

SOUTHWEST
AERONAUTICS,
MATHEMATICS &
SCIENCE ACADEMY

2019-2024 Facility Master Plan & Ed Spec

February 1, 2019



VISIONS IN PLANNING, INC.
Educational Facility Planning Consultants

Acknowledgments

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Original Charter Date - 2012
Most Recent Charter Renewal - 2017
Next Charter Renewal - 2019
Current Enrollment Cap - 500

Governance Board

Larry Kennedy - President
Farrah Nickerson - Vice President
Roland Dewing - Council Member
LyDawn Blount - Council Member
Tiffany Roth - Council Member
Ed Smith- Council Member

School Administration

Coreen Carrillo - Head Administrator
Ronda Joyce - Business Manager
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February 1, 2019

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STUDENT LEARNING

The Southwest Aeronautics, Mathematics, and Science Academy provides a student-centered; multi-age educational environment maintaining high academic and successful career oriented standards. At the foundation of the course of studies is a nationally recognized dynamic, comprehensive, interactive computer-based curriculum delivery system, creating a one-room school house for the 21st Century.



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INTRODUCTION

This document contains the Facilities Master Plan (FMP) and Educational Specifications (Ed Spec) requirements for the Southwest Aeronautics, Mathematics and Science Academy (SAMS Academy), which is a 7th-12th grade charter school chartered by the State of New Mexico and located in Albuquerque. The intent of this plan is to guide capital planning decisions that support the charter school's educational mission and that meet minimum state adequacy standards for public school facilities. The Public School Capital Outlay Council (PSCOC) and the New Mexico Public School Facilities Authority (NMPSFA) require that all New Mexico public charter schools have a five-year FMP and Ed Spec as a prerequisite for eligibility to receive state capital outlay funds. This Master Plan and Ed Spec are in accordance with guidance issued by the PSCOC and NMPSFA and is required to be eligible for future Capital Outlay and Lease-Assistance funds from the State of New Mexico.

The FMP and Ed Spec are combined to create a flexible facility planning tool that should be revised on a periodic basis as conditions change. It identifies the specific space needs for accommodating the charter school's anticipated five-year enrollment and the strategies and capital needs for implementation of facility needs.

The document also addresses the following facility issues:

- Life/health/safety
- Educational and programmatic needs, and curriculum needs
- Provision for growth within the schools charter limitations (current/ future facilities)
- Promotes efficient use of educational space
- Educational technology
- Maintenance Needs vs Capital Improvement Needs

The Master Plan and Ed Spec are comprised of five main sections:

- **Section 1** - Goals / Process provides information about the charter school's goals and the planning process
- **Section 2** - Projected Conditions provides information about programs and delivery methods, enrollment, details about existing facilities used by the school, technology and energy management
- **Section 3** - Proposed Facility Requirements outlines future facility goals and concepts (if required), identifies space needs and other facility requirements
- **Section 4** - Capital Improvement Plan provides information about capital resources, capital needs, and capital project implementation
- **Section 5** - Master Plan Supporting Material contains detailed information about the charter school facilities, evaluations, plans, and other information.

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SECTION 1.0

1.1 GOALS

1.1.1 Mission

The mission of the Southwest Aeronautics, Mathematics and Science Academy is to prepare students, with attention to high-risk students, in grades 7-12 in an integrative STEM 21st century educational environment which offers a unique option in aeronautics. Students will be competent in the reading, writing, mathematics, science, technology and problem solving skills necessary for success in post-secondary education, high-tech, or aviation related careers.

“SAMS Academy is a unique school that blends an on-line curriculum with a hands-on STEM lab while complementing it all with a solid Aviation Program. The school’s focus is to prepare students for college with a challenging Edgenuity curriculum with a concentration on Science, Technology, Engineering and Mathematics.”



1.1.2 Educational Philosophy

Serving both middle and high school students, Southwest Aeronautics, Mathematics and Science (SAMS) Academy was originally founded in 2012 and is located on Albuquerque's west-side in close proximity to Double Eagle Airport. Since its inception, SAMS Academy has followed an alternative "student-centered" curriculum that was developed and continues to be refined by the school's administration and teachers that supports a self-paced blended learning environment.

The core curriculum is centered around online instruction and at this time the school is currently utilizing Edgenuity as its primary delivery program and is supported by core content teachers. The online instruction is also supported through the school's unique approach to "blended learning" through its use of the Success Lab through which content teachers lead a lesson, discussion, group work and one-to-one assistance in a smaller environment. Each session in the Success Lab targets different grade levels in Math and ELA only. Also, central to the school's educational philosophy is its hands-on approach to Project-Based Learning through its focus on Science, Technology, Engineering, Art and Mathematics (STEAM), utilizing the school's SMART Lab students research, design and construct specialized projects.

SAMS Academy is the only high school in the State of New Mexico that prepares students in the aviation industry by giving students the opportunity to earn their Private Pilots License through a highly developed elective curriculum that also offers dual-enrollment courses through Eastern New Mexico in Roswell, site based ground school, flight simulators and actual flight time. After graduation many students go on and pursue post-secondary education or careers in aviation.

1.2 PROCESS

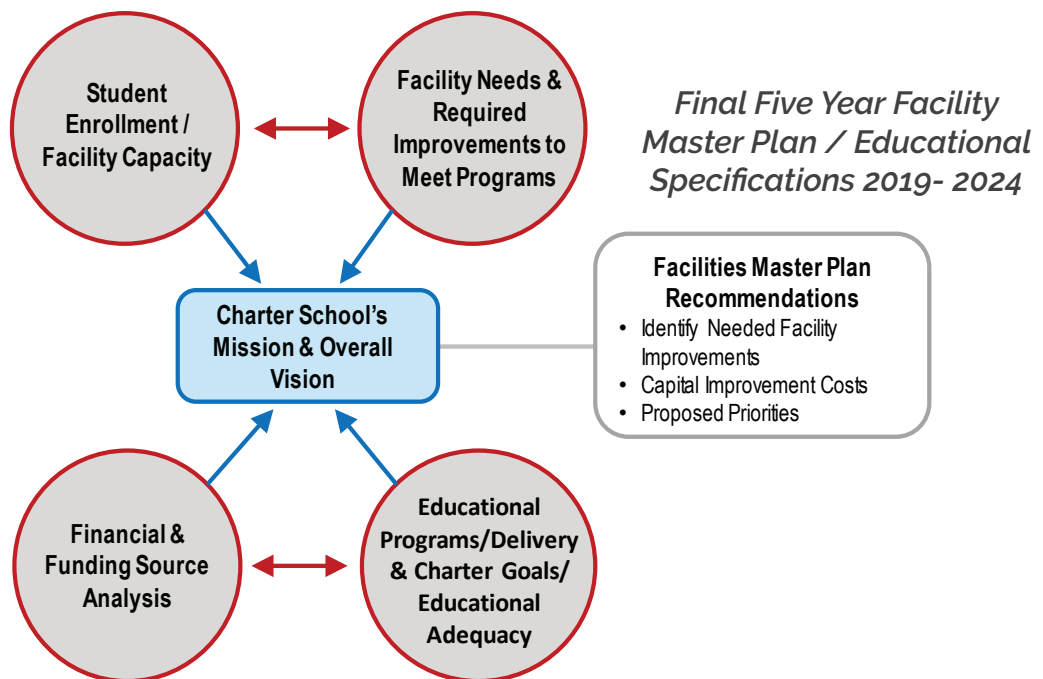
1.2.1 Planning Process

The following Facility Master Plan / Educational Specifications summarizes the long range facility master planning efforts and educational specifications for SAMS Academy as required by the State of New Mexico. It contains overall facility goals, describes schools educational program and delivery methods, identifies required educational spaces needed to meet enrollment and to support the educational program, evaluates existing facilities for their ability to meet current and future program needs, as well as identifies potential capital improvement needs for existing facilities that the school is responsible for under its current lease or would be under a future lease purchase agreement. This document also considers new facilities “if necessary” that may need to be added to existing buildings, major renovation of an existing facility, relocation to a new site that may require renovation, or construction of new building by describing key concepts, detailed space need program; presents space relationship diagrams; and describes key components of the facility, along with room-by-room space criteria requirements that form the basis for the planning and design of the new or renovated facilities. At this time, SAMS Academy Charter School is leasing its current facilities from the City of Albuquerque and is considering entering into lease-purchase agreement in the future to acquire them but has not yet entered into negotiations with the owner, and will not be adding or constructing new facilities in its current location until the property is owned by the school.

The project defined in this document reflects the statement of goals, objectives, curriculum / educational model and facility requirements obtained through on-site interviews, on-site investigation, facility workshops, SAMS Academy administrators and support staff, and students.

This facility program contains information obtained through:

- Validation of policies established by the school’s most recently approved charter;
- Review of New Mexico Adequacy Standards and Guidelines;
- Discussion of future SAMS Academy facility goals and location;
- Interviews with various SAMS Academy representatives;
- Discussion and approval with/from the SAMS Academy Governance Board



Governance Board

The SAMS Academy Governance Board contracted with Visions In Planning, Inc. to develop the long range Facility Master Plan and Educational Specifications for the school. The scope of work included understanding of the school’s unique educational program needs, how they relate to the current facility, space utilization and facility capacity, identification of maintenance and capital improvement needs as applicable, and identification of future facility needs with capital plan. Considerations included school organization, success for students, relationships among teachers, effective learning experiences, and connections to the community.

Facility Master Plan Committee

Visions In Planning, Inc. worked with the school’s Administration and Facility Master Plan Committee to understand and document the charter school’s existing programs and delivery methods, and to identify current facility needs. These were then combined with discussions about the schools next charter renewal in 2019, to identify any potential changes to educational programs or delivery methods, grade configurations and enrollment, special education and ancillary service needs all of which have a direct impact the schools current facilities. At the time of the approval of this document, the school does not anticipate any major changes to its educational program or it’s enrollment cap, however the school may consider requesting a grade reconfiguration amendment to its Charter in 2020 or 2021 to include 6th grade without raising its enrollment cap.



Decision Making Process

Authority and How Decisions Are Made

The SAMS Academy Governance Board consists of five members established pursuant to the terms established in the school’s charter. The Board serves as SAMS Academy’s governing body under SAMS Academy’s Charter. The Board’s responsibilities include development and approval of school policy, academic goals, facility plans, and SAMS Academy’s budget. The Board enters into a contract with the site principal and operates under applicable state laws and regulations, SAMS Academy’s Charter, and the Board’s Bylaws.

1.2.2 - Data Gathering & Analysis

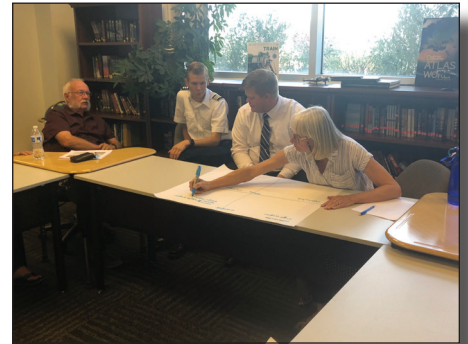
Facility Assessments

A Facility Assessment/Walk-through was conducted by Visions In Planning, Inc. for the school's existing educational leased facilities. The facility assessment included:

- Site visit
- Meeting with site Business Manager & Head Administrator
- Facility walk-through
- Review of State's Facilities Assessment Database & FMAR (*if available*)
- Capacity and Utilization Study for the school

Facility Master Plan Goals Established by the Committee:

The goals for the Facility Master Plan were developed from information gathered during the multiple meetings and group work done by the Facilities Committee. The intent of the Facility Master Plan/Ed Spec is to create a forward thinking documented approach for SAMS Academy Charter School, so that when fully implemented, it provides the school with facilities and potential options over the next five to ten years that meet the needs of students, teachers, staff, and supports the educational delivery model of the school's charter, as well as:



- Continuing to provide technology rich environment to support current and future STEAM opportunities for students
- Expand dual credit options for students by developing on and off-site partnerships with CNM, NMTech, NMSU and other NM based institutions of higher learning.
- Work to expand and develop more community partnerships within the aerospace/ airline industry to help the school to expand the flight program to graduate more certified students.
- Utilize available SB-9 and HB-33 Mill Levy funds to assist where possible to help acquire and maintain existing and future facilities.
- Leverages opportunities for PSCOC funding for priority projects when available, including lease assistance and other special funding that may become available in the future.
- Instills pride in the students, staff, and community

Facility Master Plan Committee Members:

- | | |
|--|---|
| • Coreen Carrillo - Head Administrator | • Paula Gonzales - Registrar |
| • Ronda Joyce - Business Manager | • Kimberly Miera - SPED Coordinator |
| • Jill Brame - Test Coordinator | • Carol Jester- Network Administrator |
| • Stephanie Tuttle - Teacher | • Dave Yellot - Academic Dean |
| • Nathan Hardin - Aviation Director | • Kenneth Lairsey - Assistant Principal |
| • Christian Orehek - Student | |

Facility Master Plan Committee Meetings

Once the facility assessment/ walk-through was completed and the data gathered, meetings with the Facility Master Plan Committee were begun. The first committee meeting was used to explain the purpose of a facilities master plan and identify the tasks and responsibilities of the Facility Planning Committee. Several subsequent meetings were held where program, enrollment, facility data, future facility options were then presented to the

Facility Master Plan Committee and the Charter School's Administration for review and discussion and further development, and then subsequently presented to the Governance Board for consideration and approval. The committee and administration worked to align the needs of the school with the future goals and objectives identified with what could be accomplished over the next five years.

Meeting: September 17, 2018

The first step of the FMP process was to have a kick-off meeting with the Facilities Master Plan Committee. During this meeting the following topics were discussed:

- Intent of FMP
- What is used for?
- Role of FMP Committee
- Where we are now..
- Four Components of the FMP (Educational Programs, Enrollment/ Capacity, Facility Needs, Funding)
- Group Breakout Session

The Facilities Committee was broken into groups to conduct a Modified SWOT Analysis based on the following two questions: What kinds of opportunities/ challenges does the school currently face with its current facilities in the future as programs and enrollment change? What would be the challenges and opportunities that need to be considered if the school were to relocate into a permanent location, and are there future changes to educational programs that need to be taken into consideration?

Current Facility: Opportunities

- Main Lab Extended Capacity
- Larger Success Lab
- More Students Receiving Intervention
- Flex Space
- Leased Facilities (not locked in)
- Expand flight program to graduate more certified students
- New hanger would open up CNM partnership and allow for more students
- Work with CNM to help build new hanger
- Expand bandwidth to the building (technology)

Future Facility: Opportunities

- Can add 6th grade at Charter Renewal
- Work with City of Albuquerque regarding Lease to Purchase with Benefits (Possibility to include Maintenance) and adjacent property
- Consider constructing additional floor space over gym area
- Construct own aircraft storage hanger
- Gym Class
- Community outreach, especially to those in the aerospace/ airline industry to invest in the school as a community partner – including for facilities
- Sell Diamond and simulator for new plane

Challenges

- More students still need intervention (capped out)
- HB-33 funding (usage)
- Leased facilities limit amount of investment to change space
- Break room capacity
- Expense of flight program
- Only can have 8 students per airplane (limits # of PP licenses that can be earned by graduating students)
- Hanger lease cost
- Technology costs are quite large
- CNM Maintenance Program is 8 hours a day
- Transportation – current location is remote but also convenient to Double Eagle airport
- Difficult to recruit students

Challenges

- Obtaining outside grants
- Where to construct additional space if can not construct over gym area.
- Utilizing gym for more Multi-purpose activities (PE classes & lunch) will require additional plumbing.
- Bring in conference room (2-rooms w/ current lunch room)
- Need to purchase new Cessna
- Additional funding
- Need to work with CNM for better partnership and other Higher Ed Schools in NM.

Meeting 2: October 4, 2018 - Facility Planning Meeting

Discussion at this meeting centered on the schools programmatic needs, and the capital improvement and maintenance needs of the school and included the school’s executive director, administrative leadership and business manager:

- Past and current enrollment
- Educational Programmatic Needs
- Capacity & Utilization
- Large Group Session



The end result of the discussions identified the need for the school facilities to remain in relative close proximity to the Double Eagle Airport for easy access to the school’s hanger and plane. Continue to invest in technology and infrastructure now and in the future, consider purchase of adjacent property to the east that has runway access and construct small hanger current and future changes so that the school’s plane can be closer to the main building to increase access and instructional time for students, continue to provide a safe learning environment and have the capacity to accommodate increased enrollment in the future as the school works to recruit and retain more students. Discussion also centered on how the existing facility could accommodate additional students within the building without constructing an “actual” building addition.

Meeting 3 & 4: November 8 and November 16, 2018

Discussion at the follow-up Facility Committee meetings centered on existing facility needs at the current location, potential changes to the school’s charter as part of the upcoming renewal that is due in late 2019, technology needs, and other topics included:

- NMPSFA/ PSCOC Ranking of the School
- Maintenance Needs/ Capital Improvement Needs
- Funding Sources
- Existing Facilities/ Future Considerations

February 21, 2019 - Governing Council Final Presentation -

Summary presentation of the overall Facility Master Plan and the recommended priority projects that can potentially be funded in part from SB-9 and HB-33 funds. The final Facility Master Plan and Ed Spec was submitted to the SAMS Academy Governing Council for final approval on February 21, 2019.

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SECTION 2.0

2.1 PROGRAMS & DELIVERY METHODS

2.1.1 Programs Overview

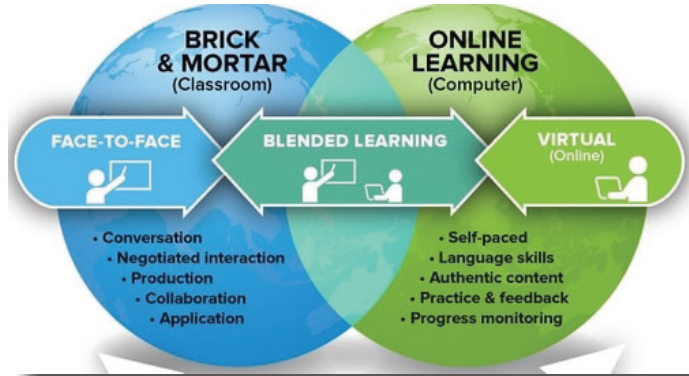
Current Educational Programs and Facilities - Overview

Southwest Aeronautics, Mathematics and Science (SAMS) Academy Charter School is a 7th- 12th grade school that practices a student-centered approach through a Blended-Learning environment that combines individual, student directed online instruction with face-to-face instruction utilizing the Project-based Learning model to support more in-depth instruction and engagement in the areas of Science, Technology, Engineering, Art, and Mathematics (STEAM) by encouraging students to work collaboratively together to further develop 21st Century skills and knowledge, while also being the only high school in the State of NM that gives students interested in the aviation industry the opportunity to earn their Private Pilots License through a highly-developed dual-credit aviation program with Central New Mexico Community College (CNM) and training with in-house instructional staff by the time they graduate.

The Blended Learning environment at SAMS Academy has allowed the school to take advantage of advances in educational technology to provide varying degrees of integration and balance between the use of interactive and adaptive software (Edgenuity currently) and face-to-face engagement to help infuse advanced 21st Century skills and knowledge into the curriculum that each student must master in order to succeed in work and life. Rather than replacing student-teacher interaction, the online component is intended to enable a greater degree of individual and small group engagement with students directly with the teaching staff. In conjunction with the online software's ability to assess a student's understanding of specific content area, for example, teachers can better evaluate that student's understanding of the material and respond with supplemental instructional support to address the student's specific needs.

Instructional Delivery/Programs

SAMS Academy Charter School follows the State of New Mexico Public Education Department Standards to meet Common Core content requirements through the use of its approved online instructional program Edgenuity and has designed its overall instructional model based on a “student-centered” approach that combines a Blended Learning environment with components of Project-Based Learning to prepare its students for success in college and their career. At SAMS Academy, in addition to the online core academic classes, both middle and high students explore the science, technology, engineering, art and mathematics in the SMART Lab, can take classes in the school’s aviation program or once in grades 10th-12th begin taking dual enrollment classes at CNM or UNM.



Student Centered Learning Attributes (SCLA)

The school practices a student-centered approach through a blended learning environment personalization; high expectations, hands-on and group learning experiences, teaching of 21st century skills, performance-based assessments; and opportunities for educators to reflect on their practice and develop their craft as well as shared leadership among teachers, staff, administrators, and parents.

Unfortunately, these practices are more often found in schools that serve affluent and middle-class students. Schools that incorporate these key features of student-centered practice such as SAMS Academy are more likely to develop students that have transferable academic skills; feel a sense of purpose and connection to school; as well as graduate, attend, and persist in college at rates that exceed their district and state averages.

MAIN Lab

The MAIN Lab is where all students grades 7th-12th receive their online core content instruction using the Edgenuity curriculum in 3.5 hour scheduled rotational blocks, with groups of students rotating through the day. This form of Blended Learning utilizes the “flex” model of instruction where students of all grade levels are located in a large learning lab with individual work-stations which are designed to allow them to work at their own pace while having the opportunity for immediate face-to-face engagement and support during instruction. Online instruction in the MAIN Lab also includes foreign language classes, specialized electives, and some online dual credit classes.

Success Lab

The Success Lab provides a more “traditional” style classroom environment in which students regardless of grade level must attend if they have scored low on their NMSBTA and/or iReady assessments. The intent of the Success Lab is to provide students supplemental instruction with “core content” teachers that personalize learning through “live” lessons, discussions, group work and can also provide one-to-one assistance in a smaller environment so that students are able to complete their online instructional content and progress to the next level of course content. Each session of Success Lab targets different grade levels in Math and ELA only.

SMART Lab

The SMART Lab emphasizes discovery and exploration designed around Project-Based Learning with a focus on a science, technology, engineering, art and mathematics (STEAM) curriculum. Students apply a wide range of technologies to project work as they rotate through a carefully crafted sequence of learning engagements. This ensures a broad base of foundational experiences and an ever-changing mix of ideas and inspiration as students work collaboratively together. The STEAM curriculum in the SMART Lab provides support where needed while encouraging and nurturing learner autonomy. Underlying principles in each system of technology are explored and learners build connections to core academic content. Students are encouraged to choose an appropriate level of challenge, apply their own interests and learning styles, and explore questions of personal relevance. Learning engagements are challenging and open-ended, often integrating multiple technologies and materials. Project objectives increasingly reflect real-world challenges requiring a multi-disciplinary academic perspective. Complex objectives often require extended project cycles promoting advanced workplace skills like project planning and time management. The SMART Lab is required coursework for students in grades 7th - 9th, although students in grades 10th-12th can request to take this course as an elective as space is available.

*Aviation Program*

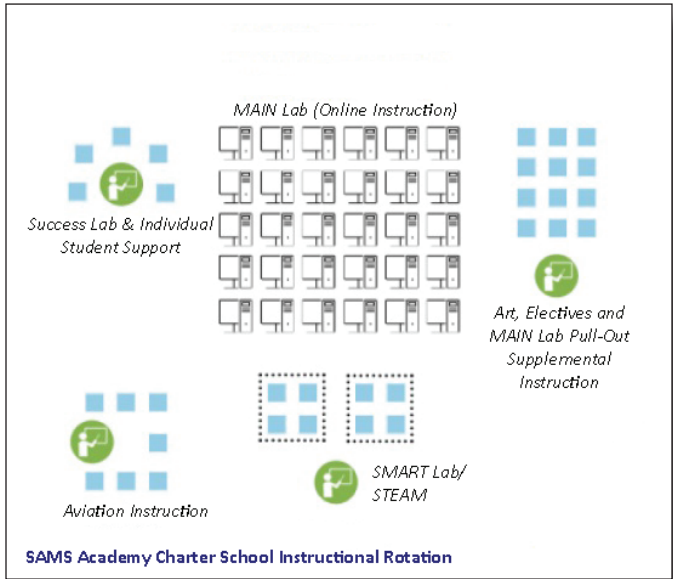
SAMS Academy Aviation Program is a truly unique elective program that prepares students in the aviation industry. With two training aircraft, two advanced aviation training devices/simulators (AATD), and experienced FAA certified pilots, SAMS Academy affords a tremendous pilot-focused training opportunity that is unlike any other program in the country—at no cost to the student. The SAMS Academy campus is located in very close proximity to Double Eagle Airport on Albuquerque’s West-side, where interested students start the program by attending basic ground school at the SAMS campus while completing their core high school classes. They also take dual-enrollment courses through CNM to supplement the knowledge base and training they receive at the school. Once ground school has been completed, students train in one of two full motion Redbird simulators located on campus. After passing the FAA written exam, students begin their flight training with aircraft that is owned by the school utilizing the facilities at Double Eagle Airport. With dedication and focus students can potentially graduate with their private pilot’s license, if all flight hours and FAA requirements and testing have been completed.

**Instructional Approaches**

SAMS Academy has developed the following instructional approaches into its “student-centered” Blended Learning Environment with a focus on STEAM and Aviation content that combines online delivery of educational content with the best features of “live” classroom instruction and interaction, to personalize learning and differentiate instruction from student to student across a diverse group of learners. This is accomplished not only by expanding developing skills in reading, math, science, and social studies, but also by incorporating the critically important 21st century skills of critical thinking, collaboration, communication, creativity, technology literacy, and socio-emotional development for all students in grades 7th-12th. These approaches are the key to the school’s ability in improving test scores and providing students with 21st Century Skills necessary for post-graduation success. SAMS Academy provides highly effective professional

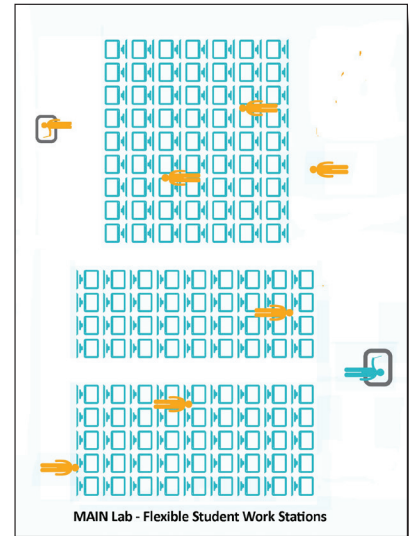
development for teachers and staff that has a direct impact on improving instructional methods and strategies and fosters an environment that is focused on improving student achievement scores across all ability levels (as measured by standardized tests and portfolios of student work), improving student attendance and behavior, and works towards increasing parental involvement.

Classroom usage is based on the schools Blended-Learning instructional model that incorporates the principles, key concepts of Project Based instruction in the schools SMART Lab with its online Edgenuity curriculum in the MAIN Lab both of which require large flexible open spaces with individual student work stations that can accommodate between 60 - 134 students. SAMS Academy incorporates the following instructional methods as part of the schools daily curriculum:



1. Technology Based Instruction: MAIN Lab

SAMS Academy utilizes the online Edgenuity curriculum to deliver core content for students in all grade levels 7th-12th. Students learn through self-directed study through online learning modules and assignments, classroom lecture, and extensive use of live in-class participative activities as part of the school’s blended instruction model. This environment is created by using technology instruction not only to encourage and empower learners in the digital age but to promote critical thinking skills. This includes teaching based on students’ collective and individual needs using technology and promoting critical thinking skills. The school’s ultimate goal is for all SAMS Academy students to be prepared at all stages, for a career in a global economy with a focus on the areas of Science, Technology, Engineering, Art, and Mathematics (STEAM), and Aviation.



Technology Based Instruction

There are several learning models that tie together technology and creative thought:

- Real world problem solving
- Unique teaching tools such as games, videos, and interactive presentations
- Pursuing curiosity and answering questions through digital media
- Online testing and writing assessments.

Instructional Space Requirements

Oversized classroom environment for multiple grade levels that meets NMAS and supports Student-Driven Learning through robust and supportive technologies. Furniture includes large table groupings with individual student work stations for multiple age/ grade levels contained in a large open environment that is easily monitored by teaching staff.

2. Project-Based Learning: SMART Lab

Project-based learning (PBL) is a model for classroom activity that shifts away from the school's online core content curriculum in favor of hands-on learning activities that are long-term, interdisciplinary, student-centered, and integrated with real-world issues. One immediate benefit of utilizing PBL as a primary instructional model is the unique way that it can motivate and engage students. PBL provides opportunities for SAMS Academy students to focus the science, technology, engineering, art and mathematics (STEAM) parts of the curriculum that are required in grades 7th-9th and are considered elective courses in grades 10th-12th.

PBL also provides opportunities for interdisciplinary learning. Students apply and integrate the content of different subject areas at authentic moments in the production process, instead of in isolation or in an artificial setting.

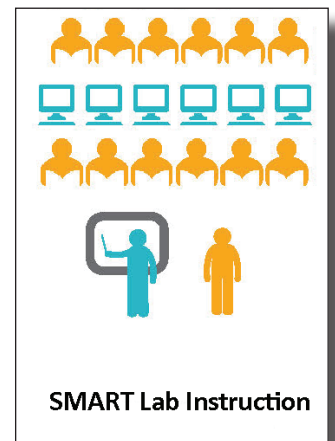
At SAMS Academy and beyond, PBL is a rapidly growing teaching approach and this enthusiasm provides opportunities for teachers to build relationships with each other and with those in the larger community. Student work, which includes documentation of the learning process, as well as the student's final projects, can be shared with other teachers, parents, and mentors, all of whom have a stake in the student's education. Performance assessment is a preferred methodology of summative assessment at SAMS Academy.

Other key elements of PBL include:

- *Key Knowledge, Understanding, and Success Skills* - The project is focused on student learning goals, including standards-based content and skills such as critical thinking/problem solving, communication, collaboration, and self-management.
- *Challenging Problem or Question* - The project is framed by a meaningful problem to solve or a question to answer, at the appropriate level of challenge.
- *Sustained Inquiry* - Students engage in a rigorous, extended process of asking questions, finding resources, and applying information.
- *Authenticity* - The project features real-world context, tasks and tools, quality standards, or impact – or speaks to students' personal concerns, interests, and issues in their lives.
- *Student Voice & Choice* - Students make some decisions about the project, including how they work and what they create.
- *Reflection* - Students and teachers reflect on learning, the effectiveness of their inquiry and project activities, the quality of student work, obstacles and how to overcome them.
- *Critique & Revision* - Students give, receive, and use feedback to improve their process and products.
- *Public Product* - Students make their project work public by explaining, displaying, and/or presenting it to people beyond the classroom.

Instructional Space Requirements

Oversized classroom environment for multiple grade levels that meets NMAS and supports Project

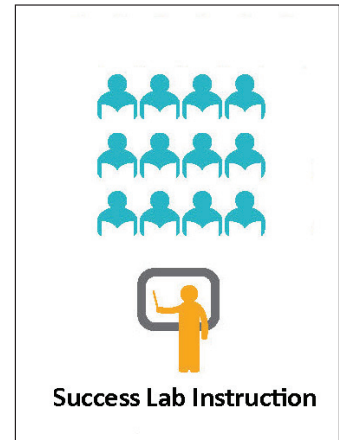


Based learning techniques through multiple furniture configurations and supportive technologies for 2D and 3D presentations. Other instructional space needs include: project storage with shelving and access to materials.

3. Scaffolding Learning: Success Lab & Supplemental Instruction

“Scaffolding” learning, in which teachers build on concepts to reinforce them in several different ways, and works well for both students who not at grade level and for English language learners. Success does not depend on the teacher’s knowledge of the student’s native language. Examples of scaffolding:

- Some resources such as textbooks and other written materials contain the same information as those in conventional classrooms, but they are written in simpler and more direct language or supported by teacher-produced annotations to help students grasp concepts and get to grade level.
- There is considerable reliance on a variety of methods to deliver information. For English Language learners the teacher may explain an idea in English and then use several methods to convey the same information: For example, the teacher may act out the information or use illustrations.
- Continual student-teacher interaction is essential to ensure learning. It may involve diagnosis of gaps in understanding.
- In every lesson, teachers communicate and reinforce instruction through listening, speaking, reading, and writing.



Instructional Space Requirements

Standard general classroom that meets NMAS and supports scaffolding learning techniques through multiple furniture configurations and supportive technologies. Other instructional spaces needs include: areas with shelving and access to learning materials (visual, manipulative’s, projected images).

4. Active Learning: MAIN Lab Supplemental Instruction & Aviation Program

SAMS Academy’s instruction is built on the idea of active, not passive learning. Active learning is a student-centered approach in which the responsibility for learning is placed upon the student, often working in collaboration with classmates. In active learning teachers are facilitators rather than one-way providers of information. The presentation of facts, so often introduced through straight lecture, is deemphasized in favor of class discussion, problem solving, cooperative learning, and writing exercises (graded and ungraded). Other examples of active learning techniques include:

- *Think Pair Share:* Students ponder the answer to a question and then share their thoughts with a neighbor.
- *Role Playing:* “Each student takes the role of a person affected by an Earth science issue, such as a volcano or a polluted lake and studies the impacts of Earth science issues on human life and/or the effects of human activities on the world around us from the perspective of that person.”



- *Peer Review:* Students review and comment on materials written by their classmates.
- *Discussion:* Promoting a successful discussion depends on correctly framing questions. Discover tips for framing discussion questions to promote higher order thinking.
- *Problem solving using real data:* Students use a variety of data to explore scientific questions.
- *Just in Time Teaching:* Students read assigned material outside of class, respond to short questions Online, then participate in collaborative exercises the following class period.

Instructional Space Requirements

Standard general classroom that meets NMAS and supports active learning techniques through multiple furniture configurations and supportive technologies. Furniture may include large tables (or ability to group smaller tables or desks) for team projects. Table arrangements should allow individual work, group work, or discussion.

Special Education

SAMS Academy offers Special Education for all students and is an important part of the SAMS Academy community. The school offers inclusion and special pullout instruction for all students including gifted and students who may need reading/math intervention utilizing a half-sized classroom space for instruction.

Ancillary services are provided to students with specific needs by an outside services provider contracted by the school. The school has two small offices in which services are provided to students on an as-needed basis.

Electives and Dual Credit /Career Pathway Options

SAMS Academy provides all students the opportunity to take electives within the core academic schedule, they include the SMART Lab, Aviation Program, Fine Art, as well as other NMPED eligible online electives. High School students can pursue dual credit and other career pathway options through the schools agreements with Central NM Community College (CNM), Eastern NM University Roswell (ENMU-R) for aviation courses and the University of New Mexico (UNM).

Physical Education

SAMS Academy offers a Physical Education (PE) program for all students in grades 7th-12th to participate as required by New Mexico Public Education Department (NMPED) PE Standards. The school does not have an official gym that meets NMAS requirements, however it does have an area on the south side of the first floor that was a former indoor work area that is long and narrow, and has “high-bay” open ceilings with access to the outdoor field area. A portion of this interior open space has been dedicated for use by PE programs, along with an area for student dining in the middle, and at the opposite end there is a space dedicated for exercise and weight training equipment that is also used as part of the physical education program to meet NMPED instructional requirements.

Shared / Joint Use Facilities

The school site is located near the adjacent Double Eagle Airport, and due to its location there are no nearby public facilities that the school can share. At this time SAMS Academy does not have any joint use agreements in place to use outside facilities.

Alternative Methods for Educational Program Delivery

In order to meet the school’s blended learning and project based delivery requirements, SAMS Academy

requires its facilities to possess a variety of educational spaces, some of which conform to traditional classroom space such as those used for Resource and Success Lab instruction, however, the main differentiator is the way that the school utilizes the large open MAIN and SMART lab spaces which are multi-grade level and are designed to accommodate between 60-134 students at one time.

SAMS Academy does not have an on-site warming or preparation kitchen, nor does it contract with an outside food-service provider at this time; students must bring their own lunch daily. The school does have dedicated areas on the first floor with microwaves for students to heat food and vending machines for drinks.

Scheduling Approach

In order to accommodate the needs of its students, SAMS Academy has a 5-day instructional week. The regular school day meets from 8:00am - 3:30pm Monday- Thursday, and 8:30-11:30am on Friday.

Athletics and Activities

SAMS Academy is currently a member of the New Mexico Activities Association and participates in the Albuquerque Charter School League. The school offers a variety of middle school and varsity sports that include: cross country, soccer, flag-football, volleyball, and basketball. Each year, SAMS Academy Administration evaluates athletic and activity options for possible growth opportunities each year. Students may participate in interscholastic NMAA sanctioned sports and extracurricular activities at their home district high school.

Transportation

SAMS Academy does offer drop-off and pick-up bus services contracted through Albuquerque Public Schools at six (6) different centralized locations within the City of Albuquerque. Students wishing to participate in this must register at the start of the school year for transportation assistance.

Anticipated Changes to Charter Renewal for 2019

As part of SAMS Academy charter renewal in 2019, the school's Governance Board is not considering to make any changes to the school's charter. Once the charter is renewed the school will consider incorporating 6th grade into its current middle school structure with a charter amendment in the next two to three years without any change to its enrollment cap. This will help bring SAMS Academy in better alignment with the grade configurations found at most APS elementary schools that serve grades PK/K-5, allowing for students to transition straight into a comprehensive middle school environment while boosting cohort enrollment levels, and will allow for expanded parental choice for students interested in STEAM and Aviation/Aeronautics. If the charter amendment to include 6th grade in 2021 or 2022 is approved by NMPED/PEC, the school will need an additional 2 to 3 classrooms to accommodate the increased enrollment as modifications to the blended learning environment will be needed to help students transition from traditional instruction at the elementary level into the Blended and Project-based Learning environment at SAMS Academy.

Students who start at SAMS Academy in 6th grade will have the opportunity to establish stronger relationships with other students and teachers earlier and will gain a deeper foundation within the Blended and Project-based Learning model that include the STEAM and Aviation strands as they move towards the College Preparatory aspects in the high school grades. This will result in stronger cohorts being established in the middle school grades and help student retention during the high school years where many charter schools often lose students to other school choices.

2.2 Proposed Enrollment

2.2.1 - Historic Enrollment

Enrollment Guidelines

As a charter school, SAMS Academy accepts all student applications for enrollment in the Spring time for the upcoming school year on a first-come, first served basis and accepts enrollment applications prior to each academic semester as space is available. If the total number of enrollment applications exceeds the number of spaces available the school will hold a lottery; enrollment announcements and applications can be found on the school's website: www.samsacademy.com

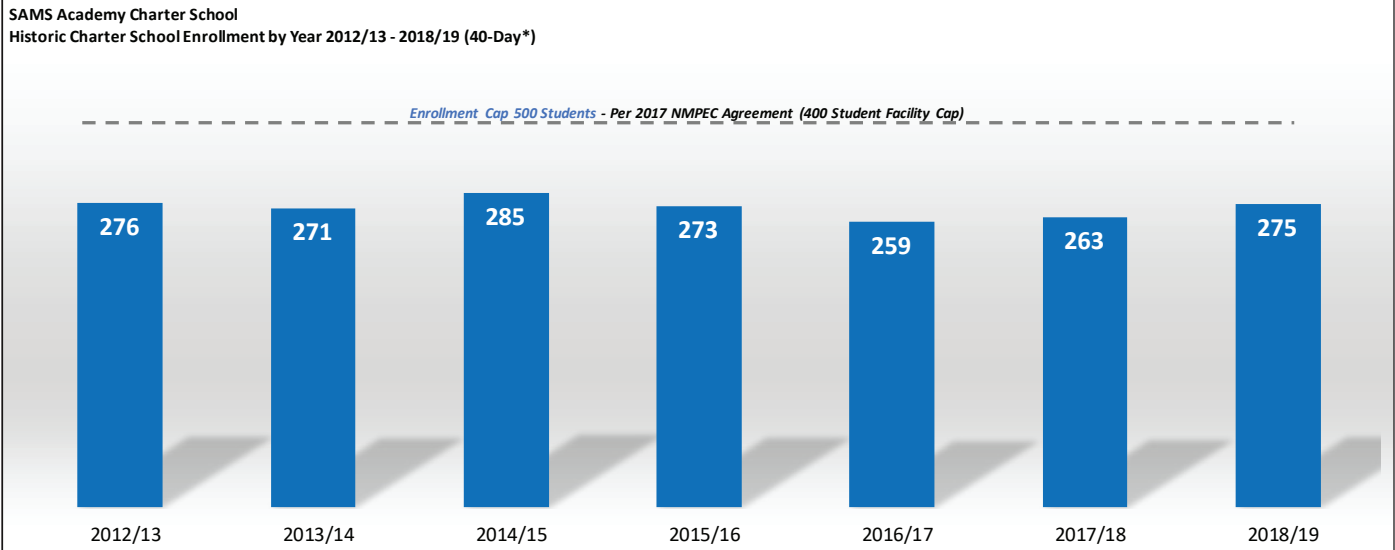


When necessary, the school will maintain an active “waiting list” of interested students who would like to enroll as space becomes available. For many charter schools, the waiting list becomes a key indicator for projecting growth. For planning purposes, the school tracks the percentage of students on the waiting list that actually enroll to ensure that all the school's facilities are utilized. SAMS Academy Charter School currently has an enrollment cap of 500 students in grades 7th-12th, per its 2017 Approved charter renewal, however the renewal also states that the schools enrollment is limited to 400 students based on its existing facility.

Historic Enrollment

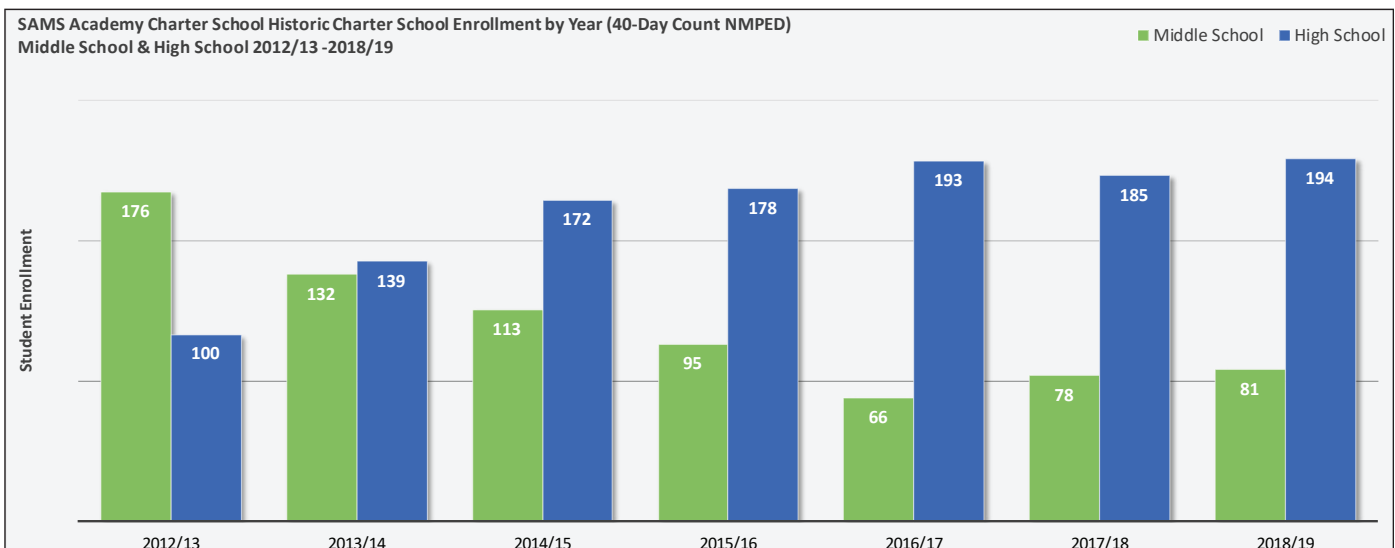
As an established charter school in its 7th year of full operation, SAMS Academy has been able to maintain a consistent enrollment in since opening as of the 2012/13 school year, but has not reached the enrollment cap established for the existing facility of 400 students. The school has struggled some with building its base student cohort at the middle school level, as it has a non-traditional grade configuration as when the school was originally chartered it was for grades 7th-12th only. SAMS Academy misses out on a key student demographic in attracting students at the 5th-6th grade transition, which is when most students in the Albuquerque area transition to middle school and are less likely to transfer out of their existing school. Once the school's current charter renewal is approved in 2019, the school will consider adding 6th grade by submitting a charter amendment to NMPED/PEC in the next 2-3 years to help strengthen its student cohorts and build a stronger educational foundation for the STEAM and Aviation programs that the school offers.

With very minor variations to its enrollment pattern over the past seven years, SAMS Academy has seen to little to no growth, this has a direct impact on the school's ability to grow and expand existing educational programs as a large portion of the schools funding is tied to its enrollment. In its first year of operation in 2012/13, the school had 276 students enrolled and as of the 2018/19 school year there were 275 students enrolled, which shows no growth. In 2014/15, SAMS Academy did increase its enrollment to 285 students which was a 5.2% increase over the previous year, however in 2016/17 the school declined to its lowest enrollment of 259 students. Since enrollment decline in 2016/17, SAMS Academy has been slowly increasing its enrollment with a 1.5% gain in 2017/18 and another gain of 4.6% in 2018/19. The chart on the following page shows the school's historic enrollment pattern over the past seven years.



Source: New Mexico Public Education Department, 40-Day Enrollment 2012/13 - 2017/18 and SAMS Academy 2018/19

SAMS Academy offers both middle and high school programs in grades 7th through 12th, to provide parents and students in the Albuquerque area an alternative small school option. The school provides a Blended Learning environment with a focus on project based learning for students interested in STEAM and Aviation/Aeronautics. In 2012/13, SAMS Academy began its middle school program which was very strong, however in the subsequent years, it has been unable to recruit/attract students at the previous early levels. This may in part be attributed to the school’s entry grade level being 7th grade instead of 6th grade, as nearly all of the local elementary schools in Albuquerque are configured as K-5th grade schools, which is the “natural” transition point for most students entering middle school. SAMS Academy does typically gain enrollment at the high school level as student cohorts advance and new students enroll at the freshman year transition. Over the past two years approximately 38.5% of the schools high school enrollment at the 9th grade can be attributed to outside recruitment efforts by the school to maintain enrollment based on historic enrollment levels. The chart below reflects SAMS Academy’s enrollment history for both middle and high school enrollment since the 2012/13 school year.

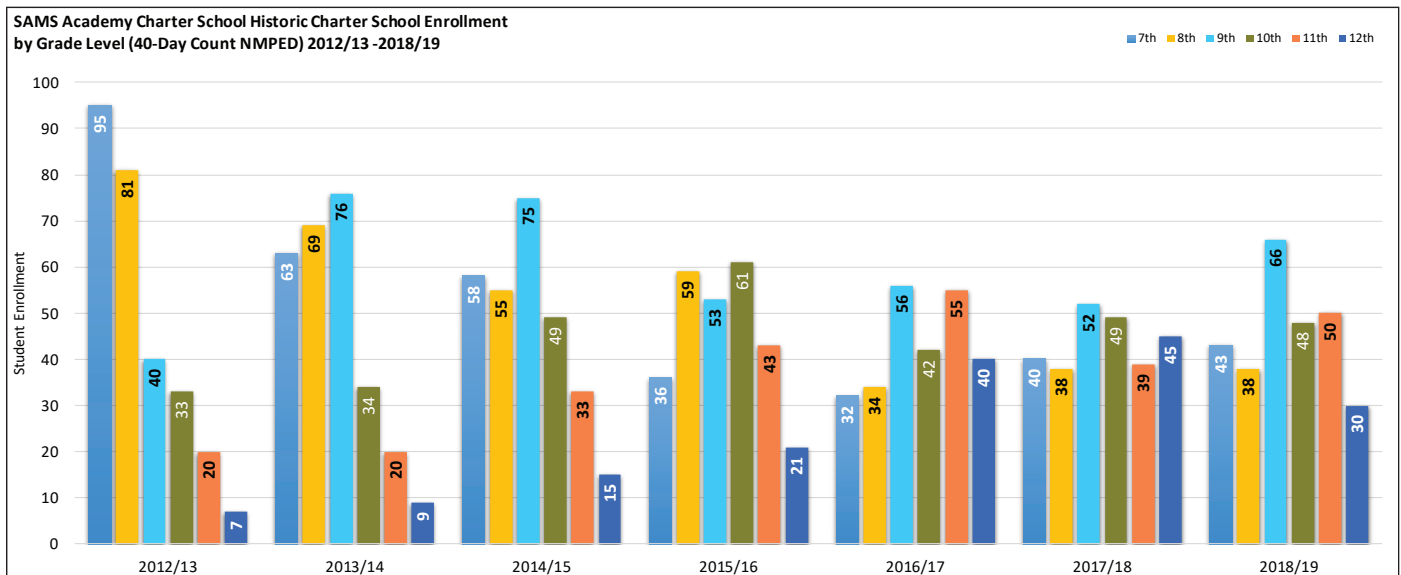


Source: New Mexico Public Education Department, 40-Day Enrollment 2012/13 - 2017/18 and SAMS Academy 2018/19

Enrollment by Grade Level

As one of many public middle and high school choices in the Albuquerque area, many incoming middle school and freshman students choose SAMS Academy over traditional middle school and high school options available locally based in the high level STEAM and Aviation/Aeronautics programs that it offers. Enrollment in grades 7th through 8th when the school initially began was very robust with between 80-95 students in each grade in 2012/13, within two years 7th and 8th grade enrollment declined 35.8%, as of 2018/19 it has declined even further to less than 50% of the levels it began with originally. Having a strong middle school enrollment is critical to sustaining SAM Academy’s cohorts at the high school level as students transition into the 9th grade, and based on historical enrollment information recruiting efforts will need to increase in this area. These middle school enrollment levels also support the need for the school to consider adding 6th grade in the future to strengthen its middle school enrollment.

As a transitional year for SAMS Academy, enrollment in the 9th grade has historically experienced slight increases/ decreases in enrollment as the 8th grade cohort advances, and new freshman students are recruited. Over the past two years, as the school has increased recruitment efforts at this transition point, change between 8th and 9th grade can be seen in the chart below. Once past the 9th grade transition, the school has been able to maintain its 10th through 12th grade cohorts between 78-85% over the last 5 years, at a rate similar to or greater than most traditional high schools. The chart below identifies the historical enrollment by grade level since 2012/13 through 2018/19.

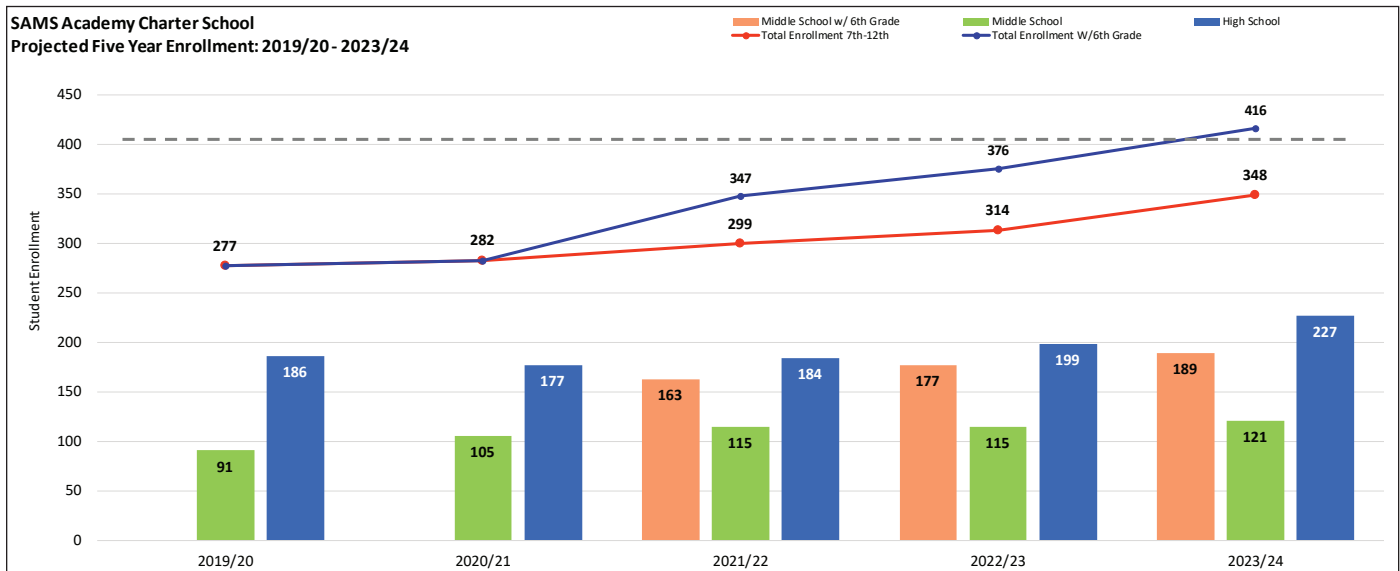


Source: New Mexico Public Education Department, 40-Day Enrollment 2012/13 - 2017/18 and SAMS Academy 2018/19

Projected Enrollment

In evaluating future enrollment for SAMS Academy, the grade levels it serves (7th-12th Grade), the natural attrition that occurs in the upper high school grades as students may opt to transfer to another school, and the schools location on the far west-side of Albuquerque near Double Eagle Airport, make specific future enrollment somewhat difficult to predict. However, taking into consideration the school’s stable enrollment patterns over the past seven years, where at least 78-85% of all student cohorts remain enrolled at the school and the need to increase recruitment efforts at the middle school and freshman grades, it is possible to identify potential future enrollment goals. SAMS Academy would like to expand its educational program offerings to help attract and retain more students; but must have the student enrollment to support both additional instructional staff and programs.

Over the next five years, it is possible for the school to increase its enrollment within its existing enrollment cap to between 348 - 416 students by either adding 6th grade beginning in the 2021/22 or 2022/23 school year if approved in a future charter amendment in 2020 or 2021, or through recruiting more students in the existing middle school grades to create larger sustaining cohorts for high school advancement. If the addition of 6th grade is approved by the school’s Governance Board and has its charter amendment approved by NMPED/PEC, enrollment for grades 6th-8th should range between 66 -72 students per grade for a class loading between 20 -24 students which is within its charter guidelines and NMPED requirements. If the addition of 6th grade is not approved, the school will need to increase its recruitment efforts in grades 7th-8th to help increase enrollment between 72-80 students per grade level, as well as continue to recruit additional incoming freshman students in the low to mid 70’s range. Enrollment in the high school grades would slightly increase with larger middle school cohorts and would range between 40 - 65 students per grade level but would most likely still maintain similar retention rates in the 78 - 85% range. The chart below identifies the projected enrollment over the next five years for SAMS Academy (both with and without 6th grade) based on historic enrollment trends, cohort survival, and the continued demand for the schools academic programs.



While the schools charter identifies an enrollment cap of 500 students, in the 2017 charter renewal, a limitation was placed on the school limiting enrollment at the existing facility to 400 students. The school’s current facilities are sufficient to accommodate up to 353 students, if the school were to improve its efficiency with increased enrollment and scheduling within the existing spaces it already has in place.

Future Enrollment Considerations

SAMS Academy, as a State of NM Charter School will continue to be a desirable option for parents and students that want an alternative middle and high school environment that is not part of the APS school system. If the school, with approval from its Governance Board chooses to pursue the amendment to include 6th grade into the middle school configuration, it will help the school greatly strengthen its middle school cohorts and expand program options for students. The school has three years remaining in its lease at its current location which gives the school time to complete its 2019 Charter Renewal, and the time required to negotiate a future lease-purchase option with the City of Albuquerque.

2.2.2 - Classroom Loading Policy

The maximum number of students within a classroom serving grades 7th and 8th should be in the range of 19 to 27 students, and in grades 9th through 12th should be in the range of 21 to 30 students per the New Mexico Public Education Department (NMPED). These NMPED ranges are based on a “traditional” middle and high School classroom loading plan, however SAMS Academy has identified in its charter that the desirable pupil/teacher ratio (PTR) will be an *average* of 20:1 for all grade levels. However, based on actual class scheduling, enrollment, the facility’s large classroom labs combined with smaller traditional classrooms, student loading per teacher based on subject area often ranges between 10 to 18 students in grades 7th-12th on average. These fluctuations in student loading can be attributed to the schools Blended Learning environment which allows teachers to provide assistance to more students than the *average* PTR.

2.2.3 - Classroom Needs

SAMS Academy has the capacity to accommodate increases in the schools enrollment based on the school’s “current” educational program needs and the school’s projected enrollment in the future up to 353 students. This analysis assumes classroom loading numbers remain at 20:1 per the school’s approved charter and the schools current educational delivery methods utilizing the Blended Learning model remains in place. The current facility “as-is” will meet the schools needs over the next five years if the schools works to modestly increase its enrollment in grades 7th--9th grade. If the school pursues the charter amendment in the future to include 6th grade, three additional classrooms would be needed as enrollment as the school would have the potential to increase to 416 students within 5-years. These three classrooms could be constructed within the school’s existing facility on the second floor, over a portion of the open space that is currently being utilized as the school’s weight room.

The chart on the following page lists the existing instructional spaces for the current year, square footage of the space and how many students the space could hold based on the school increasing its overall facility utilization to 90% which is within the range of most middle and high schools that average 85-95%. The chart also includes the needed instructional spaces in the future that would be required for the school to add 6th grade to its enrollment *or* to increase its enrollment in grades 7th-9th to bring the school closer to a desired enrollment of near 400 students, this would require an additional three (3) full size classrooms to be constructed. Over the next five years, the school will need to either work with the City of Albuquerque to determine if it can enter into a Lease-Purchase Agreement for the existing facility, relocate portable classrooms on site (*if possible*) to support future enrollment needs, or consider other facility options prior to the end of it’s lease agreement.

SAMS ACADEMY Grades 7th - 12th		Existing Classrooms 2018/19	Available SF	Functional Capacity @ 90% Based on Max PTR 20:1
1st Floor Classrooms				
CR # 1	Smart Lab	1 (3)*	3,061	54
CR #2	General Classroom	1	953	18
CR #3	Multi-Purpose Gym/ Fitness Center	1	7920	36
CR #4	Multi-Purpose/ Art Classroom	1	959	20
CR #5	Simulator Classroom	1	667	2
CR #6	Classroom (Resource)/ Library	1	490	12
Subtotal First Floor Classrooms		6	14,050	142
2nd Floor Classrooms				
CR # 7	Main Lab**	1	4,786	123
CR# 8A	Main Lab Break Out Instruction	1	720	20
CR # 8B	Main Lab Break Out Instruction	1	720	20
CR# 9	Success Lab Classroom	1	1,052	18
CR # 10	Aviation Classroom	1	563	15
CR #11	Aviation Observation Lab	1	615	15
Subtotal Second Floor Classrooms		6	8,456	211
Total Existing Instructional Spaces		12	22506	353
Future Classroom Needs				
	General Classroom or Additional MAIN Lab Spa	3	2400	55
Subtotal Future Classrooms		3	2400	55
Total Existing & Future Instructional Spaces		15		408

Notes:

* The SMART Lab consists of 1 large space consisting of 3,061 SF with multiple areas for project construction, it contains 26 computer workstations, student work/ fabrication area. In order to calculate capacity of this area, the square footage has applied over NMAS 6.27.30.14 Specialty Classroom Item D and has been calculated as three (3) spaces. Based on the schools approved PTR of 20:1, the max capacity of the combined space would be 60 students.

** The Schools "MAIN Lab" is comprised of one large computer lab for all grade levels 7th-12th grade and contains 134 workstations an efficiency factor of 92% has been applied to calculate the number of seats available in the space, taking into student rotational times, pull-out supplemental instruction and computer upgrade/ repairs, which provides for 123 workstations available.

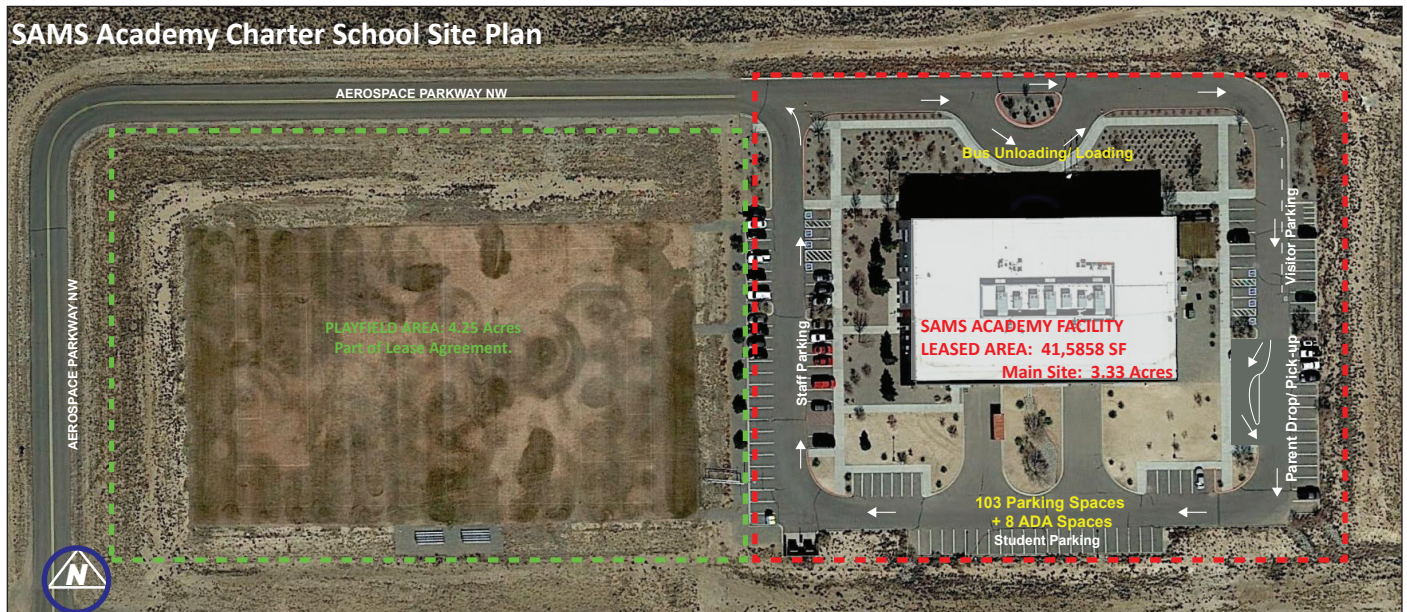
2.3 Site/ Facilities

2.3.1 - Location

The Southwest Aeronautics, Mathematics and Science Academy campus is currently located on the far west-side of Albuquerque just west of Atrisco Vista Boulevard at 4100 Aerospace Parkway NW, it is just south of Double Eagle Airport where the school utilizes airport’s hanger facilities to store its aircraft that are used for instruction. SAMS Academy is housed in the former Eclipse Aviation facility that was constructed in 2007 consisting of 41,585 SF; the school’s lease agreement is with the City of Albuquerque for this location. The main site that the existing facility occupies consists of 3.33 acres and the adjacent play-field area to the east contains an additional 4.25 acres for an overall site size of approximately 7.58-acres. The school utilizes the empty parcel of property to the west of the facility as its current play-field area which is included in the school’s lease agreement.

The site is surrounded by undeveloped real estate on the east, south and west sides of the campus. Double Eagle Airport and runway are directly to the north of the facility, and the 4.4-acre lot directly to the east of the school is currently vacant, however it but does have runway access connected to it which the school would like to consider acquisition of. If SAMS Academy can enter into an affordable Lease-Purchase agreement with the City of Albuquerque for the existing facility and property, the school would also like to consider including the east parcel into the agreement. The vacant parcel could be used then be used it to construct a 2,500 -4,000 (dependent on the size of aircraft at the time design & construction) aircraft hanger in the future to house its aircraft on-site and expand its educational programs to possibly include aircraft maintenance.

The main entrance to access the school is located on the north side of the site directly from Aerospace Parkway. There is a drive lane directly in front of main entrance the building that is used as the bus drop/ pick-up area, parents keep to the left as they enter the east parking lot area. During the summer of 2018, nine (9) parking spaces were remove near the southeast corner of the building and the area was re-striped to provide a one-way dedicated parent drop/ pick-up lane, parents then continue along the south side of the parking lot to the west and exit back out on to Aerospace Parkway. The parking lot surrounds the building on three sides, with the east parking lot used for parent and visitors, students use the south parking area,



and the school's staff in the east parking lot. There are 103 parking spaces, plus an additional 8 spaces which are ADA compliant that is for use by visitors and school staff, for a total parking capacity of 111. SAMS Academy contracts with Albuquerque Public Schools Transportation Department for the use of three buses to offer students drop-off and pick-up bus services at six (6) different centralized locations within the City of Albuquerque for students who wish to attend the school.

2.3.2 - Facility Evaluation

In 2012/13 SAMS Academy opened its doors in the former Eclipse Aviation building located on Albuquerque's West-side near Double Eagle Airport. The facility was previous used for office space, training, research and development for the company's aircraft. The interior of the building was partially modified to remove some of the interior non-bearing walls to create the large open spaces for the multi-grade level computer based instructional areas to support the schools blended-learning environment. The existing facility meets NMAS for classrooms and support spaces as they pertain to the school's educational program needs. As the current utilization and capacity analysis will show in Section 2.4, the school is well utilized and supports the current 2018/19 enrollment with the capacity to increase its enrollment to 353 students before needing additional classrooms. In order to meet future increased enrollment needs beyond the current identified needs and classrooms available, three additional classrooms would also be needed if the school adds 6th grade in the future or is able to develop larger student cohorts in grades 7th-9th.



Conformance with Adequacy Standards

As a charter school, SAMS Academy is eligible to receive variances for certain program areas if needed and conforms to slightly above the minimal level of 650 SF as required in the NM Adequacy Standards as they pertain to charter schools in regards to the size of general classrooms which range in size from 663 SF to 1,052SF. In the case of SAMS Academy, there are minimal "general classrooms" needed based on the schools educational programs and blended-learning delivery, however it does require NMAS variances for some educational spaces such as its multi-grade level core classes that utilize blended Learning, and the STEAM Lab require very large "computer-lab" spaces that substantially exceed NMAS square footage requirements; the Aviation program is very unique and requires special lab space (*ex. Aircraft simulators and aircraft observation areas*) that are not contained in the NMAS; and the PE program utilizes a non-traditional multi-purpose space to meet its needs.



Facility Evaluation

Visions In Planning, Inc. evaluated the SAMS Academy campus to identify both maintenance and long-range capital improvement needs for the school to work towards completing over the next five years. Section 5.4 - Master Plan Supporting Documents contains the facility evaluation information as part of the school's executive summary with more detailed information.

FAD Update

The full FAD update is in Section 5.4 - Master Plan Supporting Documents and has been submitted to NMPSFA for updating.

Facility Needs

Visions In Planning, Inc. used the following methods to identify the list partial list of facility issues below:

- Analysis of compliance with adequacy standards where applicable,
- Physical condition assessment to determine facility conditions needs,
- Results of interviews with SAMS Academy administration and staff,
- Planning team observations*

* *NOTE: Some of the items observed during the facility walk-thru may not be able to be corrected as they may fall under the responsibility of the Owner as a “Building System” OR the lease may not allow for major modifications to the building or site unless the school is in a “lease/purchase” agreement with the owner or purchases the facility outright.*

General Classrooms*

The schools available general classrooms range in size between 663-1,052 SF, the typical class size averages 11-18 students based on the school’s current enrollment and classrooms are often difficult to rearrange for group projects and other activities. The items listed below indicate key areas that should be considered for improvement:

- Minimal square footage for classroom sizes to support more integration of the schools “blended and project based” learning models.
- Painting and interior wall repairs needed.



Visual Art Classroom*

The school utilizes a former “break-room” for its art program which is large in size and meets NMAS in regard to minimum size as it consists of 959 square feet and has an adjacent storage room that is used for materials, equipment and project storage. While the is used as an “overflow” dining area when needed, no modifications to the space have been made to transition the space into an Art Classroom that meets minimum NMAS requirements. The area is accessed directly from the corridor as there is not a door in place to separate the room from the rest of the facility, a door to the space should be installed to be able to secure the room in the event of a lock-down as well as a white board and LED Smartboard are needed in the space. The existing casework in the space can be reused for storage of materials, however the seating in the room consists of rigid-style dining tables which limits configuration options and space usage that need to be replaced. The items listed below indicate key areas that should be considered for improvement:

- Painting and interior wall repairs needed.
- In the former 1st floor break room that is now being utilized for the school’s art program replace existing sink with a deeper stainless-steel sink, heavy-duty faucet, and clay-trap. Optimally two sinks should be installed in the space.
- Construct partition wall to enclose art room and install door with frame and hardware to access the Art room and to improve security of the area in the event of a lock-down situation.
- Install necessary technology and LED Smartboard for instruction.
- Replace existing fixed-style tables and seating with movable tables and chairs to allow for reconfiguration of the room for multiple uses.



- Provide kiln room (~80 SF) at the northeast corner of the art room and provide dedicated exhaust system to meet current NM IEBC requirements.

*Additional Facility Needs**

- Three additional classrooms are needed to meet programmatic and future enrollment needs if the school adds 6th grade in the future, or is able to develop larger student cohorts in grades 7th-9th. Preliminary information regarding the building structure indicates these new classrooms most likely can be constructed on the second floor over the Fitness Center space. If this is determined not feasible, portable classrooms would be another option for the school to consider.
- A portion of the Multipurpose space is used for student dining, however it lacks areas for students to heat food items, a sink, refrigeration and storage area to supplement the Group-Break out space on the second floor. It is possible that these needs can be provided via either dedicated casework in the area or an alcove could be carved out of the PE equipment storage space to provide this function.



Site/ Play-fields

- Grading & drainage improvements - Minor ponding issues various areas around the building -
- Property perimeter* - No perimeter fencing in place to secure/enclose the site (safety/security)

Statewide Adequacy Standards

New Mexico’s statewide Adequacy Standards for primary and secondary educational facilities (NMA 6.27.30) are guidelines for public school districts to “... provide and sustain the environment to meet the needs of public schools.” They are intended to create a minimum facility standard to establish equity among all educational facilities serving New Mexico public school students. Alternative and Charter Schools may seek a variance for facilities, since they do not necessarily conform to the programs, delivery methods, and facility needs and budgets that are the basis for the standards. It is through these variances that these types of schools are intended to meet many of the facility requirements for their “alternative programs” through “alternative methods” when applicable. However, both alternative and charter schools must provide the minimum square footage allowances for general classroom spaces, as identified in the NM Adequacy Standards. Although SAMS Academy operates as a non-traditional combined middle/high school, it does still require of some of the more “traditional” type classroom spaces found in other middle/high schools in the Albuquerque Public School



district such as general classrooms, and art/elective classrooms.

It should be noted that SAMS Academy meets all of the “core” required standards in the area’s listed below (statute section citations in parentheses), as well as meets all of the additional standards in the other areas listed that do allow variances.

(6.27.30.8) General Requirements - Required

- Building structural soundness (A.1)
- Weather-tight exterior envelope (A.2)
- Interior surface condition (A.3)
- Interior finish harmful elements (A.4)
- Building system integrity (B.1)
- Plumbing type / accessibility (B.2)
- Adequate fire alarm system (B.3)
- Adequate two-way communication system (B.4)



(6.27.30.10) Site - Required

- Student drop-off pedestrian pathway (A)
- Protection of building structural integrity (C)
- Potential of flooding, ponding, or erosion (C)

(6.27.30.11) Site Recreation and Outdoor PE

- Multipurpose Play Area
- Playing Field w/ Equipment

(6.27.30.12) Academic - Required

- Appropriate size (A)
- Lighting (C)
- Temperature range (D)
- Acoustics (E)
- Air quality (CO2 PPM) (F)



(6.27.30.14) Specialty Classrooms

- Internet Access (B)
- Technology Lab (B)
- Art & Music Education (C)



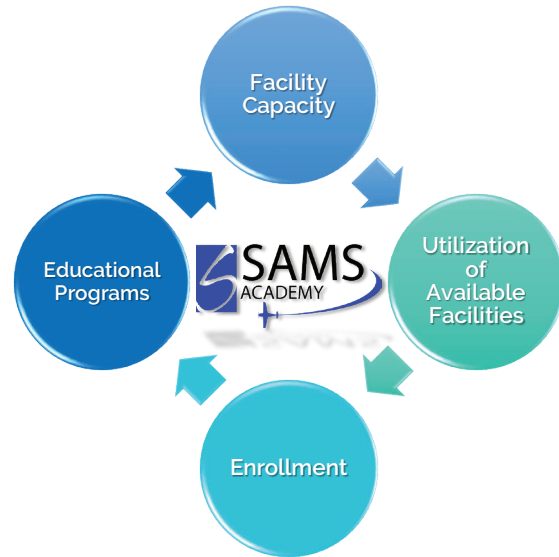
**(6.27.30.15) Physical Education
(Variance - Non Traditional Space)**

- Indoor PE Teaching
- Office
- PE Equip. Storage

2.4 Capacity Analysis/ Utilization

2.4.1 Capacity/ Utilization

The capacity of a school reflects how many students the school's physical facility can serve effectively. There are various methodologies that exist to calculate the capacity of a facility depending on the objective and time when its analyzed. It is not uncommon to review an existing facility only to find that the capacity which once had been assigned to it is now greater than what can be reasonably accommodated today. This can be primarily attributed how educational programs have changed and evolved over time, especially in a Charter School environment where alternative instructional programs and methodologies are often used.



Over the past sixty years, educational programs in public schools and the way they are being delivered have changed significantly with technology being a main driver both now and in the future. Repeated arguments are heard that “This school was able to accommodate 600 students thirty years ago and now you are saying it can only accommodate 400 students today. How can this be the case?” Persons making these statements often do not realize that when the building was originally constructed, the average class size was 30 students, the music program was being held on the stage, the teacher provided art on a cart, there were no computer labs, the Kindergarten program went from half day to full day, and special education students with severe developmental and medical needs were in separate facilities and did not attending mainstream public schools. Add to this the fact that many states have legislation for class sizes of 22 or under for the early elementary grades, funding for Pre-K is expanding, and there are many more required at-risk student programs that must be adhered to.

A critical component of a capacity and utilization analysis is how each classroom is actually used and managed. An analysis of how each classroom space is used daily at SAMS Academy Charter School was accomplished through review of the school's master schedule, floor plans, facility walk-through, and confirmation of any questions regarding use by the school's director and principal.

In defining the “Capacity” of a facility, it simply refers to the number of students a school can accommodate based on the educational model for the specific use, however for the State of New Mexico there are two types of capacity measures that are calculated as part of the Facility Master Plan: Maximum Capacity (also known as Design Capacity), and Functional Capacity.

- *Design Capacity* is the desired maximum student capacity of a school at the time of the building's design and assumes the maximum number of students per each classroom or “learning space”. This counts every available space including specialized spaces such as art, music, SPED, career tech classrooms, etc., for general education use – it usually results in a fixed number. Class-loading follows either NMPED ‘standards’ or a modification of this standard utilizing the student loading factor that reflects average pupil/teacher ratios (PTR) of that was approved in the schools charter by NMPED/PEC - **SAMS Academy PTR is 20:1.**
- *Functional Capacity* is the amount of students a school can accommodate by taking into account the site specific educational program, number of classrooms or “learning spaces” available to regular, and C & D level enrollments - multiplied by a student loading factor that reflects average

pupil/teacher ratios (PTR) as identified in the school’s charter and approved by NMPED. The results are then multiplied by factors addressing the school’s size/cap, scheduling utilization, physical classroom size divided by net square feet (NSF) per student per NMAS for non-standard sized classrooms, special education inclusion/ non-inclusion, overall school size (current enrollment vs enrollment cap) and grade levels served. In the case of middle and high schools, specialty classrooms are counted towards available capacity; however, instructional areas that are used for special federal and categorical programs for all school types are exempted.

NMPSFA Guidelines for Capacity & Utilization

As part of the capacity and utilization analysis the following criteria was established by NMPSFA and was used to identify and categorize the instructional spaces available at SAMS Academy Charter School. A review of the existing facility identifies all available classrooms for instruction to determine whether or not they meet the current and projected classroom needs based on the school’s educational delivery model and enrollment needs. The existing floor plans and space *utilization* chart for the school identifies how the facility is being utilized classroom by classroom, and class period by class period. From that information, utilization and capacity of the facility was analyzed and calculated as it relates to the State of NM Adequacy Standards (NMAC 6.27.30) and SAMS Academy Charter School’s approved charter.

Middle / High School (6th or 7th thru 12th Grade)		
Classroom Use	Notes	Space
Standard Classroom	Graded, 650 sf min, 27-30 students maximum	U&C
Special Ed. Classroom	If Std. Or 1/2 CR size	U&C
1/2 Classroom	450-650 sf - 12 students maximum. Do not count seminar rooms	U&C
Labs	Science, Business Ed, Foreign Language	U&C
Music	Chorus, Band, Orchestra. Do not count rehearsal or ensemble rooms.	U&C
Computer Lab	Count all, including "open" lab. Not counted if part of Media Center	U&C
Shop/Home Ec. Lab	If separate labs with separate access count each	U&C
Shop/Home Ec. Classroom	Only if separate space <u>and</u> separate access	U&C
Gymnasium	Count full-size gym as 2. Count usable mezzanines	U&C
Wrestling Gym	Or Dance, Gymnastics	U&C
Weight Room	Count only if a scheduled class	U&C
Auditorium	Only if fixed seating	U&C
Lecture Hall	Always count	U&C
Program Management Space	If Std. or 1/2 CR size - Tutoring, School to Work, ISS, Detention, etc.	NC
Greenhouse	Not counted	NC
Media Center	Not counted	NC
Multipurpose Room	Not counted - Commons, Lunch Room, Cafeteria, etc.	NC
Lounge, etc. in Classroom Space*	Classified as Non-instruction/non-program Space see (*) to determine inclusion or exclusion	NC

Key:

U&C: Counted as part of utilization/capacity analysis. NC: Not Counted for Utilization/Capacity.
 U: Counted for utilization analysis, but not for capacity Analysis. U&C: Counted as part of utilization/capacity analysis if a class is scheduled.

* Administrative and Non Instruction/Programs - Classrooms greater than or equal to 675 SF used by the school for administrative or non-teaching purposes will be counted as having capacity. They include but are not limited to: office, workroom, parent’s room, lounge, storage, custodian, maintenance, tutoring, counseling, vending and production. If a school can demonstrate that the administrative or non-teaching function is required at the school, and that no other space is available that can adequately house the function, then the classroom is excluded from capacity.

Currently the *Maximum/ Design* (100%) capacity at SAMS Academy is 353 students, which would require that every available classroom/ educational space would be fully loaded and scheduled to its maximum PTR of 20 students (100%), however as a charter school that serves middle and high school grades (7th-12th)

on a daily rotating class period schedule, it would mean that the school would need to recruit and maintain between 55-60 students per grade level to operate close to 100% maximum efficiency. This level would be very challenging even for a traditional middle or high school to operate and maintain at 100% efficiency, as it leaves very little flexibility in many of the classrooms to deliver instruction and make adjustments to course scheduling to accommodate enrollment needs. Taking into account SAM Academy's educational delivery model of Expeditionary Learning which utilizes project-based learning for instruction and the course offerings available to meet NMPED and charter requirements, the *Functional Capacity* for SAMS Academy has been calculated to be a total of 353 students. The current 40-day enrollment for 2018/19 is 275 students in grades 7th -12th grade and the school has sufficient capacity to increase its enrollment over the next several years without needing additional space to 353 students or has a future charter amendment approved to include 6th grade.

Utilization of Current Facilities

Utilization refers to the actual placement of students within the classroom measured against the NMPED maximum or in the case of a charter school - the maximum class size identified and approved in the school's charter. In general, most middle/ high schools do not utilize each classroom to 100% because of the uneven number of students per grade level (i.e., enrollment is not equally divisible by 22, 24, etc.). The NMPSFA guidelines indicate a maximum efficiency for middle and high schools to between 80-95% depending on the type of instructional model and schedule being used by the school, this information is even more critical in the case of a charter school as oftentimes non-traditional instructional methods, schedules or class sizes play a large factor in determining the actual utilization of a classroom. For this analysis, the SAMS Academy Charter School currently utilizes its facilities efficiently at 75% with an enrollment of 275 students in grades 7th-8th based on a 2-class period day. The school has one ½-hour lunch period scheduled at which time is when most teachers get their lunch break and classes are not scheduled. By maintaining its current educational model and class scheduling of morning and afternoon sessions, the school could improve its efficiency to 85% with an increase in enrollment to 300 - 310 students.

The charts on page 31 identifies the current number of available classrooms, maximum and functional capacity as well as the actual needed demand for classrooms both currently and in the future considering both the school's educational programs and enrollment. The subsequent chart on page 33 demonstrates the "actual" utilization of the facility based on how the school is scheduled and used on a daily basis.

Table 2.4.1.A Classroom Data & Capacity SAMS Academy

The Classroom Data & Capacity information below is based on current the 2018/19 school year enrollment and program demands no additional space is needed to meet current enrollment demand. Based on the projected increase in enrollment in five years, the school will require additional 3-full size classrooms to meet future demand.

STATE CHARTER SCHOOL		Classroom Data																												Total Existing Classrooms																									
Facility Name	Regular Education		Special Ed		Specialized Classrooms Designed for a Specific Use (Middle/ High School)																		Special Program Space (General classroom or specially designed space)				Classrooms used for purposes other than instruction						Total Existing Teaching Spaces (Classrooms/Program Spaces) On Site																						
	Regular Education 7th - 12th (Includes Pull-Out Instruction Areas)		SPED C/ Resource		SPED D		Science Lab (MS/HS) Classroom Not LAB at TECS		Computer / Technology (MAIN Lab)*		Specialty Use Room (Flight Simulator & Instruction)		Fine/ Visual Art		FACS / Child Devel		Career Tech STEAM Lab**		Multi-Purpose / PE		ITV Distance Learning		Auditorium / Lecture		Resource Rooms		Fed. / Cat. / Title I		PT / OT/ SLP		Other Use Use Avail		Other Use Not Avail		Substandard Spaces used for instruction ¹		Total Perm CR	Total Port	Total Perm & Port	Percent Port	Total General & Specialized Perm/ Port	Total SPED C/D Perm/ Port	Total Special Program Perm/ Port	Other Use Excluded from Cap	Total Regular, Specialty, C&D Classrooms										
	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port	Perm	Port											
Charter Schools																																																							
SAMS Academy Charter School		5.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0	3.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.0	14.5	0%	13.5	1.0	0.0	0.0	14.5	
		5.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0	3.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.0	14.5	0%	13.5	1.0	0.0	0.0	14.5

¹The Schools "MAIN Lab" is comprised of one large computer lab for all grade levels 7th-12th grade and contains 134 workstations an efficiency factor of 92% has been applied to calculate the number of seats available in the space, taking into student rotational times, pull-out supplemental instruction and computer upgrade/ repairs, which provides for 123 workstations available.
²The STEAM Lab consists of 1 large space consisting of 3,061 SF with multiple areas for project construction, it contains 26 computer workstations, student work/ fabrication area. In order to calculate capacity of this area, the square footage has applied over NMAS 6.27.30.14 Specialty Classroom Item D and has been calculated as three (3) spaces. Based on the schools approved PTR of 20:1, the MAX capacity of the combined space would be 60 students.

STATE CHARTER SCHOOL		General & Specialized Classroom Need				Special Program Space Need			Total Need	Utilization		
Facility Name					Calculated Special Program Space Need Based on Enrollment			Total Demand				
	General & Specialized Classrooms	SPED C/D Classrooms	Total Reg and C&D Classrooms needed	Classrooms (Surplus)/ deficit	Total Fed/Cat, A&B, Gifted, etc. Classrooms	Calculated Fed/Cat, A&B, etc. Clrms & Resource Rms	Fed/Cat, A&B, etc. Classrooms (Surplus)/ deficit	Total Regular Ed + SPED + Federal/ Categorical	Current CR Reg Ed, SPED., & Spec Prgms Perm/Port	Needed CR Reg Ed, SPED & Spec. Prgm Perm/Port	% Utilization (Based on USE not Schedule & Seats Occupied)	
	Charter Schools											
SAMS Academy Charter School		17.4	0.0	17.0	0.0	0.0	0.0	0.0	0 Demand	14.5	14.5	100%
		15.5	0.0	15.5	0.0	0.0	0.0	0.0		14.5	14.5	100%

STATE CHARTER SCHOOL		Capacity														Capacity for Additional Students			
Facility Name	Classrooms							Maximum Capacity ¹	Functional Capacity ²					Full Inclusion ³	Capacity for Additional Students				
	Reg. Ed Classrooms	SPED C/D Level Classrooms	Special Program	Other Uses and/or Shared Specialty Labs	Total CR	No. Pds Taught	Total Enrollment Capacity		Based on Existing Classrooms										
	Reg Ed Capacity	Sp Ed C/D Level Enrollment Capacity	Total Enrollment Capacity	Full Inclusion Capacity	Full Inclusion Capacity Small District	Current Enrollment 2018/19 (40-day)	Capacity for additional Students	Future Enrollment 2022/23 W/ 6th Grade	Capacity for Additional Students										
Charter Schools																			
SAMS Academy Charter School		13.5	1.0	0.0	0.0	14.5	2	384	342	11	353	353	353	275	78	412	-59		
		13.5	1	0	0.0	14.5		384	342	11	353	353	353	275	78	412	-59		
		13.5	1.0	0	0.0	14.5		384	342	11	353	396	396	275	78	412	-59		

1. Max Capacity: Maximum NMPED PTRs have been adjusted to use the PTRs that have been approved in the Schools 2017 Approved Charter (20:1) have been applied to all classrooms/ educational spaces in the facility with no adjustments with 100% utilization of ALL classroom spaces - Based on the SAMS Academy Blended Learning Environment which utilizes a large multi-grade level computer labs. The MAIN Lab has 134 Computer stations and an efficiency factor of 92% has been applied to calculate the number of seats available in the space, taking into student rotational times, pull-out supplemental instruction and computer upgrade/ repairs.
 2. Functional Capacity: PTRs are applied by grade level and program to all classrooms designed for Regular Ed & CID instruction with scheduling efficiency factors and other factors applied. 90% Utilization Rate used to determine Functional Capacity - Specialty Classroom Factors such as Flight Simulator Lab
 - Limits the classrooms
 - Adds efficiency factors
 - Schools Educational Program Delivery
 (working capacity + efficiency & other factors)
 3. Full Inclusion: Applies to schools whose C & D level students stay in the classroom and are taught by teachers certified in Special Education and General Education.

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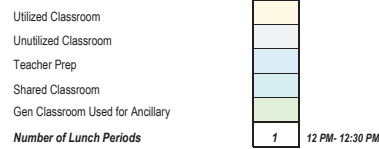
Table 2.4.1.B Current Utilization Chart - SAMS Academy Charter School

The Utilization Table below is for the SAMS Academy Charter School 2018/19 school year, based on current enrollment and program demands, the school has sufficient available classroom space to meet its average PTR of 20:1, based on the schools Blended Learning instructional model. The school currently has a 75% utilization rate and has seat capacity to increase its enrollment and improve it's utilization efficiency to between 85-90%.

SCHOOL: Southwest Aeronautics Mathematics & Science Academy Charter School

Date: 11/16/2018

Grade Level	2018/19 Enrollment (40-Day)	# SPED D Enrollment	Current # of Teachers	# of General Teaching Spaces
7th	43		3	SHARED
8th	38		3	
9th	66	1	3	
10th	48		3	
11th	50		2	
12th	30		2	
Total	275	1	16	11



* NOTE: Classrooms Used Daily for Group & Individual Pull Out Instruction to Supplement Online Learning Modules (students not counted in bottom total enrollment, as students are already accounted for in actual classes)

** Includes Some Students Enrolled Via Distance Learning

Rm #	Room Name/ Type	Cirm NSF	1		2		TEACHER(S) ASSIGNED	Monday-Friday												Tot. St.	PED Max. PTR/Day	Tot. % Rm Occ. / Day	Occ # of Pd.'s / Day	% Pd. / Day								
			Max # of St./ Sq Ft	PED MAX PTR / CIm	Monday-Friday Time: 8:00 AM-11:30 AM						Monday-Friday Time: 12:00 PM- 3:30 PM																					
			Subject	# of St.	% Rm Occ.	Subject		# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.														
CR 1	Smart Lab	3,061	113	54	Larrichio, Rene	Smart Lab MS I			Smart Lab MS II			Smart Lab HS I			Smart Lab HS II			Smart Lab HS III			Smart Lab HS IV			199	150	63%	6	100%				
CR 2	P.E. Classroom	953	35	24	Kennedy, Leeanne		32	59%	Smart Lab MS II	42	88%	Smart Lab HS I	47	87%		38	70%		30	56%		10	19%	58	150	40%	2	33%				
CR 3	GYM/ Fit. Center	9,898	190	54	Garcia, Jonathan	None	0	0%	Lifetime Fitness HS	26	108%	Lifetime Fitness MS	32	133%	None		0%	None		0%	None		0%	None		0%	None	110	150	34%	4	67%
CR4	Multi-Purpose Classroom	959	36	30	Garcia, Jonathan	Ind/Dual Sports HS	9	17%	None		0%	None		0%	Physical Education HS	51	94%	Physical Education MS	33	61%	Team Sports	17	31%	44	150	24%	2	33%				
CR 5	Flight Simulator Lab	667	4	4	Kennedy, Leeanne	Creative Art HS	26	87%	None		0%	None		0%	Creative Art MS	18	60%	None		0%	None		0%	None		0%	None	16	150	67%	4	67%
CR 6	Resource Classroom	490	16	15	Hardin, Nathan/ Durrer, Ursula	Flight Simulator	4	100%	Flight Simulator	4	100%	Flight Simulator	4	100%	Flight Simulator	4	100%	None		0%	None		0%	None		0%	None	90	90	100%	6	100%
CR 7	Main Lab (Grades 7th - 12th)	4,786	24	24	Eierman, Bridget M	Eng/Lang Arts 10**	42	175%	Eng/Lang Arts 10** HON (S1)	1	4%	Eng/Lang Arts 11**	22	92%	Eng/Lang Arts 12**(S1)	30	125%	Prep		0%	None		0%	95	150	66%	6	100%				
			24	24	Garcia-Galvez, Jose	Accelerated Pre-Algebra(S2)	2	8%	Algebra II** HON (S1)	2	8%	Algebra II**	33	138%	Financial Literacy**	21	88%	Math Analysis**	4	17%	Pre-Calculus **	12	50%	74	150	51%						
			24	24	Padilla, Andrea	American History 8	43	179%	Economics	7	29%	MS NM History	30	125%	US History	40	167%	US Gov Comprehensive	32	133%	US/World History	73	304%	225	150	156%						
			24	24	Tucker, Christina	Biology	45	188%	Chemistry	53	221%	Environmental Science	17	71%	Physics	9	38%	Science 7	43	179%	Science 8	38	158%	205	150	142%						
			24	24	Tuttle, Stephanie J	Eng/Lang Arts 7**/Spanish II	49	204%	Eng/Lang Arts 8**/ Spanish III	52	217%	Eng/Lang Arts 9**/ Spanish I	56	233%	Prep		0%	World History	52	100%	None		0%	209	150	126%						
			24	24	Weber, Micheal	Algebra I **	45	188%	Geometry	34	142%	Math 7	41	171%	Math 8	28	117%	None		0%	None		0%	148	150	103%						
			24	24	Dist. Learning/ Yellott, Dave	Art History	4	17%	Audio Engineering	4	17%	Career Plan/Develop	3	13%	Digital Arts	3	13%	Game Design/Intro to Art/ Business	7	29%	Health	36	150%	57	150	40%						
			24	24	Dist. Learning/ Brame, Jill	Intro to Coding	5	21%	Intro to Entrepreneurship	4	17%	Nursing Assistant	1	4%	Personal Finance	7	29%	Prob/Statistics	3	13%	Psychology/Sociology	8	33%	28	150	19%						
CR 8A	Small Group Instruction	720	27	24	Varies - Based on Instruction*	Pull Out Group Instruction	24	100%	Pull Out Group Instruction	26	108%	Pull Out Group Instruction	20	83%	Pull Out Group Instruction	24	100%	Pull Out Group Instruction	18	75%	Pull Out Group Instruction	16	67%	128	150	89%	6	100%				
CR 8B	Small Group Instruction	720	27	24	Varies - Based on Instruction*	Pull Out Group Instruction	17	71%	Pull Out Group Instruction	18	75%	Pull Out Group Instruction	22	92%	Pull Out Group Instruction	17	71%	Pull Out Group Instruction	16	67%	Pull Out Group Instruction	18	75%	108	150	75%	6	100%				
CR 9	Success Lab	1,052	39	24	Ellis, Charles	Math and English Intervention	20	83%	Math and English Intervention	17	71%	Math and English Intervention	18	75%	Math and English Intervention	16	67%	None		0%	None		0%	116	150	68%	6	100%				
					Weber, Micheal	None		0%	None		0%	None		0%	None		0%	Math and English Intervention	24	53%	Math and English Intervention	22	57%									
CR 10	Aviation Classroom	563	21	24	Durrer, Ursula	None		0%	None		0%	None		0%	Private Pilot Flight School Instr.	10	48%	Private Pilot Flight School Instr.	10	48%	Private Pilot Flight School Instr.	10	48%	30	45	24%	3	50%				
CR 11	Aviation Observation Lab	615	23	24	Hardin, Nathan	Private Pilot Ground School Instr.	13	57%	Private Pilot Ground School Instr.	13	57%	Private Pilot Ground School Instr.	13	57%	None		0%	None		0%	None		0%	39	45	29%	3	50%				
			24,784	723			275	83%		287	68%		286	79%		275	64%		238	47%		226	55%	1,979		69%		75%				

1) Max # of St./Sq. Ft.= The maximum number of students allowed per the Statewide Adequacy Standards square feet.
 2) PED Max PTR/CIm = PED's maximum pupil / teacher ratio per class period.
 3) % Rm Occ. = The number of students column divided by either the PED Max./PTR/CIm column or the Max #of St./Sq ft column, which ever column is the smaller maximum allowed by A.S. or PED.
 4) Tot. St. = The total number of students in the specific instructional space throughout the day.
 5) PED Max. PTR/Day = The maximum pupil teacher ratio allowed by PED for specific teacher per day allowed.
 6) Tot. % Rm Occ. / Day = Total average percentage room is occupied throughout the day. (count all periods in average)
 7) Occ. # of Pd.'s / Day = Occupied number of periods occupied per day. (Prep period may be counted as utilized if teacher does not have a separate office from classroom)
 8) % Pd. / Day = The average percent of occupied periods (occupied number of periods divided by the number of periods available per day).

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2.5 Facility Maintenance

2.5.1 - Maintenance Projects

SAMS Academy Charter School does not currently utilize “School Dude” to log its maintenance work orders, however it does utilize an internal work order process to track when maintenance or repairs are needed that are not included in the school’s lease agreement. As major facility maintenance needs do arise, requests are submitted to the SAMS Academy Business Manager, who then contacts the City of Albuquerque to make the needed repairs, which are covered under the schools lease agreement. While the school is responsible for the overall basic maintenance of the facility and any repairs that are needed to the building per the school’s lease agreement; any major repairs to or replacement of major building systems till remain the responsibility of the building owner. Currently, the school spends on average between \$10,000 to \$25,000 annually on general maintenance projects to maintain its facilities which is funded from the SB-9 funds it receives annually Albuquerque Public Schools. The annual budget also includes the cost of a part-time/on-call facility maintenance person to respond to the schools needs. As part of the Facility Master Plan process, the facility assessment identified relatively few minor maintenance projects that are listed below that will be addressed by the school over the Summer of 2019.

- Repair and repaint interior wall surfaces throughout.
- Repaint steel bollards near overhead doors on south-side of building.
- Install interior corner guards to help protect wall surfaces from future damage.
- Replace all damaged/stained ceiling tiles (2’x 4’)
- Repair and repaint damaged wall surfaces in restrooms, steam clean tile floor and wainscot.
- Relocate items stored in front of electrical panels in storage rooms - See adjacent photos.
- In the former 1st floor break room that is now being utilized for the school’s art program replace the existing sink with a deeper stainless-steel sink, heavy-duty faucet, and clay-trap. Optimally two sinks should be installed in the space.
- Replace existing fixed-style tables and seating with movable tables and chairs to allow for reconfiguration of the room for multiple uses.



Photos above indicate areas where items are stored in front of electrical panels/ disconnects

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SECTION 3.0

3.1 FACILITY GOALS & CONCEPTS

3.1.1 - FACILITY GOALS - EXISTING FACILITY

The established goals of SAMS Academy are to continue to provide a high-quality educational environment to serve the needs of its students in grades 7th-12th in the greater Albuquerque area. According to State of NM statute, SAMS Academy is required to be housed in facilities that meet educational occupancy standards and the facility that the school currently occupies does comply with NMSA 1978, §22-8B-4.2. Since 2012 when the school first began, the current facilities that are leased by SAMS Academy have complied to all requirements that are applicable to it under NMSA 1978, §22-8B-4.2(D), by entering into a lease agreement with a non-profit landlord for a facility that meets adequacy standards; the existing facility had interior modifications made to it by the owner to meet the schools educational program needs as part of the agreement. The schools lease agreement is between SAMS Academy and the City of Albuquerque for the former Eclipse Aviation Building containing 41,585 SF at 4100 Aerospace Parkway NW, and contains provisions requiring the owner to maintain the existing facilities to adequacy at no cost to SAMS Academy as required by NMSA 1978, §22-8B-4.2(a) and (b). The current lease agreement *does not* have an option for the school to negotiate the purchase of the facilities and site from the City, however, the school has annual opportunity to request changes to its lease to include a future provision for purchase, if approved by the school's Governance Board. Any future lease-purchase agreement would require a property appraisal to determine fair market value to establish a purchase price, and final approval NMPED/PSFA.

The school's main lease agreement includes the existing building (41,585 SF) and site area (3.33-acres), the lease also has a provision for the lease and use of the additional field space (4.25-acres) to west of the building that the school uses for its PE program and sports practice area for an additional annual cost. The land area

around the school is undeveloped with the exception of the Double Eagle Airport to the north and is zoned C-1. Any major reconfigurations and additions to the building or placement of any portable buildings on the site would need to be prior approved by the by the City of Albuquerque. Based on the school’s educational programmatic requirements, and current and future facility needs to meet student enrollment the SAMS Academy Facilities Committee identified the following facility goals to help plan for both the short and long-term needs of the school:

- Provide a technology rich environment to support current and future educational program needs.
- Continue to provide facilities/programs that support dual credit options for students.
- Continue to maintain existing lease-facilities through an “Active” Preventative Maintenance Plan that promotes an on-going regularly scheduled maintenance for areas that the school is responsible for through usage of SB-9/HB-33 Mill Levy funds to reduce long term costs.
- Utilize available SB-9 and HB-33 Mill Levy funds to help acquire and maintain future permanent facilities.
- Leverages opportunities for PSCOC funding for priority projects when eligible and available.
- Provides school facilities that instill pride in the students, staff, and community.

Facility Space Needs (Existing Facility)

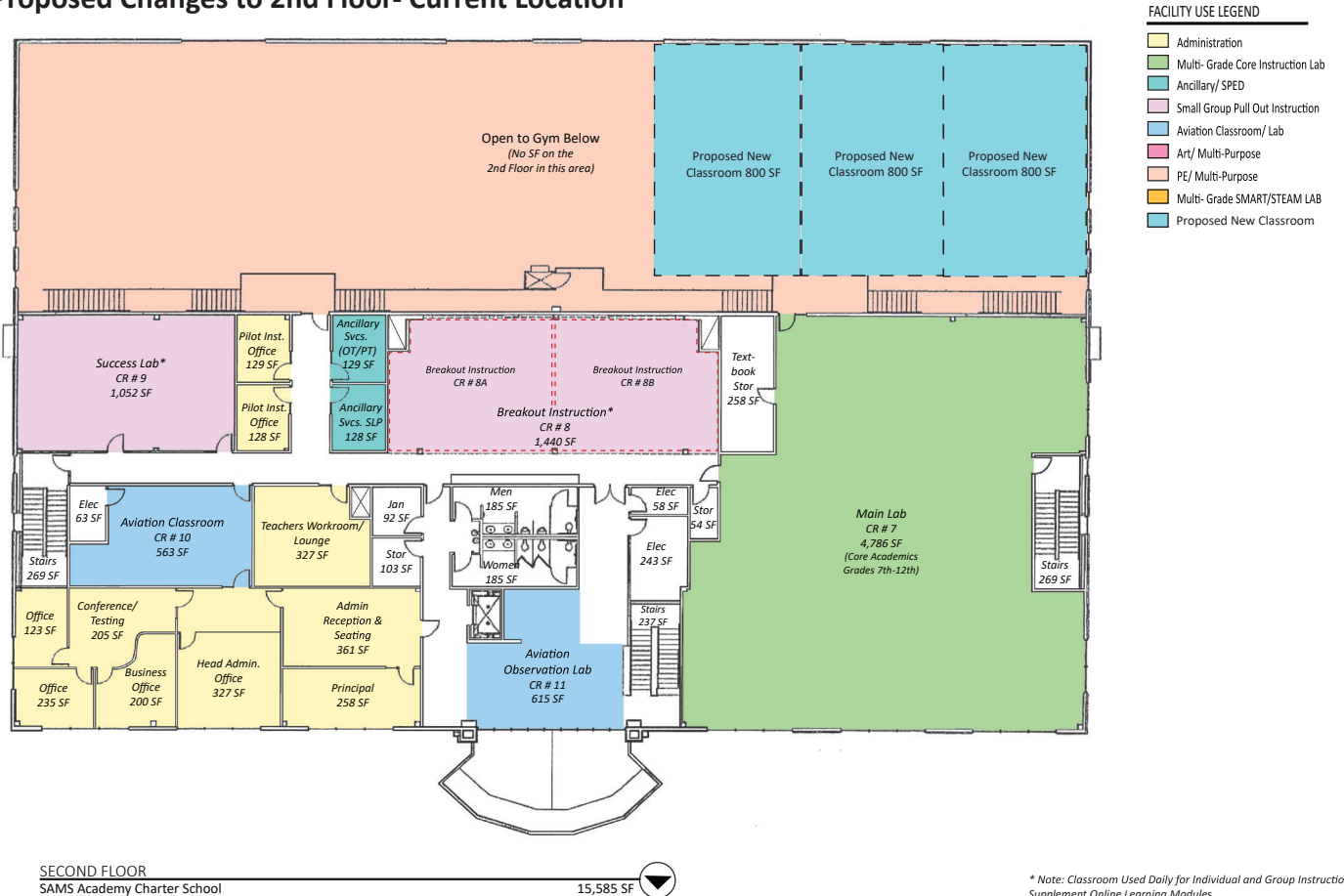
SAMS Academy’s current facility consists reception area, administrative office suite, four (4) general classrooms (one classroom is dedicated for flight simulator equipment) with one (1) large area that can be used for pull-out instruction for two classes, one (1) multi-grade level computer lab, one (1) large SMART Lab for STEAM instruction that includes project storage and fabrication area, art classroom, ½-size resource classroom, ancillary office space to provide PT/OT/SLP services, and Multi-Purpose room that has areas dedicated PE activities and dining. All of the educational spaces meet or exceed the minimum NMAS square footage requirements for general classrooms and technology labs, with the exception of the “Multi-Purpose” room which is long, narrow and not very functional. As the school grows its enrollment in the future this area could be re-purposed for additional academic space and a separate gym constructed on the site. Over the next five years and after the school undergoes its charter renewal in 2019, if 6th grade is added or as student recruitment and retention efforts intensify, by 2023/24, it is expected that enrollment could reach between 348- 416 students. This increase in enrollment will require an added three (3) full-size classrooms that are not currently available for 6th grade enrollment or one large space to provide the school another technology lab to accommodate the additional student enrollment.

If the school continues to lease the existing facilities over the next 5-years instead of entering into a lease-purchase agreement, it has the option to work with the owner to install one (1) double and one (1) single portable on the site to accommodate the increased enrollment without modifying the building. While this would provide the school the additional academic space it will need, it would become a more costly option as portable acquisition, portable transport/ relocation, installation of foundation and utility infrastructure could possibly cost the school more than the partial build-out of the second floor. The partial build-out of the second floor could potentially be renegotiated into the school’s future lease agreement as part of a way to meet NMSA 1978, §22-8B-4.2(a) and (b) but would most likely increase the schools lease cost as more square footage would be available within the existing building.

Proposed Property Acquisition at SAMS Academy Current Location



Proposed Changes to 2nd Floor- Current Location



* Note: Classroom Used Daily for Individual and Group Instruction to Supplement Online Learning Modules

3.1.2 - Future Facility Concepts (Ed Spec to be included in future FMP Update if required)

The most desirable facility solution for SAMS Academy as it works to increase enrollment and expands its educational program opportunities for students would be to remain at its current location. Its proximity to Double Eagle Airport is very important to the schools Aviation program so that students observe flight activity and have access to the school's planes. Should SAMS Academy choose to relocate in the future it will need to find facilities that are nearby this area to keep transportation time and costs to and from the airport down and will be required to find facilities that meet NMSA 1978, §22-8B-4.2. There are very limited facilities in this area for the school to consider, that meet the square footage needs both now and in the future, have the outdoor space available for PE/sports programs, and meet the schools budgetary requirements for facilities as the school already supplements the lease-assistance annual grant from its operational budget. Based on the schools current and future educational program needs along with it's projected enrollment of 416 students (if 6th grade is added or as enrollment is increased in grades 7th-9th) in five years, it is anticipated that SAMS Academy will need between 45,100 to 51,225 SF which would include the following preliminary space requirements:

- 1 - large (4,600 - 5,000 SF) multi-grade level to accommodate (6th) 7th-12th grade technology lab for the schools core subject area instruction. Would need to provide up to 150 - 165 workstations for students.
- One large or two smaller STEAM Labs, one for middle school and one for high school. The labs could be joined to share a project storage and fabrication area. As enrollment increases, this could help the school in scheduling its core and elective classes.
- 7 - General Classrooms with lockable cabinet storage for teachers for supplemental core educational pull-out student instruction as part of the school's blended learning model, and aviation instruction classrooms including simulator room.
- 1 Art Classroom to meet the schools STEAM needs.
- 1 ½-size Resource Classroom to meet SPED instructional needs.
- 1 - Full-size gym with changing rooms to comply with minimum NMAS, but not on the size or scale of a comprehensive high school. *(Could be a future standalone building at current location)*
- Administration office space with reception area, offices for school leadership and operations, teacher work/ break-room, IT office and maintenance, storage, and ancillary offices.
- Student dining area with warming kitchen so that the school could contract with outside food providers to supply lunch for students.

If the lease-purchase option is determined in the future to not be feasible or cost prohibitive, the school will work with its planning consultant to update and prepare the educational specifications section of this document to help determine the exact building parameters that will be needed for the school to find a new facility in which to relocate into or to construct a new facility.