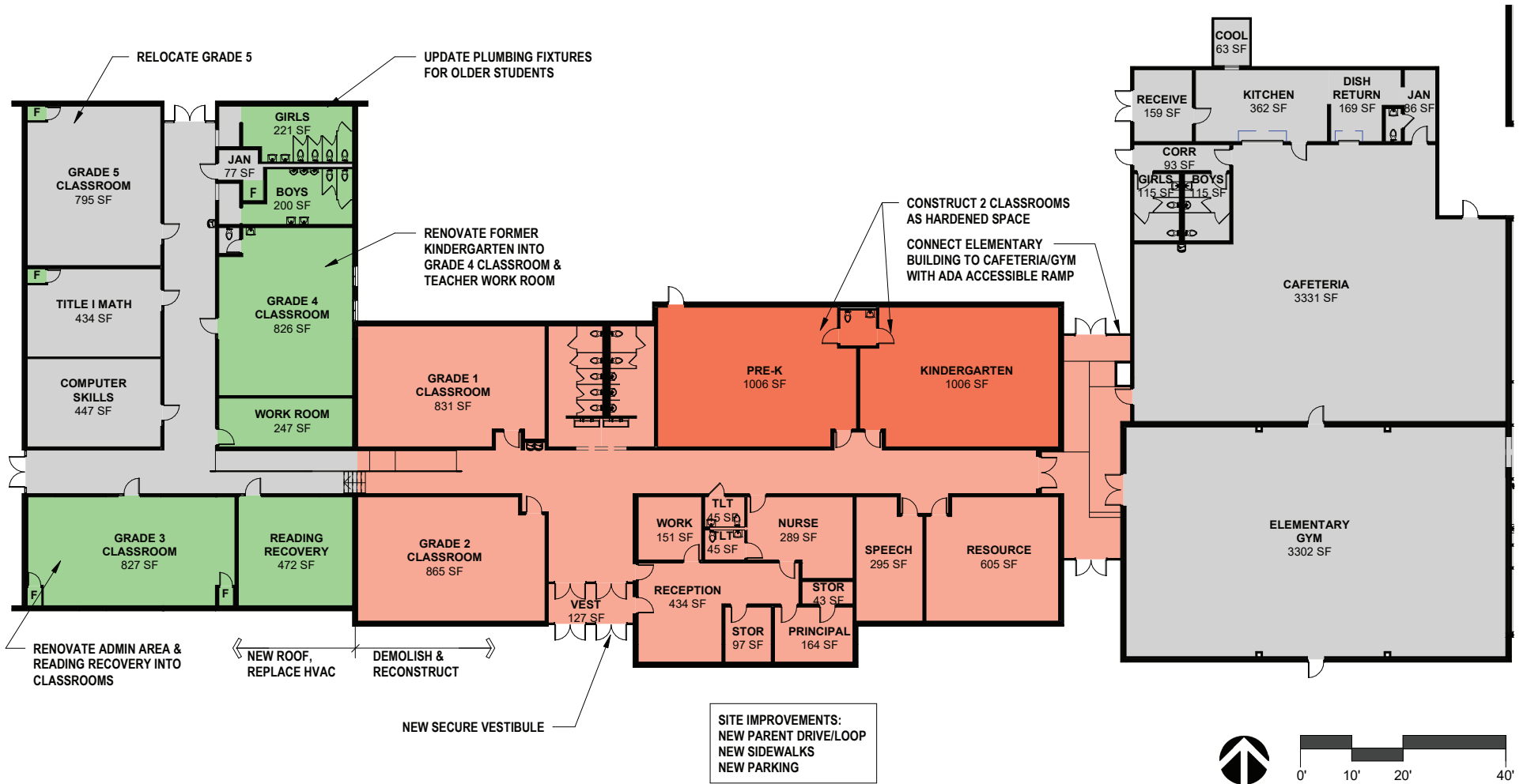
- Most expensive option.
- Temporary classrooms must be provided during construction. All Elementary students are displaced by this option.

Potential Totals

- Estimated total cost Option 1: \$5.3-\$5.9 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary Option 6

- Renovate existing Admin and adjacent classrooms into classrooms.
- Renovate former Kindergarten classroom into a smaller classroom and work room.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Replace plumbing fixtures at west restrooms for older age group.
- Demolish east side of Elementary building and rebuild with right-sized classrooms, new Administration suite, and main entrance with secure vestibule connected to existing High School building.
- Upgrade new Pre-K and Kindergarten classrooms to hardened space (safe room).
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through replacement of restrooms and ramp to High School building.
- Addresses deteriorating condition of Elementary building.
- Addresses deficient restroom facilities.
- Expands undersized Administration suite.
- Provides improved and enlarged room for Speech.
- Provides improved access to Reading Recovery.
- Brings main entrance to front of building.
- New Pre-K and Kindergarten Classrooms are built as hardened space (safe room).
- New classrooms are appropriately sized.
- Site improvements include a new parent pick-up and drop-off lane.
- Better value.

Cons

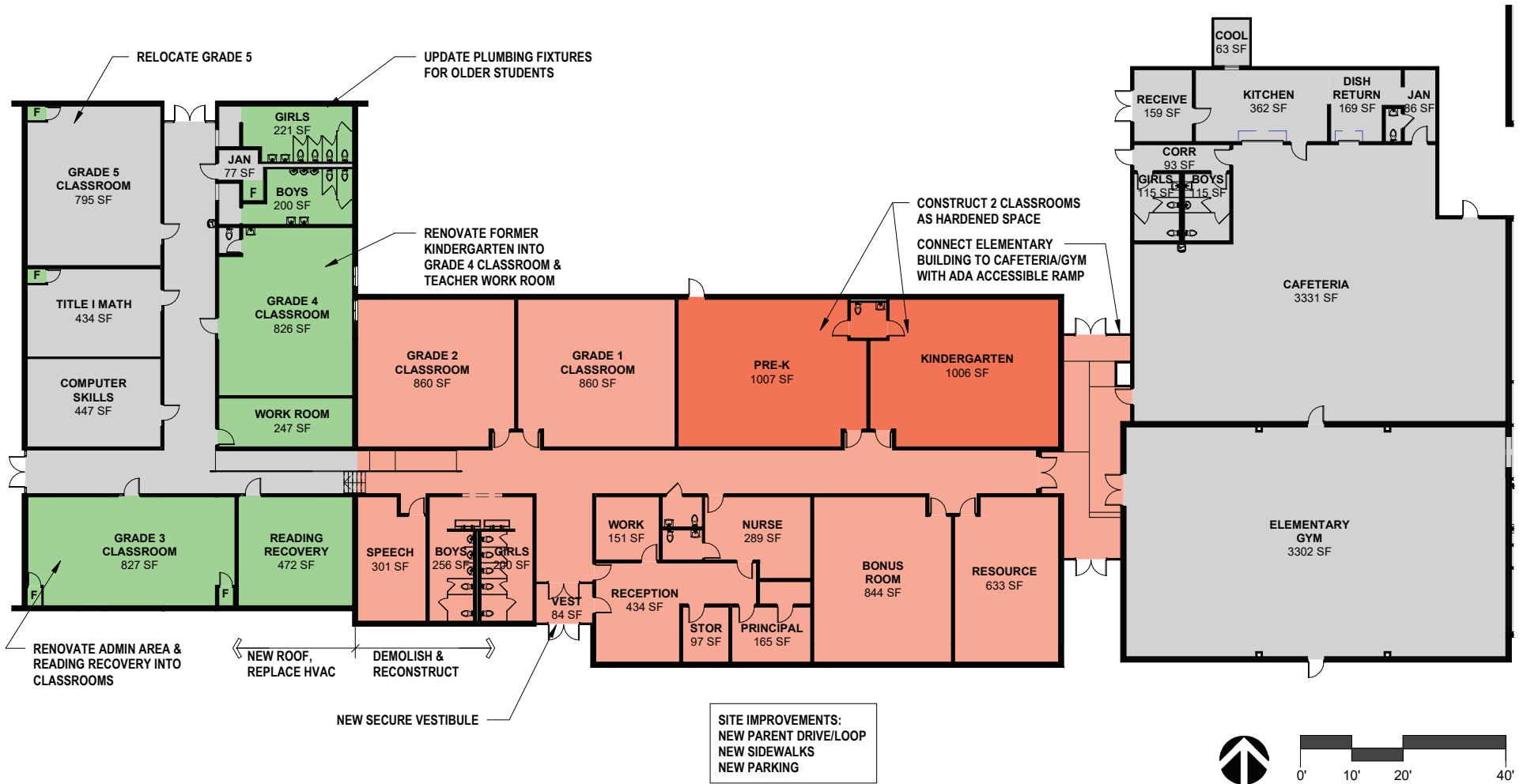
- Additional renovations required by relocating grades.
- Temporary classrooms must be provided during construction.

Potential Totals

- Estimated total cost Option 1: \$3.7-\$4.2 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary Option 7

- Renovate existing Admin and adjacent classrooms into classrooms.
- Renovate former Kindergarten classroom into a smaller classroom and work room.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Replace plumbing fixtures at west restrooms for older age group.
- Demolish east side of Elementary building and rebuild with right-sized classrooms, new Administration suite, and main entrance with secure vestibule connected to existing High School building.
- Upgrade new Pre-K and Kindergarten classrooms to hardened space (safe room).
- Provide one extra classroom for growth or program expansion.
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through replacement of restrooms and ramp to High School building.
- Addresses deteriorating condition of Elementary building.
- Addresses deficient restroom facilities.
- Expands undersized Administration suite.
- Provides improved and enlarged room for Speech.
- Provides improved access to Reading Recovery.
- Brings main entrance to front of building.
- New Pre-K and Kindergarten Classrooms are built as hardened space (safe room).
- New classrooms are appropriately sized.
- Additional classroom allows room for growth.
- Site improvements include a new parent pick-up and drop-off lane.
- Better value.

Cons

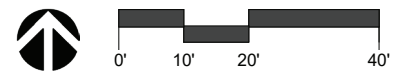
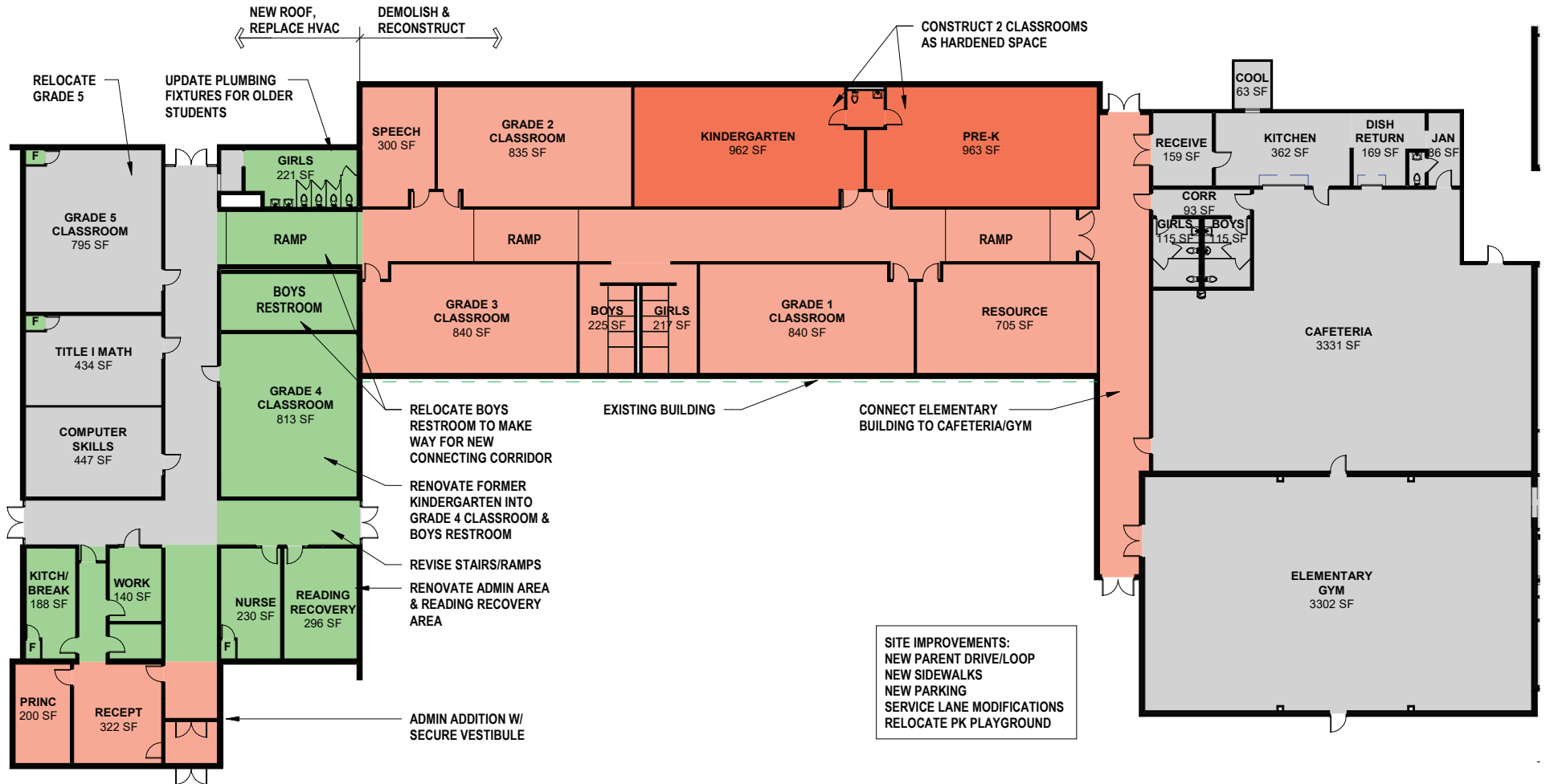
- Additional renovations required by relocating grades.
- Temporary classrooms must be provided during construction.

Potential Totals

- Estimated total cost Option 1: \$3.9-\$4.4 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary Option 8

- Rebuild east side of Elementary building behind existing classroom wing.
- Demolish existing classroom wing upon completion, and tie addition to west side and High School building.
- Upgrade new Pre-K and Kindergarten classrooms to hardened space (safe room).
- Renovate existing Admin and adjacent classrooms.
- Admin addition with secure vestibule at east end of Elementary building.
- Renovate former Kindergarten classroom into a smaller classroom.
- Relocate boys restroom to make way for new corridor/ramp.
- Replace plumbing fixtures at girls restrooms for older age group.
- Replace existing west roof.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Provide new drop-off and pick-up lane for parents.
- Revise parking and sidewalks.

Pros

- Addresses security concerns with new entry vestibule and connection to High School building.
- Addresses ADA compliance through replacement of restrooms and multiple ramps to High School building.
- Addresses deteriorating condition of Elementary building.
- Addresses deficient restroom facilities.
- Expands undersized Administration suite.
- Provides improved and enlarged room for Speech.
- Provides improved access to Reading Recovery.
- Brings main entrance to front of building.
- New Pre-K and Kindergarten Classrooms are built as hardened space (safe room).
- New classrooms are appropriately sized.
- Site improvements include a new parent pick-up and drop-off lane.
- Phased construction decreases need for temporary classrooms.

Elementary

8

Cons

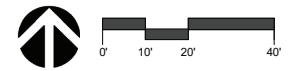
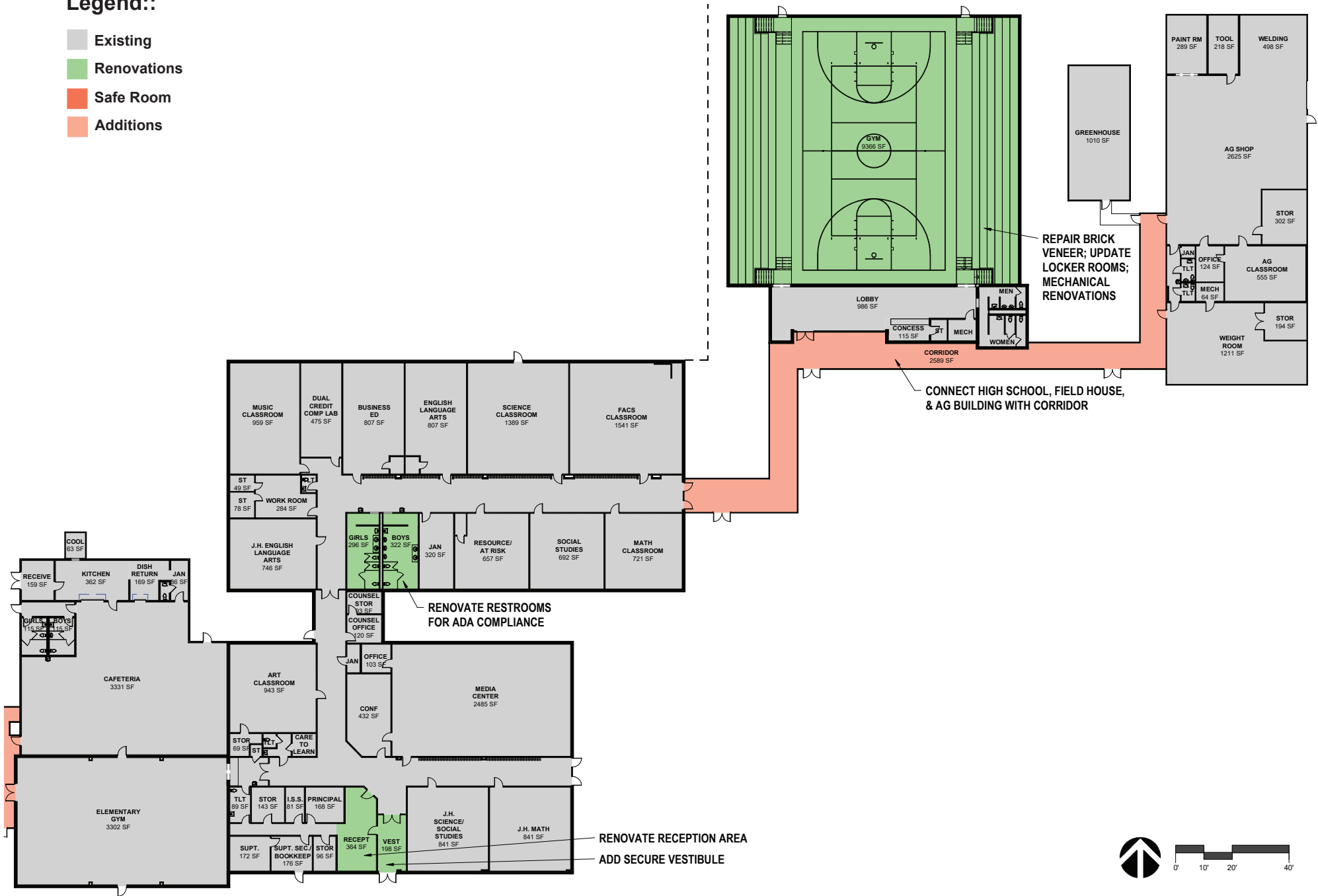
- Pre-K playground must be relocated to front of building.
- Additional renovations required.
- Buildable area and building footprint are limited by existing building and service drive.
- No room for an extra classroom.
- Corridors are long and sight lines don't allow good supervision.
- Additional site work required. Service drive is confined by additions and will limit size of vehicles.
- Pre-K Classroom is too far from the main entrance.
- Nurse's Office is too far from the High School.

Potential Totals

- Estimated total cost Option 1:
\$3.9-\$4.4 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



High School

1

High School Option 1

- Add secure vestibule at main entrance and renovate reception area.
- Renovate restrooms for ADA compliance.
- Connect High School, Field House, and Ag building with corridor.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.

Pros

- Least expensive option.
- Addresses security concerns with new entry vestibule and connection of High School building to Field House and Ag building, keeping all students under one roof.
- Addresses ADA compliance through renovations to main restrooms.
- Addresses aging condition of Field House.

Cons

- A lot of money spent with little educational benefit.
- Does not address potential future FEMA Safe Room.
- No improvement to non-compliant Field House restrooms.

Potential Totals

- Estimated total cost Option 1: \$1.5-\$1.8 Million (turn-key)

High School

2

High School Option 2

- Add secure vestibule at main entrance and renovate reception area.
- Renovate restrooms for ADA compliance.
- Construct new Commons as a FEMA safe room in front of existing Field House.
- Connect new FEMA safe room to High School, Field House, and Ag building.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.

Pros

- Addresses security concerns with new entry vestibule and connection of High School building to Field House and Ag building, keeping all students under one roof.
- Addresses ADA compliance through renovations to main restrooms.
- Addresses aging condition of Field House.
- Provides additional restrooms to offset non-compliant Field House restrooms.
- Provides tornado safe room for entire campus and surrounding community.

Cons

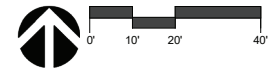
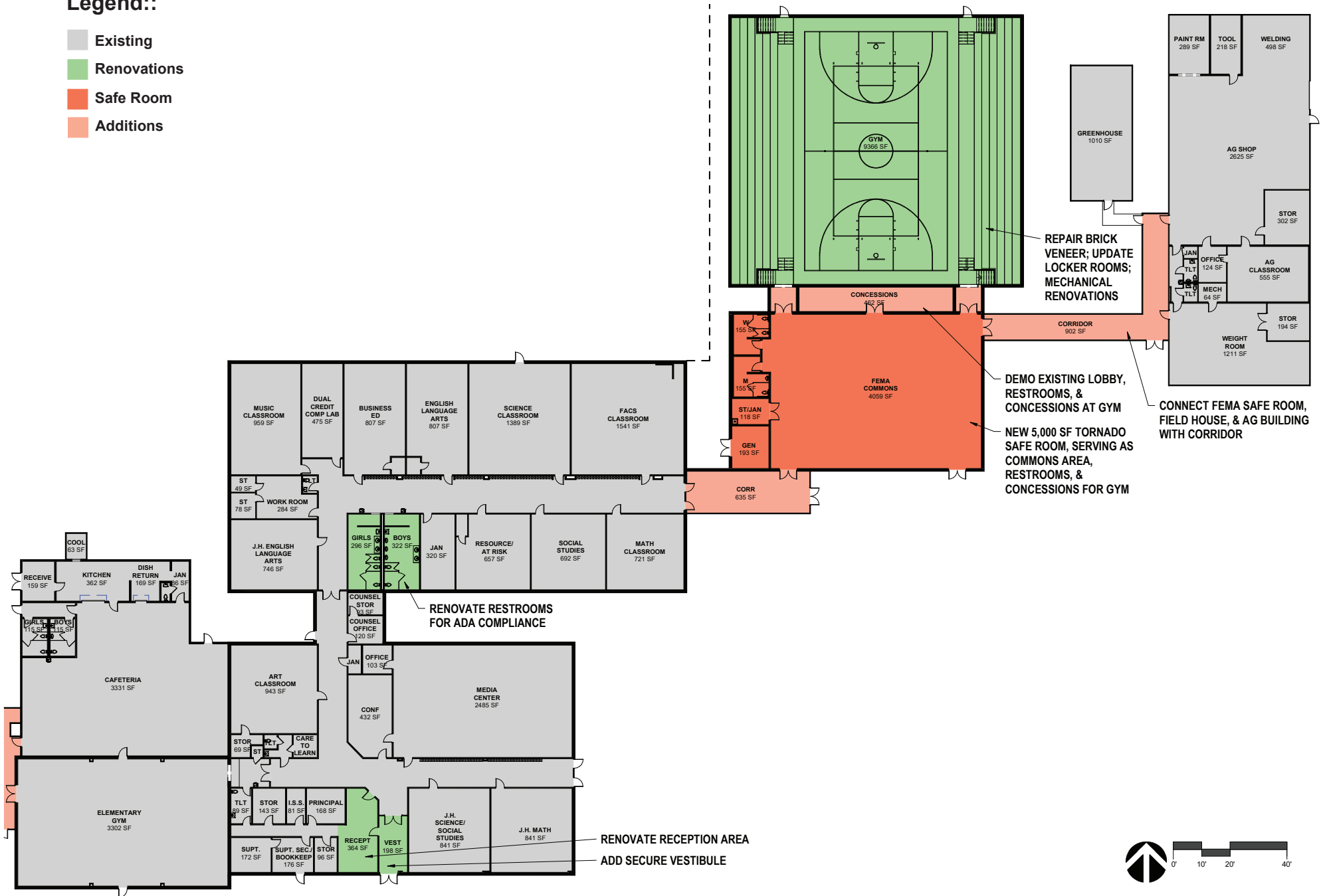
- A lot of money spent with little educational benefit.
- Creates muddled circulation in existing Field House lobby.
- Circulation from High School to Field House and Ag building travels through Commons.
- Some parking stalls are displaced by additions.

Potential Totals

- Estimated total cost Option 1: \$1.8-\$2.6 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



High School

3

High School Option 3

- Add secure vestibule at main entrance and renovate reception area.
- Renovate restrooms for ADA compliance.
- Demolish existing lobby, concessions, and restrooms at Field House.
- Construct new Commons, concessions, and restrooms as a FEMA safe room in front of existing Field House.
- Connect new FEMA safe room to High School, Field House, and Ag building.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.

Pros

- Addresses security concerns with new entry vestibule and connection of High School building to Field House and Ag building, keeping all students under one roof.
- Addresses ADA compliance through renovations to main restrooms.
- Addresses aging condition of Field House.
- Replaces non-compliant Field House restrooms.
- Provides tornado safe room for entire campus and surrounding community.
- Provides improved circulation and functionality over Option 2.

Cons

- A lot of money spent with little educational benefit.
- Circulation from High School to Field House and Ag building travels through Commons.
- Some parking stalls are displaced by additions.
- More expensive than Option 2.

Potential Totals

- Estimated total cost Option 1: \$1.9-\$2.7 Million (turn-key)

High School Option 4

- Add secure vestibule at main entrance and renovate reception area.
- Renovate restrooms for ADA compliance.
- Construct classroom addition as a FEMA safe room in front of existing Field House.
- Connect new FEMA safe room to High School, Field House, and Ag building.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.

Pros

- Addresses security concerns with new entry vestibule and connection of High School building to Field House and Ag building, keeping all students under one roof.
- Addresses ADA compliance through renovations to main restrooms.
- Addresses aging condition of Field House.
- Provides tornado safe room for entire campus and surrounding community.
- Provides additional classrooms for future enrollment growth or curriculum changes.

Cons

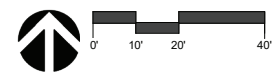
- More parking will be displaced by Safe Room than in Options 2 and 3.
- Creates muddled circulation in existing Field House lobby.
- No improvement to non-compliant Field House restrooms.

Potential Totals

- Estimated total cost Option 1: \$1.8-\$2.6 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



High School Option 5

- Add secure vestibule at main entrance and renovate reception area (temporary).
- Renovate restrooms for ADA compliance.
- Construct classroom addition and new Admin suite as a FEMA safe room in front of existing Field House.
- Connect new FEMA safe room to High School, Field House, and Ag building.
- Renovate existing Admin suite into a flex classroom.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.

Pros

- Addresses security concerns with new entry vestibule and connection of High School building to Field House and Ag building, keeping all students under one roof.
- Addresses ADA compliance through renovations to main restrooms.
- Addresses aging condition of Field House.
- Provides tornado safe room for entire campus and surrounding community.
- Provides additional classrooms for future enrollment growth or curriculum changes.
- Provides additional restrooms to offset non-compliant Field House restrooms.
- Less parking displaced than with Option 4.
- Further separates main entrance of High School from Elementary, and provides a new face for the High School.

Cons

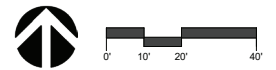
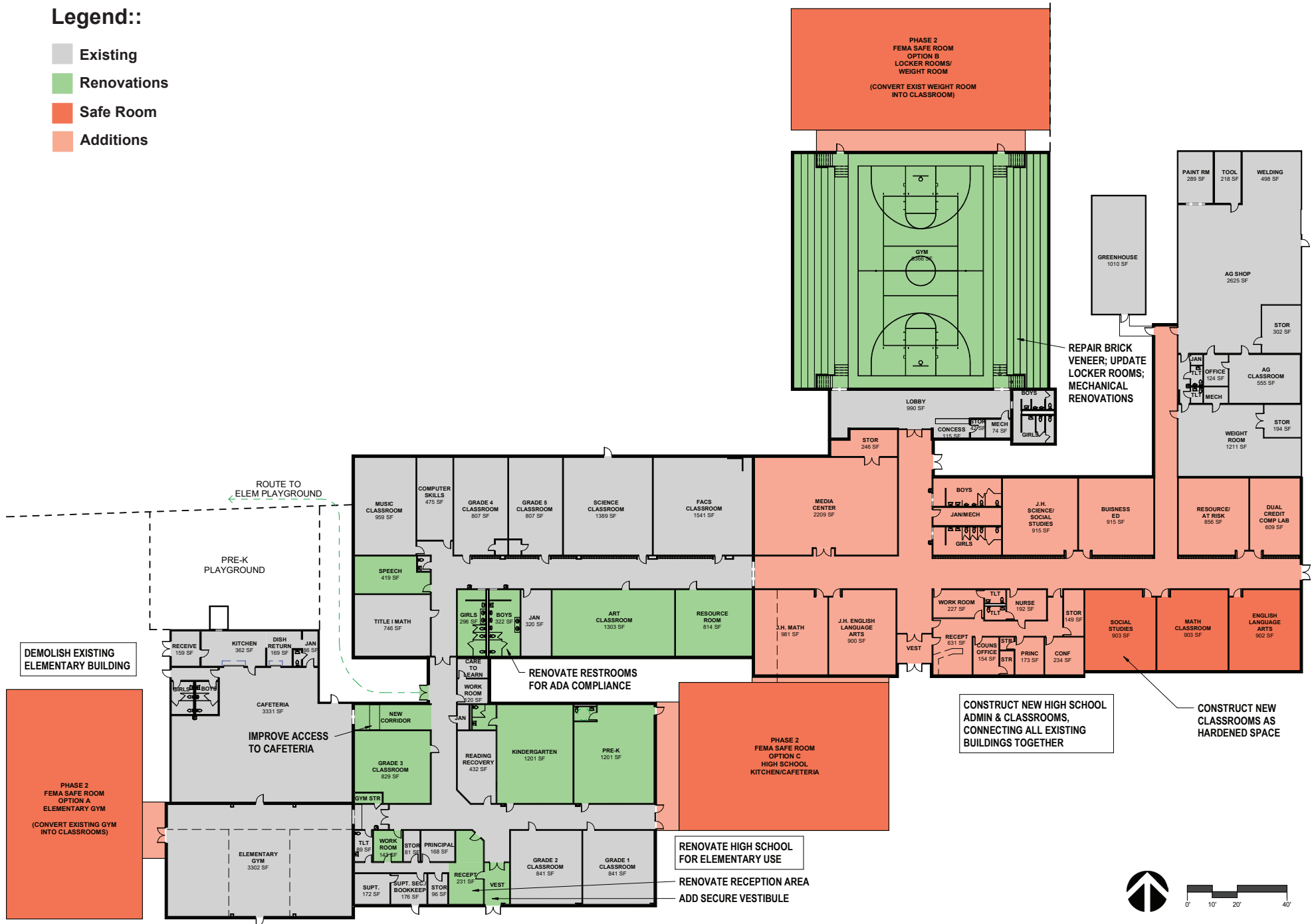
- Some parking stalls are displaced by additions.
- Creates muddled circulation in existing Field House lobby.
- More expensive than Options 4.

Potential Totals

- Estimated total cost Option 1: \$2.2-\$3.1 Million (turn-key)

Legend::

- Existing
- Renovations
- Safe Room
- Additions



Elementary | High School Option 1

- Construct new High School addition including Admin suite, Media Center, restrooms, and classrooms. Connect addition to High School, Field House, and Ag building.
- Upgrade three new classrooms to hardened space (safe room).
- Renovate existing High School for Elementary use.
- Add secure vestibule at main entrance and renovate reception area.
- Renovate restrooms for ADA compliance and age group.
- Demolish Elementary building in its entirety and provide new parking lot in its place.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.
- Future FEMA safe room addition. (See Options in right column.)

Pros

- Addresses security concerns with secure vestibules and connection of all buildings, keeping students under one roof.
- Addresses ADA compliance through renovations to main restrooms and new restroom facilities.
- Addresses aging condition of Field House.
- Provides tornado safe room for entire campus and surrounding community. Provides hardened space in the interim until grant is awarded.
- Improves adjacency of High School to Field House and Ag building.
- Improves service area.
- Provides safer route to playground.
- Provides good site circulation, and separates parking for Elementary and High School.
- Provides direct access to Pre-K classroom.
- New west (Elementary) parking lot has good access to baseball field.

Cons

- Most expensive option, because it includes the largest amount of renovations, additions, and site work.
- Elementary students only have one set of restrooms.
- Less separation between Elementary and High School.
- Elementary parking and drop-off lane is far from the main entrance.

Potential Totals

- Estimated total cost Option 1: \$9.1-\$11.3 Million (turn-key)

Elementary | High School

1

FEMA Options

A: Elementary Gym

- Mid-range cost
- Larger than existing gym
- Safe room closest to youngest students
- Adds three classrooms in existing Gym
- Helps to separate Elementary and HS students by moving Elementary out of north corridor
- Improves circulation to Cafeteria
- Good location for community access

B: Lockers & Weight Room

- Lowest cost
- Addresses ADA compliance of locker rooms
- Safe room is farthest distance from students
- Groups weight room with other PE facilities
- Adds one classroom (existing weight room)
- Poor location for community access

C: H.S. Kitchen / Cafeteria

- Highest cost due to function
- Increasing kitchen staff may be required
- Centrally located for all students
- Muddled access from each school
- Good location for community access
- Service area at front of building





FINAL RECOMMENDATIONS 04

FINAL RECOMMENDATIONS

WALNUT GROVE R-V 10-YEAR PLAN

This final Master Plan is a culmination of months of research, analysis, and planning evaluations. The Master Plan uses the findings from previous scenarios to create a ten-year plan allowing for flexibility in balancing the needs of the School District. One of the most important aspects of a Master Plan is the flexibility it provides. If the growth rate were to increase or if additional funds became available, this plan could be expedited. On the other hand, this plan can be extended beyond the ten-year period to coordinate with the School District's funding.

One major consideration is the FEMA Notice of Interest (NOI) currently on file with the State Emergency Management Agency (SEMA). It is not known if and when funding will become available and a grant will be awarded to the School District. However, the District must have a plan in place, allowing them to proceed promptly if a grant is awarded. To this end, the final recommendation of the Master Plan establishes flexible options for FEMA Safe Rooms contingent upon the timeline for Grant Award.

In effect, this document meets the needs of the Walnut Grove R-V School District and creates a plan for the future of the District.

Final Recommendation::

Elementary Option 7

High School Option 3

Phase 1: Elementary Improvements & Security Upgrades

- Renovate existing Elementary Admin and adjacent rooms into classrooms.
- Renovate former Kindergarten classroom into a smaller classroom and work room.
- Replace existing west roof at Elementary.
- Update finishes at west side of Elementary building.
- Replace mechanical systems at west side of Elementary building.
- Replace plumbing fixtures at Elementary west restrooms for older age group.
- Demolish east side of Elementary building and rebuild with right-sized classrooms, new Administration suite, and main entrance with secure vestibule connected to existing High School building.
- Upgrade new Pre-K and Kindergarten classrooms to hardened space (safe room).
- Provide one extra Elementary classroom for growth or program expansion.
- Provide new Elementary drop-off and pick-up lane for parents; revise parking and sidewalks.
- High School: Add secure vestibule at main entrance.
- High School: Upgrades to door hardware and security.

Phase 2: Capital Improvements

- Renovate restrooms for ADA compliance.
- Re-point, clean, and seal brick at Field House.
- Update locker rooms at Field House.
- Provide air conditioning at Field House.
- Individual capital improvement projects may occur independently as funds become available.

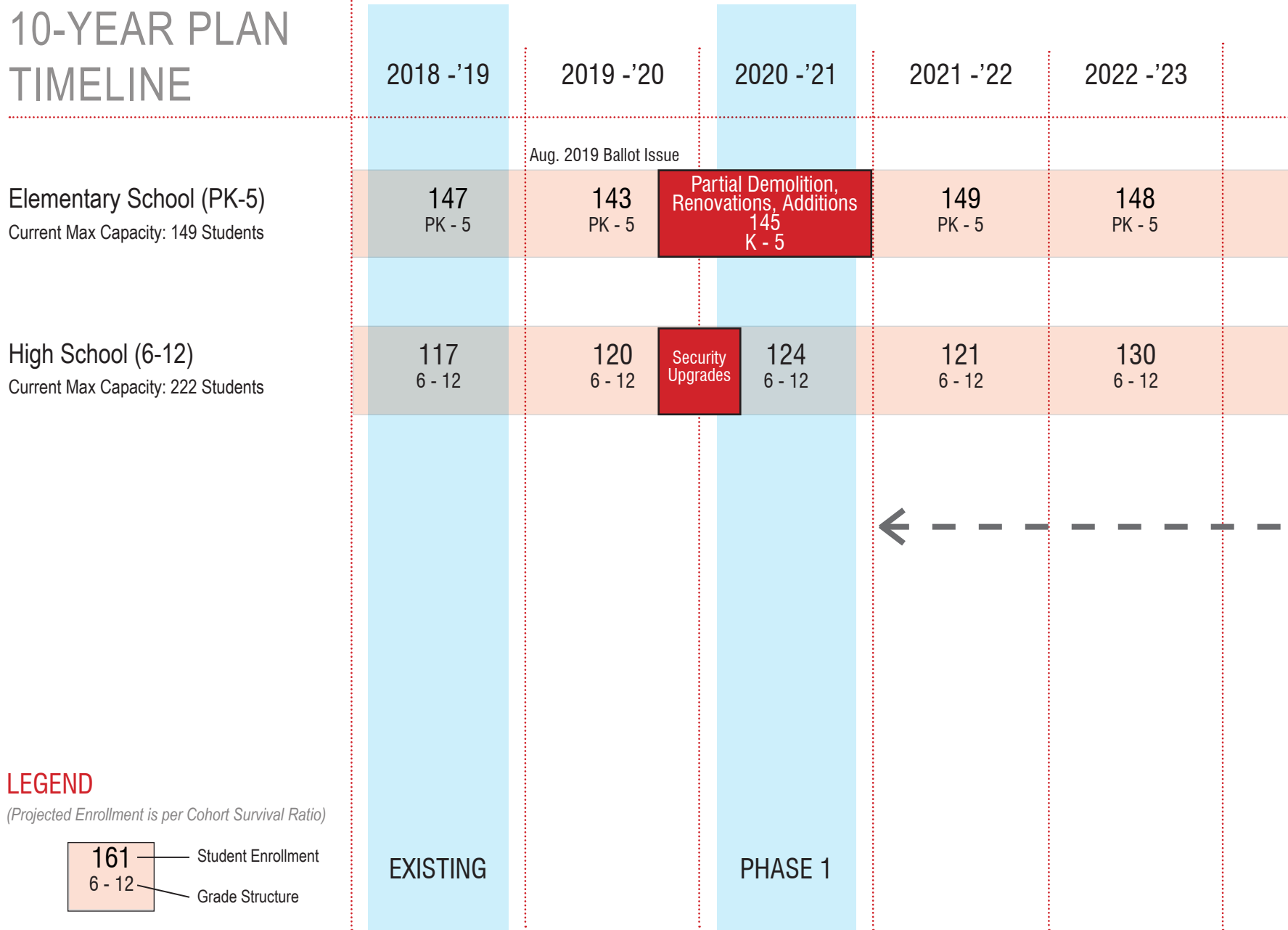
New FEMA Safe Room at High School:

- Demolish existing lobby, concessions, and restrooms at Field House.
- Construct new Commons, concessions, and restrooms as a FEMA safe room in front of existing Field House.
- Connect new FEMA safe room to High School, Field House, and Ag building.
- Timeline of Safe Room is contingent upon award of FEMA Grant.

Potential Totals:

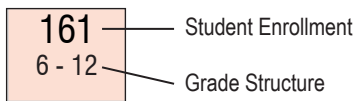
- Estimated total cost: \$5.9 - \$7.2 Million (turn-key)
- Total includes all work listed above, plus project expenses.
- Total does not include inflation for future phases.

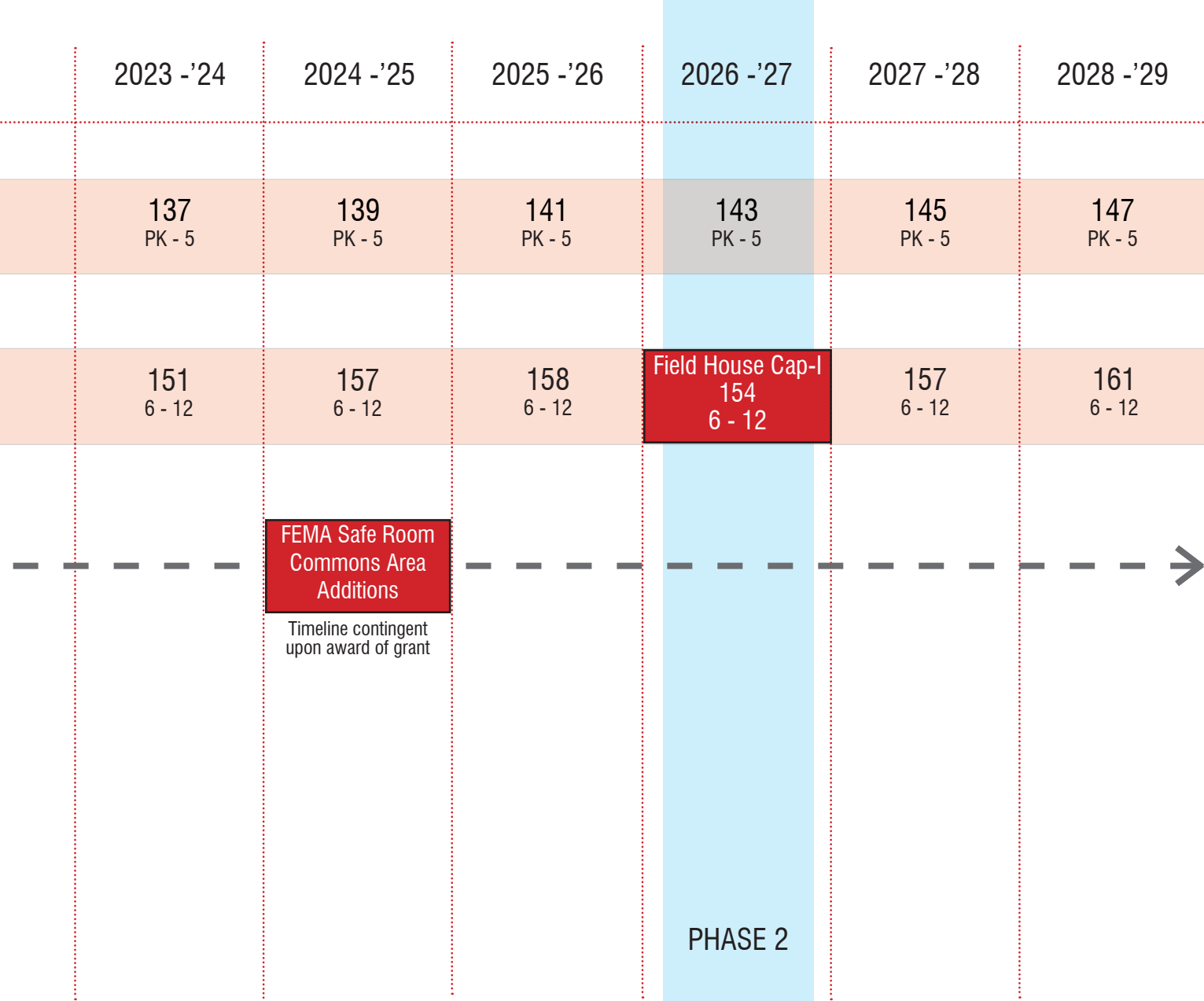
WALNUT GROVE 10-YEAR PLAN TIMELINE



LEGEND

(Projected Enrollment is per Cohort Survival Ratio)





MASTER PLAN PHASING

PHASE 1

PHASE 2: CAP-I

ELEMENTARY SCHOOL (PK-5)

Renovations	\$366,350
Replace west roof	\$122,000
Replace HVAC systems	\$75,000
Demolish east side of Elementary	\$44,800
Additions to replace east side	\$2.5 Mil
Site improvements	\$93,500

HIGH SCHOOL (6-12)

Secure entry vestibule	\$17,500
Door hardware/security upgrades	\$17,500

Renovate restrooms (ADA)	\$23,000
Field House brick repairs	\$58,000
Field House HVAC upgrades	\$215,000
Locker room upgrades/renovations	\$280,000

Individual capital improvement projects may occur independently as funds become available.

FEMA REIMBURSEMENT

PROJECT EXPENSES

* Project Expenses include fees, surveys, permits, testing, contingencies, FF&E, and other misc. expenses not included in the construction costs.

\$976,200

\$172,900

APPROXIMATE TOTAL EXPENSES

\$4,230,000

\$750,000

FEMA SAFE ROOM

Demolish existing Field House lobby	\$10,500
FEMA safe room / Commons	\$1.6 Mil
Non-FEMA connectors	\$540,000

Time line will vary contingent upon FEMA Grant award.

(\$1,125,000 - \$1,350,000)

Contingent upon FEMA Grant type.

\$638,500

\$1,529,000

GRAND TOTAL = \$6,509,000

**This is an Opinion of Probable Cost only; actual costs may vary. An additional 3% - 5% per annum should be added to each phase to account for inflation.

SOURCES:

- SOURCE: Walnut Grove R-V School District
- SOURCE: Missouri Department of Elementary & Secondary Education
Missouri Comprehensive Data System
dese.mo.gov
- SOURCE: Missouri Census Data Center
census.missouri.edu
- SOURCE: Federal Emergency Management Agency
FEMA Flood Map Service Center
msc.fema.gov
- SOURCE: U.S. Commerce Department's Economic Development Administration
USA Towns in Profile
www.statsamerica.org
- SOURCE: U.S. Department of Education,
National Center for Education Statistics,
Private School Universe Survey (PSS),
various years, 1995–96 through 2009–10.
- SOURCE: Ohio Schools Facilities Commission -
2013 Ohio School Design Manual
- SOURCE: Minnesota Department of Children,
Families & Learning - Guide for Planning
School Construction Projects in Minnesota
(Updated January 2003)

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