



SPRINGFIELD R-12 PUBLIC SCHOOLS



Facilities Master Plan

FINAL REPORT
November 15, 2016

SPRINGFIELD R-12 PUBLIC SCHOOLS

FACILITIES MASTER PLANNING

NOVEMBER 15, 2016

FINAL REPORT

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INTRODUCTION

In January 2016, the Springfield Public Schools contracted with MGT Consulting Group to develop a *Facilities Master Plan* to address the long-term facility needs of the district. The Board requested a master plan to examine the areas of need and determine a course of action to remedy any identified deficiencies. The scope of the project included the following five components:

- ♦ Community involvement in facilities master plan process
- ♦ Facility assessment
- ♦ Facilities master plan, requirements and options
- ♦ Long-range facilities capital plan: project planning and packaging
- ♦ Adoption and implementation required for adoption

In order to complete the scope, the primary tasks for the completion of the master plan were:

1. Provide a demographic analysis for enrollment projections.
2. Define and recommend the facilities needs to support and enhance the District's strategic goals and programs.
3. Define and recommend the District's definition of building capacity.
4. Recommend realignments to attendance zone boundaries to proportionately balance student populations.
5. Review and make recommendations for school feeder patterns from elementary schools to middle schools and from middle schools to high schools.
6. Provide comprehensive scenarios for multiple situations, including, but not limited to:
 - a. Elementary School configuration to allow for increased population, with applicable scenario options.
 - b. Elementary School configuration keeping neighborhoods together, with applicable scenario options.
 - c. Maintain a reflection of the economic and ethnic diversity of the District's student population in the various individual school attendance zones to the maximum extent possible.
 - d. Elementary School configuration to allow for the District's specialty classes (ex. ELL, Special Education, Title I, pre-kindergarten, etc.).
7. Identify opportunities to use available space more efficiently and focus on alignment with future educational delivery methods.
8. Identify a long-term facilities plan that identifies facility needs as they align to the District's educational goals.
9. Develop a definitive facilities project list.
10. Define implementation steps necessary to fulfill the identified needs, coordinating the scope of work with funding sources to create a schedule of the work to be completed for the master planning period district-wide.

In order to complete the above, the development of a comprehensive master plan, facility condition data, as well as program suitability data, was collected by the MGT on-site team, which was then synthesized into the creation of building profiles. The purpose of this effort was to bring all of the data together, verify the information, solicit information from the staff and public, and develop facilities master plan option to be presented to the Board of Education. Upon completion of the collection and

analysis phases of the project, facility master plan options were developed. This report represents the results of this effort and contains the following sections:

Introduction

Methodology

Educational Program

Community Engagement

Demographics and Enrollment Projections

Capacity and Utilization

Facility Assessments

Master Plan Options and Recommendations

Community Engagement and Final Facility Master Plan Recommendations

I.0 METHODOLOGY

The goal of the *Facility Master Plan* is to establish a long-range strategy(s) based on objective data and input from the community, using best practices for educational facility planning that identifies and prioritizes the facility needs, and presents an effective and efficient implementation of capital projects over the planning period.

The project included the following tasks:

- ♦ Project initiation
- ♦ Development of facilities and site inventory system
- ♦ Public engagement and community collaboration
- ♦ Educational review and programmatic priorities
- ♦ Facility assessments
- ♦ Analysis of school and community demographics
- ♦ Analysis of capacity and utilization
- ♦ Develop master planning options
- ♦ Create scenarios and develop capital plan
- ♦ Adoption and implementation of master plan



METHODOLOGY

To develop a long-range facility master plan, MGT gathers and analyzes both *quantitative* and *qualitative* data. Most of the quantitative data comes from the district, with the exception of demographic data, which also comes from the city, the county, and the U.S. Census Bureau (Census). Quantitative data allows us to compare numbers and uncover trends. Qualitative data is gathered from conversations with community and district officials familiar with the educational programs and facilities, as well as city or county planners to explore population changes. In addition, community input is gathered through several methods. This qualitative data typically provides the “why” behind the numbers. Both forms of data are critical to the preparation of a comprehensive plan for the community and district that will meet the facility priorities and needs into the future.

PROJECT INITIATION

MGT staff reviewed the goals of the project with district staff during the project initiation meeting. Lines of communication were established and the work plan and project schedule were reviewed and finalized.

DEVELOPMENT OF FACILITIES AND SITE INVENTORY

The facilities and site inventory is a database containing all relevant information about the facilities included in the Facilities Master Plan. MGT staff worked closely with District staff to compile this data, to ensure its accuracy, and maintain a consistent nomenclature. The facilities database became a deliverable to the district at the completion of the study.

PUBLIC ENGAGEMENT AND COMMUNITY COLLABORATION

Public input and support are key factors to developing a facility master plan that meets the priorities and needs of the community. MGT conducted several public input activities. Five community charrettes were held, in which community members were invited to attend a structured meeting. The meeting began with a presentation of the master planning process. That presentation was followed by an electronic survey of the audience. The survey included questions relevant to the facilities plan and responses to each question were immediately presented in the form of bar graphs. After the survey, the audience was broken up into small groups to discuss their views of each question.

In addition, a survey was conducted via the Internet. This survey contained the same questions asked in the charrette and additional questions about specific schools, and was open to all community members. The results were tabulated and combined with the results from the charrette to guide the long-range planning.

EDUCATIONAL REVIEW AND PROGRAMMATIC PRIORITIES

MGT conducted extensive interviews with school district leaders and staff to develop an understanding of the educational programs being delivered from the school facilities. These discussions were used to establish facility standards by which the facilities could be evaluated for educational suitability.

FACILITIES ASSESSMENTS

Facility assessments were conducted at each school site using MGT's BASYS® Facility Assessment software. The assessments included:

- ♦ **Building Condition** which evaluates the physical condition of all building systems
- ♦ **Educational Suitability** which evaluates the ability of the facility to support and enhance educational program delivery
- ♦ **Site Condition** which evaluates the physical condition of all site systems
- ♦ **Technology Readiness** which evaluates the level to which the building infrastructure supports information technology

Each assessment resulted in a score based on a 100-point scale. Scores are interpreted as shown on the following chart.

NUMERICAL SCORE	INTERPRETATION
90 – 100	New or like new, Excellent
80 – 89	Good
70 – 79	Fair
60 – 69	Poor
Below 60	Unsatisfactory

The scoring is structured to measure the level of deficiencies as related to the total value of the building. Consequently, scores can be used to calculate the budgets required to remediate the deficiencies identified in the assessments. The BASYS® software produces a detailed report for each facility assessment which includes each deficiency identified.

The results of the assessment were reviewed with school staff to ensure accuracy and completeness.

ANALYSIS OF SCHOOL & COMMUNITY DEMOGRAPHICS

MGT prepared enrollment projections for the school district. Understanding current and future enrollment in a district is critical: funding, staffing, and facility decisions hinge on having accurate information about enrollment. MGT gathered demographic data from several sources and prepared the projections using four different projection models.

ANALYSIS OF CAPACITY AND UTILIZATION

It is important to understand that building capacity and utilization are dependent on the educational programs offered at a given school and that capacity and utilization can change with a modification in the planned programming. For example, the capacity of a school can be decreased by deciding to change a grade 3 classroom, currently housing 24 students, into a Title I support space that houses 3-8 students at various times.

MGT worked with district staff to understand the current program offerings and the current capacity and utilization numbers for each building. During the on-site review, MGT staff discussed program needs and plans with the administrative staff at each site.

Current and future utilization was calculated by dividing current and projected enrollments by the capacity of each facility. Utilization is expressed as a percentage with a preferred utilization being between 80 to 95 percent.

COMBINED SCORES

The building condition, educational suitability, site condition, and technology readiness scores are combined into one score for each school to assist in the task of prioritizing projects. Since the building condition score is a measure of the maintenance needs (e.g. leaky roofs, etc.) and the educational suitability score is a measure of how well the building design and configuration supports the educational program, it is possible to have a high score for one assessment and a low score for another assessment. It is the combined score that attempts to give a comprehensive picture of the conditions that exist at each school and how each school compares relative to the other schools in the district.

To create the combined score, the four scores are weighted, based on which deficiencies the district wants to emphasize and the relative impact on capital costs. For Springfield Public Schools, the building condition score was weighted 50 percent, the educational suitability score was weighted 40 percent, the site condition score was weighted 5 percent, and the technology readiness score was weighted 5 percent.

DEVELOP MASTER PLANNING OPTIONS

MGT developed multiple options to meet the identified facility needs over the master plan period. Options were developed to address the highest priority site/building condition, educational suitability, and technology readiness deficiencies, enrollment changes, program equity, and program expansion opportunities. The options were reviewed with district staff and community leaders in several rounds of discussions. The outcome of the discussions was a framework that identified priorities to be framed as drivers for each master plan scenario.

CREATE SCENARIOS AND DEVELOP CAPITAL PLAN

Two scenarios were developed based on the priority framework. MGT reviewed these scenarios with district staff and Board and received input regarding the pros and cons of each.

2.0 EDUCATIONAL PROGRAM

The School District of Springfield, R-12 (SPS) provides instructional support and services to 24,884¹ students in grades pre-K through 12. The district has 53 schools, including 37 elementary, 11 middle schools, and five high schools. The district's goal is to support innovation and exploration. As part of that work, the district is moving to a 1-to-1 student-to-computer ratio as part of their technology plan. They want the schools to meet students in ways that speak to them and have placed an emphasis on creating flexible learning environments.

The district has included multiple opportunities for families and students to choose among offerings. Choice options include some individual grade level opportunities (e.g., WOLF at grade 5 or the Reed Academy program for middle school students). Among the choices available is the International Baccalaureate (IB) program. This program exists at all levels with the Primary Years' Program (PYP) for students in grades K-5, the Middle Years' Program for students in grades 6-10, and the Diploma Program for students in grades 11 and 12. The IB program is recognized by many countries for providing a universally approved curriculum and program of instruction. It includes a focus on inquiry and world languages, history, and culture.

CHOICE PROGRAMS

Springfield has created several programs that are offered to students and families as a choice or alternative to the neighborhood school. Most programs are available by application. The number and type of choice programs has changed since they were started in 2006-07 based on student and family input as well as teacher interest.

The **Academy of Exploration** offers a unique learning environment for fifth grade students to explore the world around them through multiple lenses of science and exploration. In partnership with the Discovery Center and the Hamels Foundation, the Academy of Exploration is housed at the Discovery Center in two specialized classrooms with opportunities to use the many learning tools and exhibits within the center. Two teachers facilitate learning for a total of 40 students through curriculum with a focus on science, technology, engineering and math (STEM). Their school day begins at 8:45 a.m. and ends at 3:30 p.m.

Health Sciences Academy is a unique learning opportunity housed within Mercy Hospital for 50 Springfield Public Schools eighth grade students. Students spend their year at Mercy learning through the lens of health sciences in a specially designed state of the art classroom facilities. This unique learning environment includes hands-on application and exposure to the many avenues of study and careers in the field of health sciences. Their school day starts at 8 a.m. and ends at 2:45 p.m.

Reed Academy is a school within a school model that offers middle school students throughout the district the opportunity to take freshman-level, high school honors courses as middle school students, preparing them to take full advantage of AP and college dual-credit courses offered at each SPS high school. Students enter the Reed Academy program during their sixth grade year, taking a curriculum of rigorous coursework that culminates in high school level coursework during their 8th grade year.

WOLF (Wonders of the Ozarks Learning Facility) is an innovative learning opportunity for 46 SPS 5th-grade students with a special interest in nature and the outdoors. WOLF offers an inquiry-based learning

¹ Enrollment as of 2015-16.

experience that allows students to explore a comprehensive curriculum through the context of environmental sciences and conservation. WOLF is a partnership with the Wonders of Wildlife Museum and Bass Pro Shops. WOLF classrooms are located in the John A. & Genny Morris Conservation Education Center at 600 W. Sunshine. Students spend a substantial amount of time out of the classroom exploring the great outdoors through field experiences. The WOLF school day is from 8:00 a.m. to 2:45 p.m.

The district's instructional program varies somewhat by level. It is aligned with the Missouri Department of Education (DESE) to ensure that all students have the opportunity to meet or exceed state assessment standards. For a complete description of all curriculum offerings by grade level and subject area, see: [http://www.springfieldpublicschools.org/pages/SPSMO/About/Services/AD/CIA/General Info/SPS Major Instruction Goals](http://www.springfieldpublicschools.org/pages/SPSMO/About/Services/AD/CIA/General%20Info/SPS%20Major%20Instruction%20Goals)

ELEMENTARY CURRICULUM

The instructional program at the elementary schools focuses on developing excellent basic skills in reading and mathematics, but also provides opportunities for students to explore ideas, create new and interesting projects, and skills. The standard defines that all elementary schools should have a learning commons, a space that used to be called the library or media center. This space is designed to provide resources for learning and is planned to have a "maker space" for discovery and exploration. Elementary schools also have separate spaces for art and music. Having defined spaces for these programs allows more opportunities for teachers to offer a comprehensive program and for students to learn and play with art materials and musical instruments. Elementary schools are also required to have a performing arts space to encourage and support creative expression and performances.

The standard defined for the elementary program also includes an outdoor component, with spaces supporting not only physical education but also environmental awareness and education.

MIDDLE SCHOOL CURRICULUM

The middle school program builds on the basic math and literacy skills developed at the elementary level. The standard defines that all middle schools should have a learning commons that provides resources for learning and is planned to have a "maker space" for discovery and exploration. The curriculum includes science and supports both learning and doing science in lab settings. Career exploration begins in middle school with three programs: family and consumer science (FACS), engineering, and business. The FACS program includes both early childcare and culinary arts. The engineering program features the *Project Lead The Way* curriculum, introducing students through Gateway to Technology. Business courses focus on the use of technology and computer science. Students can also continue to explore music and art through various course offerings, including band, choir, and orchestra in the music department and 2D and 3D arts courses. Students are encouraged to participate in productions and perform for parents and the community. They also have the opportunity to study several world languages while in middle school.

The standard defined for the middle school program includes an extensive physical education and athletic program, supporting football, soccer, baseball and softball, track and volleyball.

HIGH SCHOOL CURRICULUM

The school district offers a comprehensive curriculum at each high school. All graduates must meet the same subject matter requirements, but each student has multiple-choice options to meet the requirement, allowing for individual decisions and opportunities.

Many courses are available at each campus, but other offerings vary among the schools and students have opportunities to select from an extensive set of program choices. Like the elementary and middle schools, the standard defines that all high schools should have a learning commons that provides resources and space for exploration. The high schools also offer a full range of visual and performing arts courses, including 2D and 3D art, band, choir, and orchestra, and drama classes with space to perform both in the auditorium and in a smaller black box or other type of theater space. Students can also choose a world language for study. German, French, Japanese, and Latin are available for a four-year sequence. Spanish is available for a six-year sequence.

Students are encouraged to build toward success beyond high school. Some students will want to take Advanced Placement (AP) classes in languages, science, math, English, and social studies. Other students might choose to do Early College or the International Baccalaureate programs. All schools provide opportunities to explore careers and gain job skills through various pathways available through the career and technical education (CTE) areas. The CTE course opportunities across the district include the following examples:

- ♦ Family and Consumer Science
 - Early childhood
 - Culinary arts
- ♦ Engineering
 - Project Lead The Way
 - Bio-Medical engineering
- ♦ Technology
 - Manufacturing, Construction, Wood
 - Computer Science
- ♦ Business
 - Marketing
- ♦ Broadcast Journalism/Media
- ♦ Graphic Arts

High school students also have opportunities to participate in an extensive physical education and athletic program. Each high school has a stadium for football, soccer, and track, fields for softball and baseball, and tennis courts.

As part of the development of the district's long-range facility master plan, MGT staff met with curriculum leaders from all departments to understand both current and future educational program plans. The discussions included both the subject matter content (e.g., science, art, CTE, etc.) and the types of instructional activities (e.g., hands-on labs, flexible groups, lecture, demonstrations, etc.) planned to support student learning. The goal of this work was to develop the *Educational Suitability Reference Guide*² for Springfield Public Schools.

² *Educational Suitability Reference Guide* for Springfield Public Schools is included as Appendix A.

This *Guide* defined the standards that were used by MGT to assess the educational suitability of schools. “Educational suitability” is a measure of how well the facility supports the instructional program housed there. This is not an assessment of the physical condition of the school – the roofing, the windows, etc., which rates the various building systems. This is an assessment of the learning spaces compared to the program needs at that school. For example, since the district’s music program includes an elementary component, each elementary school should have a music room with an appropriate learning environment, good acoustics, and space to store instruments or other equipment.

The facility standards were based on the Missouri Department of Education (DESE) standards. For each type of instructional space (e.g., art rooms, general classrooms, PE spaces), the assessment included four components:

Learning environment - The room should provide an inviting and stimulating learning environment, including lighting, HVAC, acoustics, etc.

Size – The room should meet the size standard set by the district/state.

Location – The room should be appropriately located based on the program needs: quiet, noisy, near the entrance, etc.

Storage and Fixed Equipment – The room should have appropriate safety equipment and storage for teacher/ student materials and.

In addition to the instructional spaces, the suitability assessment also includes the exterior of the building, (e.g., traffic patterns, parking and access to the school), and safety issues (e.g., lighting, signage, and secure entrances), play and athletic areas, and infrastructure that supports technology readiness.

This *Guide* was used for training of assessors to ensure inter-rater reliability and during the assessment of each school in the district. The *Guide* and the data gathered during the assessment were used by MGT and the district to prioritize facility needs for future planning.

3.0 COMMUNITY ENGAGEMENT

MGT was contracted by Springfield Public Schools to gather information and data in order to develop a long-range facility master plan. An important component of a viable master plan is data gathered from various community sources to ensure that critical perspectives have been heard and considered in the development of the final plan.

To ensure broad-based input, MGT conducted a series of open community forums with an online survey aligned with the discussions at the community meetings, and invited internal and external input from identified individuals. The community engagement activities included two types of community engagement activities in support of the district's goal to create a long-range facility master plan. The activities were focused initially on gathering **input** – what was working well, what needed attention or focus during the study and for the long-range plan – and then gathering **feedback** – what had we heard, what data had been gathered and what did the community think about that information.

COMMUNITY INPUT ACTIVITIES

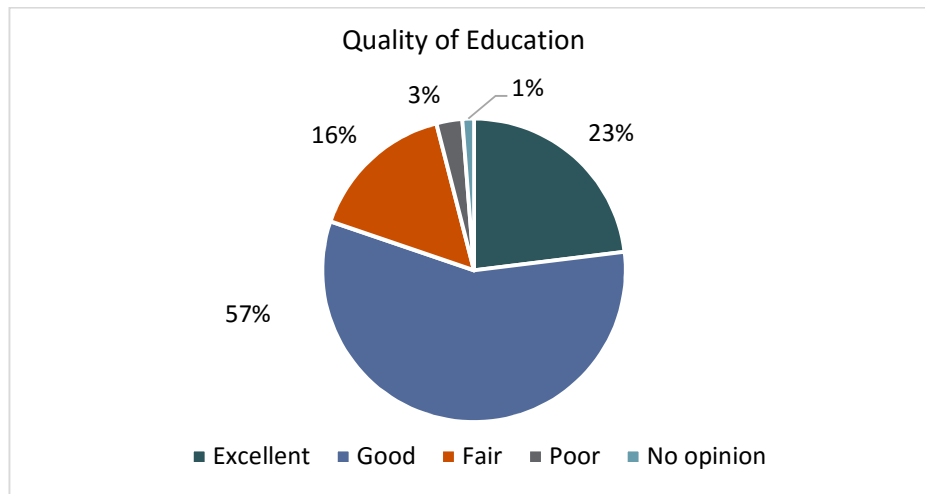
In order to gather community input regarding the long-range facility plans for the district, MGT conducted five large group sessions open to the public and two district focus groups. MGT also provided an online survey that included the same set of questions used during the large group sessions.

- ♦ Input Sessions
 - Kraft Administration Center on April 25, 2016
 - Central High School on April 26, 2016
 - Reed Academy on April 26, 2016
 - Kraft Administration Center on April 27, 2016
 - Cherokee Middle School on April 28, 2016
- ♦ Online Survey – posted to district website from May 2 – 20, 2016.

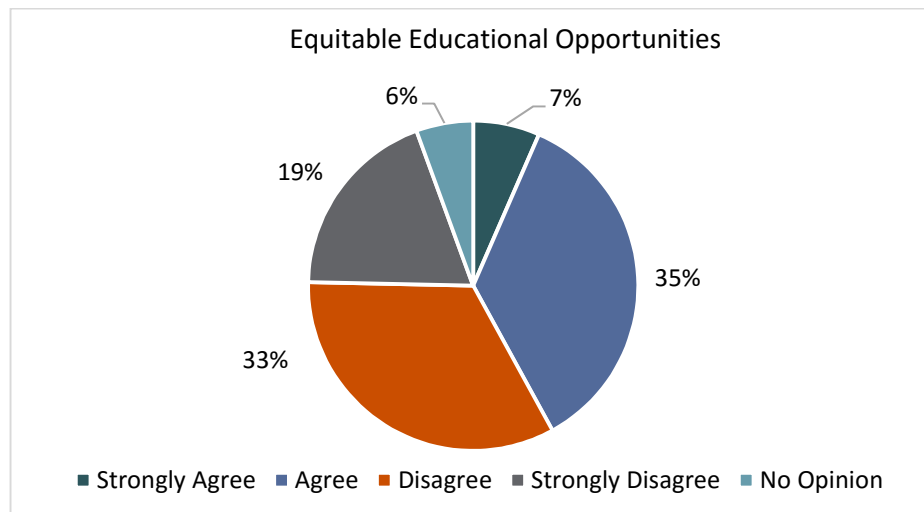
FINDINGS

For the purpose of this report, we have combined the data gathered from the community input sessions and the online survey, since nearly the same data were gathered through each venue.

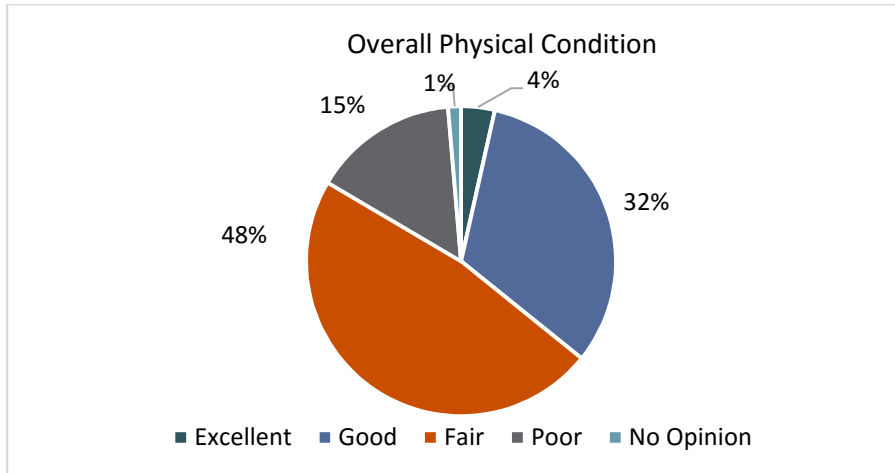
- ♦ 1600 individuals participated in charrettes (community input sessions) or took the online survey (N = 1600)
- ♦ Eighty percent (80%) of respondents rated the quality of education in Springfield Public Schools as *Excellent* or *Good*. Respondents cited excellent teachers at some schools, the opportunities for students to take advanced coursework through the IB program, and other school choice options as examples of quality education.



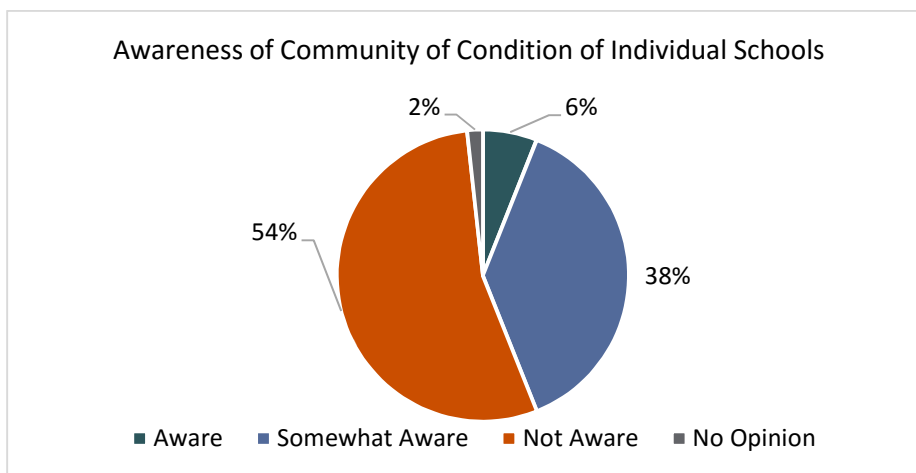
- ♦ There was no consensus of opinion with regards to respondents' perception of the equity in educational opportunities in the district. Forty-two percent (42%) of respondents *Strongly Agreed* or *Agreed* that there is equity of opportunity; however 52% *Disagreed* or *Strongly Disagreed*. This was echoed in the small group conversations with participants expressing concern over a "North/South" divide in the district in terms of educational equity.



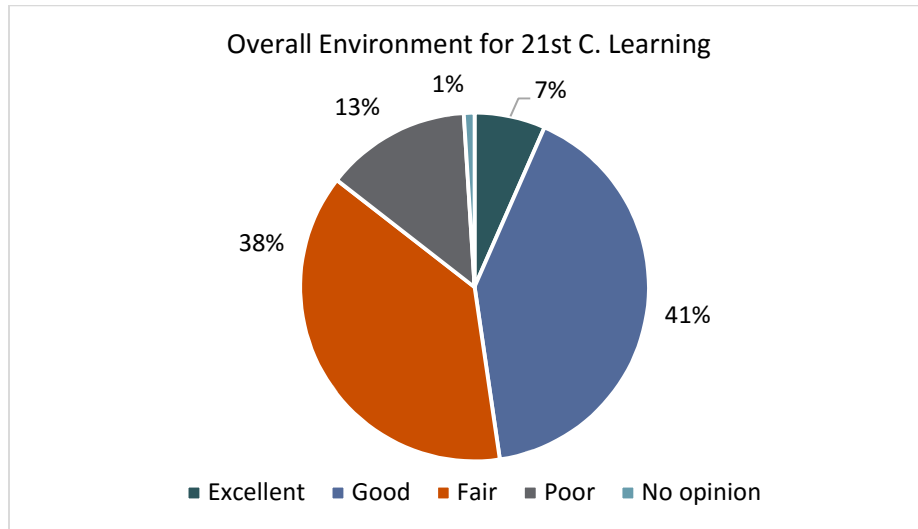
- ♦ Sixty-three percent (63%) of respondents felt the physical condition of schools is *Fair* or *Poor*. A number of respondents cited poor conditions at some secondary schools' gymnasiums and athletic fields, and several schools in severe disrepair that needed either major renovation or total demolition.



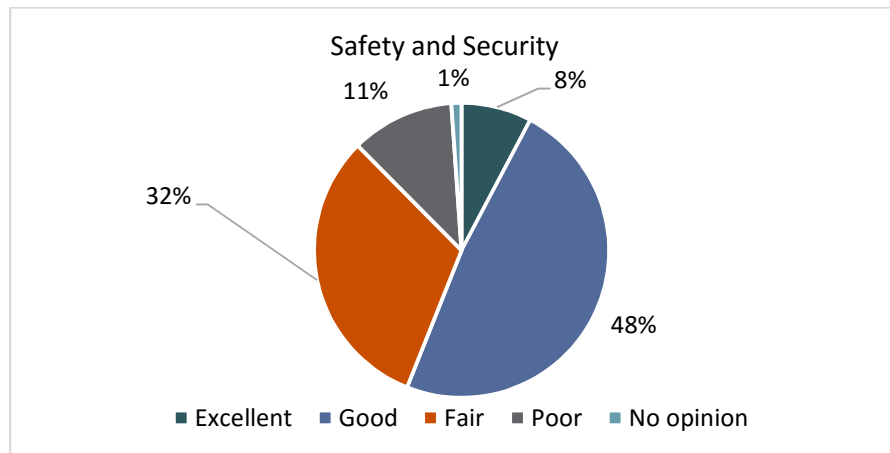
- ♦ Fifty-four percent (54%) of respondents felt the community is *Not Aware* of the physical condition of school buildings in Springfield Public Schools. Many felt that the North/South split in terms of condition of facilities and the extent to which services were distributed equitably.



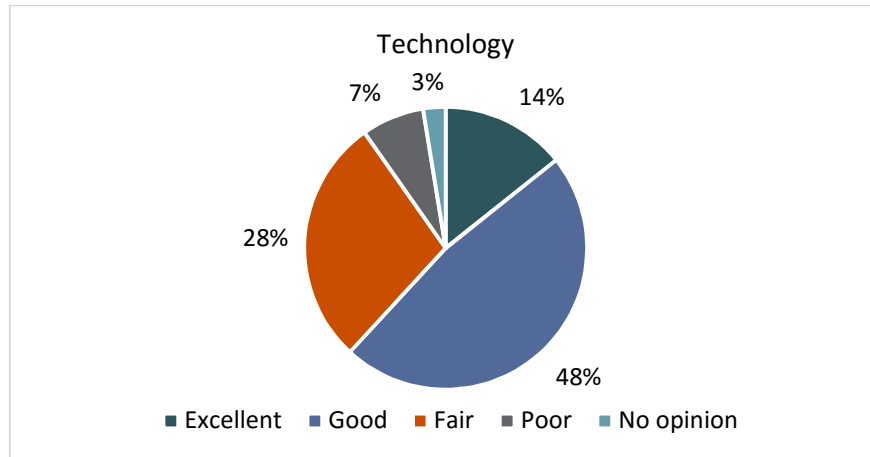
- ♦ Only forty-eight percent (48%) of respondents felt the overall environment for 21st century learning is *Excellent* or *Good*, and 51% viewed it as *Fair* or *Poor*. Specifically, there are conflicting opinions on the value of the one-to-one device initiative, and a desire to have more resources devoted to improving teachers, than just adding technology in order to have high quality 21st century learning.



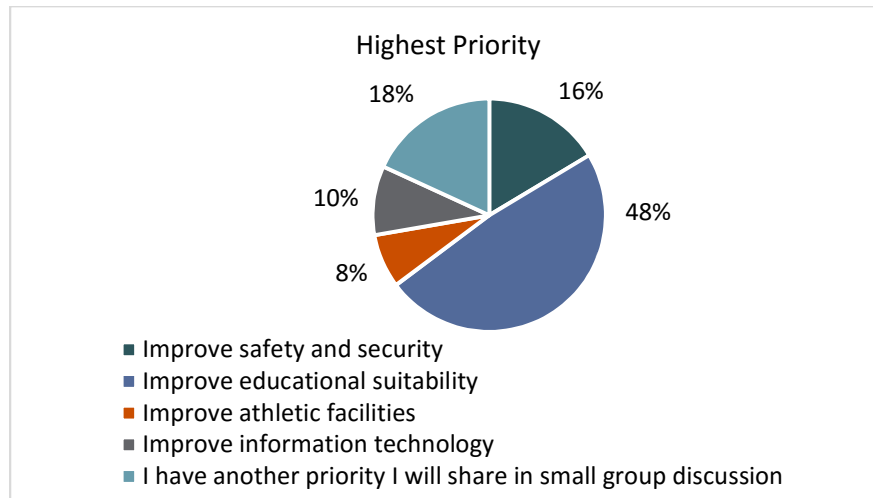
- ♦ Fifty-six percent (56%) of respondents rated the level of safety and security in schools as *Excellent* or *Good*; however 43% rated this area as *Fair* or *Poor*. School safety was repeatedly referenced, but mainly in terms of perceptions of its importance to students and staff, rather than a pattern of specific concerns.



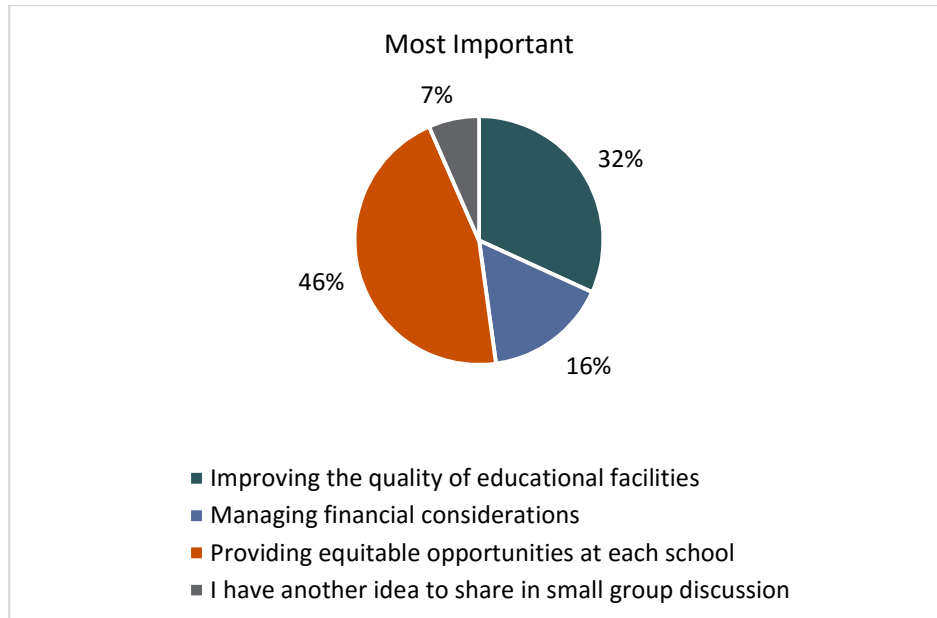
- ♦ Sixty-two percent (62%) of respondents rated the quality of technology in schools as *Excellent* or *Good*. There was a good deal of commentary around technology, with a virtual dead split among respondents who felt technology (particularly the one-to-one device initiative) was either more than adequate in schools or felt the funding would be best used elsewhere.



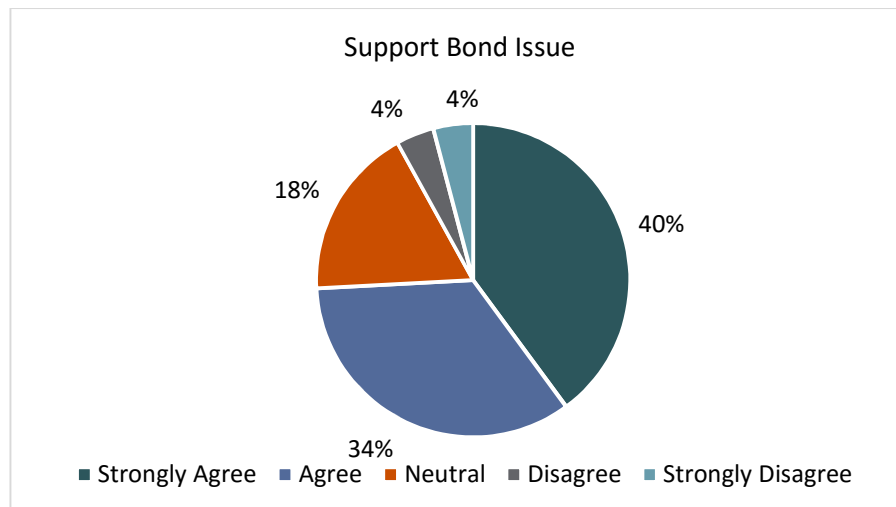
- ♦ Respondents identified the highest priority need as improving educational suitability (48%). All other areas came a distant second, led by other priority (18%); improve safety and security (16%), improve information technology (10%); and finally improve athletic facilities (8%):



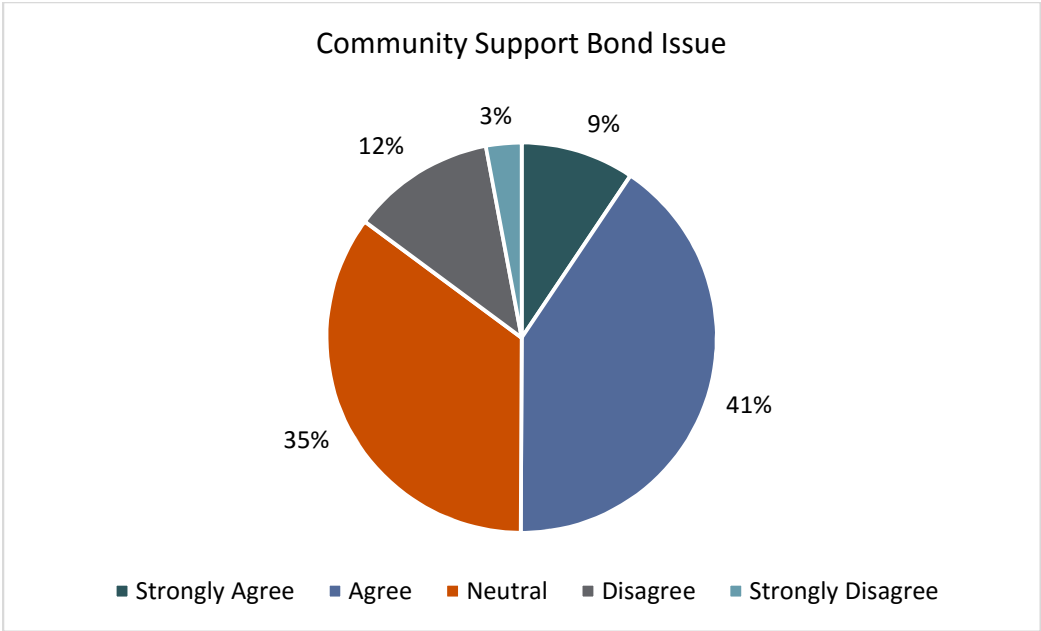
- ♦ Respondents were given the opportunity to identify what they feel should be the most important element to consider in the development of a facilities master plan for the school district. The largest percentage of respondents identified *Providing equitable opportunities at each school* (46%), and 32% of respondents identifying *Improving the quality of educational facilities*. The issue of equity was a frequently cited in the extended conversations at the charrettes and online, with strong concerns that all schools in the district be treated fairly in the allocation of resources.



- ♦ There was strong support for a bond issue to support facilities improvements, with 74% of respondents stating they *Strongly Agreed* or *Agreed*. Comments related to these results centered on the importance of providing for quality school facilities, including both academics and athletics.



- ♦ When the question of support for a bond issue shifted from “I would support” to “The Community would support,” positive responses dropped by over 30 points, with 50% of respondents stating they felt the community would support the bond. Strong sentiments were expressed around the importance of the district providing adequate information and clearly stated plans for what the funds would be used for. Comments reflected a wariness around whether the right thing would be done if a bond were approved, and if officials could be trusted to do what is best for all schools.



CONCLUSIONS

In order to gather community input and feedback, MGT used a variety of tools throughout the process of development of this Facility Master Plan. The goal for community engagement was to ensure that all interested members of the community had multiple opportunities for both input and feedback.

- ♦ **Input** processes asked the community - what is important, what needs attention, what is working well, and what needs to be different?
- ♦ **Feedback** processes asked the community – given these preliminary data, what should be the priorities, how should issues be weighted, what is **most** important to do?

Springfield Public Schools has an involved and interested populace. They actively participated in the community sessions; many more community members took the online survey so that they could provide input and feedback at a time convenient for them.

From these data, it is clear that the SPS community wants the district to focus their efforts on the following issues over the master planning period:

- ♦ Fixing identified building deficiencies and upgrading athletic facilities.
- ♦ Ensuring that facilities improvement is equitable across the district.
- ♦ Ensuring the placement and provision of high quality academic programs is equitable across the district.
- ♦ Ensuring the right balance in terms of funding and utilization of technology in order to ensure high quality 21st century teaching and learning.

4.0 DEMOGRAPHICS AND ENROLLMENT PROJECTIONS

This section presents the demographic analysis and enrollment projections for the master planning period. The demographic analysis and enrollment projections were developed by MGT for the 12-year planning period. Over the next 10 years, enrollment is expected to increase modestly across the district. The specific impact of future student enrollment on school building capacities is outlined in **Section 5.0** Capacity and Utilization.

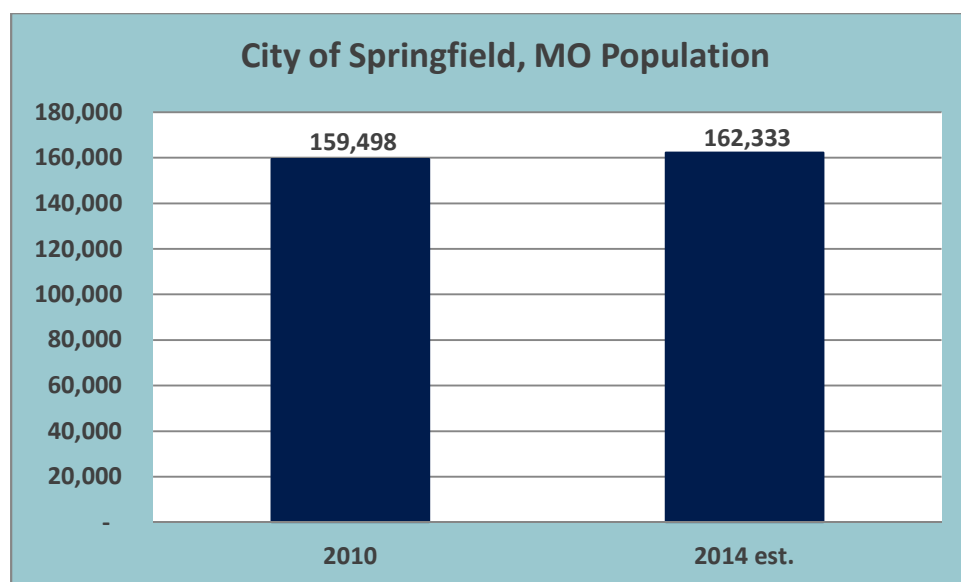
HISTORICAL DATA

An analysis of both quantitative and qualitative data forms the basis for the enrollment projections. Quantitative data comes from the district, the county, and the U.S. Census Bureau (“Census”). Quantitative data provides the basic understanding of trends “by the numbers.” Qualitative data is gathered from conversations with district officials familiar with enrollment trends (and county planners), and provides the “why” behind the numbers. Both forms of data are critical to the preparation of enrollment projections for the district’s 12-year Facility Master Plan.

CITY OF SPRINGFIELD, MO POPULATION TRENDS

It is important to understand the context in which enrollment trends occur within the district. The City of Springfield, MO had a population of 159,498 in 2010. The American Community Survey estimated that number to increase to 162,333 in 2014. **Exhibit 4-1** shows the increase in total population from 2010 to 2014 estimated.

EXHIBIT 4-1
CITY OF SPRINGFIELD, MO
TOTAL POPULATION
2010 TO 2014 EST



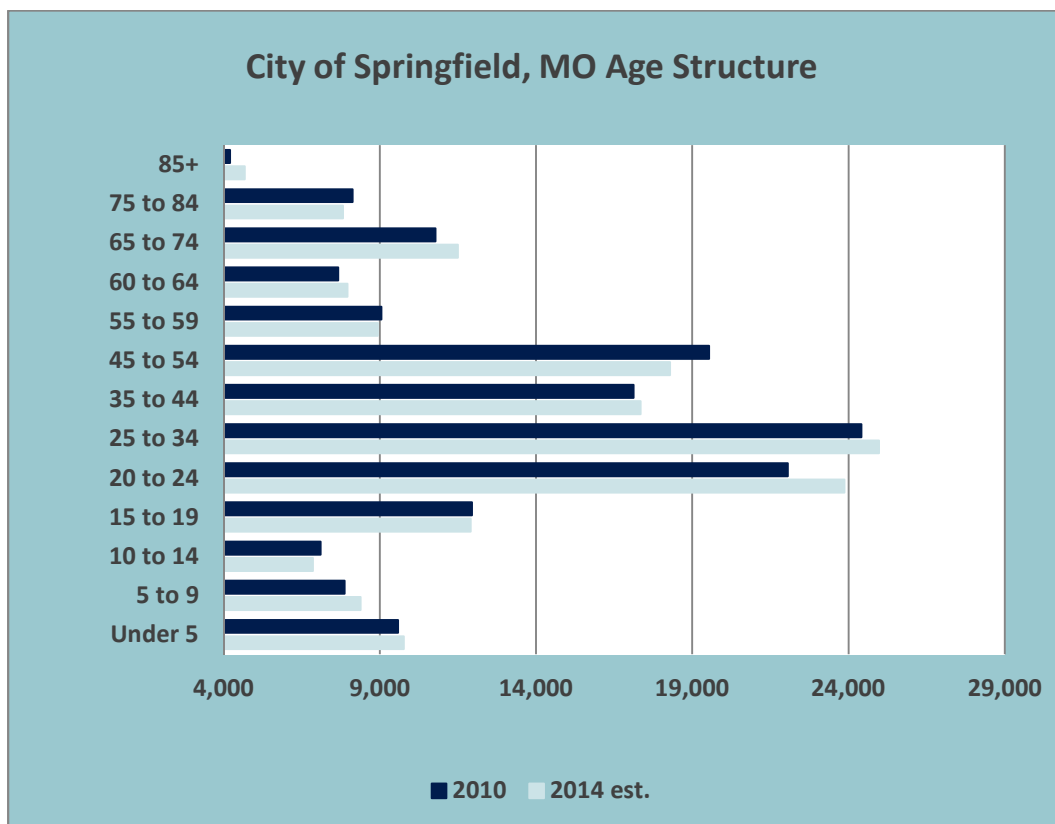
Source: U.S. Census Bureau.

Exhibits 4-2 illustrates the population age structure for the City of Springfield in 2010 and in 2014, estimated.

An examination of the age structure in the City of Springfield offers some interesting observations. Note that the population segments *Under 5* and *5 to 9* show a clear increase from 2010 to 2014, however the *10 to 14* and *15 to 19* population shows a slight decline between 2010 to 2014. The segments 45 through 84 show some groups increasing and some decreasing between 2010 to 2014.

The largest segment of the population is between 20 and 34 years of age. Estimates show that these age groups have increased in both numbers and as a percentage of the population. These increases bode well for Springfield Public Schools as these age groups are generally considered our child bearing population. Based on this increase, the district can reasonably anticipate a modest growth of new students entering the system. The changes from 2010 to 2014 indicate that overall demographics of the community are changing.

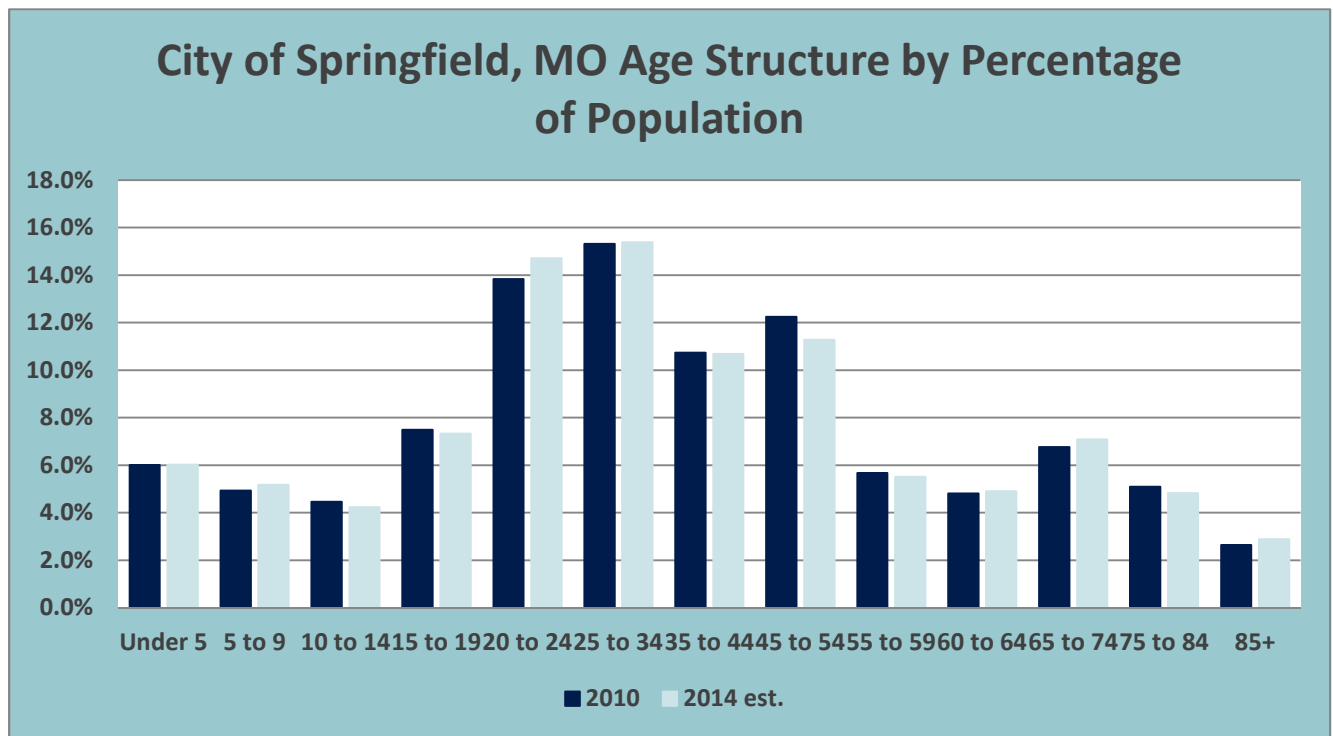
EXHIBIT 4-2
CITY OF SPRINGFIELD, MO
POPULATION AGE STRUCTURE
(TOTAL BY AGE GROUP)
2010 TO 2014 EST



Source: U.S. Census Bureau.

While **Exhibit 4-2** shows the age structure in terms of quantity, **Exhibit 4-3** shows the age structure as a proportion of the total city population. **Exhibit 4-4** shows the percent change in age group as a percentage of the whole population.

EXHIBIT 4-3
CITY OF SPRINGFIELD, MO
POPULATION AGE STRUCTURE
(BY PERCENTAGE OF POPULATION)
2010 TO 2014 EST



Source: U.S. Census Bureau.

Exhibit 4-4 reveals that the population in the City of Springfield is in a state of flux. The proportion of the *Under 5* population increased approximately 0.2% from 2010 to 2014 while the proportion of *5 to 9* year olds increased by 4.7%. The *10 to 14* and *15 to 19* age segments decreased 5.1% and 2.1%, respectively, over that same time period. The increase in the *5 to 9* population group, both in terms of quantity and as a percent of the population, along with the previous discussion regarding an increase in our child bearing population will provide a consistent number of young students coming into the system.

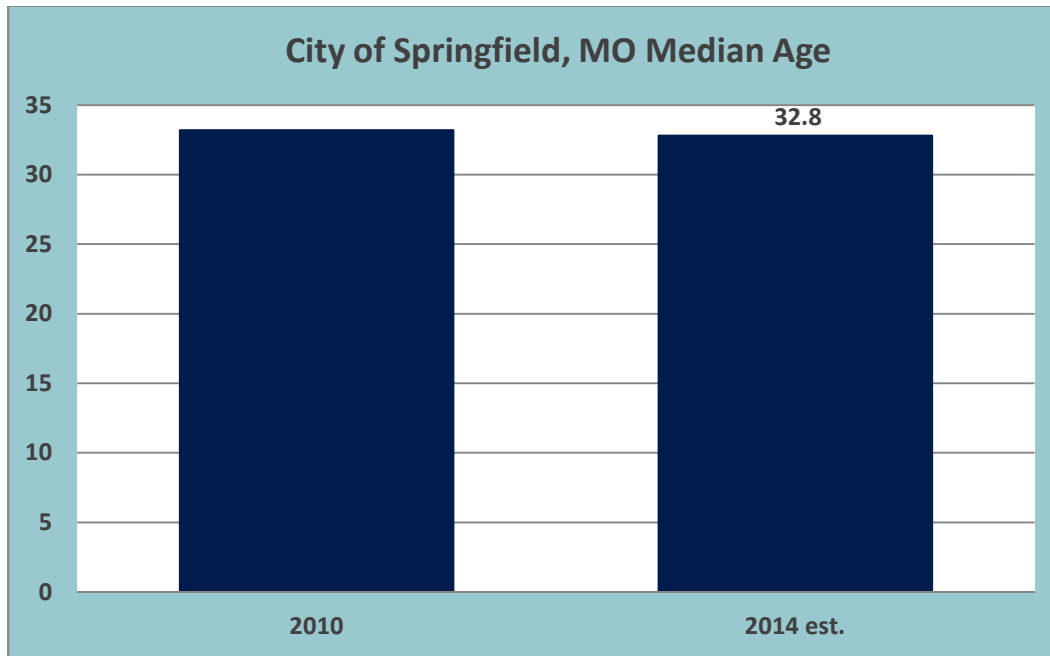
EXHIBIT 4-4
CITY OF SPRINGFIELD, MO
CHANGE IN PERCENT OF POPULATION
2010 TO 2014 EST.
(BY AGE SEGMENT)

Age Segment	% Change
Under 5	0.2%
5 to 9	4.7%
10 to 14	-5.1%
15 to 19	-2.1%
20 to 24	6.3%
25 to 34	0.5%
35 to 44	-0.4%
45 to 54	-8.0%
55 to 59	-3.0%
60 to 64	2.0%
65 to 74	4.8%
75 to 84	-5.4%
85+	9.2%

Source: U.S. Census Bureau.

Unlike a majority of communities across the country, the census estimates that the overall population in the City of Springfield is getting younger. **Exhibit 4-5** shows the decrease in median age from 2010 to 2014.

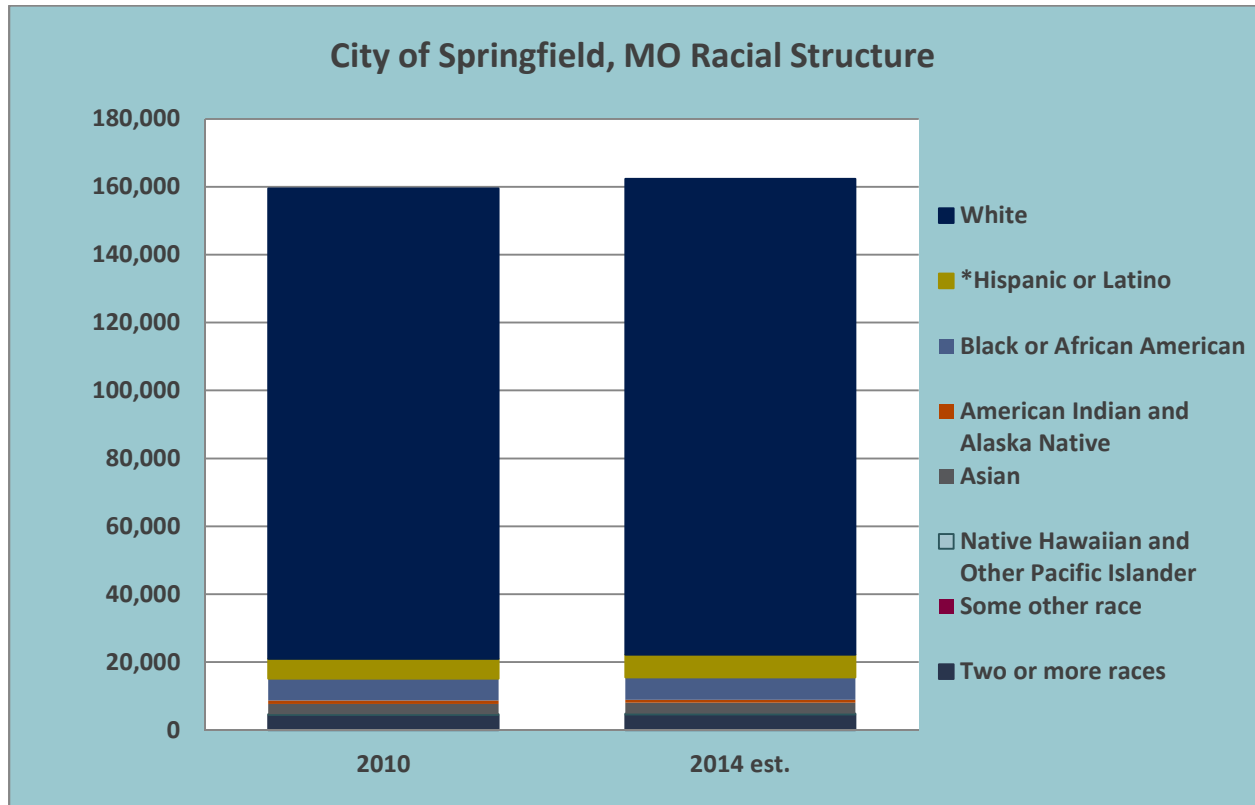
EXHIBIT 4-5
CITY OF SPRINGFIELD, MO
MEDIAN AGE OF POPULATION
2010 TO 2014 EST



Source: U.S. Census Bureau.

The racial structure in 2014 for the City of Springfield consisted of 86% white, 4% African American, 4% Hispanic of Latino (any race), and other races accounted for the remaining 6% of the population. The white population increased from 138,495 in 2010 to 140,157 in 2014, however; the white population decreased as a percentage of total population (-0.5%). The Native Indian and Alaska Natives increased by 39% between 2010 and 2014. As a proportion of the total population, there was minimal change between 2010 and 2014 for all races. **Exhibit 4-6** illustrates the racial structure in the City of Springfield for 2010 and 2014.

EXHIBIT 4-6
CITY OF SPRINGFIELD, MO
RACIAL STRUCTURE
(TOTAL POPULATION BY RACE)
2010 TO 2014 EST



*Hispanic or Latino (any race)

Source: U.S. Census Bureau.

The data presented thus far builds the context for the following discussion regarding future SPS enrollment.

HISTORICAL ENROLLMENT

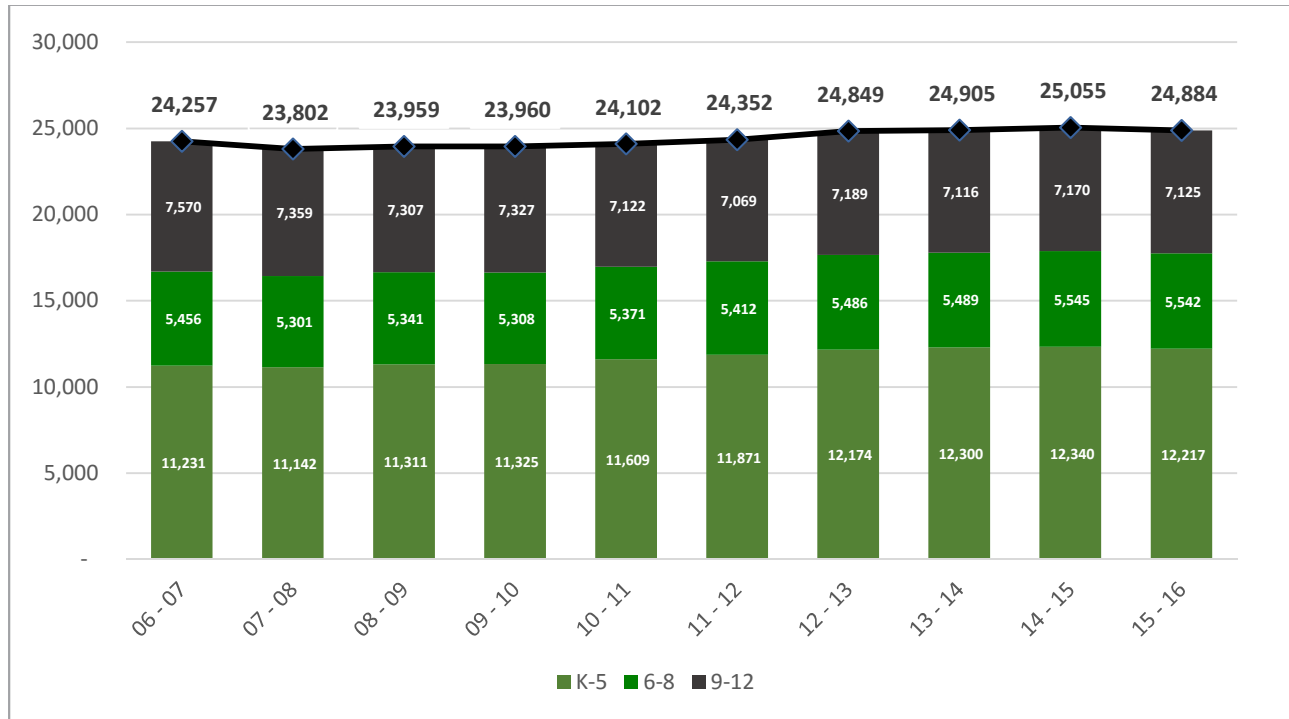
The core body of data used to develop an enrollment projection is historical enrollment. Total K-12 enrollment in Springfield Public Schools stood at 24,257 students in 2006-07. Since then, enrollment has increased to 24,884 in 2015-16. **Exhibit 4- 7** details the enrollment history of K-12 students. **Exhibit 4-8** charts the history by grade band.

EXHIBIT 4-7
SPRINGFIELD PUBLIC SCHOOLS
ENROLLMENT HISTORY
2006-2015

Grade	06 - 07	07 - 08	08 - 09	09 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16
K	1,973	1,915	2,033	1,986	2,104	2,133	2,179	2,234	2,116	2,000
1	1,944	1,905	1,918	2,016	1,991	2,051	2,142	2,100	2,205	2,061
2	1,877	1,867	1,892	1,844	2,008	1,969	2,030	2,086	2,039	2,126
3	1,858	1,825	1,857	1,879	1,840	1,986	1,984	1,989	2,059	2,019
4	1,796	1,814	1,792	1,823	1,888	1,865	1,980	1,958	1,992	2,034
5	1,783	1,816	1,819	1,777	1,778	1,867	1,859	1,933	1,929	1,977
6	1,851	1,766	1,746	1,834	1,783	1,815	1,879	1,810	1,906	1,866
7	1,761	1,834	1,791	1,732	1,810	1,812	1,816	1,855	1,795	1,899
8	1,844	1,701	1,804	1,742	1,778	1,785	1,791	1,824	1,844	1,777
9	2,258	2,101	1,922	2,051	1,969	1,978	2,010	1,975	1,997	1,978
10	2,016	1,958	1,878	1,791	1,864	1,810	1,823	1,849	1,871	1,844
11	1,649	1,735	1,767	1,723	1,600	1,710	1,654	1,685	1,681	1,691
12	1,647	1,565	1,740	1,762	1,689	1,571	1,702	1,607	1,621	1,612
K-5	11,231	11,142	11,311	11,325	11,609	11,871	12,174	12,300	12,340	12,217
6-8	5,456	5,301	5,341	5,308	5,371	5,412	5,486	5,489	5,545	5,542
9-12	7,570	7,359	7,307	7,327	7,122	7,069	7,189	7,116	7,170	7,125
K-12	24,257	23,802	23,959	23,960	24,102	24,352	24,849	24,905	25,055	24,884

Source: Springfield Public Schools, 2015.

EXHIBIT 4-8
 SPRINGFIELD PUBLIC SCHOOLS
 HISTORICAL K-12 ENROLLMENT BY GRADE BAND
 2006-2015

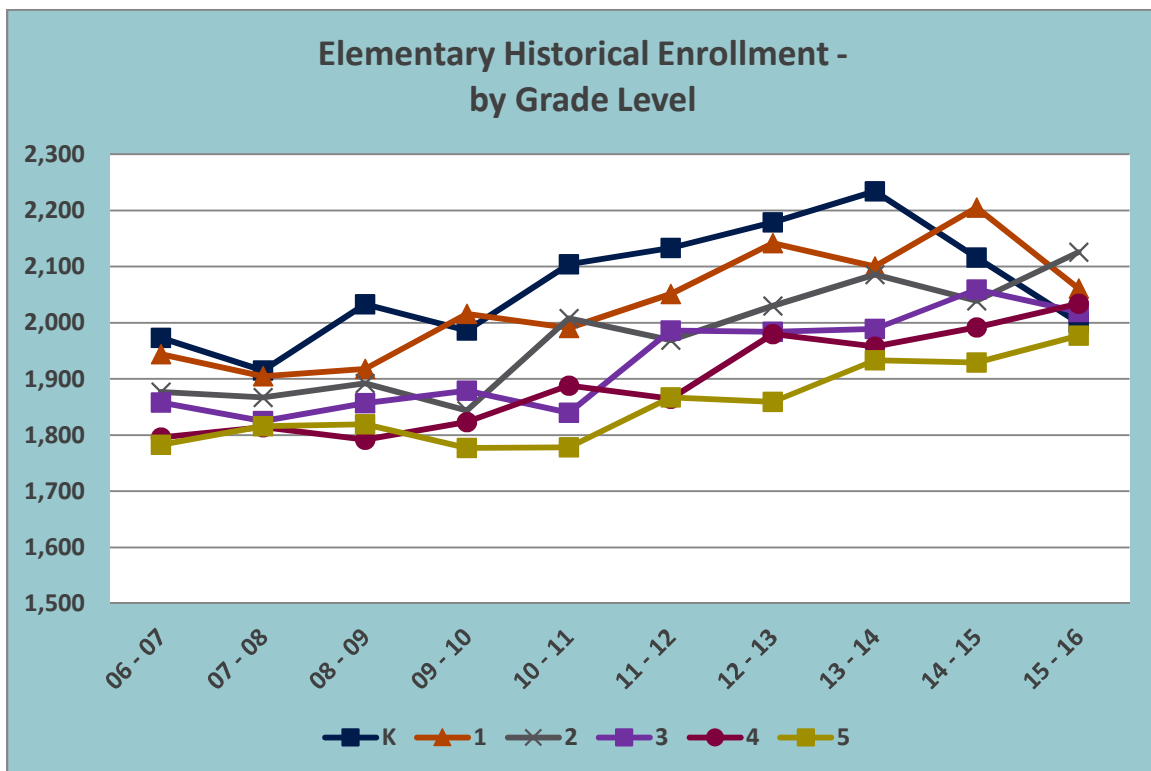


Source: MGT of America Consulting, LLC, 2016.

An examination of historical enrollment at the grade-band level reveals that the increase in overall enrollment over the last 10 years has been led by an increase in enrollment at the K-5 grade band, which increased 8.8% from 11,231 to 12,217 students. The 6-8 grade band increased in enrollment by 1.6% from 5,456 to 5,542, and the 9-12 grade band decreased by 5.9% from 7,570 to 7,125.

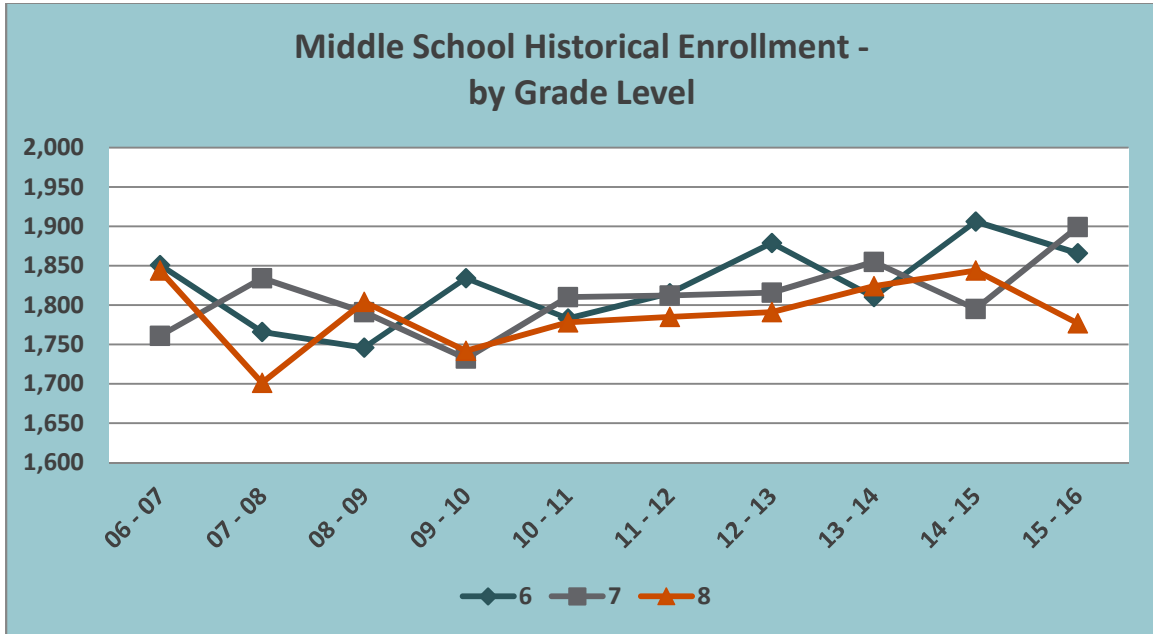
A closer look at historical enrollment at individual grade levels does not reveal any distinct trends at the elementary and middle school grade levels, where historical enrollment data has trended upward. However, at the high school grade-level enrollment data we do see a three-year trend of declining student enrollment at the 9th and 10th grade levels which has a strong correlation to the census data discussed earlier in this chapter. Why this particular segment of the student population is changing and what demographic influencers are causing this change are difficult to determine without a more thorough examination of this population set. The following **Exhibits 4-9, 4-10, and 4-11** illustrate the historical enrollment for each grade level.

EXHIBIT 4-9
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL ELEMENTARY SCHOOL ENROLLMENT
(BY GRADE LEVEL)



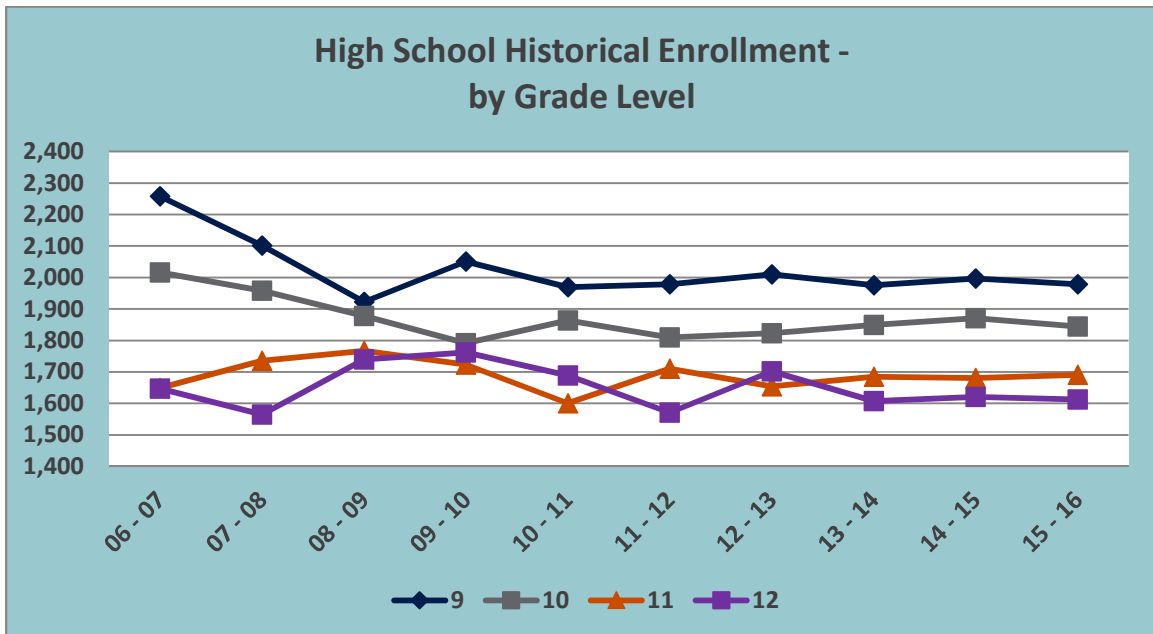
Source: MGT of America Consulting, LLC, 2016.

EXHIBIT 4-10
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL MIDDLE SCHOOL ENROLLMENT
(BY GRADE LEVEL)



Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 4-11
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL HIGH SCHOOL ENROLLMENT
(BY GRADE LEVEL)



Source: MGT of America Consulting, LLC., 2016.

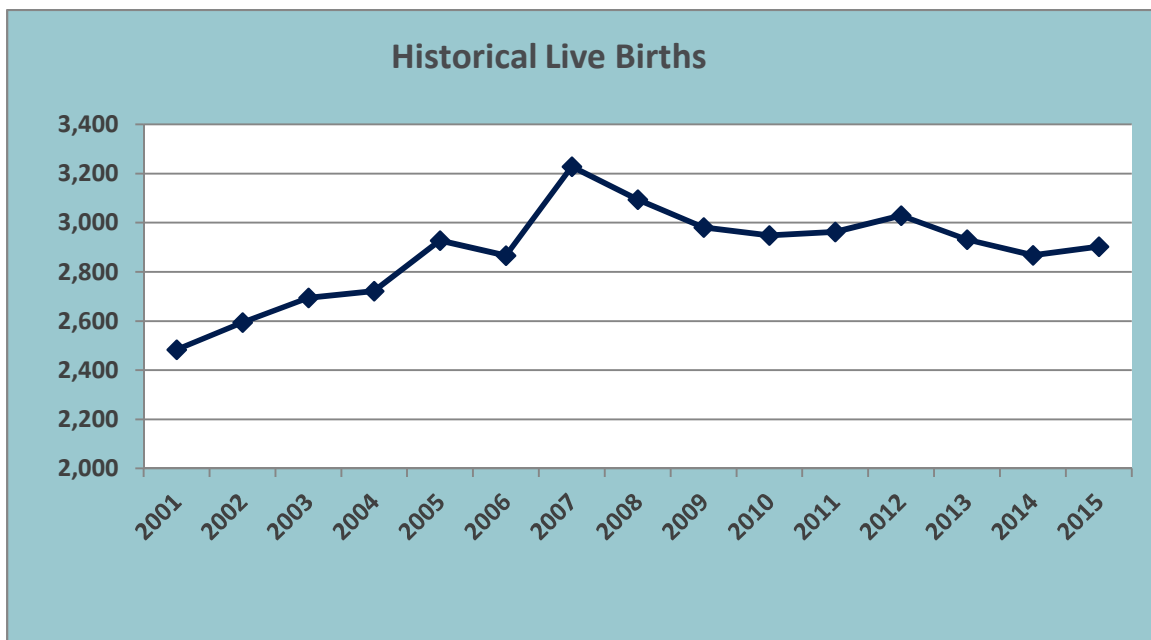
The trends observed in the historical enrollment data will form a key component of the enrollment projections prepared as a part of this master plan.

LIVE BIRTHS AND KINDERGARTEN ENROLLMENT

A second key component to analyzing potential future enrollment is to examine live-birth trends in the area and the live-births-to-kindergarten capture rate. A steady or increasing birth rate could lead to additional students in the district, which would push future enrollment higher.

All of the live birth data used for analysis is based on the following Springfield Public Schools primary zip code areas (65619, 65802, 65803, 65804, 65806, 65807, 65809 and 65810). Birth rates show an overall increasing trend since 2001. However, the number of live births since 2007 have generally been declining. The live births in the SPS primary zip code areas have been fluctuating between a low of 2,484 in 2001 to a high of 3,229 in 2007. **Exhibit 4-12** shows the trend of historical live births for the area.

EXHIBIT 4-12
SPS PRIMARY ZIP CODES
HISTORICAL LIVE BIRTHS*
2001-2015

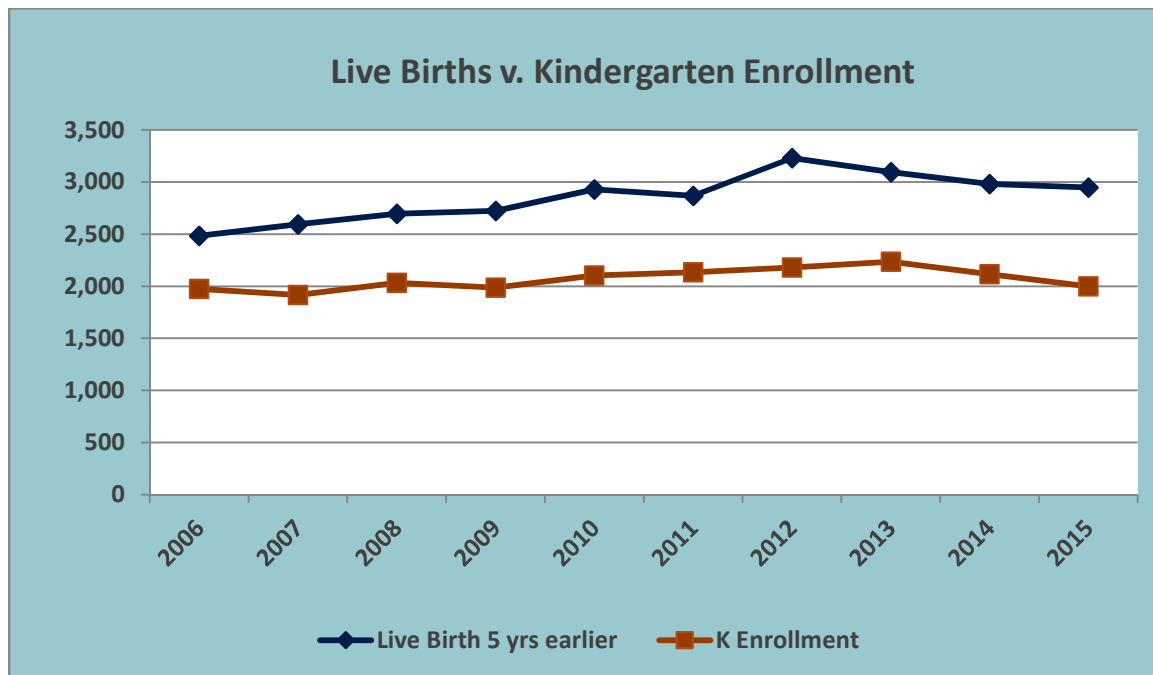


*2014 Provisional, 2015 estimated via linear regression.

Source: Missouri Department of Health and Senior Services, 2016

When examining the ratio of live-births-to-kindergarten enrollment, live-birth data is collected for the past 15 years and kindergarten enrollment for the past 10 years. For example, a child born in 2000 would enroll in kindergarten at the age of five. Therefore, in this analysis, we are looking at how many children are enrolled in kindergarten as compared to the number of children born in the area five years prior to a particular school year. **Exhibit 4-13** compares the district's historical kindergarten enrollment to the live birth data.

EXHIBIT 4-13
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL KINDERGARTEN ENROLLMENT AND HISTORICAL BIRTH DATA



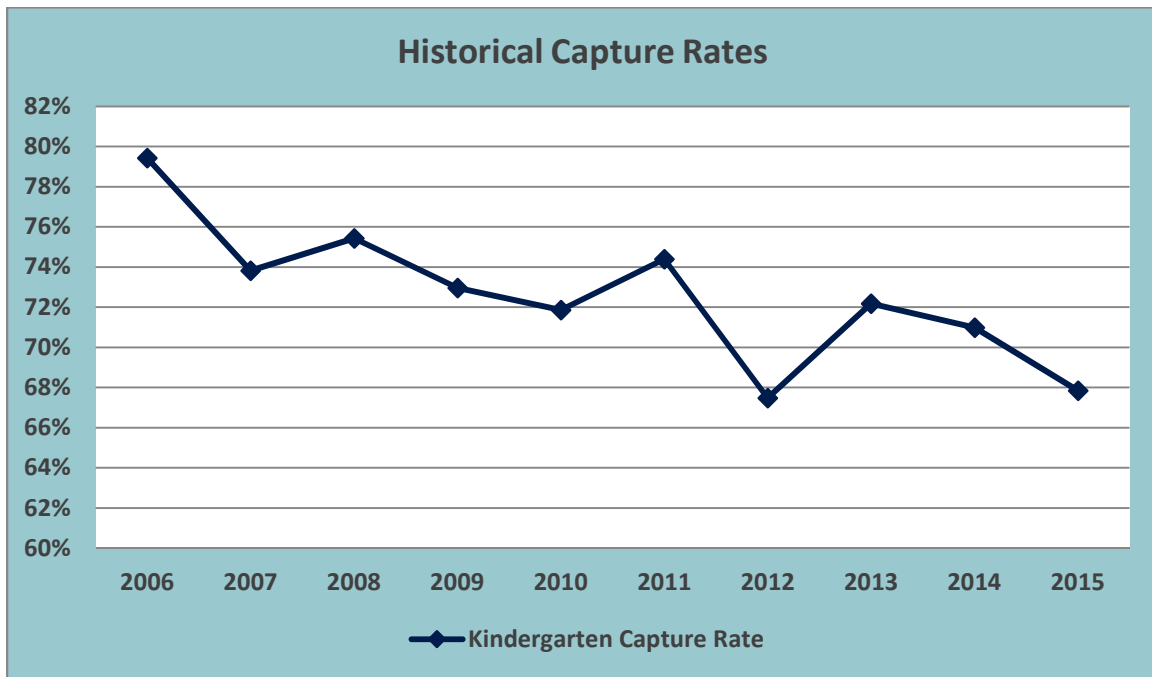
Source: MGT of America Consulting, LLC., 2016.

Two statistics are critical to understanding the relationship between live births and kindergarten enrollment in the district: the correlation coefficient and the capture rate.

The correlation coefficient calculates the strength or weakness of the relationship between two series of data. A correlation coefficient of 1 or -1 indicates a strong relationship; a correlation coefficient of 0 indicates a weak relationship. For SPS, the correlation coefficient for kindergarten enrollment to live births is 0.84 which indicates a strong relationship and therefore the live birth rate may be a good indicator of future kindergarten enrollment.

The capture rate measures the percentage of live births that resulted in kindergarten enrollment five years later. Over the last 10 years, the district's capture rate has averaged 73%, however, the capture rate has been declining in recent years, as **Exhibit 4-14** illustrates.

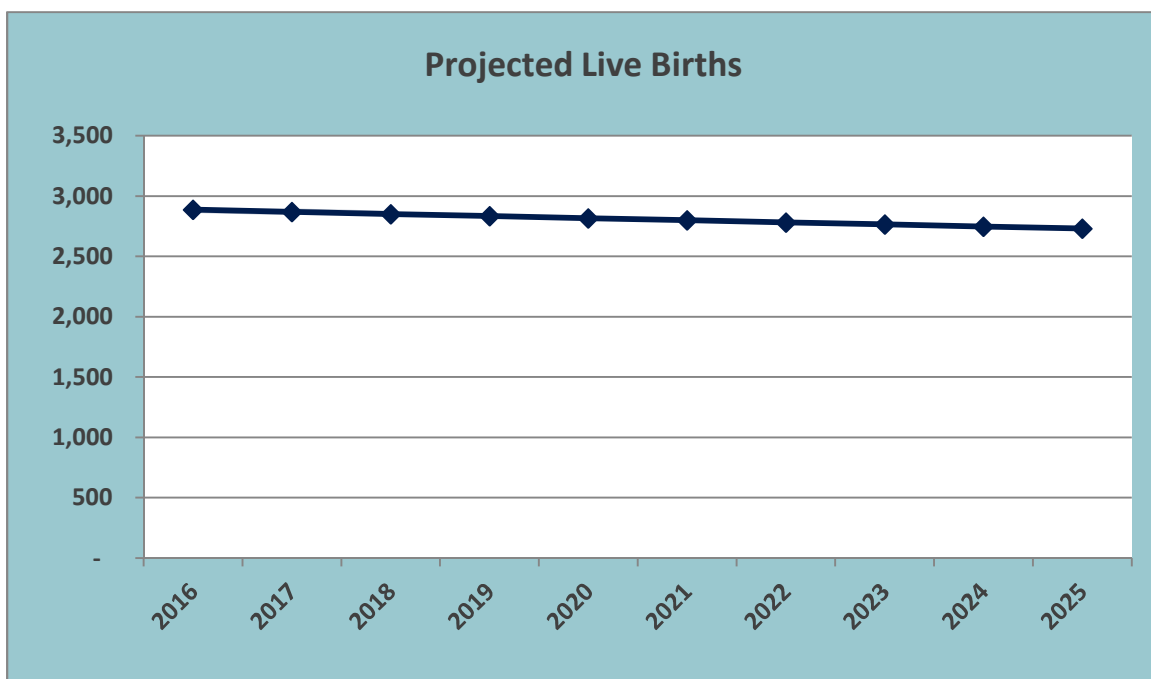
EXHIBIT 4-14
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL CAPTURE RATES



Source: MGT of America Consulting, LLC., 2016.

Exhibit 4-15 illustrates the projected live births for the district. Live births are projected using a linear regression model based on 10 years of historical live births in the SPS primary zip code areas. Given the decline in capture rates from approximately 80% in 2006 to 68% in 2015 and overall decline in births since 2006, there is an increased likelihood that kindergarten enrollments will be lowered as a result of these forces. However, the decline in live births and capture rates is counteracted by the increase in the under 9 population predicted to enter the system and the increase in the number and percentage of our child bearing population. For these reasons, we expect that kindergarten enrollment will slightly increase or remain flat in the coming years.

EXHIBIT 4-15
SPRINGFIELD PUBLIC SCHOOLS
PROJECTED LIVE BIRTHS



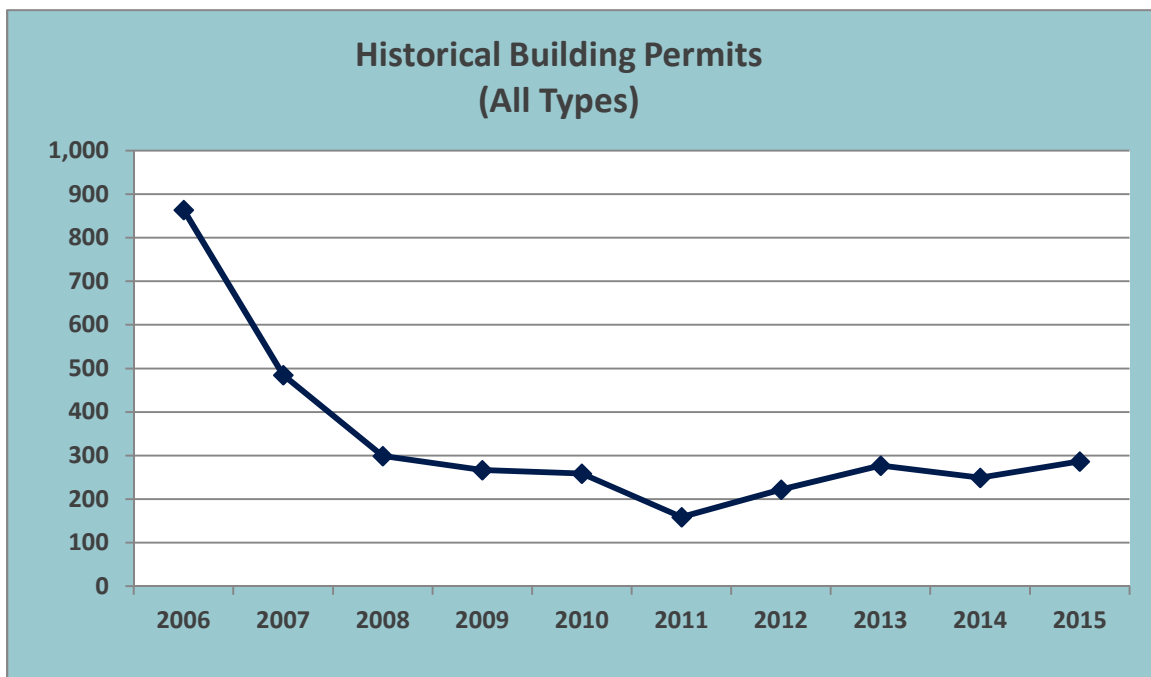
Source: MGT of America Consulting, LLC., 2016.

HOUSING UNITS

Another factor used to develop enrollment projections is an analysis of the trends in housing units in the county. The U.S. Census Bureau recorded 64,691 housing units in the City of Springfield in the 2000 Census and 77,620 housing units in 2010. The census data provides a starting point for this analysis, but building permit data provides additional information upon which to base an assumed number of housing units following the 2000 and 2010 Census.

Since 2006, the number of housing permits issued each year in the City of Springfield and Greene County has fluctuated greatly. In an effort to better understand these fluctuations MGT met with the City of Springfield and County planners to further analyze the housing permit information. Although somewhat difficult to predict, a consensus was developed using historical averages, knowledge of the construction environment and an examination of future permitting requests which concluded that the Springfield area will continue to see modest but steady growth for the near future. The growth will most likely occur in the east and southwest areas of the district. **Exhibit 4-16** illustrates the number of housing permits issued each year since 2006 in the City of Springfield and Greene County, which includes both single- and multi-family residential building permits.

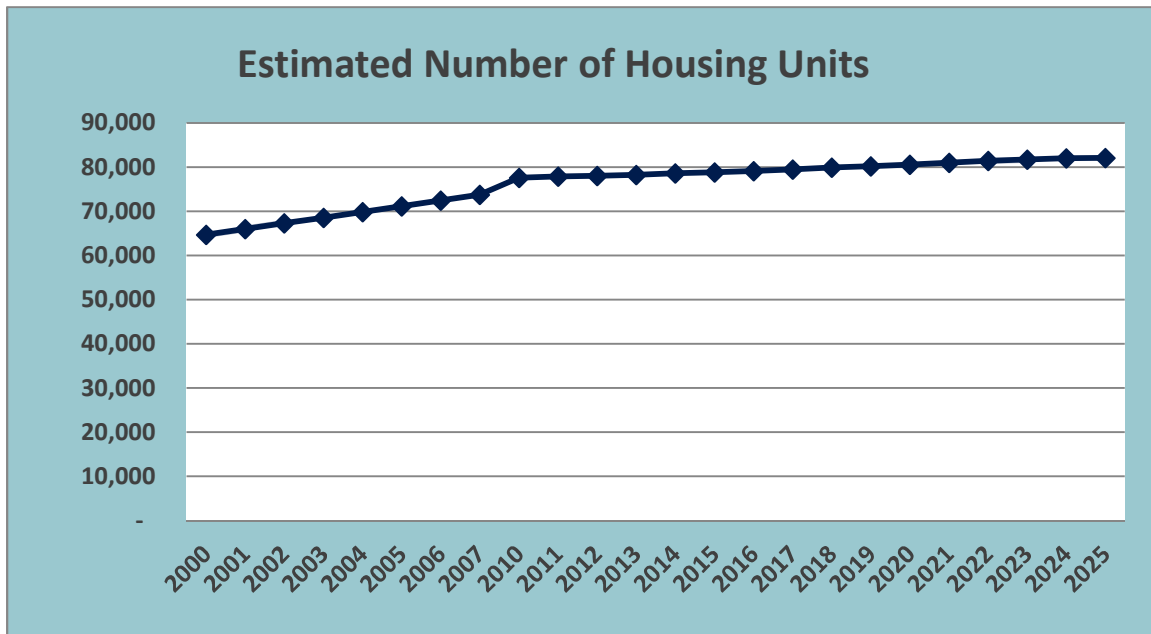
EXHIBIT 4-16
CITY OF SPRINGFIELD AND GREENE COUNTY, MO
HISTORICAL RESIDENTIAL BUILDING PERMITS



Source: City of Springfield, Planning and Development Department, 2016. Greene County Resource Management, 2016.

If we combine the historical and average projected building permits, and assume that each permit will result in a built residential unit, we can estimate the number of future housing units in the district. The total estimated number of housing units is generated by using the number of housing units established by the 2010 Census and adding it to the number of historical and projected building permits as illustrated by **Exhibit 4-17** below.

EXHIBIT 4-17
CITY OF SPRINGFIELD, MO
ESTIMATED NUMBER OF HOUSING UNITS



Source: MGT of America Consulting, LLC., 2016.

CONCLUSIONS AND OBSERVATIONS ABOUT HISTORICAL DATA

Based on the analysis of data presented in this section, we have concluded the following regarding the demographics of the City of Springfield:

1. Over the previous 10 years the enrollment in Springfield Public Schools has increased by 3.6%
2. The general population and demographics of the SPS area are changing, with an increase in the 5-9 (+4.7%), 20-24(+6.3%) population segments indicating a younger population growth, however there are increases in the 65-74(+4.87%) and 85+ (9.2%) which in all likelihood means an increase in the retirement age population and given the high quality medical services an increase in residents needing more health care options.
3. The numbers of live births remain consistent while the capture rate of those born in the district has declined from 79% to 68% which has impacted kindergarten enrollment somewhat over the last 10 years.
4. Housing permits have declined from a high of nearly 900 in 2006 to just under 300 in 2015. The numbers of housing units has remained steady for the last six years and should continue to do so but is dependent on the economy and the growth policies of the county.

ENROLLMENT PROJECTION METHODOLOGY

Enrollment projections are merely an *estimate* of future activity based on the historical data and information provided. As demonstrated by the district calculations over the past 10 years, there can be constant variations in growth. These numbers can be highly accurate, but it must be remembered that the numbers are still a projection or estimate. During the implementation of any of the recommendations provided, it is critical that the district reassesses these numbers on a regular basis and adjusts plans accordingly.

To identify trends and prepare for adequate spaces, teaching staff and materials and supplies, educational leaders use several methods of projecting enrollment. Among the most commonly used models are *Average Percentage Annual Increase*, *Cohort Survival*, *Linear Regression*, and *Student-per-Housing Unit* models. Because no one model is foolproof, MGT generates a weighted average of these four “base” models to arrive at its enrollment projection.

A rule of thumb when forecasting enrollment is that the models should use as many years of historical data as there are years in the projection period. In other words, if the model is projecting enrollment for five years from now, then five years of historical data is used. If the model is projecting enrollment for 10 years from now, then 10 years of historical data is used. Each of the following “base” models draw data in this manner for their calculations.

AVERAGE PERCENTAGE ANNUAL INCREASE MODEL

This model calculates future school enrollment growth based on the historical average growth from year to year for each grade level. This simple model multiplies the historical average percentage increase (or decrease) by the prior year’s enrollment to project future enrollment estimates. For example, if enrollment in the first grade decreased 5% from 2010 to 2011 and decreased 7% from 2011 to 2012, then the average percentage change would be a 6% decrease, and 6% would be the factor used to project future enrollment in this model.

LINEAR REGRESSION MODEL

This model uses a statistical approach to estimating an unknown future value of a variable by performing calculations on known historical values. Once calculated, future values for different future dates can then be plotted to provide a “regression line” or “trend line”. MGT has chosen a “straight-line” model to estimate future enrollment values, a model that finds the “best fit” based on the historical data.

COHORT SURVIVAL MODEL

This model calculates the growth or decline between grade levels over a period of 10 years based on the ratio of students who attend each of the previous years, or the “survival rate”. This ratio is then applied to the incoming class to calculate the trends in that class as it “moves” or graduates through the school system. For example, if history shows that between the first and second grades, the classes for the last 10 years have grown by an average of 3.5%, then the size of incoming classes for the next 10 years is calculated by multiplying them by 103.5%. If the history shows a declining trend, the multiplying factor would be 100% minus the declining trend number.

The determination of future kindergarten enrollment estimates is critical, especially for projections exceeding more than five years. There are two methods of projecting kindergarten enrollment. The first model is based on the correlation between historical resident birth rates (natality rates) and

historical kindergarten enrollment. The second model uses a linear regression line based on the historical kindergarten enrollment data. The correlation method was used for SPS due to the strong correlation coefficient between live births and kindergarten enrollment.

STUDENTS-PER-HOUSEHOLD MODEL

This last model utilizes the estimated number of housing units as its base data. Using the housing unit data and historical enrollment data, MGT created a student generation factor for each projected grade level. By taking the 2010 enrollment by grade level and dividing it by the 2010 census housing levels, a *student generation factor* (SGF) was calculated for each grade level. This factor indicates the number of students within each grade level that will be generated by each new housing unit.

Once each of these four base models has been calculated, MGT generates a weighted average of each of the models. A weighted average allows the analysis to reflect all of the trends observed in the historical data and the over-arching themes from the qualitative information gathered in this process. The weighted average also works to maximize the strengths of each of the “base” models.

Two models, the Average Percentage Annual Increase Model and the Linear Regression Model, emphasize historical data. These models are quite effective predictors if there is no expectation of unusual community growth or decline and student population rates have minimal fluctuation.

The Cohort Survival Model also uses historical enrollment numbers, but takes into account student-mobility patterns and the effects of the natality rates in prior years. The Cohort Survival Model is perhaps the best-known predictive tool using this type of data. However, like the Annual Percentage Annual Increase Model and the Linear Regression Model, the Cohort Survival Model loses its predictive capabilities in communities that experience, or are expecting to experience, more rapid growth or rapid decline.

The Students-Per-Household Model allows the planner to take into account projections for housing developments and general growth in the county. This model looks forward and is based on the input from local planners. The planning information is important and the district should continue to monitor this information.

Exhibit 4-18 identifies the weights used in this analysis.

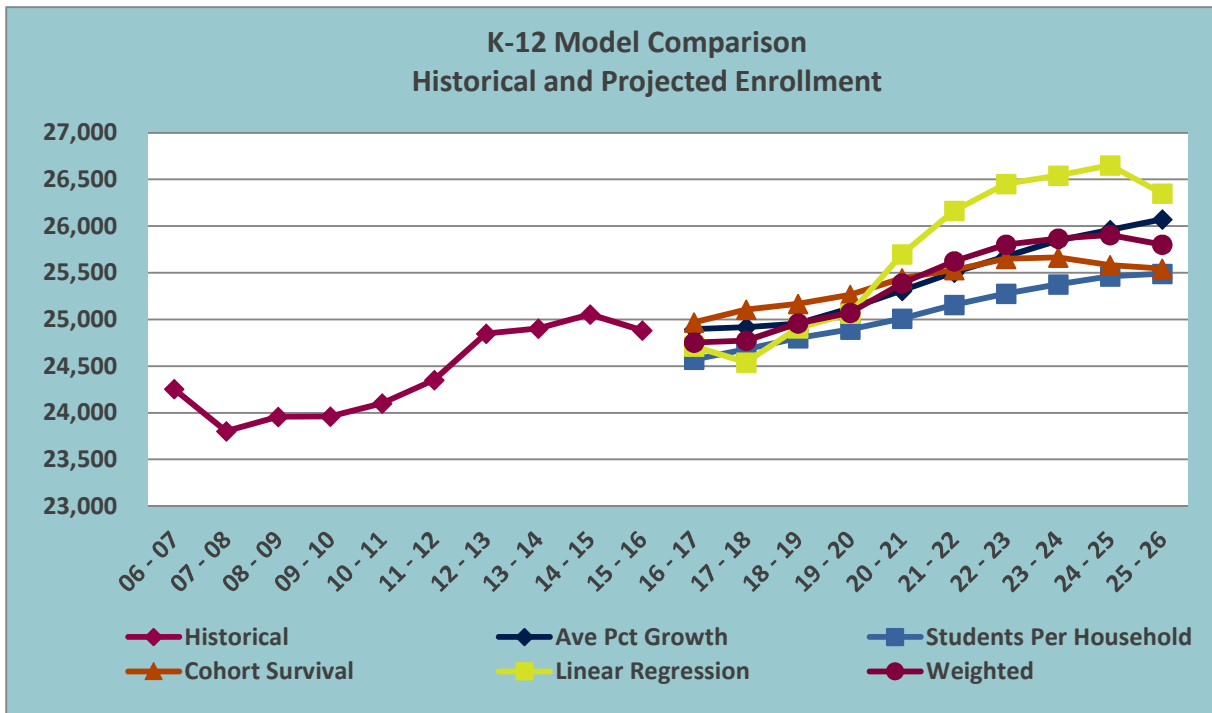
EXHIBIT 4-18
WEIGHTS USED TO GENERATE WEIGHTED AVERAGE OF “BASE” MODELS

WEIGHTING FACTORS	
MODEL	PROJECTION MODEL WEIGHT
Average Percentage Annual Increase	0%
Students-per-Household	33%
Cohort Survival	33%
Linear Regression	34%

Source: MGT of America Consulting, LLC., 2016.

Exhibit 4-19 illustrates the four enrollment projection models and the one combined weighted model.

EXHIBIT 4-19
K-12 MODEL COMPARISON
HISTORICAL ENROLLMENT AND MODEL PROJECTION COMPARISON



Source: MGT of America Consulting, LLC., 2016.

ENROLLMENT PROJECTIONS

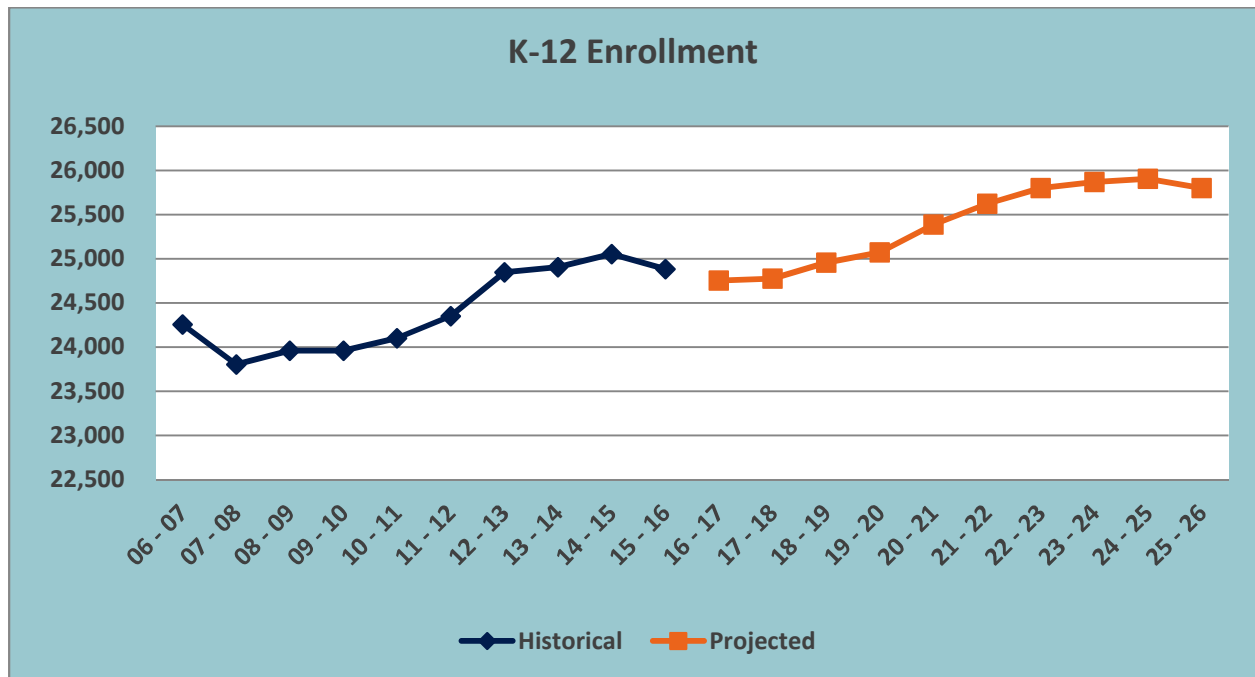
MGT staff has utilized the methodology described above to forecast enrollment for the district over the next 10 years, which are shown in **Exhibit 4-20**. **Exhibit 4-21** on the following page illustrates the historical and projected enrollment for the entire district. The difference in total projected enrollment for the district (**Exhibit 4-20**) and the total of the individual schools (**Exhibit 4-26**) is due to the mathematics of the models and the historical enrollment of a particular school. For example, a school may show significant growth from year-to-year, which would result in a high average annual growth modeling factor and a high overall projection for that particular school. However, the abundance of growth at a particular school will be balanced by the other schools in the district-wide model, which leads to a lower average annual growth modeling factor and a less significant increase in future enrollment. The same is true for grade band projections as compared to the sum of the individual schools within a particular grade band. In the end, the district-wide and grade band totals provide good macro views of potential future trends. The individual school projections provide micro views of the potential future of a particular school, which makes the individual school projections appropriate for planning for that particular building's future.

EXHIBIT 4-20
SPRINGFIELD PUBLIC SCHOOLS
PROJECTED ENROLLMENT

PROJECTED ENROLLMENT										
Grade	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23	23 - 24	24 - 25	25 - 26
K	2,059	2,038	1,978	2,007	2,063	2,097	2,153	2,168	2,205	2,210
1	1,969	1,972	2,079	2,066	2,094	2,146	2,153	2,181	2,195	2,190
2	2,086	2,087	2,093	2,123	2,136	2,118	2,174	2,181	2,185	2,178
3	1,985	1,932	1,950	2,013	2,030	2,068	2,065	2,083	2,090	2,081
4	2,004	2,048	2,016	1,970	2,066	2,087	2,091	2,093	2,101	2,099
5	1,950	1,961	1,975	1,963	1,934	2,017	2,044	2,020	2,000	2,008
6	1,858	1,858	1,916	1,921	1,904	1,893	1,939	1,972	1,963	1,932
7	1,902	1,961	1,916	1,914	1,947	1,911	1,905	1,956	1,953	1,945
8	1,801	1,767	1,820	1,856	1,862	1,907	1,884	1,844	1,918	1,907
9	1,964	1,999	2,007	2,027	2,051	2,056	2,079	2,064	2,002	2,005
10	1,855	1,833	1,887	1,893	1,934	1,928	1,940	1,961	1,888	1,826
11	1,668	1,676	1,663	1,708	1,679	1,737	1,722	1,692	1,716	1,695
12	1,649	1,642	1,659	1,611	1,687	1,657	1,651	1,654	1,691	1,727
K-5	12,053	12,037	12,090	12,143	12,323	12,533	12,680	12,726	12,776	12,765
6-8	5,561	5,586	5,652	5,690	5,713	5,712	5,729	5,771	5,833	5,784
9-12	7,137	7,150	7,216	7,239	7,352	7,378	7,392	7,371	7,297	7,253
K-12	24,751	24,773	24,958	25,073	25,387	25,623	25,801	25,869	25,906	25,802

Source: MGT of America Consulting, LLC., 2016.

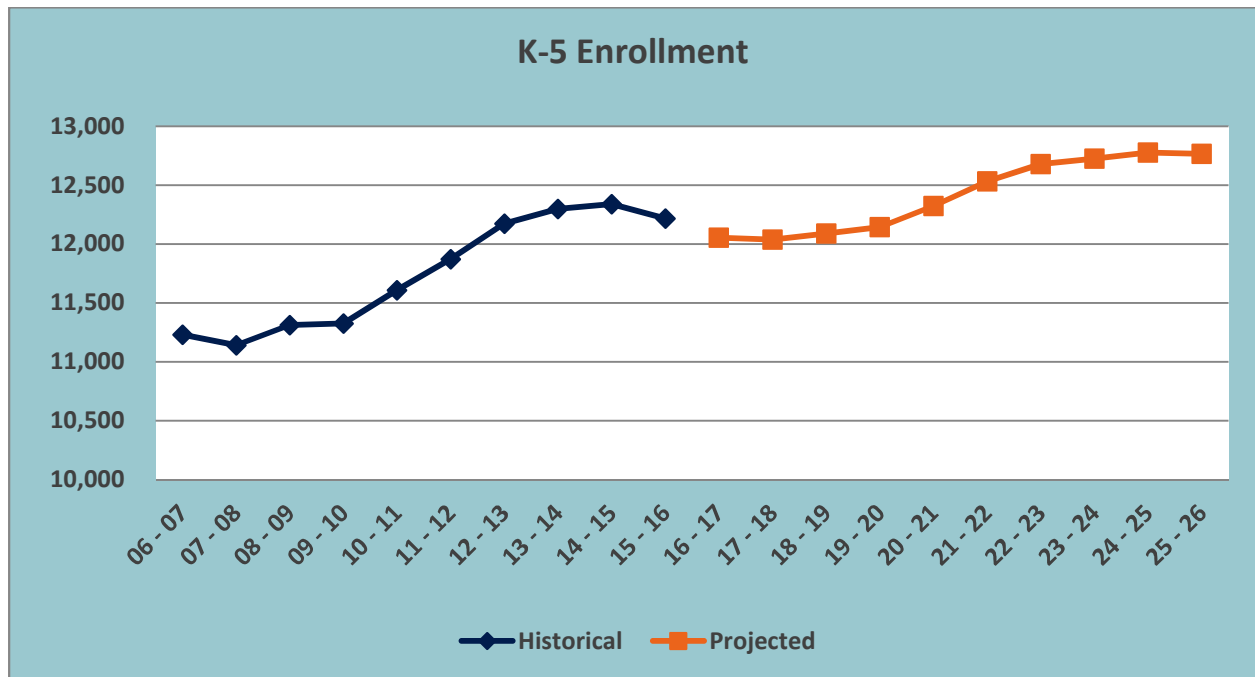
EXHIBIT 4-21
 SPRINGFIELD PUBLIC SCHOOLS
 HISTORICAL AND PROJECTED ENROLLMENT – K-12



Source: MGT of America Consulting, LLC., 2016.

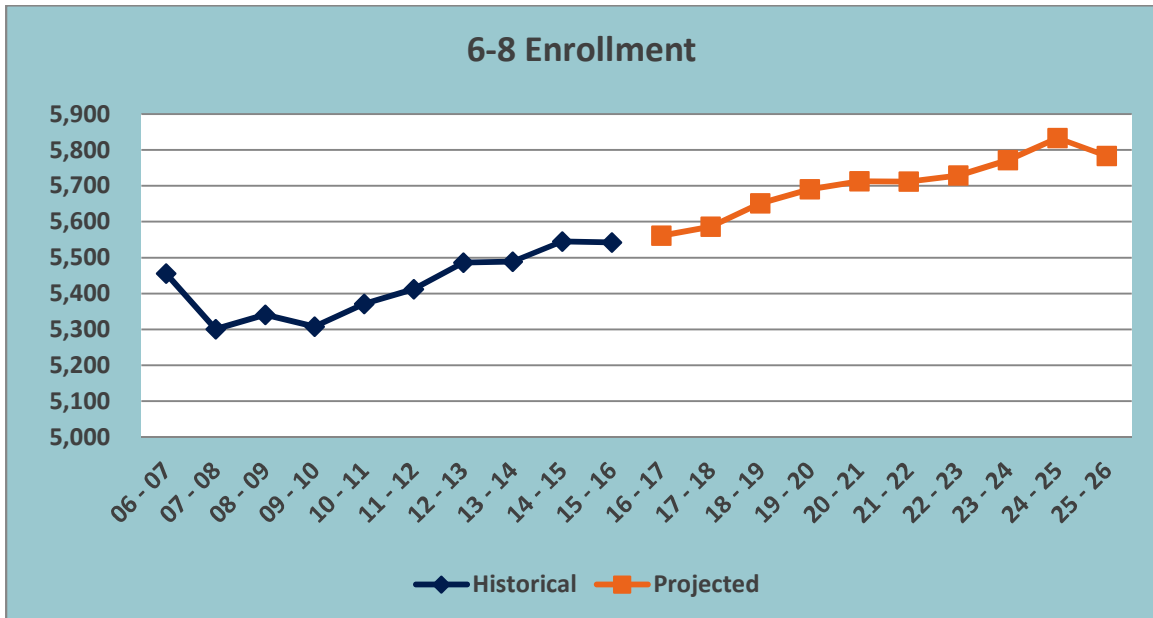
The District is strongly encouraged to continue revisiting these projections on an annual basis and update them to reflect current trends and data. The following **Exhibits 4-22** through **4-25** illustrate the historical and projected enrollment at each grade band.

EXHIBIT 4-22
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL AND PROJECTED ENROLLMENT – K-5



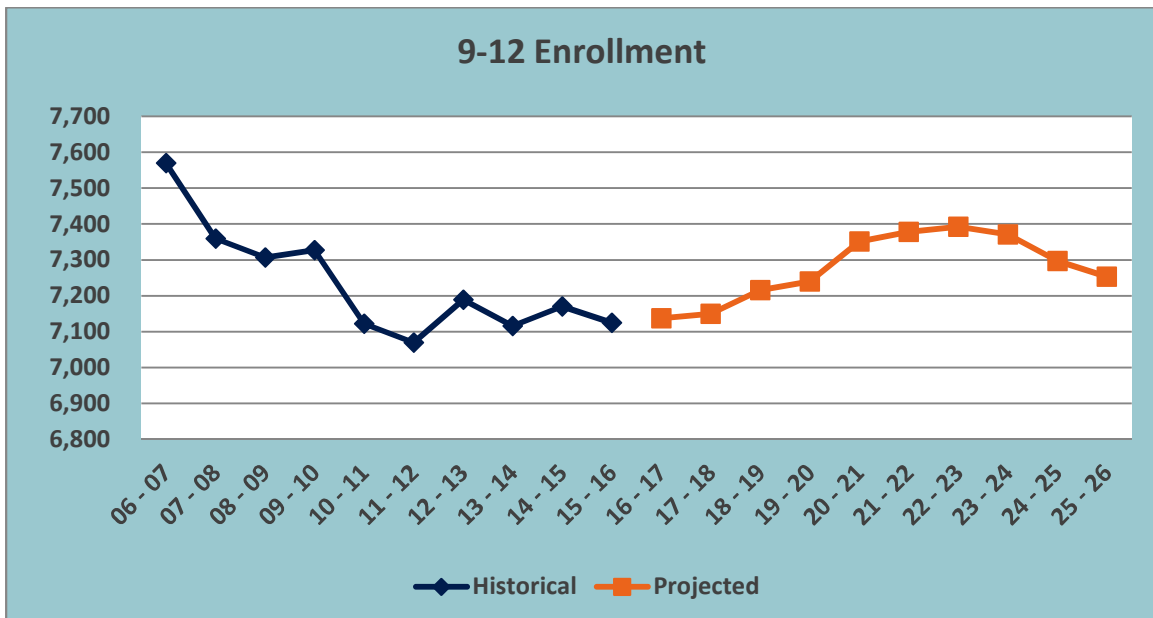
Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 4-23
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL AND PROJECTED ENROLLMENT – 6-8



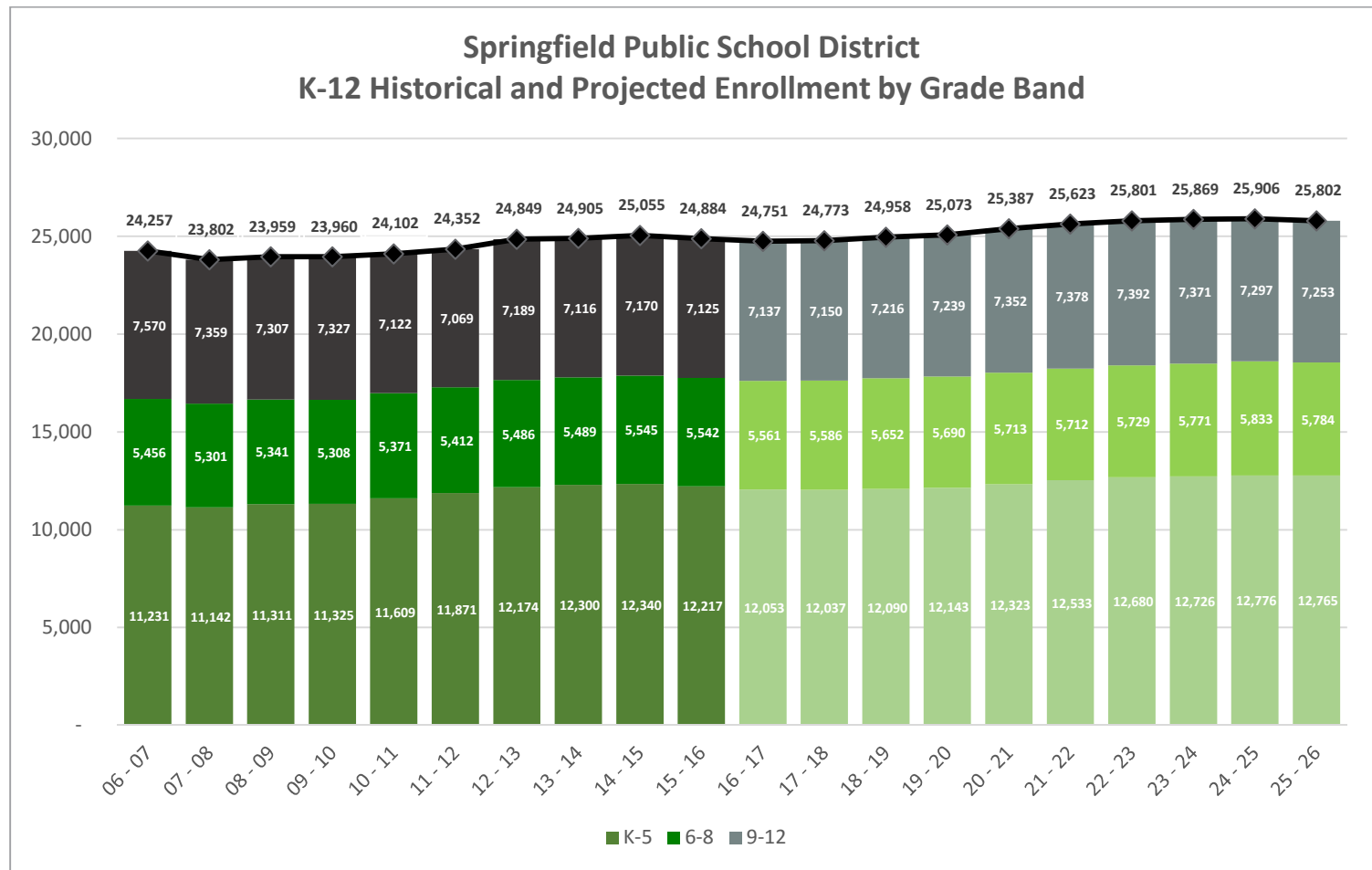
Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 4-24
SPRINGFIELD PUBLIC SCHOOLS
HISTORICAL AND PROJECTED ENROLLMENT – 9-12



Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 4-25
 SPRINGFIELD PUBLIC SCHOOLS
 HISTORICAL AND PROJECTED ENROLLMENT BY GRADE BAND



Source: MGT of America Consulting, LLC., 2016.

The methodologies discussed above were used to generate projections for each school. Model weightings were varied by school due to the highly variable nature of the historical enrollment at some schools. **Exhibit 4-26** provides the 2026 projection by school.

EXHIBIT 4-26
SPRINGFIELD PUBLIC SCHOOLS
PROJECTED ENROLLMENT BY SCHOOL

SITE NAME	GRADE CONFIGURATION	2026 K-12 PROJECTED ENROLLMENT
Elementary Schools		
BINGHAM ES	K-5	434
BISSETT ES	K-5	312
BOWERMAN ES	K-5	310
BOYD ES	K-5	232
CAMPBELL ES	PK-5	173
COWDEN ES	PK-5	283
DELAWARE ES	K-5	232
DISNEY ES	K-5	538
FIELD ES	K-5	465
FREMONT ES	K-5	373
GRAY ES	PK-4	483
HARRISON ES	K-4	380
HOLLAND ES	PK-5	255
JEFFRIES ES	K-5	547
MANN ES	K-5	415
MCBRIDE ES	PK-4	434
MCGREGOR ES	PK-5	326
PITTMAN ES	K-5	334
PORTLAND ES	K-5	259
ROBBERSON ES	K-5	252
ROUNTREE ES	K-5	263
SEQUIOTA ES	K-5	357
SHERWOOD ES (New)	PK-5	428
SUNSHINE ES	K-5	224
TRUMAN ES	PK-5	330
TWAIN ES	K-5	360
WATKINS ES	K-5	330
WEAVER ES	PK-5	311
WELLER ES	K-5	370
WILDER ES	K-5	354

EXHIBIT 4-26 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 PROJECTED ENROLLMENT BY SCHOOL

SITE NAME	GRADE CONFIGURATION	2026 K-12 PROJECTED ENROLLMENT
Elementary Schools		
WILLIAMS ES	PK-5	319
YORK ES	PK-5	246
ELEMENTARY SCHOOL TOTAL		10,925
K-8 Schools		
HICKORY HILLS K-8	K-8	856
PERSHING K-8	K-8	905
PLEASANT VIEW K-8	K-8	615
WESTPORT K-8	K-8	1,013
K-8 SCHOOL TOTAL		3,389
Middle Schools		
CARVER MS	6-8	802
CHEROKEE MS	6-8	846
JARRETT MS	6-8	474
PIPKIN MS	6-8	616
REED ACADEMY	6-8	661
WILSON'S CREEK IS	5-6	475
MIDDLE SCHOOL TOTAL		3,875
High Schools		
CENTRAL HS	6-12	1,817
GLENDALE HS	9-12	1,385
HILLCREST HS	9-12	1,036
KICKAPOO HS	9-12	1,829
PARKVIEW HS	9-12	1,343
HIGH SCHOOL TOTAL		7,410
DISTRICT TOTAL		25,599

Source: MGT of America Consulting, LLC., 2016.

FINDINGS

As the foregoing **Exhibit 4-26** shows, enrollment across the district is expected to fluctuate slightly in the next few years, but shows a modest increase of 4.1% by the end of the 12-year planning period.

- ♦ There will an increase at the K-5 graded band of 5.6%, at the 6-8 grade band the increase will be 3.9% and at the 9-12 grade band, the least increase will occur of 1.6%
- ♦ Live births are projected to decrease slightly which will slow growth in kindergarten enrollment. While there is a mildly strong correlation between the live birth rate and the kindergarten capture rate, the capture rate has historically been less than 100 percent and is declining which might indicate some level of exodus of students out the district.
- ♦ While the slowing economy has negatively affected the rate of construction of homes, there is a general consensus among stakeholders that the rates of building and migration into the county will increase as the economy improves.

In the next section on Capacity and Utilization, we will utilize these enrollment projections to measure the future utilization rates in Springfield Public Schools and determine whether there will be excess space or a need for additional space.

5.0 CAPACITY AND UTILIZATION

This section examines and compares the capacity and utilization rates of Springfield Public Schools facilities over the planning period of the facility master plan.

The *functional capacity* of an educational facility is defined as the number of students the facility can accommodate. More specifically, a school's capacity is the number of students that can be accommodated given the specific educational programs, the class schedules, the student-teacher ratios, and the size of the rooms. The *utilization rate* of a facility is calculated by dividing the current or projected enrollment of the educational facility by the capacity. The utilization rate is used to determine if the facility has excess space or if it is lacking sufficient space for the given enrollment.

FUNCTIONAL CAPACITY

The *functional capacity* used by MGT is calculated using the *Instructional Space Model*. This model counts the number of the various types of instructional rooms and multiplies that number by the maximum students per room or the *loading* factor to identify the gross capacity for the school. The gross capacity is then multiplied by a scheduling factor, which takes into account the realities of how the space is used. Typically, not all classrooms are scheduled for every period at a middle school or high school. For example, high school students move from room to room and enroll in a variety of courses. As a result, some rooms will sit empty or will be less than fully occupied at any given time. Teacher preparation periods will also contribute to rooms not being used for instruction at a particular time. Therefore, MGT uses a 75% scheduling factor at high schools to reduce the gross capacity of the building to reflect the unused rooms. Middle and K-8 schools are assigned an 85% scheduling factor. An elementary school has a much more static and consistent daily use so MGT uses a 95% scheduling factor for elementary schools.

Exhibit 5-1 on the following page lists the loading factors and scheduling factors used to calculate the functional capacities.

EXHIBIT 5-1
 SPRINGFIELD PUBLIC SCHOOLS
 FUNCTIONAL CAPACITY LOADING FACTORS

INSTRUCTIONAL SPACE MODEL GUIDELINES	
Room Type	Loading Factor (Students/Room)
Pre-Kindergarten, ECE - SPED or Title 1	6
Kindergarten (full day)	23
General classroom grades 1-2	23
General classroom grades 3-4	25
General classroom grade 5	27
General classroom grades 6-8	28
General classroom grades 9-12	30
Art/Music – ES	0
Art (Secondary)	28
Music - Vocal and Instructional - MS	40
Music - Vocal – HS	60
Music - Band/Orchestra – HS	70
Science (Secondary)	27
CTE - Lab – MS	25
CTE - Lab – HS	25
Performing Arts/Drama	30
PE – ES	0
PE – MS	33
PE Large – HS	70
PE Small - HS includes practice gyms	35
Computer Lab ES	0
Computer Lab (Secondary)	30
Journalism	30
ELL – Secondary	26
Spec. Ed. - Self-contained Elem	8
Spec. Ed. - Self-contained Secondary	8
Spec. Ed. – Resource	0
Portable	0
Scheduling Factor	
Elementary Schools	95%
Middle and K-8 Schools	85%
High Schools	75%

Exhibit 5-2 shows how the model is used to calculate the capacity of a theoretical school.

EXHIBIT 5-2
SPRINGFIELD PUBLIC SCHOOLS
EXAMPLE OF CAPACITY CALCULATION

ROOM TYPE	NUMBER OF CLASSROOMS X	STUDENTS/CLASS ROOM	=CAPACITY
General classroom grades 9-12	50	30	1,500
Art (Secondary)	4	28	112
Music - Vocal – HS	1	60	60
Music - Band/Orchestra – HS	2	70	140
Science (Secondary)	12	27	324
CTE - Lab – HS	14	25	350
Performing Arts/Drama	2	30	60
PE Large - HS	1	70	70
PE Small - HS includes practice gyms	3	35	105
Computer Lab (Secondary)	-	30	-
Journalism	1	30	30
ELL - Secondary	-	26	-
Spec. Ed. - Self-contained Secondary	1	8	8
Spec. Ed. - Resource	6	-	-
Portable Room Count	-	-	-
Gross Capacity (w/o scheduling factor) =			2,759
x High School scheduling factor of			75%
High School Capacity =			2,069

Exhibit 5-3 lists the capacities for Springfield Public Schools as calculated using the Instructional Space Model. As the exhibit shows, the elementary schools have a total, district-wide capacity of 11,914 with an average per school capacity of 372. The K-8 schools have a total, district wide capacity of 3,851 with an average-per-school capacity of 963. The middle schools have a total, district wide capacity of 4,961 with an average-per-school capacity of 827, and the high schools have a total, district-wide capacity of 9,539 with an average per school capacity of 1,590.

EXHIBIT 5-3
SPRINGFIELD PUBLIC SCHOOLS
FUNCTIONAL CAPACITIES

SITE NAME	K-12 CAPACITY
Elementary Schools	
BINGHAM ES	457
BISSETT ES	323
BOWERMAN ES	352
BOYD ES	204
CAMPBELL ES	184
COWDEN ES	293
DELAWARE ES	283
DISNEY ES	580
FIELD ES	446
FREMONT ES	475
GRAY ES	496
HARRISON ES	428
HOLLAND ES	277
JEFFRIES ES	555
MANN ES	439
MCBRIDE ES	460
MCGREGOR ES	390
PITTMAN ES	371
PORTLAND ES	277
ROBBERSON ES	343
ROUNTREE ES	277
SEQUIOTA ES	345
SHERWOOD ES (New)	509
SUNSHINE ES	206
TRUMAN ES	390
TWAIN ES	414
WATKINS ES	321

EXHIBIT 5-3 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 FUNCTIONAL CAPACITIES

SITE NAME	K-12 CAPACITY
Elementary Schools	
WEAVER ES	373
WELLER ES	440
WILDER ES	382
WILLIAMS ES	321
YORK ES	302
ELEMENTARY SCHOOL TOTAL	11,914
ELEMENTARY SCHOOL AVERAGE	372
K-8 Schools	
HICKORY HILLS K-8	1,040
PERSHING K-8	1,015
PLEASANT VIEW K-8	717
WESTPORT K-8	1,080
K-8 SCHOOL TOTAL	3,851
K-8 SCHOOL AVERAGE	963
Middle Schools	
CARVER MS	996
CHEROKEE MS	1,070
JARRETT MS	779
PIPKIN MS	840
REED ACADEMY	740
WILSON'S CREEK IS	536
MIDDLE SCHOOL TOTAL	4,961
MIDDLE SCHOOL AVERAGE	827
High Schools	
CENTRAL HS	2,069
GLENDALE HS	1,757
HILLCREST HS	1,488
KICKAPOO HS	1,986
PARKVIEW HS	1,653
STUDY ALTERNATIVE CENTER	586
HIGH SCHOOL TOTAL	9,539
HIGH SCHOOL AVERAGE	1,590

EXHIBIT 5-3 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 FUNCTIONAL CAPACITIES

SITE NAME	K-12 CAPACITY
Support/Other Schools	
BERRY	N/A
DOLING	242
NATATORIUM	N/A
SHERWOOD ES (Old)	352
PEPPERDINE (Vacant)	N/A
PHELPS CENTER	281
SHADY DELL EARLY CHILDHOOD	-
SHINING STARS EARLY CHILDHOOD	-
TEFFT	217
SUPPORT/OTHER FACILITIES TOTAL	1,092
DISTRICT TOTAL	31,358

Source: MGT of America Consulting, LLC., 2016.

UTILIZATION RATES

The effective management of school facilities requires a school's capacity and enrollment to be aligned. When capacity exceeds enrollment (underutilization), operational costs are higher than necessary and facilities may need to be repurposed or the facilities may need to be removed from inventory. When enrollment exceeds capacity (overutilization), the school may be overcrowded and may require capital expenditures or redistricting (adjustment to attendance boundaries) to alleviate the crowding.

Exhibit 5-4 shows the corresponding utilization rates calculated using the *functional capacities* and the current and projected enrollment at each school. The utilization rates are color coded per the key below to provide the reader with an understanding of best practices for utilization.

EXHIBIT 5-4
 SPRINGFIELD PUBLIC SCHOOLS
 CURRENT AND PROJECTED UTILIZATION RATES

UTILIZATION	DESCRIPTION
> 110	Inadequate
95 - 110	Approaching Inadequate
80 - 95	Adequate
70 - 80	Approaching Inefficient
< 69.99	Inefficient

SCHOOLS	2017 K-12 PROJECTED ENROLLMENT	2026 K-12 PROJECTED ENROLLMENT	K-12 CAPACITY	2017 PROJECTED UTILIZATION	2026 PROJECTED UTILIZATION
Elementary Schools					
BINGHAM ES	433	434	457	95%	95%
BISSETT ES	279	312	323	86%	97%
BOWERMAN ES	286	310	352	81%	88%
BOYD ES	217	232	204	106%	113%
CAMPBELL ES	195	173	184	106%	94%
COWDEN ES	264	283	293	90%	97%
DELAWARE ES	231	232	283	82%	82%
DISNEY ES	524	538	580	90%	93%
FIELD ES	431	465	446	97%	104%
FREMONT ES	340	373	475	72%	78%
GRAY ES	479	483	496	97%	97%
HARRISON ES	375	380	428	87%	89%
HOLLAND ES	241	255	277	87%	92%
JEFFRIES ES	520	547	555	94%	99%
MANN ES	398	415	439	91%	94%
MCBRIDE ES	452	434	460	98%	94%
MCGREGOR ES	310	326	390	79%	83%
PITTMAN ES	331	334	371	89%	90%
PORTLAND ES	231	259	277	83%	93%
ROBBERSON ES	226	252	343	66%	73%
ROUNTREE ES	248	263	277	89%	95%
SEQUIOTA ES	358	357	345	104%	104%
SHERWOOD ES (New)	449	428	509	88%	84%
SUNSHINE ES	194	224	206	94%	109%
TRUMAN ES	290	330	390	74%	84%
TWAIN ES	350	360	414	85%	87%
WATKINS ES	316	330	321	99%	103%
WEAVER ES	295	311	373	79%	83%
WELLER ES	355	370	440	81%	84%
WILDER ES	393	354	382	103%	93%
WILLIAMS ES	324	319	321	101%	99%
YORK ES	220	246	302	73%	81%
ELEMENTARY SCHOOL TOTAL	10,552	10,925	11,914	89%	92%

EXHIBIT 5-4
 SPRINGFIELD PUBLIC SCHOOLS
 CURRENT AND PROJECTED UTILIZATION RATES

SCHOOLS	2017 K-12 PROJECTED ENROLLMENT	2026 K-12 PROJECTED ENROLLMENT	K-12 CAPACITY	2017 PROJECTED UTILIZATION	2026 PROJECTED UTILIZATION
K-8 Schools					
HICKORY HILLS K-8	840	856	1,040	81%	82%
PERSHING K-8	889	905	1,015	88%	89%
PLEASANT VIEW K-8	605	615	717	84%	86%
WESTPORT K-8	962	1,013	1,080	89%	94%
K-8 SCHOOL TOTAL	3,296	3,389	3,851	86%	88%
Middle Schools					
CARVER MS	766	802	996	77%	81%
CHEROKEE MS	819	846	1,070	77%	79%
JARRETT MS	466	474	779	60%	61%
PIPKIN MS	568	616	840	68%	73%
REED ACADEMY	640	661	740	86%	89%
WILSON'S CREEK IS	477	475	536	89%	89%
MIDDLE SCHOOL TOTAL	3,735	3,875	4,961	75%	78%
High Schools					
CENTRAL HS	1,723	1,817	2,069	83%	88%
GLENDALE HS	1,363	1,385	1,757	78%	79%
HILLCREST HS	1,044	1,036	1,488	70%	70%
KICKAPOO HS	1,762	1,829	1,986	89%	92%
PARKVIEW HS	1,366	1,343	1,653	83%	81%
STUDY ALTERNATIVE CENTER	N/A	N/A	586	N/A	N/A
HIGH SCHOOL TOTAL	7,257	7,410	9,539	76%	78%
Support/Other Schools					
DOLING	N/A	N/A	242	N/A	N/A
SHERWOOD ES (Old)	N/A	N/A	352	N/A	N/A
PHELPS CENTER	N/A	N/A	281	N/A	N/A
SHADY DELL EARLY CHILDHOOD	N/A	N/A	-	N/A	N/A
SHINING STARS EARLY CHILDHOOD	N/A	N/A	-	N/A	N/A
TEFFT	N/A	N/A	217	N/A	N/A
SUPPORT/OTHER TOTAL	N/A	N/A	1,092	N/A	N/A
DISTRICT TOTAL	24,841	25,599	31,358	79%	82%

Source: MGT of America Consulting, LLC., 2016.

CAPACITY AND UTILIZATION CONCLUSIONS

ELEMENTARY SCHOOLS

The functional capacity for the elementary schools varies from a low of 184 to a high of 580. The district's elementary schools are being utilized at an "adequate" rate on a district-wide basis of 90%. The projected district-wide utilization for 2024-25 will grow to 92% with all but one school under 110% utilization.

The district should examine the specific situation for the schools that are projected to have "inadequate" or "approaching inadequate" utilization rates to determine if action is required, and whether the approach will require capital improvements or redistricting. Options for addressing this need will be discussed in **Sections 7.0** and **8.0** of the Master Plan Report.

K-8 SCHOOLS

The functional capacity of the K-8 schools varies from a low of 717 to a high of 1,080. The district's K-8 schools are presently all being utilized at an "adequate" rate of 85% overall, and the overall utilization is projected to increase to 92% by 2024-25.

MIDDLE SCHOOLS

The functional capacity of the middle schools varies from a low of 536 to a high of 1,070. As a whole, the district's middle schools are presently being underutilized and "approaching inefficient" with a current utilization rate of 74% overall, and the overall utilization is projected to increase to 78% by 2024-25. Currently, four of the middle schools are being underutilized and two of the middle schools are being adequately utilized.

The district is projected to have adequate capacity at the middle school level for the master plan period.

HIGH SCHOOLS

The functional capacity for the high schools varies from a low of 586 to a high of 2,069. The district's high schools are currently being utilized at a district-wide rate of 76%, and this rate is projected to increase to 78% by 2024-25.

The district is projected to have adequate capacity at the high school level for the master plan period.

6.0 FACILITIES ASSESSMENTS

This section presents the results of the facilities assessments that were conducted by MGT and staff from Springfield Public Schools (SPS). The assessments were conducted using BASYS®, MGT’s facility assessment software program. There are four types of assessments, including:

- ♦ Building condition
- ♦ Educational suitability
- ♦ Site condition
- ♦ Technology readiness

BUILDING CONDITION ASSESSMENT

The BASYS® building condition score measures the amount of deferred maintenance in the building’s major systems. The weighted condition score of a school is the average condition score (weighted by building square footage) of all the buildings at a school (including portables). The scores are interpreted as follows:

90+	New or Like New: The building and/or a majority of its systems are in good condition, less than three years old, and only require preventive maintenance.
80-89	Good: The building and/or a majority of its systems are in good condition and only require routine maintenance.
70-79	Fair: The building and/or some of its systems are in fair condition and require minor to moderate repair.
60-69	Poor: The building and/or a significant number of its systems are in poor condition and require major repair, renovation, or replacement.
BELOW 60	Unsatisfactory: The building and/or a majority of its systems should be replaced.

The condition assessment rates each system in a building as “new”, “good”, “fair”, “poor”, or “unsatisfactory” based on a detailed description of each rating for the particular system. The possible score for each system is based on that system’s contribution to the overall cost of building construction. Therefore, the condition score is a measure of that portion of the value of the building that is in good condition. The capital needs score (100 minus the condition score) is a measure of the capital needs or deferred maintenance. This score, when presented as a percent, is also referred to as the facility condition index or FCI. For example, a building which has a condition score of 80, has a capital needs score of 20 ($100 - 80 = 20$). A capital needs score of 20 indicates that 20 percent of the value of the building can be reinvested in the building in order to attain a score of 100 and put the building in a “like new” condition. The condition score and resulting calculations do not include the costs of additions, site improvements, improvements for educational suitability, or technology readiness improvements.

Exhibit 6-1 presents the range of the weighted average condition scores (weighted by GSF where more than one building exists on a campus) by type of facility for SPS. As the exhibit shows, there is a range of condition scores, from 51 to 89, with the average condition scores in the “Fair” to “Poor” range.

EXHIBIT 6-1
SPRINGFIELD PUBLIC SCHOOLS
WEIGHTED AVERAGE BUILDING CONDITION SCORE RANGES

SITE TYPE	BUILDING CONDITION SCORE RANGE		AVERAGE CONDITION SCORE
	LOW	HIGH	
*Elementary Schools	58	89	71
K-8 Schools	69	89	79
Middle Schools	52	88	69
High Schools	67	77	71
Support/Other Facilities	51	82	69

* Excludes Fremont ES and Sherwood ES (New)

Source: MGT of America Consulting, LLC., 2016.

Exhibit 6-2 presents the weighted average condition score for each school that was assessed. As the exhibit shows, condition scores are, for the most part, in the “Fair” to “Poor” categories which indicates that the facilities range in need from minor maintenance to major repair.

EXHIBIT 6-2
SPRINGFIELD PUBLIC SCHOOLS
CONDITION SCORES – BY SITE

SITE NAME	GSF	WEIGHTED AVERAGE CONDITION SCORE
Elementary Schools		
BINGHAM ES	44,949	59
BISSETT ES	35,470	65
BOWERMAN ES	39,310	71
BOYD ES	26,823	58
CAMPBELL ES	33,168	65
COWDEN ES	35,639	72
DELAWARE ES	40,104	66
DISNEY ES	58,294	72
FIELD ES	39,146	77
FREMONT ES	62,049	100
GRAY ES	65,875	74
HARRISON ES	58,980	89

EXHIBIT 6-2 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 CONDITION SCORES – BY SITE

SITE NAME	GSF	WEIGHTED AVERAGE CONDITION SCORE
Elementary Schools		
HOLLAND ES	33,612	77
JEFFRIES ES	65,579	70
MANN ES	43,220	73
MCBRIDE ES	63,520	71
MCGREGOR ES	51,339	75
PITTMAN ES	34,547	71
PORTLAND ES	29,263	74
ROBBERSON ES	40,306	63
ROUNTREE ES	34,565	64
SEQUIOTA ES	43,244	70
SHERWOOD ES (New)	80,000	100
SUNSHINE ES	29,944	73
TRUMAN ES	61,545	76
TWAIN ES	43,808	72
WATKINS ES	32,975	77
WEAVER ES	58,792	81
WELLER ES	56,929	78
WILDER ES	39,642	72
WILLIAMS ES	39,070	61
YORK ES	37,196	70
*ELEMENTARY SCHOOL TOTAL/AVERAGE	1,458,903	71
K-8 Schools		
HICKORY HILLS K-8	116,448	89
PERSHING K-8	101,775	73
PLEASANT VIEW K-8	85,524	69
WESTPORT K-8	114,276	84
K-8 SCHOOL TOTAL/AVERAGE	418,023	79

EXHIBIT 6-2 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 CONDITION SCORES – BY SITE

SITE NAME	GSF	WEIGHTED AVERAGE CONDITION SCORE
Middle Schools		
CARVER MS	103,638	73
CHEROKEE MS	125,525	75
JARRETT MS	81,817	59
PIPKIN MS	80,537	52
REED ACADEMY	83,702	66
WILSON'S CREEK IS	63,995	88
MIDDLE SCHOOL TOTAL/AVERAGE	539,214	69
High Schools		
CENTRAL HS	299,347	73
GLENDALE HS	258,999	69
HILLCREST HS	268,150	67
KICKAPOO HS	301,751	71
PARKVIEW HS	271,915	77
STUDY ALTERNATIVE CENTER	86,324	70
HIGH SCHOOL TOTAL/AVERAGE	1,486,486	71
Support/Other Facilities		
BERRY	11,779	51
DOLING	26,098	70
NATATORIUM	25,104	82
SHERWOOD ES (Old)	25,912	66
PEPPERDINE (Vacant)	24,229	61
PHELPS CENTER	33,897	72
SHADY DELL EARLY CHILDHOOD	26,961	71
SHINING STARS EARLY CHILDHOOD	32,749	77
TEFFT	20,694	73
SUPPORT/OTHER FACILITIES TOTAL/AVERAGE	227,423	69
*DISTRICT TOTAL/AVERAGE	4,130,049	72

*Fremont ES and Sherwood ES (New) Scores are excluded from the score averages.
 Source: MGT of America Consulting, LLC., 2016.

EDUCATIONAL SUITABILITY ASSESSMENT

The educational suitability assessment evaluates how well the facility supports the educational program that it houses. Each school receives one suitability score that applies to all the buildings at the facility. The educational suitability of each school was assessed with BASYS® using the following categories:

ENVIRONMENT	The overall environment of the schools with respect to creating a safe and positive learning environment.
CIRCULATION	Pedestrian/vehicular circulation and the appropriateness of site facilities and signage.
ENVIRONMENT BY ROOM TYPE	The existence and quality of facilities and spaces to support the educational program being offered. These include general classrooms, special learning spaces (e.g. music rooms, libraries, science labs), and support spaces (e.g. administrative offices, counseling offices, reception areas, kitchens, health clinics).
SIZE	The adequacy of the size of the program spaces.
LOCATION	The appropriateness of adjacencies (e.g., physical education space separated from quiet spaces).
STORAGE & FIXED EQUIPMENT	The appropriateness of utilities, fixed equipment, storage, and room surfaces (e.g. flooring, ceiling materials, and wall coverings).

Suitability scores are interpreted as follows:

90+	Excellent: The facility is designed to provide for and support the educational program offered. It may have a minor suitability issues but overall it meets the needs of the educational program.
80-89	Good: The facility is designed to provide for and support a majority of the educational program offered. It may have minor suitability issues but generally meets the needs of the educational program.
70-79	Fair: The facility has some problems meeting the needs of the educational program and will require remodeling/renovation.
60-69	Poor: The facility has numerous problems meeting the needs of the educational program and needs significant remodeling, additions, or replacement.
BELOW 60	Unsatisfactory: The facility is unsuitable in support of the educational program.

Exhibit 6-3 presents the range and average of suitability scores by facility type. The suitability scores range from 44 to 94. The average scores fall within the “Fair” to “Poor” range:

EXHIBIT 6-3
SPRINGFIELD PUBLIC SCHOOLS
SUITABILITY SCORE RANGES

SITE TYPE	SUITABILITY SCORE RANGE		AVERAGE SUITABILITY SCORE
	LOW	HIGH	
*Elementary Schools	52	89	64
K-8 Schools	57	94	73
Middle Schools	44	75	61
High Schools	68	76	72
Support/Other Facilities	48	73	61

* Excludes Fremont ES and Sherwood ES (New)
Source: MGT of America Consulting, LLC., 2016.

Exhibit 6-4 presents the educational suitability score for each school. As the scores indicate, many schools have significant suitability deficiencies.

EXHIBIT 6-4
SPRINGFIELD PUBLIC SCHOOLS
SUITABILITY SCORES – BY SITE

SITE NAME	SUITABILITY SCORES
Elementary Schools	
BINGHAM ES	55
BISSETT ES	54
BOWERMAN ES	62
BOYD ES	52
CAMPBELL ES	58
COWDEN ES	63
DELAWARE ES	58
DISNEY ES	69
FIELD ES	57
FREMONT ES	100
GRAY ES	78
HARRISON ES	89
HOLLAND ES	62
JEFFRIES ES	73
MANN ES	61
MCBRIDE ES	82

EXHIBIT 6-4 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 SUITABILITY SCORES – BY SITE

SITE NAME	SUITABILITY SCORES
Elementary Schools	
MCGREGOR ES	79
PITTMAN ES	61
PORTLAND ES	53
ROBBERSON ES	52
ROUNTREE ES	59
SEQUIOTA ES	68
SHERWOOD ES (New)	100
SUNSHINE ES	62
TRUMAN ES	70
TWAIN ES	57
WATKINS ES	60
WEAVER ES	80
WELLER ES	82
WILDER ES	63
WILLIAMS ES	53
YORK ES	59
*ELEMENTARY SCHOOL AVERAGE	64
K-8 Schools	
HICKORY HILLS K-8	94
PERSHING K-8	57
PLEASANT VIEW K-8	68
WESTPORT K-8	73
K-8 SCHOOL AVERAGE	73
Middle Schools	
CARVER MS	75
CHEROKEE MS	75
JARRETT MS	45
PIPKIN MS	44
REED ACADEMY	52
WILSON'S CREEK IS	72
MIDDLE SCHOOL AVERAGE	61

EXHIBIT 6-4 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 SUITABILITY SCORES – BY SITE

SITE NAME	SUITABILITY SCORES
High Schools	
CENTRAL HS	69
GLENDALE HS	75
HILLCREST HS	68
KICKAPOO HS	72
PARKVIEW HS	72
STUDY ALTERNATIVE CENTER	76
HIGH SCHOOL AVERAGE	72
Support/Other Schools	
BERRY	N/A
DOLING	52
NATATORIUM	N/A
SHERWOOD ES (Old)	58
PEPPERDINE (Vacant)	N/A
PHELPS CENTER	67
SHADY DELL EARLY CHILDHOOD	70
SHINING STARS EARLY CHILDHOOD	73
TEFFT	48
SUPPORT/OTHER FACILITIES AVERAGE	61
*DISTRICT AVERAGE	65

*Fremont ES and Sherwood ES (New) Scores are excluded from the score averages.
 Source: MGT of America Consulting, LLC., 2016.

SITE CONDITION ASSESSMENT

The site condition assessment score is a measure of the amount of capital needs or deferred maintenance at the site, which includes the driveways and walkways, the parking lots, the playfields, the utilities, and fencing, etc. The scores are interpreted as follows:

90+	New or Like New: The site and/or a majority of its systems are in good condition, less than three years old, and only require preventive maintenance.
80-89	Good: The site and/or a majority of its systems are in good condition and only require routine maintenance.
70-79	Fair: The site and/or some of its systems are in fair condition and require minor to moderate repair.
60-69	Poor: The site and/or a significant number of its systems are in poor condition and will require major repair or renovation.
BELOW 60	Unsatisfactory: The site and/or a majority of its systems should be renovated.

The site assessment scores were calculated in the same manner as the building condition scores. **Exhibit 6-5** presents the range of site assessment scores and the average site assessment scores by facility type. The site assessment scores ranged from 46 to 91 and averaged in the “Fair” to “Poor” range.

EXHIBIT 6-5
SPRINGFIELD PUBLIC SCHOOLS
SITE ASSESSMENT SCORE RANGES

SITE TYPE	SITE ASSESSMENT SCORE RANGE		AVERAGE SITE SCORE
	LOW	HIGH	
*Elementary Schools	54	87	73
K-8 Schools	65	91	75
Middle Schools	66	84	73
High Schools	62	88	75
Support/Other Facilities	46	84	68

* Excludes Fremont ES and Sherwood ES (New)

Source: MGT of America Consulting, LLC., 2016.

Exhibit 6-6 presents the site assessment score by each school site. Each school site receives a single site assessment score.

EXHIBIT 6-6
SPRINGFIELD PUBLIC SCHOOLS
SITE SCORES – BY SITE

SITE NAME	SITE SCORES
Elementary Schools	
BINGHAM ES	78
BISSETT ES	67
BOWERMAN ES	71
BOYD ES	74
CAMPBELL ES	78
COWDEN ES	73
DELAWARE ES	69
DISNEY ES	70
FIELD ES	74
FREMONT ES	100
GRAY ES	80
HARRISON ES	87
HOLLAND ES	72
JEFFRIES ES	64
MANN ES	72
MCBRIDE ES	83
MCGREGOR ES	74
PITTMAN ES	54
PORTLAND ES	73
ROBBERSON ES	62
ROUNTREE ES	72
SEQUIOTA ES	78
SHERWOOD ES (New)	100
SUNSHINE ES	56
TRUMAN ES	83
TWAIN ES	66
WATKINS ES	72
WEAVER ES	83
WELLER ES	81
WILDER ES	77
WILLIAMS ES	62
YORK ES	72
*ELEMENTARY SCHOOL AVERAGE	73

EXHIBIT 6-6 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 SITE SCORES – BY SITE

SITE NAME	SITE SCORES
K-8 Schools	
HICKORY HILLS K-8	73
PERSHING K-8	65
PLEASANT VIEW K-8	72
WESTPORT K-8	91
K-8 SCHOOL AVERAGE	75
Middle Schools	
CARVER MS	71
CHEROKEE MS	84
JARRETT MS	66
PIPKIN MS	71
REED ACADEMY	78
WILSON'S CREEK IS	69
MIDDLE SCHOOL AVERAGE	73
High Schools	
CENTRAL HS	62
GLENDALE HS	88
HILLCREST HS	67
KICKAPOO HS	66
PARKVIEW HS	86
STUDY ALTERNATIVE CENTER	80
HIGH SCHOOL AVERAGE	75
Support/Other Schools	
BERRY	46
DOLING	70
NATATORIUM	59
SHERWOOD ES (Old)	71
PEPPERDINE (Vacant)	60
PHELPS CENTER	78
SHADY DELL EARLY CHILDHOOD	84
SHINING STARS EARLY CHILDHOOD	75
TEFFT	70
SUPPORT/OTHER FACILITIES AVERAGE	68
*DISTRICT AVERAGE	72

*Fremont ES and Sherwood ES (New) Scores are excluded from the score averages.

Source: MGT of America Consulting, LLC., 2016.

TECHNOLOGY READINESS

The BASYS® technology readiness score measures the capability of the existing infrastructure to support information technology and associated equipment. The score can be interpreted as follows:

90+	Excellent: The facility has excellent infrastructure to support information technology.
80-89	Good: The facility has the infrastructure to support information technology.
70-79	Fair: The facility is lacking in some infrastructure to support information technology.
60-69	Poor: The facility is lacking significant infrastructure to support information technology.
BELOW 60	Unsatisfactory: The facility has little or no infrastructure to support information technology.

Exhibit 6-7 presents the range of technology scores and the average technology scores by facility type. Technology readiness scores vary from 37 to 100, with the averages in the “Good” to “Fair” range except for the support facilities that have poor technology readiness and the K-8 schools that have excellent technology readiness.

EXHIBIT 6-7
SPRINGFIELD PUBLIC SCHOOLS
TECHNOLOGY SCORE RANGES

SITE TYPE	TECHNOLOGY READINESS SCORE RANGE		AVERAGE TECHNOLOGY SCORE
	Low	High	
*Elementary Schools	62	100	85
K-8 Schools	79	100	92
Middle Schools	63	100	79
High Schools	83	100	89
Support/Other Facilities	37	100	69

* Excludes Fremont ES and Sherwood ES (New)

Source: MGT of America Consulting, LLC., 2016.

Exhibit 6-8 presents the technology readiness score for each school site.

EXHIBIT 6-8
SPRINGFIELD PUBLIC SCHOOLS
TECHNOLOGY SCORES – BY SITE

SITE NAME	TECHNOLOGY SCORES
Elementary Schools	
BINGHAM ES	65
BISSETT ES	87
BOWERMAN ES	85
BOYD ES	72
CAMPBELL ES	90
COWDEN ES	62
DELAWARE ES	77
DISNEY ES	100
FIELD ES	75
FREMONT ES	100
GRAY ES	80
HARRISON ES	100
HOLLAND ES	100
JEFFRIES ES	82
MANN ES	97
MCBRIDE ES	82
MCGREGOR ES	83
PITTMAN ES	75
PORTLAND ES	93
ROBBERSON ES	82
ROUNTREE ES	75
SEQUIOTA ES	77
SHERWOOD ES (New)	100
SUNSHINE ES	100
TRUMAN ES	100
TWAIN ES	80
WATKINS ES	83
WEAVER ES	90
WELLER ES	85
WILDER ES	100
WILLIAMS ES	77
YORK ES	90
*ELEMENTARY SCHOOL AVERAGE	85

EXHIBIT 6-8 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 TECHNOLOGY SCORES – BY SITE

SITE NAME	TECHNOLOGY SCORES
K-8 Schools	
HICKORY HILLS K-8	100
PERSHING K-8	79
PLEASANT VIEW K-8	93
WESTPORT K-8	97
K-8 SCHOOL AVERAGE	92
Middle Schools	
CARVER MS	97
CHEROKEE MS	78
JARRETT MS	68
PIPKIN MS	72
REED ACADEMY	63
WILSON'S CREEK IS	100
MIDDLE SCHOOL AVERAGE	79
High Schools	
CENTRAL HS	83
GLENDALE HS	93
HILLCREST HS	90
KICKAPOO HS	87
PARKVIEW HS	83
STUDY ALTERNATIVE CENTER	100
HIGH SCHOOL AVERAGE	89
Support/Other Schools	
BERRY	N/A
DOLING	37
NATATORIUM	N/A
SHERWOOD ES (Old)	50
PEPPERDINE (Vacant)	N/A
PHELPS CENTER	77
SHADY DELL EARLY CHILDHOOD	70
SHINING STARS EARLY CHILDHOOD	100
TEFFT	80
SUPPORT/OTHER FACILITIES AVERAGE	69
*DISTRICT AVERAGE	83

*Fremont ES and Sherwood ES (New) Scores are excluded from the score averages.

Source: MGT of America Consulting, LLC., 2016.

COMBINED SCORES

The building condition, educational suitability, site condition, and technology readiness scores are combined into one score for each school to assist in the task of prioritizing projects. Since the building condition score is a measure of the maintenance needs (e.g. leaky roofs, etc.) and the educational suitability score is a measure of how well the building design and configuration supports the educational program, it is possible to have a high score for one assessment and a low score for another assessment. It is the combined score that attempts to give a comprehensive picture of the conditions that exist at each school and how each school compares relative to the other schools in the district.

To create the combined score, the four scores are weighted, based on which deficiencies the district wants to emphasize and the relative impact on capital costs. For Springfield Public Schools, the building condition score was weighted 50 percent, the educational suitability score was weighted 40 percent, the site condition score was weighted 5 percent, and the technology readiness score was weighted 5 percent. **Exhibit 6-9** presents the range of the combined scores and the average combined scores by facility type. The combined scores vary from 51 to 91, with the averages in the “Fair” to “Poor” range.

Exhibit 6-10 presents all the scores for each facility and the resulting combined score using this weighting formula. Note that non-educational support facilities are not assigned a combined score since they are not assessed for Educational Suitability or Technology Readiness.

EXHIBIT 6-9
SPRINGFIELD PUBLIC SCHOOLS
COMBINED SCORE RANGES

SITE TYPE	COMBINED SCORES RANGE		AVERAGE COMBINED SCORES
	Min	Max	
*Elementary Schools	57	89	69
K-8 Schools	67	91	77
Middle Schools	51	81	66
High Schools	69	76	73
Support/Other Facilities	61	77	68

* Excludes Fremont ES and Sherwood ES (New)

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 6-10
SPRINGFIELD PUBLIC SCHOOLS
COMBINED SCORES – BY SITE

COMBINED SCORES	DESCRIPTION
> 90%	Excellent/Like New
80 - 90	Good
70 - 79	Fair
60 - 69	Poor
< 60	Unsatisfactory

EXHIBIT 6-10
SPRINGFIELD PUBLIC SCHOOLS
COMBINED SCORES – BY SITE

SITE NAME	BUILDING CONDITION SCORE	SUITABILITY SCORE	TECHNOLOGY SCORE	SITE SCORE	COMBINED SCORE (50/40/5/5)
Elementary Schools					
BINGHAM ES	59	55	65	78	59
BISSETT ES	65	54	87	67	62
BOWERMAN ES	71	62	85	71	68
BOYD ES	58	52	72	74	57
CAMPBELL ES	65	58	90	78	64
COWDEN ES	72	63	62	73	68
DELAWARE ES	66	58	77	69	64
DISNEY ES	72	69	100	70	72
FIELD ES	77	57	75	74	69
FREMONT ES	100	100	100	100	100
GRAY ES	74	78	80	80	76
HARRISON ES	89	89	100	87	89
HOLLAND ES	77	62	100	72	72
JEFFRIES ES	70	73	82	64	72
MANN ES	73	61	97	72	69
MCBRIDE ES	71	82	82	83	77
MCGREGOR ES	75	79	83	74	77
PITTMAN ES	71	61	75	54	66
PORTLAND ES	74	53	93	73	66
ROBBERTSON ES	63	52	82	62	59
ROUNTREE ES	64	59	75	72	63
SEQUIOTA ES	70	68	77	78	70
SHERWOOD ES (New)	100	100	100	100	100
SUNSHINE ES	73	62	100	56	69
TRUMAN ES	76	70	100	83	75
TWAIN ES	72	57	80	66	67
WATKINS ES	77	60	83	72	70
WEAVER ES	81	80	90	83	81
WELLER ES	78	82	85	81	80
WILDER ES	72	63	100	77	70
WILLIAMS ES	61	53	77	62	58
YORK ES	70	59	90	72	66
*ELEMENTARY SCHOOL AVERAGE	71	64	85	73	69

EXHIBIT 6-10 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 COMBINED SCORES – BY SITE

SITE NAME	BUILDING CONDITION SCORE	SUITABILITY SCORE	TECHNOLOGY SCORE	SITE SCORE	COMBINED SCORE (50/40/5/5)
K-8 Schools					
HICKORY HILLS K-8	89	94	100	73	91
PERSHING K-8	73	57	79	65	67
PLEASANT VIEW K-8	69	68	93	72	70
WESTPORT K-8	84	73	97	91	80
K-8 SCHOOL AVERAGE	79	73	92	75	77
Middle Schools					
CARVER MS	73	75	97	71	75
CHEROKEE MS	75	75	78	84	76
JARRETT MS	59	45	68	66	54
PIPKIN MS	52	44	72	71	51
REED ACADEMY	66	52	63	78	61
WILSON'S CREEK IS	88	72	100	69	81
MIDDLE SCHOOL AVERAGE	69	61	79	73	66
High Schools					
CENTRAL HS	73	69	83	62	71
GLENDALE HS	69	75	93	88	74
HILLCREST HS	67	68	90	67	69
KICKAPOO HS	71	72	87	66	72
PARKVIEW HS	77	72	83	86	76
STUDY ALTERNATIVE CENTER	70	76	100	80	74
HIGH SCHOOL AVERAGE	71	72	89	75	73
Support/Other Schools					
BERRY	51	N/A	N/A	46	N/A
DOLING	70	52	37	70	61
NATATORIUM	82	N/A	N/A	59	N/A
SHERWOOD ES (Old)	66	58	50	71	62
PEPPERDINE (Vacant)	61	N/A	N/A	60	N/A
PHELPS CENTER	72	67	77	78	70
SHADY DELL EARLY CHILDHOOD	71	70	70	84	71
SHINING STARS EARLY CHILDHOOD	77	73	100	75	77
TEFFT	73	48	80	70	63
SUPPORT/OTHER AVERAGE	69	61	69	68	68
*DISTRICT AVERAGE	72	65	83	72	70

*Fremont ES and Sherwood ES (New) Scores are excluded from the score averages.

Source: MGT of America Consulting, LLC., 2016.

FINDINGS

Building Condition - Overall, SPS' facilities are, on the average, in "Poor" to "Fair" condition, which indicates that most buildings need minor to moderate maintenance and capital improvements.

Educational Suitability – Most of the schools scored in the "Poor" to "Fair" range for suitability. In most cases, this would indicate that the schools were not originally designed to meet the needs of today's educational programs.

Site – The site assessment scores averaged in the high "Fair" range with the exception of the support facilities that were in the "Poor" range. This indicates that the sites are being generally maintained and need minor maintenance.

Technology Readiness – With the exception of the middle schools and the support facilities, the technology readiness scores range in the "Good" to "Excellent" categories. The middle schools and the support facilities have a significant range in the technology readiness scores with averages in the "Fair" to "Poor" ranges. This may indicate that the district should take a more targeted approach to technology readiness improvements.

Combined Score –The average combined score for all grade levels is 70. These score results, averaging just barely in the "Fair" range, indicate there are significant needs that need to be addressed across the district.

The facility assessments provide the data to prioritize projects based on the overall facility needs of the district. This data combined with the capacity and utilization analysis, the educational goals and programs, capital improvement budgets, and the district's school size goals, will be used to develop optional master plan scenarios.

7.0 MASTER PLAN OPTIONS AND RECOMMENDATIONS

This section presents the process utilized to determine priorities and prepare master plan options and recommendations for the Board's review. This chapter is divided into the following three sections: The process of developing the master plan, the options considered, a summary of total needs and associated budget estimates, and the prioritization process.

PROCESS AND PRIORITIZATION

The process of prioritization involved the development of a needs summary based on the data obtained, development of optional scenarios for meeting the needs, budget estimates and assigned "cut points" for determining priority levels.

The first step in determining priorities is to develop a "combined score" based on the facility assessment scores provided earlier in this report. Based on facility committee discussion and MGT recommendations, the following weighting was assigned to each of the individual scores in order to calculate the combined score:

- ♦ Facility Condition weighted at 50%
- ♦ Educational Suitability weighted at 40%
- ♦ Site Condition and Technology Readiness weighted at 5% each

Exhibits 7-1 through **7-5** on the following pages provide the facility score matrix with the combined score included based on the weighting above.

EXHIBIT 7-1
SPRINGFIELD PUBLIC SCHOOLS
ELEMENTARY SCHOOL MATRIX

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
BINGHAM ES	7	59	55	65	78	59	433	434	457	95%	95%
BISSETT ES	6	65	54	87	67	62	279	312	323	86%	97%
BOWERMAN ES	3	71	62	85	71	68	286	310	352	81%	88%
BOYD ES	2	58	52	72	74	57	217	232	204	106%	113%
CAMPBELL ES	3	65	58	90	78	64	195	173	184	106%	94%
COWDEN ES	8	72	63	62	73	68	264	283	293	90%	97%
DELAWARE ES	8	66	58	77	69	64	231	232	283	82%	82%
DISNEY ES	15	72	69	100	70	72	524	538	580	90%	93%
FIELD ES	7	77	57	75	74	69	431	465	446	97%	104%
FREMONT ES	12	100	100	100	100	100	340	373	475	72%	78%
GRAY ES	18	74	78	80	80	76	479	483	496	97%	97%
HARRISON ES	72	89	89	100	87	89	375	380	428	87%	89%
HOLLAND ES	9	77	62	100	72	72	241	255	277	87%	92%
JEFFRIES ES	10	70	73	82	64	72	520	547	555	94%	99%
MANN ES	10	73	61	97	72	69	398	415	439	91%	94%
MCBRIDE ES	20	71	82	82	83	77	452	434	460	98%	94%
MCGREGOR ES	6	75	79	83	74	77	310	326	390	79%	83%
PITTMAN ES	8	71	61	75	54	66	331	334	371	89%	90%

EXHIBIT 7-1 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOL MATRIX

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
PORTLAND ES	10	74	53	93	73	66	231	259	277	83%	93%
ROBBERSON ES	3	63	52	82	62	59	226	252	343	66%	73%
ROUNTREE ES	3	64	59	75	72	63	248	263	277	89%	95%
SEQUIOTA ES	8	70	68	77	78	70	358	357	345	104%	104%
SHERWOOD ES (New)	4	100	100	100	100	100	449	428	509	88%	84%
SUNSHINE ES	6	73	62	100	56	69	194	224	206	94%	109%
TRUMAN ES	32	76	70	100	83	75	290	330	390	74%	84%
TWAIN ES	7	72	57	80	66	67	350	360	414	85%	87%
WATKINS ES	5	77	60	83	72	70	316	330	321	99%	103%
WEAVER ES	2	81	80	90	83	81	295	311	373	79%	83%
WELLER ES	5	78	82	85	81	80	355	370	440	81%	84%
WILDER ES	9	72	63	100	77	70	393	354	382	103%	93%
WILLIAMS ES	16	61	53	77	62	58	324	319	321	101%	99%
YORK ES	3	70	59	90	72	66	220	246	302	73%	81%
*ELEMENTARY SCHOOL TOTAL/ AVERAGE	337	71	64	85	73	69	10,552	10,925	11,914	89%	92%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-2
SPRINGFIELD PUBLIC SCHOOLS
K-8 SCHOOL MATRIX

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
HICKORY HILLS K-8	24	89	94	100	73	91	840	856	1,040	81%	82%
PERSHING K-8	14	73	57	79	65	67	889	905	1,015	88%	89%
PLEASANT VIEW K-8	24	69	68	93	72	70	605	615	717	84%	86%
WESTPORT K-8	7	84	73	97	91	80	962	1,013	1,080	89%	94%
K-8 SCHOOL TOTAL/AVERAGE	69	79	73	92	75	77	3,296	3,389	3,851	86%	88%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-3
SPRINGFIELD PUBLIC SCHOOLS
MIDDLE SCHOOL MATRIX

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
CARVER MS	36	73	75	97	71	75	766	802	996	77%	81%
CHEROKEE MS	18	75	75	78	84	76	819	846	1,070	77%	79%
JARRETT MS	4	59	45	68	66	54	466	474	779	60%	61%
PIPKIN MS	3	52	44	72	71	51	568	616	840	68%	73%
REED ACADEMY	5	66	52	63	78	61	640	661	740	86%	89%
WILSON'S CREEK IS	20	88	72	100	69	81	477	475	536	89%	89%
MIDDLE SCHOOL TOTAL/AVERAGE	87	69	61	79	73	66	3,735	3,875	4,961	75%	78%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-4
SPRINGFIELD PUBLIC SCHOOLS
HIGH SCHOOL MATRIX

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
CENTRAL HS	11	73	69	83	62	71	1,723	1,817	2,069	83%	88%
GLENDALE HS	42	69	75	93	88	74	1,363	1,385	1,757	78%	79%
HILLCREST HS	70	67	68	90	67	69	1,044	1,036	1,488	70%	70%
KICKAPOO HS	44	71	72	87	66	72	1,762	1,829	1,986	89%	92%
PARKVIEW HS	49	77	72	83	86	76	1,366	1,343	1,653	83%	81%
STUDY ALTERNATIVE CENTER	7	70	76	100	80	74	N/A	N/A	586	N/A	N/A
HIGH SCHOOL TOTAL/AVERAGE	222	71	72	89	75	73	7,257	7,410	9,539	76%	78%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-5
SPRINGFIELD PUBLIC SCHOOLS
SUPPORT/OTHER SCHOOL MATRIX

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
BERRY	1	51	N/A	N/A	46	N/A	N/A	N/A	N/A	N/A	N/A
DOLING	3	70	52	37	70	61	N/A	N/A	242	N/A	N/A
NATATORIUM	0	82	N/A	N/A	59	N/A	N/A	N/A	N/A	N/A	N/A
SHERWOOD ES (Old)	4	66	58	50	71	62	N/A	N/A	352	N/A	N/A
PEPPERDINE (Vacant)	2	61	N/A	N/A	60	N/A	N/A	N/A	N/A	N/A	N/A
PHELPS CENTER	2	72	67	77	78	70	N/A	N/A	281	N/A	N/A
SHADY DELL EARLY CHILDHOOD	3	71	70	70	84	71	N/A	N/A	-	N/A	N/A
SHINING STARS EARLY CHILDHOOD	0	77	73	100	75	77	N/A	N/A	-	N/A	N/A
TEFFT	2	73	48	80	70	63	N/A	N/A	217	N/A	N/A
SUPPORT/OTHER TOTAL/AVERAGE	18	69	61	69	68	68	N/A	N/A	1,092	N/A	N/A
*DISTRICT TOTAL/AVERAGE	732	72	65	83	72	70	24,841	25,599	31,358	79%	82%

The next step in developing priorities is to determine appropriate “cut points”. The following cut points were developed for determining priorities in terms of both combined score and projected utilization. **Exhibit 7-6** provides these cut points:

EXHIBIT 7-6
COMBINED SCORE AND UTILIZATION PRIORITIZATION CUT POINTS

COMBINED SCORES	DESCRIPTION
> 90%	Excellent/Like New
80 – 90	Good
70 – 79	Fair
60 – 69	Poor
< 60	Unsatisfactory

UTILIZATION	DESCRIPTION
> 110	Inadequate
95 – 110	Approaching Inadequate
80 – 95	Adequate & Efficient
70 – 80	Approaching Inefficient
< 70	Inefficient

Based on the cut points shown above, **Exhibits 7-7** through **7-11** on the following pages show the matrices with the priorities color-coded.

EXHIBIT 7-7
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOL MATRIX WITH PRIORITIES

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment	K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017 Projected 2026
BINGHAM ES	7	59	55	65	78	59	433	434	457	95% 95%
BISSETT ES	6	65	54	87	67	62	279	312	323	86% 97%
BOWERMAN ES	3	71	62	85	71	68	286	310	352	81% 88%
BOYD ES	2	58	52	72	74	57	217	232	204	106% 113%
CAMPBELL ES	3	65	58	90	78	64	195	173	184	106% 94%
COWDEN ES	8	72	63	62	73	68	264	283	293	90% 97%
DELAWARE ES	8	66	58	77	69	64	231	232	283	82% 82%
DISNEY ES	15	72	69	100	70	72	524	538	580	90% 93%
FIELD ES	7	77	57	75	74	69	431	465	446	97% 104%
FREMONT ES	12	100	100	100	100	100	340	373	475	72% 78%
GRAY ES	18	74	78	80	80	76	479	483	496	97% 97%
HARRISON ES	72	89	89	100	87	89	375	380	428	87% 89%
HOLLAND ES	9	77	62	100	72	72	241	255	277	87% 92%
JEFFRIES ES	10	70	73	82	64	72	520	547	555	94% 99%
MANN ES	10	73	61	97	72	69	398	415	439	91% 94%
MCBRIDE ES	20	71	82	82	83	77	452	434	460	98% 94%
MCGREGOR ES	6	75	79	83	74	77	310	326	390	79% 83%
PITTMAN ES	8	71	61	75	54	66	331	334	371	89% 90%

EXHIBIT 7-7 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOL MATRIX WITH PRIORITIES

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment	K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017 Projected 2026
PORTLAND ES	10	74	53	93	73	66	231	259	277	83% 93%
ROBBERSON ES	3	63	52	82	62	59	226	252	343	66% 73%
ROUNTREE ES	3	64	59	75	72	63	248	263	277	89% 95%
SEQUIOTA ES	8	70	68	77	78	70	358	357	345	104% 104%
SHERWOOD ES (New)	4	100	100	100	100	100	449	428	509	88% 84%
SUNSHINE ES	6	73	62	100	56	69	194	224	206	94% 109%
TRUMAN ES	32	76	70	100	83	75	290	330	390	74% 84%
TWAIN ES	7	72	57	80	66	67	350	360	414	85% 87%
WATKINS ES	5	77	60	83	72	70	316	330	321	99% 103%
WEAVER ES	2	81	80	90	83	81	295	311	373	79% 83%
WELLER ES	5	78	82	85	81	80	355	370	440	81% 84%
WILDER ES	9	72	63	100	77	70	393	354	382	103% 93%
WILLIAMS ES	16	61	53	77	62	58	324	319	321	101% 99%
YORK ES	3	70	59	90	72	66	220	246	302	73% 81%
*ELEMENTARY SCHOOL TOTAL/ AVERAGE	337	71	64	85	73	69	10,552	10,925	11,914	89% 92%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-8
SPRINGFIELD PUBLIC SCHOOLS
K-8 MATRIX WITH PRIORITIES

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment	K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026	Projected 2017	Projected 2026
HICKORY HILLS K-8	24	89	94	100	73	91	840	856	1,040	81% 82%
PERSHING K-8	14	73	57	79	65	67	889	905	1,015	88% 89%
PLEASANT VIEW K-8	24	69	68	93	72	70	605	615	717	84% 86%
WESTPORT K-8	7	84	73	97	91	80	962	1,013	1,080	89% 94%
K-8 SCHOOL TOTAL/AVERAGE	69	79	73	92	75	77	3,296	3,389	3,851	86% 88%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-9
 SPRINGFIELD PUBLIC SCHOOLS
 MIDDLE SCHOOL MATRIX WITH PRIORITIES

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment	K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017 Projected 2026
CARVER MS	36	73	75	97	71	75	766	802	996	77% 81%
CHEROKEE MS	18	75	75	78	84	76	819	846	1,070	77% 79%
JARRETT MS	4	59	45	68	66	54	466	474	779	60% 61%
PIPKIN MS	3	52	44	72	71	51	568	616	840	68% 73%
REED ACADEMY	5	66	52	63	78	61	640	661	740	86% 89%
WILSON'S CREEK IS	20	88	72	100	69	81	477	475	536	89% 89%
MIDDLE SCHOOL TOTAL/AVERAGE	87	69	61	79	73	66	3,735	3,875	4,961	75% 78%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-10
 SPRINGFIELD PUBLIC SCHOOLS
 HIGH SCHOOL MATRIX WITH PRIORITIES

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment	K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017 Projected 2026
CENTRAL HS	11	73	69	83	62	71	1,723	1,817	2,069	83% 88%
GLENDALE HS	42	69	75	93	88	74	1,363	1,385	1,757	78% 79%
HILLCREST HS	70	67	68	90	67	69	1,044	1,036	1,488	70% 70%
KICKAPOO HS	44	71	72	87	66	72	1,762	1,829	1,986	89% 92%
PARKVIEW HS	49	77	72	83	86	76	1,366	1,343	1,653	83% 81%
STUDY ALTERNATIVE CENTER	7	70	76	100	80	74	N/A	N/A	586	N/A N/A
HIGH SCHOOL TOTAL/AVERAGE	222	71	72	89	75	73	7,257	7,410	9,539	76% 78%

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-11
 SPRINGFIELD PUBLIC SCHOOLS
 SUPPORT/OTHER MATRIX WITH PRIORITIES

Site Name	Site Size (acres)	Building Condition Score	Suitability Score	Technology Score	Site Score	Combined Score	K-12 Enrollment		K-12 Capacity	Utilization	
						(50/40 /5/5)	Projected 2017	Projected 2026		Projected 2017	Projected 2026
BERRY	1	51	N/A	N/A	46	N/A	N/A	N/A	N/A	N/A	N/A
DOLING	3	70	52	37	70	61	N/A	N/A	242	N/A	N/A
NATATORIUM	0	82	N/A	N/A	59	N/A	N/A	N/A	N/A	N/A	N/A
SHERWOOD ES (Old)	4	66	58	50	71	62	N/A	N/A	352	N/A	N/A
PEPPERDINE (Vacant)	2	61	N/A	N/A	60	N/A	N/A	N/A	N/A	N/A	N/A
PHELPS CENTER	2	72	67	77	78	70	N/A	N/A	281	N/A	N/A
SHADY DELL EARLY CHILDHOOD	3	71	70	70	84	71	N/A	N/A	-	N/A	N/A
SHINING STARS EARLY CHILDHOOD	0	77	73	100	75	77	N/A	N/A	-	N/A	N/A
TEFFT	2	73	48	80	70	63	N/A	N/A	217	N/A	N/A
SUPPORT/OTHER TOTAL/AVERAGE	18	69	61	69	68	68	N/A	N/A	1,092	N/A	N/A
*DISTRICT TOTAL/AVERAGE	732	72	65	83	72	70	24,841	25,599	31,358	79%	82%

Source: MGT of America Consulting, LLC., 2016.

MASTER PLAN DRIVERS

Taking into consideration the previous exhibits, the community engagement process, and the educational program review, the master plan drivers were then developed to guide the district's decisions regarding prioritization, options and recommendations. The master plan drivers are as follows:

- ♦ Maintain fiscal responsibility
- ♦ Provide district-wide program equity
- ♦ Expansion of pre-school opportunities
- ♦ Address schools with highest needs
- ♦ Address schools with combined score of 70 or less
- ♦ Address specific program needs at high schools with combined score between 70 – 80
- ♦ Address schools with projected utilization over 110% and under 70%
- ♦ Consistency in school size to the degree possible
- ♦ Consistency in grade level alignment to the degree possible

OPTION I

OPTIONS CONSIDERED

The next step in the process was to prepare recommended options for meeting the conditions outlined by the master plan drivers. The first options reviewed were for a model using the same grade configuration as is currently in place and based on the number of schools needed to meet the educational program needs while most efficiently utilizing district resources. **Exhibits 7-12, 7-13 and 7-14** provide a summary of the first option considered along with the budget estimate for each. **Exhibit 7-15** is a list of schools that will receive only routine maintenance throughout the duration of the master plan process.

EXHIBIT 7-12
 SPRINGFIELD PUBLIC SCHOOLS
 HIGH SCHOOL OPTION 1

SCHOOL	OPTIONS	RESULTS	BUDGET
Central	New gym & lockers; upgraded special education space; site improvements	Improved educational suitability & site	\$ 9,928,600
Glendale	New gym & lockers; upgraded career/tech spaces; upgraded HVAC	Improved condition & educational suitability	\$ 19,806,200
Hillcrest	Renovation to capacity of 1,200	Capacity of 1,200. Upgraded facility, improved utilization	\$ 27,640,700
Kickapoo	New gym & lockers; site improvements	Improved educational suitability & site	\$ 8,695,500
Parkview	Improvements to art, music, PE spaces.	Improved educational suitability	\$ 4,789,600

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-13
 SPRINGFIELD PUBLIC SCHOOLS
 MIDDLE SCHOOLS OPTION 1

SCHOOL	OPTION	RESULTS	BUDGET
Jarrett	Close as middle school – repurpose facility	325 students rezoned to Pipkin. 150 students rezoned to Carver.	\$ -
Pipkin	Boundary change with Jarrett & Reed. New School – 850 capacity	New 6-8 middle school. 325 students rezoned from Jarrett. 150 students rezoned to New Reed. Site TBD.	\$ 29,325,500
Reed	Boundary change with Pipkin. New school – 850 capacity	New 6-8 middle school. 150 students rezoned from Pipkin.	\$ 29,325,500
Pershing	Boundary change with Hickory Hills. New school - 1,000 capacity	New K-8 school. 100 students rezoned to Hickory Hills.	\$ 34,500,600
Pleasant View	Renovation	Improved condition	\$ 7,499,500

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-14
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOLS OPTION 1

SCHOOL or SCHOOL GROUPINGS	OPTION	RESULTS	BUDGET
Watkins Williams Robberson Bowerman Truman	Truman addition to 500 student capacity 2 new schools at 600 capacity	2 new elementary schools Reduction of 2 schools	\$ 36,679,700
Bissett York	New school at 600 capacity	New elementary school Reduction of 1 school	\$ 16,799,900
Weaver Boyd Weller	Weaver and Weller additions to 500-student capacity.	Reduction of 1 school	\$ 5,320,000
Bingham	New school at 500 capacity	New elementary school	\$ 13,999,900
Rountree Delaware	New school at 550 capacity	New elementary school Reduction of 1 school	\$ 15,399,900
Sunshine Portland	Sunshine renovation 300 student addition at Sunshine to 500 student capacity	Improved condition Reduction of 1 school	\$ 10,698,100
Field	Renovation 55 student addition to 500 student capacity	Improved condition	\$ 4,192,500
Twain	Renovation	Improved condition	\$ 3,484,900
Sequiota	Renovation 55 student addition to 400 student capacity	Improved condition	\$ 4,755,000
Mann	Renovation	Improved condition	\$ 3,200,700
Pittman	Renovation	Improved condition	\$ 2,918,200

EXHIBIT 7-14 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOLS OPTION 1

SCHOOL or SCHOOL GROUPINGS	OPTION	RESULTS	BUDGET
Campbell	Possible re-purpose of Campbell; possible consolidation	Re-purpose of one facility 150 student addition at McGregor	\$ 4,200,000
McGregor			
Cowden	Renovation	Improved condition	\$ 2,705,800
Wilder	Renovation	Improved condition	\$ 2,836,700

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-15
 SPRINGFIELD PUBLIC SCHOOLS
 ROUTINE MAINTENANCE SCHOOLS OPTION 1

SCHOOL or SCHOOL GROUPINGS	COMBINED SCORE(S)	PROJECTED ENROLLMENT	OPTION	RESULTS
MIDDLE SCHOOLS				
Carver	75	802	Routine maintenance	No change
Cherokee	76	846		
Hickory Hills	80	1,013		
Westport	91	856		
ELEMENTARY SCHOOLS				
Disney	72	538	Routine maintenance	No change
Fremont	100	373		
Gray	76	483		
Harrison	89	380		
Holland	72	255		
Jeffries	72	547		
McBride	77	434		
Sherwood	100	428		
Wilson’s Creek	81	475		
OTHER INSTRUCTIONAL				
Study Alternative Center	74	N/A	Routine maintenance	No change
Shady Dell Early Childhood	74	N/A		
Shining Star Early Childhood	77	N/A		
Phelps Center	70	N/A		

Source: MGT of America Consulting, LLC., 2016.

OPTION 1 CONCLUSIONS

With Option 1 (current grade configuration) the following facility improvements occur:

- ♦ Two new middle schools to replace existing Pipkin and Reed.
- ♦ A new K-8 on the Pershing site.
- ♦ K-8 renovation at Pleasant View.
- ♦ Five new elementary schools, two in the Hillcrest attendance area, and one each in the Bingham, Rountree/Delaware, and Bissett/York attendance zones.
- ♦ Seven elementary school additions (Truman, Weaver, Weller, Sunshine, Field, Sequiota, and McGregor).
- ♦ Eight elementary school renovations (Sunshine, Field, Twain, Sequiota, Mann, Pittman, Cowden, and Wilder.
- ♦ Improvements at all high schools (as shown in **Exhibit 7-13**).
- ♦ A 600 student pre-school expansion
- ♦ Repurpose surplus buildings.

Exhibit 7-16 below provides a summary of the budget estimates for the Current Grade Configuration Option 1.

EXHIBIT 7-16
SPRINGFIELD PUBLIC SCHOOLS
CURRENT GRADE CONFIGURATION OPTION 1 BUDGET SUMMARY

OPTION 1 BUDGET ESTIMATES	
K-8	\$227,842,400
9-12	\$70,860,600
Pre School	\$16,000,000
TOTAL	\$314,703,000

Source: MGT of America Consulting, LLC., 2016.

OPTION 2

The primary changes in the Option 2 model are to examine the potential benefits of combining some of the elementary and middle school campuses and using elementary and middle school sizes that are more consistent with current practices. Option 2 also provides for significant renovations and investment in existing facilities. Characteristics of Option 2 include the following:

CHARACTERISTICS

- ♦ New/Renovated middle & elementary/middle combined campus
- ♦ New/Renovated elementary/middle combined campus capacity of 800 – 1,050
 - K-5 capacity of 300 - 350
 - 6-8 capacity of 500 – 700
- ♦ New/Renovated elementary school capacity of 400 – 500.
- ♦ Replacement or renovation of schools with combined score of 70 or less except where facilities can be combined.
- ♦ Address specific program needs at high schools with combined score between 70 – 80.

The elementary-middle combined campus would provide for two independent schools, with separate identities on one campus to create convenience and access. The combined campus could allow the district to take advantage of the efficiencies surrounding the combined use of common spaces such as kitchens where the food is prepared, drive lanes, bus loops and parking. Although not specifically examined during the assessment process it is possible that a variety of educational options and efficiencies might also be discovered in this shared campus model. Potential advantages of the elementary-middle combined campus include:

POTENTIAL ADVANTAGES

- ♦ Two independent schools, with separate identities, under one roof creates convenience and access.
- ♦ Opportunities to share spaces, otherwise unavailable.
- ♦ Easier transition from elementary to middle school due to familiar environment.
- ♦ Reduced building area and shared mechanical systems.
- ♦ Reduced site costs, i.e. total drive lanes, bus loops, parking.

Exhibits 7-17 through **7-19** provide a summary of the considerations reviewed in Option 2 for each of the schools. **Exhibit 7-20** is a list of schools that will receive only routine maintenance throughout this 12-year master plan. Finally, **Exhibit 7-21** is a summary budget estimate for Option 2.

EXHIBIT 7-17
 SPRINGFIELD PUBLIC SCHOOLS
 HIGH SCHOOL OPTION 2

SCHOOL	OPTIONS	RESULTS	BUDGET
Central	New gym & lockers; upgraded special education space; site improvements	Improved educational suitability & site	\$ 9,928,600
Glendale	New gym & lockers; upgraded career/tech spaces; upgraded HVAC	Improved condition & educational suitability	\$ 19,806,200
Hillcrest	Renovation to capacity of 1,200	Capacity of 1,200. Upgraded facility, improved utilization	\$ 27,640,700
Kickapoo	New gym & lockers; site improvements	Improved educational suitability & site	\$ 8,695,500
Parkview	Improvements to art, music, PE spaces.	Improved educational suitability	\$ 4,789,600

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-18
 SPRINGFIELD PUBLIC SCHOOLS
 MIDDLE SCHOOL / K-8 OPTION 2

SCHOOL or SCHOOL GROUPINGS	OPTION	RESULTS	BUDGET
Jarrett	Replace current school with Elem/Mid combined campus-800 Capacity, 500 6-8, 300 K-5	New elem/middle combined campus with Portland Elementary Site TBD	\$ 27,600,500
Pipkin	Replace current school with Elem/Mid IB combined campus-900 capacity; 600 6-8, 300 K-5	New elem/middle IB combined campus with Boyd Elementary Site TBD	\$ 31,050,500
Reed	Replace current school with Elem/Mid combined campus-900 capacity; 550 6-8, 350 K-5	New elem/middle combined campus with Robberson Elementary	\$ 31,050,500
Pershing	Replace current school with Elem/Mid combined campus-1,000 capacity; 700 6-8, 300 K-5	New elem/middle combined campus	\$ 34,500,600
Pleasant View	Renovation and 158 student addition Boundary adjustment with Reed	Improved condition	\$ 13,019,600

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-19
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY OPTION 2

SCHOOL or SCHOOL GROUPINGS	OPTION	RESULTS	BUDGET
Watkins	Renovation	Improved condition	\$ 2,151,200
Williams	New School at 500 capacity Adjust boundary with Bowerman.	New school	\$ 13,999,900
Robberson	Re-purpose facility. Students to Robberson-Reed combined campus or Fremont	Reduction of 1 school	\$ -
Bowerman	Re-purpose facility. Students to Robberson-Reed combined campus or Williams	Reduction of 1 school	\$ -
Bissett York	New school at Bissett site to 500 capacity. Boundary change with Weaver or Boyd-Pipkin IB to reduce by 100 students.	Reduction of 1 school	\$ 13,999,900
Boyd	Repurpose School. Students to Boyd-Pipkin IB combined campus.	Repurpose 1 facility	\$ -
Bingham	New school at 500 capacity	New school	\$ 13,999,900
Rountree	Renovation & addition to 350 capacity. Adjust boundary 50 students from Delaware	Improved condition	\$ 5,369,100
Delaware	Adjust boundary with Rountree and Sunshine. Repurpose facility.	Reduction of 1 school	\$ -

EXHIBIT 7-19 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY OPTION 2

SCHOOL or SCHOOL GROUPINGS	OPTION	RESULTS	BUDGET
Mann	Renovation	Improved condition	\$ 3,200,700
Pittman	Renovation	Improved condition	\$ 2,918,200
Campbell McGregor Portland	McGregor to capacity. 300 students to Portland- Jarrett combined campus. 150 students to Twain.	Repurpose 2 facilities	Refer to Jarrett
Cowden	Renovation	Improved condition	\$ 2,705,800
Wilder	Renovation. Boundary adjustments with Pershing Elem/Mid combined campus	Improved condition	\$ 2,836,700
Sunshine	Renovation & addition to 400 capacity. Boundary change with Delaware.	Improved condition District-wide special education facility	\$ 7,725,900
Field	Renovation	Improved condition	\$ 2,652,500
Twain	Renovation & addition to 500 capacity Boundary adjustment with Portland	Improved condition and increased capacity	\$ 5,887,300
Sequiota	Renovation Boundary adjustment with Pershing Elem/Mid combined campus	Improved condition	\$ 3,215,000

Source: MGT of America Consulting, LLC., 2016.

EXHIBIT 7-20
 SPRINGFIELD PUBLIC SCHOOLS
 ROUTINE MAINTENANCE OPTION 2

SCHOOL or SCHOOL GROUPINGS	COMBINED SCORE(S)	PROJECTED ENROLLMENT	OPTION	RESULTS
MIDDLE SCHOOLS				
Carver	75	802	Routine maintenance	No change
Cherokee	76	846		
Hickory Hills	91	856		
Westport	80	1,013		
ELEMENTARY SCHOOLS				
Disney	72	538	Routine maintenance	No change
Fremont	100	373		
Gray	76	483		
Harrison	89	380		
Holland	72	255		
Jeffries	72	547		
McBride	77	434		
Sherwood	100	428		
Truman	75	330		
Weaver	81	311		
Weller	80	370		
Wilson’s Creek	81	475		
OTHER INSTRUCTIONAL				
Study Alternative Center	74	N/A	Routine maintenance	No change
Shady Dell Early Childhood	74	N/A		
Shining Star Early Childhood	77	N/A		
Phelps Center	70	N/A		

Source: MGT of America Consulting, LLC., 2016.

OPTION 2 CONCLUSIONS

Option 2 (combined campus and smaller school size model) includes the following facility improvements. Schools identified as combined campuses are provided as recommended sites at this time and could change as final plans are developed.

- ♦ Four new elementary/middle school combined campuses potential configured as follows:
 - Robberson Elementary-Reed Middle
 - Boyd Elementary IB-Pipkin Middle IB
 - Portland Elementary-Jarrett Middle
 - Pershing Elementary-Pershing Middle
- ♦ K-8 renovation/addition at Pleasant View
- ♦ Three new elementary schools to replace Williams, Bissett/York, and Bingham.
- ♦ Three elementary additions at Rountree, Sunshine, and Twain
- ♦ Ten elementary renovations at Watkins, Mann, Pittman, Cowden, Sunshine, Field, Twain, Sequiota, Rountree, and Wilder
- ♦ Improvements at all high schools as shown in **Exhibit 7-17**
- ♦ A 600 student preschool expansion
- ♦ Repurpose surplus buildings

Exhibit 7-21 below provides a summary of the budget estimates for elementary and middle school combined campus Option 2.

EXHIBIT 7-21
SPRINGFIELD PUBLIC SCHOOLS
ELEMENTARY / MIDDLE SCHOOL COMBINED CAMPUS
BUDGET SUMMARY

OPTION 2 BUDGET ESTIMATES	
K-8	\$217,883,800
9-12	\$70,860,600
Pre School	\$16,000,000
TOTAL	\$304,744,400

Source: MGT of America Consulting, LLC., 2016.

CONSTRUCTING A FINAL RECOMMENDATION

After receiving the facility review data, community engagement feedback and recommended master plan options, the district began a second round of stakeholder feedback in order to arrive at an optimal final recommendation. The process included 10 community input meetings, internal staff meetings, and a community wide on-line survey. The feedback and analysis of the information collected is presented in **Section 8.0** along with the final facility master plan recommendations.

8.0 FINAL FACILITY MASTER PLAN RECOMMENDATIONS

In order to construct the best facility master plan that adequately addresses facility needs throughout the district, the district took 60 days to thoroughly vet the two facility master plan options presented at the September board study session. Elements of the vetting included the following:

- ♦ 10 open public community meetings
- ♦ internal staff meetings
- ♦ a community wide online survey
- ♦ operational impact analysis
- ♦ one Board of Education retreat and two additional board study sessions

The results of this additional stakeholder feedback and analysis of the operational impacts are presented in the following pages. This additional time was invaluable in the process of designing the final Facility Master Plan recommendations, which do not purely reflect either Option 1 or Option 2. The final Facility Master Plan recommendation reflects the feedback provided by stakeholders while also assuring that the master plan drivers established through community feedback processes at the beginning remained as the foundation of the final product.

FEEDBACK FROM STAKEHOLDERS

The second round process of community engagement resulted in more than 1,400 stakeholder interactions through one of the three avenues provided (open community meetings, internal staff meetings, and on-line survey):

- ♦ 10 community meetings – approximately 250
- ♦ Six internal staff meetings – approximately 300
- ♦ Online survey responses – 878 responses

The face-to-face community and internal staff meetings included an opportunity for stakeholders to hear a summary of facility analysis data as well as the details of both Facility Master Plan Option 1 and Option 2. Many of these meetings included an opportunity to process the information in small groups and ask follow-up questions, identify advantages or concerns about each plan and provide feedback for district leadership and Board of Education members to reflect on as they worked to design the final Facility Master Plan recommendation. Participants in all public meetings, as well as all other interested stakeholders, were invited to complete the on-line survey, which included a mixture of multiple choice questions regarding priorities and preferences, and open-ended questions to share feelings regarding the strengths of the plans, pose additional questions, and express concerns that stakeholders had with the plans that were presented.

The following data shows a summary of feedback from stakeholders on multiple questions asked on the survey.

The first question asked stakeholders to identify the three most important objectives of SPS' facility master plan. Of the six options provided, three objectives were clearly identified by the majority of respondents as most important.

- ♦ Address schools with highest needs – 70%
- ♦ Provide program equity – 56%
- ♦ Maintain fiscal responsibility – 47%

The remaining three objectives listed as options were significantly lower in the percent of respondents naming them as one of the three most important objectives in the facility master plan.

- ♦ Maintain consistency in school size as much as possible – 24%
- ♦ Expand opportunities for preschoolers – 22%
- ♦ Maintain consistency in grade-level alignment – 21%

Realizing that school size is a significant concern within the Springfield school community and that Option 1 and Option 2 had different implications for the sizes of both elementary and middle schools constructed and renovated during the implementation of the plans, two questions were asked regarding the preferred school size.

When asked the “ideal enrollment for an elementary school”, stakeholders were provided the options of 300-499, 500-650 or no preference. Respondents preferred the smaller school option with the following data:

- ♦ 300-499 students – 68%
- ♦ 500-650 students – 9%
- ♦ No preference – 23%

When asked the “ideal enrollment for a middle school”, stakeholders were provided the options of 500-699, 700-950, or no preference. Again, respondents selected the smaller school option at a higher rate as summarized below:

- ♦ 500-699 students – 61%
- ♦ 700-950 students – 15%
- ♦ No preference – 24%

Following feedback on the most important objectives of the Facility Master Plan and preferred school size, respondents were asked to give feedback on the option they preferred based on the information they currently had access to at the time they completed the survey. Stakeholders were able to select from Option 1, Option 2, undecided, or neither option. Respondents selected Facility Master Plan Option 2 by a margin.

- ♦ Master Plan Option 1 – 27%
- ♦ Master Plan Option 2 – 44%

- ♦ Undecided – 17%
- ♦ Neither option – 12%

The final multiple-choice question asked respondents the likelihood of their willingness to support the implementation of either of the Facility Master Plan options even if it required a minimal tax increase. Over 78% of respondents listed themselves as either very likely or likely to support the work moving forward.

- ♦ Very likely – 51%
- ♦ Likely – 27%
- ♦ Unlikely – 8%
- ♦ Very unlikely – 7%
- ♦ No opinion – 7%

SUMMARY

Based on the feedback received through the on-line survey tool and the feedback at community input sessions, it is evident that the stakeholders of Springfield Public Schools value small schools and often reiterated the desire that the system work to preserve the culture that is provided in these smaller school environments while the facility needs identified are addressed. In addition, feedback indicated the desire to ensure that no schools impacted by the facility master plan took a step backward in programming offered for students, and that equity to accessing programs was only done through expansion of offerings and not through reducing opportunities for students. Finally, additional feedback was received in numerous audiences that encouraged the district to ensure that schools that needed upgrades the most were the highest priority, but that the district should not forget about or ignore other sites. Patrons expressed concerns that facilities with needs identified in the “fair” category could deteriorate and an additional massive effort would be required in the future to ensure that these sites were meeting the needs of students and the communities they served. Many urged the board to consider adding schools in the “fair” category to the schools impacted list and to make investments in these school sites too.

OPERATIONAL AND CAPITAL BUDGET ANALYSIS

Throughout the 60 days following the initial presentations of the Facility Master Plan options, district administration completed additional analysis of numerous operational and capital budgets and how the Facility Master Plan options may impact other aspects of the system. Areas such as transportation, education staffing, support staffing, annual capital repairs budget, and energy usage were reviewed to determine if any increases or decreases could be projected as a consequence of the implementation of either of the options. It is important to note that forecasting budgets and the impacts over a span of 10-12 years in each of these areas is far from a perfect science and is done by creating a set of assumptions as the foundation and then running scenarios based on those assumptions. The following sections provide a brief description of the assumptions and then projected data by district administration.

SCHOOL BUS TRANSPORTATION

A transportation analysis, based on community feedback identifying a desire for the smaller school concept, was performed and shows that slight additional operating costs will be required through

adjustments to and the addition of routes. The additional estimated costs associated with middle school routes is \$18,043 and the additional estimated costs associated with elementary routes is \$42,446 resulting in a total operational estimated increase of \$60,488 upon full implementation of the Facility Master Plan. These cost estimates include salary and associated costs plus fuel and maintenance expenses.

The associated additional bus requirements for one middle level route and two elementary level routes would be addressed through the capital budgeting process. Currently the district's regular capital funds allocation will address new bus needs each year and buses for additional routes would be acquired through that process.

Additional operating costs will be experienced relative to temporary relocations of students throughout construction phasing. The cost to temporarily relocate approximately 169 students from Fremont Elementary to the old Sherwood Elementary site was an estimated \$55,000 that required four buses and drivers. Currently, state revenue currently offsets costs by 18 percent. Additionally, some adjustments to bell schedules will be necessary for certain sites.

EDUCATION STAFFING

The district's current staffing protocols regarding students per teacher, other professionals, and administrator will continue to guide staffing decisions, and no change is anticipated, meaning that no changes to class size calculation protocol will occur as a result of the Facility Master Planning process. We believe the education staffing costs will be neutral.

SUPPORT STAFFING

While some efficiency will likely occur in staffing needs for food preparation in sites where a combined campus approach will occur, additional square footage in the system may create needs for additional custodial staffs. An analysis of additional square footage will be performed, understanding that different staff-to-area ratios are provided for different types of spaces and cleaning approaches. We believe the operational staffing costs will be neutral.

CAPITAL REPAIRS AND REPLACEMENT BUDGET

An analysis was performed to determine appropriate budgeting levels for regular capital investments for the next 12 years to coincide with the Facility Master Plan recommendation. The following assumptions were included for life cycle replacement purposes: non-bus vehicles - 8 and 12 years, buses - 15 years, roofs - 27 years, and HVAC/controls/parking lots - 25 years. The estimated annual investment of regular capital funds to address deferred maintenance demands is \$6,180,000 to \$7,055,000 through 2023, an overall investment of nearly \$40 million.

ENERGY USAGE

Improvements to school facilities will result in improved efficiencies and operational savings. While the assessment did not specifically include an energy efficiency analysis it is expected that the planning for new schools and renovations will include such an analysis. In addition, as possible during the term of the master plan, audits will be conducted on existing facilities to determine the value of infrastructure improvements schools planned for routine maintenance.

FUNDAMENTAL PRINCIPLES OF THE FACILITY MASTER PLAN AND PROCESS

While a master plan provides some level of precision regarding many aspects of the future such as, buildings to be addressed, scope of the projects, approximate budget, etc., it is impossible to provide definitive answers on all questions of detail. Issues regarding items such as location, boundary lines, school programming, site and school design, etc. can not always be predicted due to the comprehensive nature of the work, length of the projected plan, and factors outside of the control of the district such as economic spikes or recessions and legislative changes. However, the Board of Education and administration of Springfield Public Schools has established the following planning principles to inform district patrons, as well as to assure continuity of understanding for future administrative staff and/or boards of education.

Quality – we desire to provide high quality learning and working environments for all SPS students and staff and the quality of the facility is a significant factor in assuring these environments.

Equity – we desire to provide equitable access to resources and learning experiences for all students of Springfield Public Schools. While it is unrealistic to provide new or renovated facilities in all sites at the same time the adopted Master Plan will address all learning facilities that are rated below “good” in the areas of condition or education suitability.

Class size – we share the community’s commitment to the value of small class sizes (student-teacher ratio). This Master Plan is designed to have no negative impact on class sizes among those schools being newly constructed or renovated.

School size – we share the community’s commitment to assuring school sizes are kept small at the elementary and middle school levels. The targeted enrollment for new or remodeled elementary schools will be between 300-450 students and 500-699 for new or remodeled middle schools.

Neighborhood Schools – we value neighborhood schools and the Facility Master Plan is designed to keep all reconstructed schools within the current or adjusted boundary lines allowing for the schools to remain as a foundational element of community identity.

Schools as Community Centers – we embrace the belief that community engagement supports the ongoing growth of students and should be a consideration as renovation and new construction designs are completed. We are committed to ensuring community access and use of school facilities as a resource beyond the traditional school day for services to both students and families shall be a priority.

Program Impact and Access – we desire to ensure the Master Plan should only expand opportunities for additional students to have access to special, choice or magnet programming (IB, Community Schools, WOLF, etc.) and should not reduce the scope of access for any students.

School Bus Transportation – safe and timely transportation will not be negatively affected impacted by the Master Plan. In order to deliver facility improvements some students will likely need to be relocated to alternative sites for portions of time. When this is necessary transportation will be provided if students would be required to travel to sites outside of the current transportation guidelines.

Staffing Impacts – the facility master plan will not produce any involuntary reduction of certified teaching positions. The Master Plan is designed to positively impact the learning and working conditions of students and staff throughout the system. While such a comprehensive adjustment to district facilities will inevitably lead to shifts in staffing, any reductions will be handled easily through annual attrition.

Surplus Property – the district will work to ensure that sites no longer needed are repurposed in a productive way that adds value to the community.

MASTER PLAN FINAL RECOMMENDATIONS

The following recommendations will serve as the final Facility Master Plan recommendations for Springfield Public Schools. These recommendations both align and deliver the priorities created during the initial cycle of community engagement, which took place in the spring of 2016, while also aligning with the Facility Master Plan foundations identified at the end of this chapter. The feedback from the majority of stakeholders was that a plan for comprehensive improvements was necessary and should be initiated sooner rather than later. In addition, the Springfield community continues to place high value on smaller enrollments at the elementary and middle school level and believes that neighborhood schools should remain as a high priority through the delivery of needed improvements. Based on these findings, the following recommendations closely reflect Option 2 that was originally presented with some modifications that were generated as a result of the second round of community feedback and analysis by the Board of Education and administration.

The recommendations, if delivered as presented, would result in a total of 40 projects over the full implementation of all phases of the Facility Master Plan. The list of 22 district schools currently rated as “unsatisfactory” or “poor” would be reduced to zero through the reconstruction of seven elementary schools, four middle schools as well as renovation, upgrades and/or additions at eight additional campuses (seven elementary, one high school) over the next 12 years. At the conclusion of each of these 17 projects the schools would be classified as either “excellent” or “new” condition. In addition, the 21 schools currently listed in the “fair” category (10 elementary, one K-8, two middle, four high, and four support learning sites) would be elevated to “good” or “excellent” condition through renovation, upgrades, and/or additions. The breakdown of the number of newly constructed schools, as well as the number of schools that receive, upgrades, renovations, or additions is summarized below.

New Construction Replacements

7 Elementary, 4 Middle

Renovations, upgrades, and/or additions

17 Elementary, 2 Middle, 1 K-8, 5 High, and 4 support learning sites

While several schools that are newly constructed will be rebuilt on existing district sites others, some will likely need to be located on a new site or adjoining property may need to be purchased in order to provide appropriate space for desired programming. In addition to those potential shifts, the Facility Master Plan calls for the closing and repurposing of four current schools sites/buildings over the next 12 years. The facilities include Campbell Elementary, Delaware Elementary, York Elementary and Bowerman Elementary. The students from these schools will be distributed to other elementary schools, each of which will be in good, excellent or new condition at the end of the Facility Master Plan implementation.

In addition to the above listed projects, the Master Plan calls for an early childhood facility expansion for approximately 600 students over the next 12 years. The budget allows the district to continue the use of the hybrid model for preschool facilities that could include both early childhood centers and early childhood classrooms embedded into elementary schools.

The total projected construction budget based on current dollars for all projects listed in the recommended Facility Master Plan is \$337.6 million. All recommendations for projects include consideration for compliance with the Americans with Disabilities Act (ADA) and other code requirements. While ADA was not a specific part of the assessment, the BASYS program provides for appropriate improvements where needed and the budget model accounts for these improvements

BREAKDOWN OF PROJECTED MASTER PLAN EXPENDITURES

New construction school replacements

11 Schools – \$166.3 million

Renovations, upgrades, and/or additions

29 Schools - \$155.3 million

Early childhood classroom expansion

600 students - \$16 million

Total = \$337.6 million

In addition to the projected construction costs indicated above, an additional \$30 million should be added to account for projected adjustments due to inflation during the Facility Master Plan implementation.

SITE ACQUISITION RESOURCE

The delivery of the Facility Master Plan projects listed above will require some additional land acquisition in order to provide appropriate space for desired programming. The district will need to allocate resources and has indicated that remaining funds from a previous bond project of approximately \$2 million is available. The sale of surplus buildings may also generate revenue to meet these needs.

FACILITY MASTER PLAN RECOMMENDATION SCHOOL SIZE IMPACT

School size was a common conversation throughout the facility master plan process. The final recommendations have a minimal impact on school size throughout the system as outlined below:

High Schools – At the high school level, there are no Facility Master Plan recommendations that grow the size (capacity) of any campuses. The only capacity impacted occurs at Hillcrest where capacity actually decreases from 1,488 to 1,200 throughout the renovations.

Middle School/K-8 Schools – At the middle school level, school size (capacity) is not impacted as all reconstruction projects are planned within the current capacities of the sites, as they exist now.

Elementary Schools – At the elementary school level, 20 existing schools see no change in school size (capacity) through the recommendation in the Facility Master Plan. Eight elementary schools will see a growth in capacity from their current average of 296 students to an estimated future average capacity of 375 students or a growth of 79 kids on average.

MASTER PLAN PROJECT LIST

Based on the data, program implications, community engagement, committee discussions and the efficient use of resources, it is recommended that the district continue working toward the implementation of Master Plan Option 2, the combined campus and smaller school enrollment model, and add schools categorized as “fair”. Specifics including the finalization of school sites, the development of educational specifications for each type of school to inform the design of new schools, renovations, and additions, and the development of detailed budgets will be developed over the upcoming months.

EXHIBIT 8-1
SPRINGFIELD PUBLIC SCHOOLS
HIGH SCHOOL FINAL RECOMMENDATION PROJECT LIST

SCHOOL	OPTIONS	RESULTS	BUDGET (IN MILLIONS)
Hillcrest	Renovation to capacity of 1,200	Capacity of 1,200.	\$27.7
		Upgraded facility, improved utilization	
Glendale	New gym & lockers; upgraded career/tech spaces; upgraded HVAC	Improved condition & educational suitability	\$19.8
Central	New gym & lockers; upgraded special education space; site improvements	Improved educational suitability & site	\$9.9
Kickapoo	New gym & lockers; site improvements	Improved educational suitability & site	\$8.7
Parkview	Improvements to art, music, PE spaces.	Improved educational suitability	\$4.8

EXHIBIT 8-2
 SPRINGFIELD PUBLIC SCHOOLS
 MIDDLE/K-8 SCHOOL FINAL RECOMMENDATION PROJECT LIST

SCHOOL	OPTIONS	RESULTS	BUDGET (IN MILLIONS)
Pershing	Replace current school with Elem/Mid combined campus—1,000 capacity; 700 6-8, 300 K-5	New Elem/Middle combined campus	\$34.5
Pipkin	Replace current school with Elem/Mid IB combined campus—900 capacity; 600 6-8, 300 K-5	New Elem/Middle IB combined campus with Boyd Elementary Site TBD	\$31.1
Reed	Replace current school with Elem/Mid combined campus—900 capacity; 550 6-8, 350 K-5	New Elem/Middle combined campus with Robberson Elementary	\$31.1
Jarrett	Replace current school with Elem/Mid combined campus - 800 Capacity, 500 6-8 , 300 K-5	New Elem/Middle combined campus with Portland Elementary Site TBD	\$27.6
Pleasant View	Renovation and 158 student addition Boundary adjustment with Reed	Improved Condition	\$13.0
Carver	Renovation	Improved Condition	\$4.6
Cherokee	Renovation	Improved Condition	\$4.3

EXHIBIT 8-3
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOL FINAL RECOMMENDATION PROJECT LIST

SCHOOL	OPTIONS	RESULTS	BUDGET (IN MILLIONS)
Williams	New School at 450 capacity	New School	\$14.0
	Adjust boundary with Bowerman.		
Bissett	New school at Bissett site to 450 capacity.	Reduction of 1 school	\$14.0
York	Boundary change with Weaver or Pipkin Middle IB to reduce by 100 students.		
Bingham	New school at 450 capacity	New School	\$14.0
Sunshine	Renovation & addition to 450 capacity. Boundary change with Delaware.	Improved Condition	\$7.7
		District wide special education facility	
Twain	Renovation & addition to 500 capacity	Improved Condition and increased capacity	\$5.9
	Boundary adjustment with Portland		
Rountree	Renovation & addition to 350 capacity.	Improved Condition	\$5.4
	Adjust boundary 50 students from Delaware		
Sequiota	Renovation	Improved Condition	\$3.2
	Boundary adjustment with Pershing Elem/Mid combined campus		

EXHIBIT 8-3 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOL FINAL RECOMMENDATION PROJECT LIST

SCHOOL	OPTIONS	RESULTS	BUDGET (IN MILLIONS)
Jeffries	Renovation	Improved Condition	\$3.2
Mann	Renovation	Improved Condition	\$3.2
Pittman	Renovation	Improved Condition	\$2.9
Wilder	Renovation.	Improved Condition	\$2.8
	Boundary adjustments with Pershing Elem/Mid combined campus		
Cowden	Renovation	Improved Condition	\$2.7
Field	Renovation.	Improved Condition	\$2.7
Disney	Renovation	Improved Condition	\$2.6
Watkins	Renovation	Improved Condition	\$2.2
McBride	Renovation	Improved Condition	\$2.1
Gray	Renovation	Improved Condition	\$2.0
Truman	Renovation	Improved Condition	\$1.9
Campbell	McGregor to capacity.	Re-purpose 1 facility	\$1.6
McGregor	300 students to Portland-Jarrett combined campus. 150 students to Twain.		Plus see Jarrett
Portland			
Holland	Renovation	Improved Condition	\$1.3

EXHIBIT 8-3 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 ELEMENTARY SCHOOL FINAL RECOMMENDATION PROJECT LIST

SCHOOL	OPTIONS	RESULTS	BUDGET (IN MILLIONS)
Bowerman	Re-purpose facility. Students to Robberson-Reed combined campus, or Williams	Reduction of 1 school	\$ -
Boyd	Repurpose School. Students to Boyd-Pipkin IB combined campus.	Re-purpose 1 facility	\$ -
Delaware	Adjust boundary with Rountree and Sunshine. Repurpose facility.	Reduction of 1 school	\$ -
Robberson	Re-purpose facility. Students to Robberson-Reed combined campus, Fremont	Reduction of 1 school	\$ -

EXHIBIT 8-4
 SPRINGFIELD PUBLIC SCHOOLS
 SUPPORT/OTHER SCHOOL FINAL RECOMMENDATION PROJECT LIST

SCHOOL	OPTIONS	RESULTS	BUDGET (IN MILLIONS)
Study Alternative Center	Renovation	Improved Condition	\$4.6
Phelps	Renovation	Improved Condition	\$1.9
Shady Dell Early Childhood	Renovation	Improved Condition	\$1.4
Shining Stars Early Childhood	Renovation	Improved Condition	\$1.2

FINAL MASTER PLAN PHASING RECOMMENDATIONS

The Facility Master Plan projects listed in the previous section represent the scope of work necessary to move all school sites from unsatisfactory, poor, or fair ratings to ratings of good, excellent or new over the next 12 years. This section represents recommended phasing of the projects based on the potential of supporting the entire scope of the Master Plan with two potential bond issues in the future.

Phase 1 will deliver the new construction of eight schools, four elementary and four middle, that will be constructed on combined campuses (two of these schools replace the Pershing K-8 school). In addition, upgrades at three high school campuses and one middle school campus will be completed. Three of these projects represent phase one of the upgrade recommendation for the site. The renovation of seven elementary schools and the addition and renovation at one elementary site will occur. Finally, the expansion of early childhood classrooms will be addressed.

Phase 2 results in the construction of three replacement elementary schools and phase two of the three projects initiated in the previous phase. Two high schools will experience additions and renovations while the two remaining middle schools addressed will receive upgrades. A total of nine additional elementary schools will be impacted; two through additions and renovations, and the remaining seven through renovations only. Four support learning sites will also receive renovations and the early childhood classroom expansion will be completed.

Exhibit 8-5 provides proposed phasing based on the current budget estimates and facility priorities.

EXHIBIT 8-5
 SPRINGFIELD PUBLIC SCHOOLS
 FACILITY MASTER PLAN PHASING RECOMMENDATION

Phase 1 6 Years \$197.0 Million		
Site	Project	Cost (in millions)
Pershing/Pershing	New Elem/MS	34.5
Pipkin/Boyd	New Elem/MS	31.1
Reed/Robberson	New Elem/MS	31.1
Jarrett/Portland	New Elem/MS	27.6
Hillcrest	Phase 1	15.0
Glendale	Phase 1	9.0
Kickapoo	Gymnasium	8.7
Sunshine	Adds/Reno	7.7
Pleasant View	Phase 1	4.8
Jeffries	Renovation	3.2
Pittman	Renovation	2.9
Wilder	Renovation	2.8
Field	Renovation	2.7
Disney	Renovation	2.6
Holland	Renovation	1.3
<i>Early Childhood</i>	<i>Additional classes</i>	<i>4.0</i>
<i>Inflation Allocation</i>		<i>8.0</i>
Total Phase 1		197.0

EXHIBIT 8-2 (CONTINUED)
 SPRINGFIELD PUBLIC SCHOOLS
 FACILITY MASTER PLAN PHASING RECOMMENDATION

Phase 2 6 Years \$170.6 Million		
Site	Project	Cost (in millions)
Williams Elem	New Elem	14.0
Bissett/York	New Elem	14.0
Bingham	New Elem	14.0
Hillcrest	Phase 2	12.7
Glendale	Phase 2	10.8
Central	Reno/Addition	9.9
Pleasant View	Phase 2	8.2
Twain	Adds/Reno	5.9
Rountree	Reno/Additions	5.4
Parkview	Adds/Reno	4.8
Carver	Renovation	4.6
Study	Renovation	4.6
Cherokee	Renovation	4.3
Sequiota	Renovation	3.2
Mann	Renovation	3.2
Cowden	Renovation	2.7
Watkins	Renovation	2.2
McBride	Renovation	2.1
Gray	Renovation	2.0
Truman	Renovation	1.9
Phelps	Renovation	1.9
McGregor	Renovation	1.6
Shady Dell	Renovation	1.4
Shining Stars	Renovation	1.2
<i>Early Childhood</i>	<i>Additional classes</i>	12.0
<i>Inflation Allocation</i>		22.0
Total Phase 2		170.6
Total Both Phases		367.6

Source: MGT of America Consulting, LLC, 2016.

SUPPORTING RECOMMENDATIONS

The following recommendations are intended to provide guidance with the implementation of the Facility Master Plan.

RECOMMENDATION 1:

COMMUNICATE THE PLAN

Funding of the long-term master plan will likely require approval of additional funding sources by district voters. As with all school district initiatives, it will be critical to develop a communications plan to inform the public of the need, the plan for addressing the need, and the advantages brought to the community.

RECOMMENDATION 2:

DEVELOP EDUCATIONAL SPECIFICATIONS

The recommendations included in this facility master plan will necessitate new and remodeled facilities, and design teams will require program guidance from the district's educational team. It is recommended that the district develop educational specifications that reflect current and planned educational programs, current trends in educational facility planning, and design standards that promote the greatest efficiency. This will be even more critical in light of the proposed change to elementary / middle school campuses in select locations. Educational specifications provide the documentation required to ensure the physical design will meet the educational program requirements and the most efficient design techniques. The design guidelines include conversations about energy conservation, maintenance and utilities, the types of materials to be used, color palates, room sizes, lighting levels, and so on; educational specifications are even more detailed. Some of the key areas that the educational specifications will address are:

- ◆ Information technology requirements
- ◆ Special education spaces
- ◆ Circulation issues, both internal and external
- ◆ Access issues including separation among elementary / middle school campuses
- ◆ Vehicle access and parking
- ◆ Support space guidelines (library, cafeteria, counseling, child nutrition area)
- ◆ Specialized room space requirements (kindergarten, science, music, art, career-technology, physical education)
- ◆ General classroom specifications
- ◆ Community use of facilities
- ◆ Administrative and office areas
- ◆ Building safety and security

RECOMMENDATION 3:**ESTABLISH A PROCESS TO DETERMINE THE BEST USE OF SURPLUS PROPERTY**

The implementation of the master plan will likely result in some current facilities that will not be necessary for school district purposes in the future. It is recommended that a policy be developed to guide the decision-making regarding the disposition of these facilities as they become known. The following criteria is often included:

- ♦ Determination to declare property as surplus
- ♦ Determination of possible public use
- ♦ Prioritization of public use
- ♦ Criteria for non-public use
- ♦ Prioritization of non-public use
- ♦ Appraisal process
- ♦ Bid process

RECOMMENDATION 4:**REGULARLY REVIEW ATTENDANCE BOUNDARIES**

A key component of the facilities master plan is the efficient use of existing facilities. One important element in accomplishing this objective is the need to review attendance boundaries on a regular basis. Care needs to be taken in order to balance the need to utilize facilities more efficiently with meeting the needs of students, and policies can and should be developed to address both concerns. These policies often include allowing students to remain at a particular school once enrolled, not requiring a change when safety concerns exist, etc. As the facility master plan is implemented, schools with appropriate capacity will become available in locations where students are likely to reside making this process much simpler.

RECOMMENDATION 5:**CONTINUE TO UPDATE LONG-TERM ENROLLMENT PROJECTIONS ON A REGULAR BASIS**

Long-term enrollment projections should continue to be updated as the facility master plan is implemented. While Springfield Public Schools is not currently experiencing significant growth, improvements to facility conditions, new facilities, and program changes will likely lead to increased demographic changes. A sound projection basis has been provided in this report. The updates should be relatively simple and, therefore, require much less effort than was undertaken for this study. MGT recommends continuing to update the data no less than once every three years.