SAN RAFAEL CITY SCHOOLS

EDUCATIONAL SPECIFICATION

ELEMENTARY AND MIDDLE SCHOOLS

**Adopted by the Board of Education
August 28, 2017**

Board of Education
Rachael Kertz
Greg Knell
Linda Jackson
Maika Llorens Gulati
Natu Tuatagaloa

Dr. Michael Watenpaugh, Superintendent
Dr. Daniel Zaich, Senior Director, Capital Facilities

Kathleen Moore and Associates, Facilitator and Author

.

THIS PAGE LEFT BLANK INTENTIONALLY

.

.

.

SAN RAFAEL CITY SCHOOLS
ELEMENTARY AND MIDDEL SCHOOL EDUCATIONAL SPECIFICATIONS

Table of Contents

.

INTRODUCTION

The purpose of the Elementary and Middle School Educational Specification is to provide guidance to the design professionals on the educational and programmatic needs of the elementary and middle schools in San Rafael City Schools (SRCS).

Place matters. We know through research that clean air, ample day lighting, and a small, quiet, comfortable, and safe learning environment is important for students' academic achievement and well-being. School design has the power to reach the whole learner—cognitive, physical and emotional—when educators and students are thoughtfully engaged in the planning process. Beginning with the educational vision and ending with the activities and spaces that engage students; the Educational Specification is designed to communicate the programmatic, functional, spatial, and environmental requirements of each elementary and the middle school.

School and classroom design should facilitate twenty-first century learning that prepares students for college, careers, and community. Project-based learning, personalized instruction, blended learning, and other twenty-first century teaching methods should be well supported in the design of San Rafael's elementary and middle schools. Student mastery of content as well as the "Four Cs"—critical thinking, communication, collaboration, and creativity—is the foundation of the District's educational goals that begin this document.

In 2015, the voters in the San Rafael City Schools approved Measure A, a $108 million bond measure for the elementary school district, and Measure B, a $161 million bond measure for the high school district. These funds, together with other capital funds, will provide capital improvements to the under-resourced elementary schools and includes significant funding directed at creating safe, innovative learning environments and instructional technology to support twenty-first century learning. Additional classrooms, labs, and equipment will reduce overcrowding in the San Rafael City schools and will meet the growing demand for hands-on Science, Technology, Engineering, Arts, and Math (STEAM) classes. The Educational Specification will guide these and future investments to support the District's educational program for learner-centered environments.

The District wishes to acknowledge the many teachers and staff that contributed to this document's development (see Acknowledgments). Through both survey and on-site meetings, and guided by an Executive Educational Specifications Committee, the District developed these educational guidelines for elementary and middle schools.

Not all recommendations within the Educational Specification will be realized due to budget, site, or other constraints. The Educational Specification is intended to serve as a guideline for district programmatic needs and to allow the design professionals flexibility in addressing each site's unique requirements while providing broad standards for parity.

.

EDUCATIONAL SPECIFICATION HIGHLIGHTS

The Educational Specification encompasses a broad range of spaces to support learner-centered education in SRCS. While all areas are important to the delivery of educational services, the following areas are highlighted.

Parity
A major component of the educational specification process and work is to address parity throughout the elementary schools. Each of the project schematics was reviewed for parity with other district projects. Meaning that if a Resource Specialist Program space was provided at one campus, it should be provided at all campuses. Parity also includes flexibility for school sizes. For instance, all schools require a multipurpose room, but the size of that room depends on the number of students served, therefore a square foot per student or range of area is recommended in the specification. Parity does not mean that schools will look alike or have exactly the same space, but that each school should be able to serve like functions.

Instructional Technology
As part of the educational specification process, the district developed a four-year roadmap for instructional technology that includes a Standard Classroom Model that will have a PC-based desktop for teachers, document camera, project display (interactive short throw), and enhanced classroom audio system. The specification also quantifies the number of data drops and wireless access points for each classroom, provides charging station areas, and lays the groundwork for reliable campus-wide Wi-Fi connectivity.

Technology is ever changing and will require frequent review, planning, and amendments to the Educational Specification over time.

Sustainability
Through the work of the District's Sustainability Committee, Facilities Department and program management team, it is recommended that the SRCS adhere to the Collaborative for High Performance Schools (CHPS) design standards under the CHPS Designed™ recognition program. CHPS standards are designed to reduce operating costs, achieve higher student performance, increase daily attendance, retain quality teachers and staff, and minimize environmental impact by designing and modernizing schools utilizing the CHPS scorecard. CHPS standards help make schools energy, water and material efficient, well lit, thermally comfortable, acoustically sound, safe, healthy, and easy to operate.

Science, Technology, Engineering, Art, and Math (STEAM)
The Educational Specification recommends at least one space for STEAM in each elementary school. As the programs develop for this space, it may also be used for other program needs specific to each site.

.

.

Many elementary school districts are addressing STEAM through maker spaces and spaces with the flexibility to delivery STEAM activities before and after school. Diversity and equity in STEAM continues to be a top educational priority throughout the state.

Family Center
Each elementary school is specified a Family Center space. Decades of research show that when parents are involved in their child's education, students have higher grades, test scores, and graduation rates; increased motivation and better self-esteem; better attendance; and decreased use of drugs, alcohol, and violent behavior.

Family Centers foster strong partnerships between teachers, families, administrators, students, and community partners through open dialogue, inclusive spaces, ongoing learning, and shared responsibilities that drive and unify the school community. Family engagement is key to a healthy and thriving school.

Elementary and Middle School Learning Spaces (Classrooms)
Classroom learning spaces are the foundation of the school campus, and are the spaces where transformative learning takes place throughout the grades. Learning happens throughout the campus — in the outdoor spaces, the multipurpose room, library, and specialty spaces — but is centered in the classroom with the classroom teacher. During the educational specification process, teachers and staff guided the preparation of the size and content of the classroom space, including instructional technology, flooring, cabinetry, utilities, and furniture and equipment emphasizing stand-up desks for a movement rich environment.

General Standards
The Educational Specification includes standards, developed with the Maintenance and Operations and Facilities Department teams, for doors, windows, floors, roofs restrooms, landscaping, security, fencing, parking and bus areas. These standards will both assist with parity across the campuses and efficiency in operations.

San Pedro Elementary School Concept Image, Hibser Yamauchi Architects, Inc.

.

.

ACKNOWLEDGMENTS

Executive Committee
Dr. Michael Watenpaugh, Superintendent
Dr. Myra Perez, Deputy Superintendent, Instruction
Amy Goodwin, Director, K–8 Teaching & Learning
Kevin Kerr, Director, 9–12 Teaching & Learning
Mike Gardner, Director of Student Services
Kathy Frye, Director, English Learners Programs
Sandy Maynard, Chief Technology Officer
Dr. Dan Zaich, Senior Director, Capital Facilities

Principals

Pepe Gonzalez, Laurel Dell ES
Juan Rodriguez, Venetia Valley K-8

Mimi Melodia, San Pedro ES
Bob Marcucci, Davidson Middle School

Teachers

Venetia Valley	**Laurel Dell**	**Tech Jedi**
Deirdre Wilson	Marc Belmont	Adam Singer
Laura Malekian	Krista Wallinger	Adam Treewater
Kristin Vandro	Molly McCarthy	Alejandra Vazquez
Lucia Wahl	Molly O'Donoghue (coach)	Alison Fell
Maria Bartlett (office mgr)	Mindy Green	Brianna Padilla
Eli Paris	Edgar Gutierrez	Casey Hodel
Ludia Vlasco-Mayock	Amber Fiesel	Cheyanne Williams
Brianna Padilla	Maggie Dawes	Freddy Dominguez
Mateo Dillaway	Vanessa Nunez	Jordyn Theroux
Yoana Landin	Aljandra Vazquez	Michelle Jindrich
Roxana Guzman (family center)	Maria Pusel (counselor)	Pierre Littee

Davidson Middle – See Site Committee

Elementary Teachers Association
Katie O'Donnell

District Staff
Christina Perrino, Communications Director
Dave Pedroli, Director, Maintenance and Operations
Rita Kesler, Director of Food and Nutritional Services
Alan Downing, Production Kitchen Manager

.

.

.

Site Committees:
Laurel Dell

Pepe Gonzales, Principal

Tree Mcintyre-Bader, Teacher/Resident

Marc Belmont, Teacher

Nick Nguyen, Resident

Steve Kwok, Quattrocchi Kwok Architects

Eva Eppard, Quattrocchi Kwok Architects

Dr. Daniel Zaich, SRCS Senior Director

Nina Cook, Parent

Vanessa Nunez, Neighbor and Teacher

Jen Gadiel, Parent

Mindy Green, Teacher

John Dybczak, Quattrocchi Kwok Arch.

Van Pelt Construction Services*

San Pedro

Mimi Melodia, Principal

Shane Franco, Teacher

Patricia Talke, SPES Teacher

Andrea Alonzo, HY Architects

Dr. Daniel Zaich, SRCS Senior Director

David Flores, Parent

Felicita Hernandez, Parent

Tim Steele, HY Architects

Van Pelt Construction Services*

Venetia Valley

Juan Rodriquez, Principal

Mari Kernan, Assistant Principal

Rebecca Cowlin, Parent

Chris Bradley, SVA Architects

Dr. Daniel Zaich, SRCS Senior Director

Eli Paris, Teacher

Maria Bartlet, Office Manager

Renee O'Hara, Parent

Velma Anelo, SVA Architects

Van Pelt Construction Services*

Davidson Middle

Bob Marcucci, Principal

Jennifer Diaz-Zamore, Teacher, ELD

Michael John Mares, Teacher, Music

Ranae Roemer, Teacher, Science

Therese Hopkins, Teacher, Science

John Dybczak, Quattrocchi Kwok Arch.

Vince Lhanza, Carducci Asssociates

Dr. Daniel Zaich, SRCS Senior Director

Adam Singer, Teacher, Industrial Tech

Josh Powell, Teacher, Art

Morena Parada, Administrative Assistant

Sarah Crushman, Teacher, English

Steve Kwok, Quattrocchi Kwok Arch.

Eva Eppard, Quattrocchi Kwok Arch.

Van Pelt Construction Services*

*Mark Van Pelt,   Van Pelt Construction Services
 Pete Norgaard,   Van Pelt Construction Services
 Bill Savidge,   Van Pelt Construction Services
 David Carey,   Van Pelt Construction Services
 Patti Llamas,   Van Pelt Construction Services
 Terese Sladowska, Van Pelt Construction Services

.

.

SRCS MISSION, VISION, PRINCIPLES, AND GOALS

Mission
Lifting Student Achievement. Every student, every day.

Vision
Every student will be a confident learner, an effective communicator, a critical thinker, and a positive contributor to the global community.

Education Principles
Every student has a fundamental right to a quality education that supports their path to achieve their full potential.

Students thrive in physically and emotionally safe environments that are conducive to learning for all.

Our community has a shared responsibility for everyone's success and encourages everyone's participation.

We value integrity, honesty, and truthfulness, and believe in the inherent dignity and worth of every individual.

Goals from the Local Control Accountability Plan
Each student receives rigorous instruction and support and is held to high expectations so that they can foster critical thinking, collaboration, creativity, and communication skills to master the Common Core State Standards while continuing to be college, career, and community ready.

Provide all staff with differentiated professional development with a focus on collaboration, alignment, and high-quality staff retention and support, to maximize student learning and achievement.

Manage our resources responsibly, transparently, and in alignment with District goals and priorities so that the District is able to focus its efforts to move the needle for student success.

Develop and implement highly effective two-way systems that allow staff, students, and families to feel safe and included so that they can participate fully in student learning and the school community.

Establish effective systems and welcoming environment that allow staff, students, and families to feel safe and included so that they can participate fully in student learning and the school community.

.

MASTER FACILITIES PLAN INSTRUCTIONAL GOALS

The District engaged in a facilities master plan process in 2015. Goals for facility standards, sustainability, technology, maintenance and operations, and parity were established. Goals for facilities to support curriculum were discussed both at the Site Committee level and at the District level during the master plan process. "From the individual sites, the most common concerns were not having enough space for administration and counseling, pull out programs and break out spaces. At the District level, the focus is on providing adequate space for specialty curriculum. This means providing science or other multi-use classrooms at the elementary sites and improved Career Technical Education spaces at the middle and high schools that more adequately prepare those spaces to be flexible in accommodating future programs." [i]

The vision that upgraded facilities must provide environments that allow learning to occur in any space was also articulated during the master plan process. "Cafeterias should be more like commons with Wi-Fi access ubiquitous and supportive of 1:1 student to device ratios." [ii]

The Master Facilities Plan articulated, "that all telephone and clock and bell systems be migrated to a Voice Over Internet Protocol (VoIP) system for better controllability. Data infrastructure both in terms of cabling and appropriate MDF and (or) IDF closets with appropriate cooling and power is imperative for a robust infrastructure that will continue to meet the requirements of technology-heavy instruction that is anticipated as the United States moves into the twenty-first century.

As new buildings are developed, the following requirements should be taken into consideration with respect to classrooms:

- AV systems should be integrated into the room

- Short-throw projectors (wireless capable) to be used with whiteboards designed for display

- Voice amplification for teachers to improve the instructional environment

- Teachers to have both tablets and laptops with docking stations

- All spaces (indoor and outdoor) should have robust wireless access so that all spaces can be part of the learning environment. [iii]

.

DESIGN GUIDING PRINCIPLES

The following design guiding principles were developed by the Educational Specifications Executive Committee and confirmed by the Educational Specifications survey administered in early May 2017.

Guiding Principle #1: Learning Environments

- Create twenty-first century learning environments which are:

  - Flexible

  - Engaging

  - Technologically up-to-date

  - Facilitate student-teacher interaction in the education process

  - Enhance collaborative learning and working

  - Accommodate different teaching styles

  - Allow for learning anywhere, anytime

- Be student and teacher friendly—design learning spaces with:

  - Well insulated walls and quiet mechanical systems

  - Individual environmental controls

  - Flexible use of wall surfaces including tackable surfaces

  - Modern, comfortable furniture

  - Low-emitting materials

Guiding Principle #2: Safety and Security

- Design schools with pleasing aesthetics that are welcoming and secure:

  - Design structures, fences, and site amenities to:

    - Maintain safety

    - Prevent unauthorized access

    - Deter vandalism

.

- Limit opportunities to gain access to roofs and second stories

Guiding Principle #3: Community Focus

- Create schools to serve as neighborhood centers:

  - Create easy access zones without allowing full campus access

  - Make designated rooms (library, multipurpose and performing arts) accessible on evenings and weekends for joint use of facilities by the community

  - Make available to serve a wide audience for extended learning concepts

Guiding Principle #4: Architectural Quality

- The appearance and overall character of each school should be:

  - Pleasing and stimulating to students, teachers, families, and the surrounding community

  - Welcome and attractive places to visit or to spend the day

  - Easy to understand how to enter and exit buildings with ease, and how to navigate the campus with attractive signage (wayfinding)

Laurel Dell Elementary School Concept Image, Quattrocchi Kwok Architects

.

CURRENT PROJECTS

San Rafael City Schools is investing in its schools through the voter-approved Measure A capital program, including the following projects. This Elementary and Middle School Educational Specification provides the standard for future educational facilities investments as well as current projects.

Bahia Vista Elementary School: Shade structure for outdoor eating.

Glenwood Elementary School: A new multipurpose room including stage.

Laurel Dell Elementary School: Eight (8) new twenty-first century classrooms with state-of-the-art instructional technology and adjacent collaborate spaces, a multipurpose room, office and student support spaces, and Family Center and (or) Learning Enrichment After School Program (LEAP) room are being constructed to replace inadequate space and bring the school up to current educational and structural standards. Two (2) kindergarten classrooms, two (2) regular classrooms, and a library and media center are being remodeled within existing multi-purpose and classroom space. An outdoor learning courtyard will provide outside opportunities for engaging students.

San Pedro Elementary School: Five (5) new kindergarten classrooms including a transitional kindergarten, one (1) preschool classroom, office, and student support spaces are being constructed to replace inadequate space and bring the school up to current educational and structural standards. Spaces to be modernized include six (6) classrooms, a music room, Family Center, Newcomers classroom and remodeling of office space into one (1) new primary classroom. An outdoor learning courtyard will provide outside opportunities for engaging students, and the parking lot will be redesigned.

Venetia Valley Elementary School: Twenty-three (23) (1 STEAM, 1 tutoring, 3 Special Day Classes) new twenty-first century classrooms with state-of-the-art instructional technology, a multipurpose room and warming kitchen, office, and student support spaces, and Family Center are being constructed to replace inadequate space and bring the school up to current educational and structural standards. Kindergarten buildings and gym will be modernized. An outdoor learning courtyard will provide outside opportunities for engaging students.

Davidson Middle School: A new classroom building designed to support Science, Technology, Engineering, and Math (STEM) including ten (10) classrooms/labs and teacher preparation areas, a multipurpose room, kitchen, and two (2) music rooms will be constructed. One (1) new fine arts classroom including a kiln will be created in the 20s wing including an outdoor learning courtyard with student display area.

.

EDUCATIONAL PROGRAM AND REFORM

Over the last decade, California adopted the Common Core State Standards, created a sea change in how schools are funded with the Local Control Accountability formula, adopted Next Generation Science Standards, and new English Language Development Standards, and identified ten (10) essential elements of quality schools through the Quality Schooling Frameworks. Each of these initiatives continues to shape SRCS's educational programming and the capital program supports necessary to deliver high-quality education to all SRCS students. Together with English Language Development, literacy is a top priority of the SRCS at all grade levels.

San Rafael City Schools administers many programs to improve student achievement, literacy, and college-going rates including Title 1, Sobrato Early Academic Language (SEAL), and Advancement Via Individual Determination (AVID). The District also provides afterschool programs through Learning Enrichment After School Program (LEAP) and early access to preschool through the State's Preschool Program.

Common Core State Standards (CCSS)
California adopted the CCSS in 2010 for both mathematics and English-language arts. The standards are rigorous, research-based, and designed to prepare every student for success in college and the workforce. The standards are internationally benchmarked to ensure that California students are able to compete with students around the globe.

CCSS: English-Language Arts and Literacy in History/Social Science, and Technical Subjects
The standards set requirements not only for English Language Arts (ELA) but also for literacy in history and social studies, science, and technical subjects. The standards specify the literacy skills and understanding required for college and career readiness in multiple disciplines.

The K–5 standards include expectations for reading, writing, speaking, listening, and language applicable to a range of subjects, including but not limited to ELA. The standards are organized by grade level in kindergarten through grade eight. In K–5, the Standards balance the reading of literature with the reading of informational texts, including texts in history or social studies, science, and technical subjects.

The writing standards call for students to write for a variety of purposes and to use technology to produce and publish their writing. Students learn to express ideas, work together, and listen carefully to integrate and evaluate information. Skills are not learned in isolation, but in connection with reading analyzing grade-level texts and topics. Technology is used to gather and present information.

.

Literacy standards for grade 6 and above are based on the expectation that teachers of ELA, history and social studies, science, and technical subjects use their expertise to help students meet the challenges of reading, writing, speaking, listening, and language in those content areas.

As students advance through the grades and master the standards in reading, writing, speaking and listening, and language, they exhibit, with increasing fullness and regularity, the following capabilities of the literate individual: strong content knowledge, appropriate responses to varying audience demands, task purpose and disciple mastery, comprehension and critical thinking skills, evidence valuation, technology and digital media strategy and capability development, and awareness of other cultures. [iv]

CCSS: Mathematics
The mathematics standards for K–8 are organized by domain. Students in K–5 are expected to achieve mastery in whole numbers arithmetic (addition, subtraction, multiplication, and division) and to develop a strong conceptual understanding and procedural skill with fractions—critical foundations for learning algebra. The standards for grades 6 and 7 extend work with fractions and develop concepts such as rational numbers and proportional relationships.

Across grade levels and content areas, the CCSS are designed to balance the development of conceptual understandings with the acquisition of procedural skills. Students are expected to apply mathematical ways of thinking to real world issues and challenges, to construct sound mathematical arguments, and to be precise in their mathematical communications.

English Language Development (ELD) Standards
The California ELD Standards, adopted in 2012, are aligned with the CCSS for English-Language Arts Standards. They describe key knowledge, skills, and abilities in core areas that students who are learning English as a new language need to achieve success in grade-level academic content. These standards provide a foundation for English learners in kindergarten through grade 12 so that each learner can gain access to academic subjects, engage with them and meet the state's subject matter standards for college and career readiness.

Next Generation Science Standards (NGSS)
In 2013 California adopted the NGSS for K–12. The NGSS identifies scientific and engineering practices, crosscutting concepts, and core ideas in science that all K–12 students should master to prepare for success in college and twenty-first century careers. Increasingly, more jobs will require STEM skills than in the past. The NGSS provides a strong science education that equips students with the ability to think critically, analyze information, and solve complex problems—skills needed to pursue opportunities within and beyond STEM fields. NGSS is intended for students to develop an in-depth understanding of content and gain knowledge and develop skills—communication, collaboration, inquiry, problem-solving, and flexibility—that

.

will serve them throughout their educational and professional lives.

High-quality education standards allow educators to teach effectively, moving their practice toward how students learn best—in a hands-on, collaborative, and integrated environment rooted in inquiry and discovery. Teaching based on the NGSS calls for more student-centered learning that enables students to think on their own, problem-solve, communicate, and collaborate—in addition to learning important scientific concepts.[v]

Science Technology Engineering Art and Math (STEAM)
San Rafael City Schools is focused on improving Science, Technology, Engineering, Art, and Math education within its core academics. "Bolstering the STE[A]M workforce is not the only reason to concern ourselves with these issues. Exposure to high-quality STE[A]M experiences can inspire wonder and curiosity in students about the natural and human-constructed worlds and motivate them to want to learn more. Study of the STE[A]M disciplines can foster students' ability to think critically about issues in a world that is now dominated by science and technology. Successful STE[A]M learning develops in young people the ability to make rational decisions for themselves, their families and their communities." [vi]

Quality Schooling Frameworks (QSF)
The California Department of Education's Quality Schooling Frameworks is a set of ten (10) "interrelated elements with students learning and thriving at its center. QSF elements are research-based and they describe universal features of quality schooling that remain relatively constant despite the rapidly changing context of twenty-first century schools. Students Learning and Thriving—the aim of QSF—represents outcomes that Californians envision their public-school system will achieve for its students. These outcomes include not only academic outcomes based on the California state standards across all subject areas, but those outcomes that will ensure our students lead healthy lifestyles, are engaged members of our democracy, are prepared for the world of work, and are able to make good ethical decisions." [vii]

The ten (10) QSF elements are: Assessment, Culture and Climate, Curriculum, Equity, Family and Community, Instruction, Leaders, Professional Learning, Resource Alignment, and Teachers.

Local Control Funding Formula and Local Control Accountability Plan
Landmark legislation established the local control funding formula (LCFF) in 2013–14, and it replaced the previous kindergarten through grade 12 finance system that had been in existence for roughly 40 years. The LCFF establishes base, supplemental, and concentration grants in place of the myriad of previously existing K–12 funding streams, including revenue limits, general purpose block grants, and most of the fifty-plus state categorical programs that existed at the time.

School districts must write a Local Control Accountability Plan (LCAP) to explain their goals and strategies for improving achievement for all students. Districts receive extra money for each student who is low-income, an English learner, or a foster youth. The plan must detail how these funds will be used to increase and improve services specifically for these students. The LCAP will spell out the strategy and goals for three (3) years. The school district must then develop a budget that matches spending to the goals outlined in the plan.

SRCS's LCAP goals are enumerated in the first section of this document and concentrate on improving literacy for all students.

Title 1
Title I is a K–12 program that provides additional academic support and learning opportunities for students at schools with high percentages of socioeconomically disadvantaged children. The program is intended to help ensure that all students meet state academic standards.

Goals of Title I
- Increase academic achievement
- Provide direct instructional support to students.
- Provide professional development for teachers.
- Promote parent education and involvement.

Sobrato Early Academic Language (SEAL)
SEAL is a research-based PreK–3rd grade program designed to develop the language and literacy skills of dual language learners and to close the achievement gap between language learners and their native-English speaking peers by 4th grade. This model is district adopted and being implemented at most of the elementary sites in San Rafael.

SEAL is built on four pillars. First, the program places strong focus on academic language. It emphasizes the development of oral language, which is essential for literacy and language development. The second pillar is the creation of an affirming environment that supports students' social-emotional development.
Third, SEAL offers careful alignment across the PreK–3rd grades. The fourth pillar is family engagement—partnering with families to support student learning.

Learning Enrichment After Schools Program (LEAP)
LEAP is a community-based after school program that serves 1st–8th graders 2:30–6:00pm Monday–Friday. LEAP offers enrichment classes, homework assistance, and tutoring. Goals of LEAP are to: develop independent, confident youth who are equipped to navigate the transition from childhood to adolescence; provide leadership opportunities to empower youth as global citizens and critical thinkers; foster twenty-first century skills in science and technology; and provide a creative space where youth feel a sense of ownership within their community. LEAP offers

students a chance to explore topics such as coding, art, engineering, athletics, and performance. STEAM is a major focus of the program, offering students a chance to participate in innovative programming in robotics, engineering, and other technologies.

Preschool Program

The California State Preschool Program, funded by the California Department of Education's Child Development Division, is a preschool program for qualifying children between the ages of three (3) and five (5) years old. San Rafael City Schools State Preschool is available at Bahia Vista and San Pedro.

Advancement Via Individual Determination (AVID)

AVID Elementary is a foundational component of the AVID College Readiness System and supports the mission and vision to provide a comprehensive model of success for all students, from elementary through higher education.

AVID Elementary is embedded into the daily instruction of all elementary classrooms, across entire grade levels, to impact school-wide structures. AVID Elementary focuses on the four necessary areas to ensure that all students are poised for academic success: Instruction, Culture, Leadership, and Systems.

The AVID program operates in each of SRCS elementary and middle schools.

Venetia Valley K-8 School Concept Image, SVA Architects

.

EDUCATIONAL SPECIFICATION SURVEY

An Educational Specification survey was sent to all SRCS staff on April 28, 2017. Eighty-six staff members responded and all school sites were represented. A summary of the survey results is in Attachment A. Staff were asked open-ended questions about what two (2) to five (5) features of the physical learning environment are most important and most engaging for student learning, and what two (2) to five (5) features are most important for staff satisfaction and comfort.

Around the topic of student learning environments, six themes emerged:
- Comfortable temperatures and HVAC
- Cleanliness
- Plentiful day lighting
- Access and placement of technology
- Mobile and adjustable furniture
- Space to configure different types of learning environments.

Similarly, the same themes emerged for staff job satisfaction and comfort with an emphasis on collaborative space.

A series of questions were asked about what type of facilities should SRCS consider as it plans and implements the bond program. Consensus results included:
- Flexible spaces that facilitate student-teacher interaction and allow for collaboration and interdisciplinary and team teaching are strongly supported whereas transparent spaces are not.
- Instructional technology, movement rich environments, good aesthetics, outdoor learning spaces, and a variety of teaching spaces including libraries are strongly supported.
- Safe and secure schools are a top priority for staff.

Staff were asked to rank the top five technology tools that would have the greatest impact on student learning. The top five choices included:
- The ability to access the internet anywhere on campus
- Chromebooks for every student (grades 3–12)
- Adaptive learning software geared to adjust levels of difficulty or content based on student needs
- Interactive projectors
- Interactive large screen monitors.

There were other open-ended questions on twenty-first century learning environments with thoughtful responses that emphasize students and teachers thrive in environments that inspire them and for which they can be proud.

.
.

OVERARCHING TRENDS

Flexible Design
The California Department of Education's Flexible Learning Environments Best Practice document advises that "learner-centered classrooms should be designed to accommodate different teaching and learning formats, including: individual study and reflection; one-on-one instruction; peer-to-peer discussion; small group work; teacher directed instruction; and, student presentation." A flexible classroom is fundamental to an instructor's ability to adapt to various learning styles. As enumerated in the best practice, one way to understand flexibility is through five properties that support constructive teaching pedagogy: fluidity, versatility, convertibility, scalability, and modifiability.

Mobile and flexible seating allow for cooperative learning and easy classroom transitions. Paragonic.com

"Well-made, comfortable furniture in a large, naturally lighted room are the basics a teacher needs. She/he can organize and design the space from that basic foundation. A teacher likes the opportunity to be creative with their arrangement of the space. Teacher autonomy within the space is very important to utilize the teacher's knowledge and creativity to serve her/his kids."

~Teacher, SRCS Educational Specifications Survey.

.

.

.

Flexible schools also provide space outside the classroom for collaborative learning, such as:

- Learning studios with abundant daylight, flexible furniture and space for group projects;
- Open areas, such as atriums and learning "streets"—instead of corridors—to encourage social interaction;
- Project rooms with high celings, work tables, and specialized equipment for inventing, creating, and building;
- Multiage rooms where students can mix and match according to interest and aptitudes; and
- Outside learning where students work on community service projects, and use community sites, such as museums and libraries, like classrooms. [viii]

Innovative school designs may incorporate rolling or sliding doors and movable interior walls that allow linked classrooms to work in common areas or on outdoor learning projects. "Shared learning spaces foster a sense of community as students work in teams on such areas as STEAM," according to the best practice document.

Gen7 STEAM Modular Classrooms—open to the outside

.

Engaging Technology

Engaging with technology will equip students with future-focused skills. The Educational Specification Survey summarized earlier in this document and the Instructional Technology chapter, highlight the importance of access to Wi-Fi throughout the campuses and instructional technology as a tool for personalized learning. Technology is no longer solely addressed within a computer lab; rather it is available throughout the building design.

Connectivity to Outdoors

The best practices document summarizes that outdoor learning is integrated with standards-based academic subjects and should be utilized as more than a stand-alone learning option. Outdoor learning increases academic learning, and exposure to nature has social, emotional, and physical benefits for students. Sun and rain shelters are important components of campus design for outdoor learning.

Outdoor Learning Space, DLM HED Architects

Social Spaces

School design has the power to reach the whole learner—cognitive, physical, and emotional. Social spaces for students to gather informally, play, talk with their classmates, and develop as individuals is as important as the formal learning environments.

.

Commons and Social Space, DLM HED Architects

Collaboration
Collaborative learning environments foster peer-to-peer interaction and allow teachers to facilitate student learning and professionally mentor other teachers across the campus. Collaborative learning spaces call for flexible furniture to allow versatility and easy modification from large group instruction to small group instruction and quiet spaces to maker spaces.

"I think the most effective learning environments are the ones where students are proud to be. Simple things such as natural lighting, high ceilings and adequate storage can contribute to aesthetically appealing environments that students and teachers enjoy. More sophisticated environments include furniture specific to student needs (ex: standing computer workstations, small group areas, and interactive projectors or smart-boards) I think the most successful use of the bond would be to implement as many supports as possible from both of these areas."

~Teacher, SRCS Educational Specification Survey

## GENERAL SPECIFICATIONS—SUSTAINABILTY AND HEALTHY BUILDINGS

Sustainability

The San Rafael City Schools will adhere to The Collaborative for High Performance Schools (CHPS) design standards under the CHPS Designed™ recognition program. CHPS standards are designed to help school districts in every community across the country reduce operating costs, achieve higher student performance, increase daily attendance, retain quality teachers and staff and minimize environmental impact by designing and modernizing schools utilizing the CHPS scorecard about all aspects of high performance school design, construction and operation. CHPS develops tools that help make schools energy, water and material efficient, well-lit, thermally comfortable, acoustically sound, safe, healthy, and easy to operate. CHPS also addresses low emitting material types and provides a high performance product database.

Healthy Buildings

In 2016, the Healthy Buildings team at Harvard released The 9 Foundations of a Healthy Building, which synthesized 30 years of scientific evidence into the nine fundamental building factors that influence health and performance. The 9 Foundations provides a valuable framework for thinking about school facilities in the United States and other developed nations.

Architectural teams, in addition to the CHPS standards above, should consider the framework of these nine foundations as they approach each SRCS project:
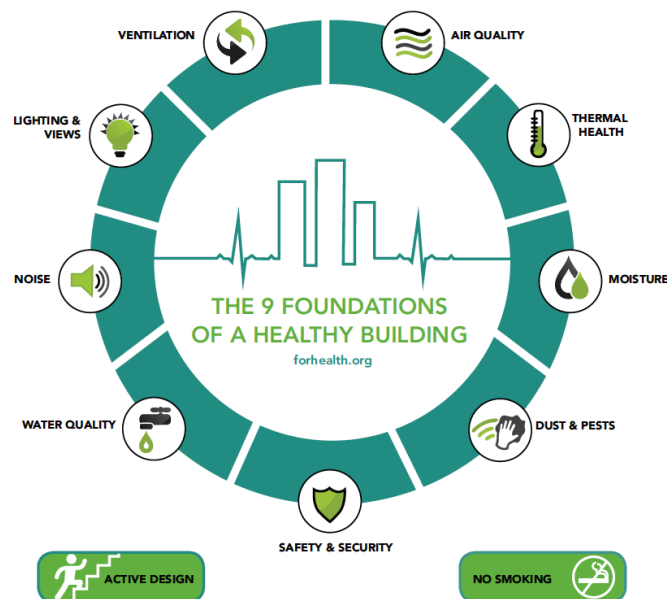
(*9Foundations.ForHealth.org*)

.

INSTRUCTIONAL TECHNOLOGY

Vision
This instructional technology specification is a summary of the roadmap included as Exhibit B. It is a compilation of State of California and regional research focused on integrating technology into everyday instructional delivery at SRCS. The district technology standards and roadmap create benchmarks for technology use by all teachers and staff. Sources that contributed include the State Blueprint for California Education Technology, State Frameworks, The Consortium of School Networking (CoSN), the District's LCAP and the District's 2015 Facilities Master Plan. It is noted that the collective opinion is that students will control more of their learning through personalized learning. The tools of technology will aid in this type of learning as teachers and students monitor and design the learning specific to the student's needs. The 2015 Facilities Master Plan set the groundwork by listing the technology tools needed in a standard classroom.

Technology enhances strong student learning by providing students with greater access and rich opportunities, through powerful instructional models supporting:
- Differentiation of instruction
- Self-directed and teacher-directed learning
- Student centered learning developing student ownership of their learning
- Blending of curriculum and technology
- Highly complex instruction and learning
- Flexible and responsive instructional practices
- Increased teacher productivity, collaboration, efficiency, and efficacy

Trends
The Consortium of School Networking (CoSN) publishes an annual report geared toward technology trends spanning five years. This report, called the NMC/CoSN Horizon Report, offers a guide to the future, as trends become reality. The 2016 K–12 Education report charts long-term and short-term trends, including:
- Redesigning learning spaces to accommodate more immersive, hands-on activities, and rethinking how schools work to keep pace with the demands of the twenty-first century workforce and equip students with future-focused skills.
- In the short-term, the rise of coding and programming skills as literacy emerged. These skills will bolster problem-solving, creativity, and critical thinking skills. [ix]

.

District Technology Standards—Classroom and Office Spaces
- Standard Classroom Model will have PC-based desktop, document camera, projector display (interactive ultra-short-throw), and enhanced audio system (voice amplification with priority page system adjustment)
- Matte-finish magnetic whiteboards
- Classrooms equipped counter-level access of three (3) duplex outlets for charging six (6) Chromebooks
- Mobile device for all classroom teachers
- Cloud-based applications (move from on-site server applications)
- Google Suite services
- Learning Management System (such as Canvas or Google Classroom)
- Nine (9) (3 locations x 3 drops) cat 6a plenum rated network data drops
- One (1) IP-based speaker/clock combo
- One (1) VoIP basic handset
- One (1) wireless access point—minimum Meraki MR42
- One (1) audio/visual connection plate, including audio adjustment-off-set front of the room and includes; USB, HDMI, mini (3.5) data connections
- Other staff or office set up: PC desktop (optional laptops for administration); VoIP super handset; printers as determined at each site

Classrooms will be modernized with displays and projectors so teachers and students are able to quickly and seamlessly show their work on the classroom screen. Spaces must be retooled to create collaborative and flexible working environments.

District Technology Standards—Other Spaces
- Libraries will function more like media centers. As the District moves to 1:1 there will be a reduction of mini labs in the library so those spaces can be used for small group areas.
- Mini project stations should be designed that allow for quiet zones that allow for video production.
- All common or courtyard spaces must have wireless connectivity to support after-hours access.

Spaces will be retooled to create collaborative and flexible working environments. The demand for more digitally produced work invokes the need for mini video production environment so students can demonstrate their work. Also, other common spaces should be reevaluated to allow for small and large group configuration. An example of this is noted in the Schools Planning & Management: Reimage Your Media Center. [x]

Identifying your media center's role in the overall learning ecosystem is a crucial first step. The media center's primary function is not to simply

archive research materials. Information, through mobile devices, is literally everywhere.

If your community wants to create a workspace for multimedia or STEM projects, or a quiet space for independent study, or a social place for small group activities, or a large instruction area to bring whole classes together, can your media center meet those needs?

Elementary Library, HED Architects

"Designing spaces that incorporate technology in a flexible way would be great…"

~Teacher, SRCS Educational Specifications Survey.

.

ELEMENTARY AND MIDDLE SCHOOL LEARNING SPACES (CLASSROOMS)

Vision and Program Statement
Each of the elementary schools, together with Davidson Middle School, celebrates and serves a diverse student population. Common vision threads throughout each school's mission statement—to work collaboratively with faculty, staff, parents, and community to ensure that all students have the foundation for academic and personal excellence. Each student's unique physical, social, emotional, and intellectual contributions are valued, ensuring a student-centered, enriching, safe, and supportive learning environment. Central to each school's mission is for each child to achieve mastery of California Common Core State Standards, English literacy, and a lifelong love of learning.

Trends
Personalized learning continues to be a dominant trend for education, even at the early elementary levels, including the differentiation of lessons for students of different skills levels, and efforts to help students move at their own pace. Increasingly, students are given more control over their learning through technology and other means to help with how they learn best, what motivates them, and their academic goals.

Class size reduction through the Local Control Funding Formula continues to influence elementary education and capital plans.

Increasingly, students work cooperatively and learn collaboratively in cross-age level groups and mixed-age groupings. Critical thinking, decision making, problem-solving, and other important life skills associated with utilizing a wide variety of information resources are integral to the entire educational process.

Curriculum / Anticipated Use
- Common Core
  - English Language Arts (Reading, Writing, Listening, and Speaking)
  - Mathematics
- Science and Health (science specified separately for middle school)
- History and Social Science
- Visual and Performing Arts
- Physical Education
- Technology and Computer Skills
- English Language Development
- Newcomers Program
- Middle School Electives (specified separately for unique space needs)

.

.
.

Educational Process
The teaching and learning activities for the elementary and middle school grades are done in many settings.

Students do individualized desk work; whole group learning with the teacher; small, flexible group work; and center activities and special projects that relate to real life within the community. Individuals and groups are in tutoring sessions. Demonstrations and breakout sessions are conducted. Workspaces with hands-on materials are utilized. Student work and special projects are amply displayed for numerous purposes. Student access to material areas and display areas is critical to instruction.

Teachers circulate around the classroom space so as to monitor individual student needs, work with various flexible groups, give small group demonstration lessons, conference with students on a one-on-one basis as well as instruct the whole group for certain periods of time.

Orientation and Relationship
Classrooms are arranged in grade level and mixed age clusters in elementary to facilitate the collaboration of students and teachers so that they may function as learning teams.

In middle school, classrooms are clustered by department.

Space Requirements
The elementary and middle school learning space should include the following:
- Minimum 960 square feet
- Adjacent indoor area for small group instruction
- Nano or another adjustable wall between classrooms for interdisciplinary instruction as budget allows
- Connection to outside for outdoor instruction
- Floor to ceiling magnetic whiteboard on teaching wall or magnetic whiteboard at student height with storage below
- Option for teaching wall with magnetic sliding whiteboard and storage behind
- Resilient adhesive floors that meet California Green Standards
- Blinds for windows

Technology (See Instructional Technology Section and Exhibit B)

Display
- Mobile whiteboard(s) (option)
- Tackable wall surfaces floor to ceiling

.

.

.

Cabinetry/Storage
- Backpack storage—either cubbies or hooks for 28 students either inside or immediately outside elementary classrooms
- Two (2) to four (4) full height, double door, lockable storage units (could be mobile), one (1) with wardrobe area to hang teacher's coat
- Two (2) or three (3) built-in book cases (could be mobile), height appropriate to developmental age

Utilities
- One (1) deep sink per classroom with drinking fountain and hot water (counters and cabinets adjacent to sink)
- Minimum two (2) electrical outlets per each wall
- Charging zone for Chromebooks and other devices (see Instructional Technology standards section)
- Climate control thermostat
- Light switch panel located near main classroom door

Furniture and Equipment
- Standup student desks or other easily configured modular tables and chairs for 28 students (K–2); 30 students (Grades 3–8)
- Rugs or carpet for structured academic time
- Mobile Chromebook carts
- Basic VoIP handset

.

ELEMENTARY LEARNING SPACE FOR SCIENCE, TECHNOLOGY, ENGINEERING, ART, AND MATH (STEAM) AND/OR SPECIALITY PROGRAMS

Vision and Program Statement
The vision is for each elementary and middle school to have a flexible classroom or maker space to support STEAM curriculum and to serve as a space for unique programmatic needs of each school. San Rafael City Schools is focused on improving Science, Technology, Engineering, Art, and Math education within its core academics.

Trends
Many elementary school districts are addressing STEAM through maker spaces and spaces with the flexibility to delivery STEAM activities before and after school. Diversity and equity in STEAM continues to be a top educational priority throughout the state.

Curriculum and Anticipated Use
This space is intended to allow for a variety of uses and curriculum.

Orientation and Relationship
The STEAM flexible classroom is located adjacent to outdoor learning space and central to other classrooms on the campus.

Space Requirements
The space requirements of this learning space are the same as those for the Elementary Learning Spaces (Classroom) section; however, **without** extensive built-in cabinetry to allow for the versatility, fluidity and the ability to adapt for future uses. A sink with countertops adjacent and storage below, robust electoral outlets and resilient adhesive floors that meet California Green Standards and instructional technology will also allow this space to be used in a variety of manners.

.

KINDERGARTEN LEARNING SPACES (CLASSROOMS)

Vision and Program Statement
Primary students in elementary schools need an educational environment that is positive, safe and conducive to learning. Children in grades PreK–3 are given many opportunities to learn. These children will engage in many learning settings while adjusting to their new school environment and peers. Within each school, a variety of approaches occur simultaneously to deliver and facilitate each student's individualized learning program. Children at this level must have opportunities to work within individual, small group, and large instructional strategy settings. Thus, students will have numerous opportunities to become actively engaged in learning and to gain further understanding of others, the value of cooperation and collaboration, and a love of learning that will last a lifetime.

Trends
Kindergarten students use manipulatives and have rich, hands-on experiences. The curriculum is a developmental, early primary program where children are challenged at their own level and beyond An emphasis is being placed on literature and literature-based programs. There is also an emphasis on large and small cooperative group learning and multi-age groupings for instruction and assessment. Transitional kindergarten is also operating at some District schools serving as a bridge between preschool and kindergarten and functioning to provide students with time to develop fundamental skills needed for success in school in an age- and developmentally-appropriate setting.

Curriculum
The kindergarten curriculum focuses on a hands-on developmental approach with a thematic integration of the following subjects:

- Language Arts
- Mathematics
- Visual and Performing Arts
- Science
- Physical Education and Movement
- Free choice activities to enhance the core curriculum

Educational Process
Teaching and learning activities for the integrated curriculum areas are as follows:

- Language Arts
    - Oral Language skills including receptive language and listening and expressive language and speaking

- o Literature and Reading Readiness including literature, basic reading concepts and reading readiness, word attack skills, structural analysis, vocabulary, and comprehension
  - o Introduction of writing skills including mechanics and expression
  - o Study skills
- Math
  - o Sorting attributes and classifying; identify attributes of things they can see as they physically sort the objects in a variety of ways
  - o Understanding arithmetic operations. Counting and measuring to find out answers to things they are curious about regarding classmates and everyday events
  - o Comparing
  - o Measuring geometric figures
  - o Locating and mapping
  - o Visualizing and representing shapes
  - o Exchanging and trading
  - o Learning rules and playing games
- Visual and Performing Arts
  - o Music
  - o Dance
  - o Drama
- Science
  - o Observing
  - o Communication
  - o Measuring
  - o Classifying
  - o Making models
  - o Recognizing space/time relationships
  - o Collecting and interpreting data
  - o Inferring
  - o Predicting
  - o Experimenting
  - o Formulating questions and hypotheses
  - o Making operational definitions
- Physical Education
  - o Locomotor skills
  - o Stamina
  - o Flexibility
  - o Pregame skills
  - o Sportsmanship
- Free Choice Activities
  - o Cooking
  - o Puppetry
  - o Special interest groups.

.
.

Orientation and Relationships

Kindergarten classrooms are close to the school entrance and office with a bus arrival and departure area and parent drop-off area near the entrance of the kindergarten rooms. There is a playground and a courtyard area with supervision capabilities from classrooms where possible. The kindergarten complex includes self-contained student restrooms. The complex is close to the early primary rooms to facilitate multi-age groupings.

Windows, whiteboards, sinks, drinking fountains, toilet fixtures, and furniture are appropriate heights for kindergarten and primary-aged students.

One exit opens onto the common kindergarten play area. A second exit (on the opposite wall) provides access to the main parts of the campus. Students move around the flexible space in the room in small and large groups. Students also work independently throughout the classroom.

Space Requirements

The kindergarten area requires more space because of the physical development of the child. The children need the larger areas for large-muscle development activities, music, dance, quiet activities, and art, but most importantly, the use of large and small motor manipulatives. The kindergarten classroom reflects a child-centered, multi-dimensional program. The size of the classroom is not less than 1,350 square feet including shared student restrooms, storage, teacher workroom, and wet/dry areas.

The space should include the following:

- Minimum 1,350 square foot classroom
- Floor to ceiling magnetic whiteboard on one wall or whiteboard at student height with storage below
- Option for teaching wall with magnetic sliding whiteboard and storage behind
- Resilient adhesive floors that meet California Green Standards
- Blinds for windows
- Windows are low enough for children to see out yet allowing space for furniture and equipment below
- Easily supervised restrooms are within the complex

Technology (See Instructional Technology Section and Exhibit B)

Display
- Mobile whiteboard(s) (option)
- Tackable wall surfaces

.

Cabinetry/Storage
- Each child has his or her own cubby along with a hook at appropriate height above to hang coats
- Two (2) to four (4) full height, double door, lockable storage units (could be mobile); one (1) with wardrobe for hanging teacher coat
- Two (2) or three (3) built-in book cases (could be mobile)
- There is an abundance of storage space, both built-in and portable, for the large manipulatives required for this age group
- There are large drawers or individual slots for posters, big books, and charts
- Shelves are deep and open for frequent use of manipulative materials

Utilities
- A deep sink has a drinking fountain and a foot pedal on the sink for ease in washing hands.
- There are adequate electrical outlets throughout the room, with a minimum of three (3) per wall
- Charging station zone or Chromebooks and other devices (see Instructional Technology section)
- Climate control thermostat
- Light switch panel located near main classroom door

Furniture and Equipment
- Standup student desks or other easily configured modular tables and chairs for 28 students
- Library shelves are movable so that the centers can be arranged according to the instructional need
- VoIP Headsets

Outdoors
- A playground area for kindergarten use only
- Playground area includes equipment to develop the upper body muscles and large motor skills as well as fine motor coordination for balance and running.
- There is a well-planned shaded area
- Vandal-proof drinking fountains of small size, handicapped accessible and strategically located

.

ELEMENTARY OFFICE—Reception

Vision
The school office complex serves as the information center and is an integral part of the school environment; therefore, it has an attractive, inviting, interactive, and problem solving orientation. The main entry of the building provides the opportunity to welcome and inform all students and visitors to the campus.

Trends
As a community outreach and family health resource support, the school office provides information and resources. The focus on community and school partnerships requires a welcoming atmosphere and space to facilitate cooperative working relationships. Home and school communication is maximized with computer and video capabilities. The office space is flexible for multiple uses and various groupings.

The information disseminated from the office team supports and enhances knowledge of programs available at the school for parents, visitors, students, and staff.

Teaching and Learning Activities
Generally, there will be a school secretary and clerks (as allowed by hiring formula). The office team is responsible for meeting and greeting parents, teachers, students, and visitors daily. The office is a space where design must be for safety and be welcoming and inviting. Other duties of the clerical staff include: typing, bookkeeping, making bank deposits, filing, answering phones and intercom, registering, keyboarding and other computer work, using copy machines, maintaining student records, receiving visitors, supervising waiting area, monitoring student injuries and illnesses, maintaining inventory of office and classroom supplies, sorting school mail, preparing reports, and completing other activities as needed.

Technology
- Technology needs in the office require multiple networking jacks to link numerous machines
- Copy and digital duplicating machines
- Printers networked and shared
- Other new technology as trends dictate

Display
- Tackable walls for student work displays
- Monitor in the reception area for school news display

Cabinets and Storage

- Lockable file cabinets for cumulative student records as well as other confidential information
- A built-in safe which includes lockable drawers
- Lockable storage closet for office supplies
- Adjustable open shelving space
- Fireproof cabinets for permanent records
- Lockable cabinet(s) in Health Clerk station

Utilities

- Sinks with hot and cold water in Health Clerk station
- Voice Over Internet Protocol (VoIP) system for telephone and clock and bell
- One (1) analog phone line for emergencies, which could be used as a dedicated fax
- Electrical outlets: multiple wall, floor, and counter

Furniture and Equipment

- Refrigerator, freezer, icemaker in the Health Clerk station and in office area for office staff
- Copier, digital duplicating machine, paper cutter and trimmer.
- Two (2) cots—one built-in, one foldable—in the Health Clerk station
- VoIP super handset

ELEMENTARY OFFICE—Administrative Team:
Principal and Assistant Principal

Vision
The offices of the principal and assistant principal (as needed) work together as an integral part of the overall school environment. They radiate a friendly, professional atmosphere with flexible spaces for individual and group conferences. Security, privacy, and collaboration potential are important aspects of the office designs.

Trends
The administrative team provides leadership and support to teachers. The principal's office is multifunctional to accommodate site-based management, leadership team, technology, and community partnership activities. Management of school security and student safety is addressed in the design.

Curriculum To Be Taught
The principal provides instructional leadership, school management, and facilitation for educational reform, and supervision of curricular and student outcomes.

Teaching and Learning Activities
The administrative team works with students, parents, staff, and community members to plan, monitor, and communicate curricular goals. Communication and professional growth opportunities are monitored through conferencing.

Orientation and Relationship
The principal's office is situated for internal observation of the campus for students and school functions. A conference room able to seat no fewer than eight (8) people is located adjacent to the principal's office. Phone, video, and full technological capabilities are provided. This office is accessible to the public and the staff. All interior doors have windows.

Space Requirements
- Office should 200 square feet and accommodate an executive or stand-up desk, credenza, filing cabinet, bookcases, computer workstation and printer, and a small, round table able to comfortably seat four (4) people
- Computer station networked to the LAN and WAN
- Windows allow a line of sight for supervision of students
- Walls have tackable surfaces
- The Conference Room accommodates up to eight (8) people. It provides collaborative space for parents, teachers, and administrators. It has an overhead short-throw projector or monitor, matte whiteboard, computer and video capabilities, phone, and sink.

Technology

- Each staff will have access to PC-based computer with access to printer
- Wireless access point and network drops

Cabinets/Storage

- A lockable closet for coats, sweaters, and other personal belongings is needed. Bookshelves drawers and file storage within the closet.

Utilities

- Plentiful electrical outlets on all walls and the counter are necessary. No less than two locations on opposite walls should be provided for phone and data jacks.

Furniture and Equipment

- Include all necessary furniture and equipment to meet the professional standards of the administrative complex. Consider the most efficient, space saving, and flexible furniture to best utilize space.
- Space for table and four (4) chairs in principal's office
- VoIP super handset

.

ELEMENTARY OFFICE—Staff Collaborative Space (Workroom)

Vision
The staff workroom provides areas that focus on a variety of activities of professional preparation including research, planning—both independently and collaboratively—preparing materials, and reflective and interactive activities. Both parents and staff members utilize the staff workroom.

Trends
The staff workroom facilitates the preparation of materials by both parents and staff using the latest technological tools. Trends indicate that the workroom will also be used for staff research and professional development. Access to computer networks (school, district, nationwide) is important.

Activities
The activities in the staff workroom include a variety of interactions that require the need for quiet areas as well as areas for machine use. Many teacher-prepared materials, including art projects, originate from this room.

Orientation and Relationships
The staff workroom is adjacent to the school office providing easy access by office staff. Also, the workroom is adjacent to the staff lounge. Floor space is large enough to accommodate several small tables at which to work and sit in comfort.

Space Requirements
- 400 to 500 square feet
- Counter space to accommodate a variety of small office machines
- Racks for accommodating butcher paper

Technology
- A PC-based computer is available with access to laser printer and scanner as well as network drops
- Conduit and wiring allows for implementation of latest technology and future advances

Cabinetry/Storage
- Counters are of comfortable height for staff to prepare materials and use machinery
- Counters with laminated surfaces and storage cabinets underneath are built-in
- Upper casework is deep enough to store paper and other supplies
- Counter space has open and closed cabinets beneath
- Wall space accommodates the large equipment and cabinets

- Bookshelves are open and closed

Utilities

- Ample electrical outlets with appropriate voltage are placed every three (3) feet around the counters and walls to supply the many pieces of electrical equipment
- Dedicated circuits are provided for copy and digital duplicating machines
- There is a small sink with hot and cold running water and a small counter area for a coffeepot

Furniture and Equipment

- Station for up to three (3) laptop connections
- Bookcases are available for professional development materials
- Equipment includes copy machine(s), digital duplicating machines, a freestanding laminator, paper cutters, die cutter, book binding machines, computers, printers, scanners, phones, and electric staplers
- VoIP super handset

.

ELEMENTARY OFFICE—Staff Lounge

Vision
The staff lounge is an important area that provides a space for teachers and other staff members to collaborate, relax, eat, discuss professional topics, hold formal and informal meetings, and prepare for interaction with students. In addition, the staff lounge is often the focal point for viewing and sharing information on professional development, district, and school news. This room is also utilized as a meeting area for the whole staff.

Trends
Staff rooms adjacent to or nearby the private outdoor patio areas are becoming prevalent. Some schools are experimenting with student-created lunches such as salads or sandwiches for sale to staff members. Some schools are also exploring physical fitness programs and equipment for staff members.

Activities
Activities, which occur in the staff lounge, include:

- Relaxation on break and lunch period
- Preparation and storage of staff meals
- Eating
- Viewing of areas (such as bulletin boards) to provide updates on district postings, staff development opportunities, and school news

Orientation and Relationship
Since the staff lounge often serves as the "hub" of all staff members, it is important that it is in an area of campus readily accessible to all members. The teacher workroom is connected to or located near the staff lounge. Staff mail and message boxes are in or near the staff lounge to allow members to quickly and frequently check for mail and messages. Also, staff restrooms are located near the staff lounge. The staff lounge is adjacent to the office complex.

Space Requirements

- 450 to 550 square feet
- There is adequate space for dining
- The staff room should provide table seating for no less than 15 to 20 adults. Additional seating on couches and easy chairs is also provided

Technology

- Networked PC-based computer and printer
- VoIP handset

Cabinetry/Storage

- Adequate storage exists for food preparation materials and utensils, as well as for other items needed for serving food such as coffee pots, bowls, plates, silverware, and tablecloths
- Storage space should also be provided for educational materials used by all staff members

Utilities

- The double kitchen sink provides both hot and cold water as well as a garbage disposal
- Electrical outlets should be located at convenient intervals along the walls, particularly in the food preparation area
- Additional voltage is provided to accommodate all appliances
- Water lines are provided for icemakers and drinking fountain
- Phone access is also available

Furniture and Equipment

- Refrigerator and freezer with ice makers
- Microwave
- Double sink with garbage disposal
- Dishwasher
- Oven
- Coffee maker
- Cooking and serving utensils
- Tables and chairs to accommodate 15 to 20 adults while eating
- Soft furnishings
- Bulletin board
- Drinking fountain
- Bottled water dispenser
- "Instant" hot steaming water access

.

ELEMENTARY SCHOOL FAMILY CENTER

Vision
Each elementary site in San Rafael City Schools will have a Family Center or space for families and volunteers. The Family Center mission is to foster strong partnerships between teachers, families, administrators, students, and community partners through open dialogue, inclusive spaces, ongoing learning, and shared responsibilities that drive and unify the school community.

Trends
Family engagement is key to a healthy and thriving school. Decades of research show that when parents are involved in their child's education, students have higher grades, test scores, and graduation rates; increased motivation and better self-esteem; better attendance; and decreased use of drugs, alcohol, and violent behavior.

Curriculum and Anticipated Use
The Family Center provides an area for families to gather, gain resources, connect with staff, and become involved contributors of the school community.

Orientation and Relationship
The Family Center orients to the front of the school near administration so that parents and students can easily access.

Space Requirements

- 500 to 960 square feet depending on school size
- Ample space and storage are needed for multiple adults that will be sharing the areas
- Tackable walls for displays
- Carpeting

Technology

- Full access to technological devices and outlets for adequate electrical service, including telephones, electrical outlets, alarm system, HVAC, and network drops
- VoIP

Cabinetry/Storage

- Flexible, movable and ample
- Lockable storage, including coat closet, and adjustable open shelving

Utilities

- A sink and counter space for coffee pot, small refrigerator
- Plentiful electrical outlets

Furniture and Equipment

- Movable partitions to create smaller spaces
- Soft furnishings
- Movable tables and chairs
- Movable computer tables
- Bookshelves
- Desks for one (1) or two (2) staff
- VoIP handsets

.

STUDENT SUPPORT PROGRAMS AND SERVICES

The common thread connecting all the special needs programs is to provide appropriate access for all students to the general curriculum. Such programs should work collaboratively to seamlessly meet student needs rather than in a piecemeal or duplicative way. The space for these programs can be shared and must be flexible. Not all services will exist in any one school but, if the need for them arises, they must be provided. Therefore, appropriate facilities must be considered in planning.

Vision
Special support programs work together to deliver services based on student needs rather than program description. The vision for each site is based on the unique needs and priorities of the community that the school supports.

These federal, state, and general fund programs include Special Education, Title I, LEAP, AVID, grants, and English language development. Ideally, future funding and building resources come through joint use with other agencies such as private industry and county services already serving the local community needs.

Support programs and services include a variety of activities supplemental to, or in lieu of, the general education program. Typically, they are provided to address students' learning rates or styles, which do not respond adequately to the general program. They may also address the needs of students from homes where a language other than English is spoken and (or) where home support is limited.

A description of support programs and services follows.

Trends
Reflecting changes in society, more and more children require specialized support. In addition to students who are eligible for special education programs and services, there is a growing population of students with a wide range of needs that require support service.

Curriculum To Be Taught
Since the aim of support programs and services is to enable students to succeed in general education, all basic subject matter is taught. Also, social and study skills are included. Some services, such as Occupational Therapy, Physical Therapy, and counseling address functional skills or other areas. These student needs must be met before academics can be approached. Modifications in materials, manipulatives, and computers may be necessary to accommodate individual needs.

Teaching and Learning Activities
In self-contained or pullout settings students may work individually or in small groups. A high adult-to-student ratio necessitates space for co-occurring multiple

activities. The varying skill levels of students served at any given time also calls for space for the adults to move among individuals and groups to aid and monitor independent workers and students coming and going. Provision for noise attenuation and ventilation is included.

With the increasing trend for students to be fully included in general education classrooms, an additional adult may provide services to a single student or a small group of at-risk students within a general education classroom Provision for a small annex adjacent to the larger classroom where support personnel can work with individuals or small groups is needed. This space should include lockable storage areas for the personnel using this shared space.

Orientation and Relationship
An area where spaces can be created to house the necessary support programs and services is essential. Not all programs and services will exist at a specific site.

Support spaces are located near the general education classrooms to provide convenience and ease of supervision as students move between support spaces and classrooms.

The responsibility for monitoring ill students often falls to office staff. The room for ill students has an adjacent restroom and has a lockable cabinet for medications. The campus has a restroom for use by students with disabilities requiring toileting assistance and (or) a lift station.

PROGRAMS

Special Education Academic Programs
Children with special needs are provided a full continuum of program options to accommodate individual student's characteristics, needs, abilities, and interests within the least restrictive environment.

Space needs include one-on-one testing and instruction, confidential meeting space, space for small groups, and classroom size facilities. Due to specific learning disabilities of some students, it is necessary to provide acoustic insulation and good lighting, as well as access to telephones, intercoms, and administrators. Toileting may be required. Handicapped access and full ventilation are particularly needed. Flexible space is needed in schools to provide for changing needs of students and programs.

Special Day Class
Special Education serves students academically through self-contained classrooms (SDCs) for students requiring a more intense (more than 50% of the day) level of service. The classrooms may house students with learning or language deficits who are typically ambulatory and able to move about a campus independently. The self-

contained classroom may also house students with severe handicaps requiring a need for adequate space for wheelchairs and gurneys. Close-by and accessible restrooms are essential for such classrooms. A classroom designed for severely handicapped typically serves students from several feeder schools. Some classrooms may require special features including an enclosed student restroom, an area for a washer and dryer setup, and a "home" kitchen area for basic student instruction.

Special day classrooms are at least the same size as regular education classrooms and are properly equipped for the students who will occupy the space, for their ages, and for the types of disabling conditions. The square footage allowance in Ed Code 17047(a) is used as a guidance for the design of the classroom space and other space on the campus to support the special education program such as speech, psychologist, counseling, and conference. A conference area is available for the annual Individualized Education Program (IEP) meetings for each student. SDCs are distributed throughout the campus with age appropriate regular education classrooms. A cluster of two SDCs may be considered if support or auxiliary services (example bathroom, feeding, physical, or occupational therapy) are needed to serve the students throughout the day (*State of California, Department of Education, Title 5 Requirements*).

Resource Specialist Program (RSP)
Students who can function adequately in a general classroom for more than half of their school day are served through RSP. Students may receive services in a resource room or learning center where they go for special help. The resource specialist or instructional assistant may also go into their classrooms to provide supplemental help there.

Resource Specialist space is provided between 240 and 960 square feet depending on the number of students served.

Special education also includes numerous services, which provide support of various types to students in general education classes and special education programs. These include the following:

> ### Speech and Language
> Language, Speech and Hearing (LSH) services see students individually or in groups of up to about six students. These students frequently have poor auditory processing and comprehension skills. Depending on the student's assessed need, services may be provided either in the classroom or a quiet environment.
>
> Each elementary school will have a Speech and Language space that includes a desk area for the therapist and small group instruction area for four (4) to six (6) students and should be a minimum of 200 square feet.

.

Psychological and Counseling Services
The school psychologist tests students individually and counsels students individually or, less frequently, in small groups. Conversations with parents in person-to-person meetings and telephone conversations are confidential. A private, quiet space with minimal distractions is essential.

Each elementary school will have a psychologist space that includes a desk area for the psychologist and a small group instruction area for four (4) to six (6) students and should be a minimum of 150 to 200 square feet.

Each site should have two (2) additional counseling offices for intervention programs. These offices include a desk area for the interventionist and small group instruction area for four (4) to six (6) students, and should be a minimum of 150 to 200 square feet.

Health Services
The Health Services staff treats individual children and interviews and counsels parents and teachers. A private space is needed, preferably in the administrative office complex, to house a health station including a cot, small office space, and lockable cabinetry.

Additional Services
Services under this umbrella include adapted physical education, occupational therapy, physical therapy, vision impaired services, specialized nursing, and mental health support. All services may be provided at a school if such services are part of a student's individualized educational program. They occur in a classroom or shared space. In some cases, they may require privacy. The requirements of these services vary, affecting the amount and type of space needed.

Space Needs
- Movable walls and partitions create smaller spaces, some of which should be soundproof
- Ample space and storage are needed for multiple adults that will be sharing the areas
- Some full-size classroom areas are needed
- Good ventilation and natural lighting
- Restroom facilities, water, and sinks with tempered hot water are readily accessible when necessary to meet specific program needs

Technology
- Because of special needs and the changing nature of needs, there is full access to technological devices and outlets for adequate electrical service,

.

including telephones, electrical outlets, alarm system, HVAC, and network drops for PC-based computers access to school network

Cabinetry/Storage

- Flexible, movable, and ample
- Lockable storage, including teacher coat closet, and adjustable open shelving
- Adjustable student cubbies
- Ample storage space is essential due to the multitude of materials and equipment that are used to teach all grade levels with a host of special needs

Utilities

- Hot and cold water where necessary to meet specific program needs
- Ample outlets
- Full access telephones and intercom systems
- Drinking fountains and sinks
- Below counter plumbing does not interfere with wheelchair access

Furniture and Equipment

- Movable tables, desks, computers for teachers and students
- Movable computer tables
- VoIP and handsets
- Ample outlets
- Tackable walls, and magnetic whiteboards with sliding bulletin boards that move over the whiteboards when not in use
- Lockable file cabinets on wheels
- Bookshelves
- Lockable coat closet for staff
- Specific requirements will vary as the special needs vary

.

LIBRARY AND MEDIA CENTER

Vision

The mission of the library and media program is to ensure that students and staff are effective users of ideas and information. The entire school community including students in all grade levels, teachers, support staff, parents, and local organizations use the library media center. It is the point of contact with all available information systems outside the school campus. The central function of the library media center facility is the housing, circulation, and centralized distribution of the collection of information resources and equipment used in implementing the school's curriculum. It is an instructional space used for independent study, small groups, and whole-class learning activities. Staff meetings, workshops, and community events are also accommodated. Facilities include the main library, workspace for library staff, study areas, and flexible storage spaces for a variety of media and equipment. The library is also utilized for community activities and should be easily accessible by the community.

Trends

School libraries have evolved from simply providing print materials to offering rich selections of print, media, and digital resources; from teaching students how to search a card catalog to teaching students strategies for searching a variety of print, media, and digital resources; from teaching basic reading literacy to teaching information literacy—the ability to access, evaluate, use, and integrate information and ideas effectively. [xi]

Libraries are also being developed as resource centers for teachers where they can research best practices and test teaching methods and theory.

Curriculum

Promotion of literacy and the enjoyment of reading, viewing, and listening is a central focus of the library and media program. Students use library resources to become proficient in locating, evaluating and analyzing, presenting and applying information. Instruction and practice develop reading and writing fundamentals, critical thinking, communication, and technical skills. School library standards incorporate information literacy skills. Students learn to access, evaluate, use and integrate information and ideas found in print, media, and digital resources, enabling them to function in a knowledge-based economy and technologically oriented society. [xii]

Educational Standards

Classroom instruction in the core curriculum is enriched with library materials that are current, accurate, interesting, and representative of a wide variety of cultures and viewpoints. Students develop library and reference skills that contribute to lifelong learning. Appreciation of literature is increased so that reading becomes an activity of choice for students.

Teaching and Learning Activities
- Whole class instruction and application of library and reference skills in all curricular areas
- Seat work—individual and small group projects
- Selection and checkout of library materials for research or pleasure
- Dramatic activities including story time, puppetry, rhymes, and chants
- Recreational and leisure reading
- Displays of student work such as writing and art projects
- Electronic research using computers, direct access to the internet, and other equipment
- Video and multimedia production projects
- Access to outside research databases via the school. District network and internet connections

Orientation and Relationships
The library is centrally located on the school campus. Ease of access by students from the playgrounds and classroom spaces during recess times should be considered. Nearby areas include restrooms. The library's location should be easily accessible by the public for after hour programs. The workroom, including a multimedia production center and AV storage areas, are adjacent to circulation desk and computer workstations.

Space Needs
Elementary libraries should be at minimum the size of a classroom. A central area for seating and large group activities accommodates at least 36 students seated at tables. Individual study areas on the perimeter are available for eight (8) or more students. Librarian's workroom includes storage, work surfaces, data communications, and a glass wall or large window facing into the library if separate. The storage area is sufficient to house equipment for school-wide use and is secured in a windowless, locked room or cabinetry. Large window space in the main area adds to the appeal and comfort of the library as a reading and meeting room; however, provisions are made to darken the room partially or entirely when projection equipment is in use.

Technology

- Two (2) PC-based computers with barcode scanners and printer for library management system at the circulation desk
- Appropriate software for circulation and catalog functions
- Three (3) catalog stations for student use
- Five (5) library reference computers with CD-ROM and printers with internet access for on-line reference and other telecommunication activities
- Clock, intercom, and telephone
- Video equipment for production, recording, and dubbing in a lockable room.

.

- Network drops are located throughout the room
- Power, phone, and computer cables in raceways are protected and do not interfere with counter activities

Cabinetry/Storage

- Sturdy, adjustable non-pressboard shelving Perimeter shelving with a maximum height of 5' and a minimum overall length of 750 linear feet in 3' to 4' sections. Space for some portable shelving is also provided, with a minimum of 250 linear feet divided into sectional units that can be placed appropriately throughout the reading area.
- Shelf space next to circulation counter for books in process
- Locking storage cabinets for supplies and other valuables

Utilities

- Wall outlets throughout library for power
- Adequate lighting with maximum adjustability
- Thermostat for control of central heat and air
- Sink and running water in librarian's workroom or at edge of library
- Power available for staplers, bulk erasers, laminators and other machinery

Furniture and Equipment

- Adjustable tables and stackable chairs for 36 students
- Magazine rack and newspaper holders
- Large 8-foot pull-down screen with matte finish mounted on ceiling near main seating area to be used for overhead projector, video, and other visual presentations
- Library circulation counter with drawers, shelves, working surfaces, built-in book return slot and rolling box. The counter has space for a computer and scanning systems for library circulation, including built-in electrical. At least six (6) feet of counter is at 28-inch height to accommodate checkout by small children. Other counter space is comfortable working height for adults.
- Work table and desk for library staff
- Movable study carrels or tables for independent work
- Anti-static stain resistant carpeting
- Comfortable places for reading
- Blinds for all windows
- Drafting type angled-top table for laying out large books, maps
- Built-in shelving that is an appropriate height for elementary students
- Interior shelving is half-height to provide for appropriate supervision.
- Display space for viewing special projects, books, school awards, etc.
- VoIP headsets

.

MULTIPURPOSE ROOM AND WARMING KITCHEN

Vision
The multipurpose room and kitchen provide a warm, friendly environment where children and adults are involved and comfortable in various school and extracurricular activities including drama, dance, and music performances, physical education activities, school sports, assemblies, rallies, school educational films and videos, promotions, and food services. Also, this area is utilized for numerous community activities. An indoor stage area facilitates the many activities listed above. Also, as space and program allow, an outdoor stage area or amphitheater is provided for school and community activities and performances involving the entire school and community population.
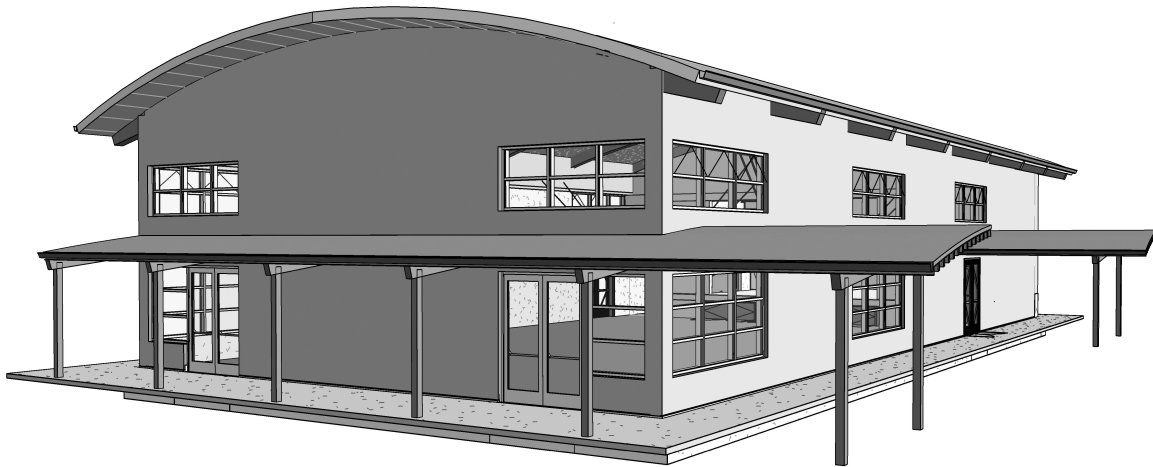
Glenwood Elementary School Multipurpose Room Concept Image, DLM HED Architects

Trends
Changes in nutrition requirements as well as the involvement of children in making decisions regarding food choices have an impact on how the food service is operated. Food bars with fresh fruit and vegetables for elementary students are increasingly common. Current trends are also showing an increased use of school facilities by the community for numerous and varying events.

Curriculum To Be Taught
A variety of curriculum areas is addressed in the multipurpose room including physical education, fine arts, nutrition, and food preparation. In addition, assemblies, meetings, and community events are held here. Art can be displayed here. The room itself is visually appealing and architecturally inspiring.

Teaching and Learning Activities
The teaching and learning activities taking place in the multipurpose facility are varied. Physical education instruction and activities include basketball, volleyball, tumbling and gymnastics, movement, intramural sports, and various indoor games.

.

Fine arts instruction and activities include drama, music, band, chorus, dance, art, and art displays on tackable walls and in art displays. Performances and exhibits take place as well.

Rallies, assemblies, and special programs for large groups and meetings for both large and small groups are held in the multipurpose facility.

Orientation and Relationships
Due to numerous activities that take place in this area (especially daily dining), the multipurpose room is located as an integral part of the rest of the school. Playgrounds and fields are adjacent for easy access after the children are dismissed from lunch. The Multipurpose Room is adjacent to the "school hub". Parking for school and community use is easily accessible.

The indoor and outdoor stage areas are raised or portable and are adjacent to one another. Stairs extend the width of both indoor and outdoor stages.

Restrooms and drinking fountains are within the Multipurpose Room building (i.e. accessible without having to go outside). This is especially important for safety and security after dark and for facilitating after-school and community events. Telephone and campus computer network jacks are inside the serving kitchen and on the stage.

The student entrance to the multipurpose room is easily accessible from the classrooms. There is also public access from the parking lot for community use of the facility. When planning circulation patterns to and from parking areas, safety of the users is paramount.

The kitchen is accessible to a driveway and close to the street entrance to facilitate deliveries by large trucks and to keep delivery vehicles away from foot traffic. The kitchen is separated from the main floor of the multipurpose room. The garbage area (i.e. dumpster) is easily accessed from the kitchen and the dining areas, is fenced or otherwise isolated, and is away from foot traffic areas. The garbage collection area is placed so that it is not the main feature that is viewed from the street.

A speed line for serving students quickly and efficiently is located in a separate area of the Multipurpose Room.

An optional outdoor eating area with rain and sun shelter is located near the table storage area, which also has outside access.

Internal Traffic
The entrance is located so that children have plenty of room to line up to receive lunches through a speed line delivery where hot and cold prepackaged food items will be displayed and dispensed. There is room for children to flow around both

sides of a serving table or a food bar in such a way that it does not interfere with the actual seating area. The students buying lunches are served quickly. The serving area is located away from the stage area if activities are taking place on the stage during the lunchtime. Data outlets are located at the end of the serving line to provide for computerized selling of lunches and as a redundancy for Wi-Fi. The kitchen is located next to the serving area with a door and windows between for supervision. Numerous arrangements are present for students disposing of waste and recycling possibilities.

The kitchen is designed so that activities do not interfere with each other (i.e. deliveries do not cross over with people preparing food for the lunch service, dish washing is not interfering with the food preparation area, etc.). The kitchen is large enough so that carts can easily be rolled around for various functions.

Students enter and exit the multipurpose room at various intervals of time throughout the day. The main student entry should be accessible from the school quad area. The main student exit should be adjacent to the playground.

Space Needs—Multipurpose Room
The Multipurpose Room is generally sized at seven (7) square feet per student, is large enough to accommodate assemblies as required, and will accommodate the entire student population theater style. All students can see the stage areas for assemblies.

Technology

Sound System

- Controllable sound system with expansion capabilities is of high quality for speech, vocal, and instrumental musical presentations to all areas of the room
- Wall mounted speakers
- Wall and floor mount jacks for microphones
- Hanging microphone system and jacks are in place
- Wall-mounted amplifier-mixer has at least two auxiliary inputs on side stage in lockable cabinet
- Acoustics of the highest level possible for sound control (including on the walls as well as in the ceiling)
- Conduit and jacks are available for video broadcast and computer access near front and back of room
- VoIP in the kitchen and stage area with handsets

Lighting

- Stage lighting with overhead spots with dimming control
- Theater lights with light control board (portable with jack at rear of Multipurpose Room opposite stage and on the side of the stage)

- Remote controlled spotlights
- House lights with dim control
- Blinds or curtains for darkening room

Storage

- Storage space for folding chairs and folding tables with benches appropriate for the size of the school. (Table storage should be accessible for both inside and outside for optional outdoor dining.)
- Storage space adjacent to the stage to include areas and rooms for storage of audio and visual equipment, PA system(s), band instruments, drama props, costumes, and materials, and PTA supplies and equipment
- P.E. equipment storage area with indoor and outdoor access and a half-door for checkout of equipment
- Custodial room with mop sink for storage of mops, garbage cans, etc.

Utilities

- Restrooms and water fountains
- Fire and security alarm system on separate zone
- Numerous electrical outlets on and around stage
- Adequate ventilation and cooling on stage as well as Multipurpose Room
- Electrical outlets placed around the perimeter of Multipurpose Room

Furniture and Equipment

- Fold-up dining tables
- Serving tables
- Folding chairs for theater style seating and multi-tier racks for storing them
- Wall clock(s) on stage and in multi-purpose room areas
- Large, motorized theater screen
- Operable darkening curtains on outside windows to provide flexible lighting conditions
- Stage curtain placement allows sufficient movement of performers, particularly in back and off-stage areas
- When possible, outdoor speaker and lockable microphone jacks are available to facilitate outdoor performances, including audio-visual capabilities
- Lighting is adequate for evening and night events
- Four electrical outlets are available on either side of the outdoor stage

Space Needs—Kitchen

- Kitchen size is determined by the student population as follows:

.

Population	Minimum Kitchen Space
Up to 500 students	425 sq. ft.
500 to 750 students	725 sq. ft.
750 to 1,300 students	1,000 sq. ft.

- Flooring should be non-skid
- All kitchen walls must have a Fiberglass Reinforced Plastic (FRP) covering. The wall behind the 3-compartment sink to have stainless steel covering (only on back wall from the top of the sink station to the underside of the overhead cabinets).
- The rear kitchen door must be solid, 48" wide, with fly fan, buzzer, and peephole
- Doorways between the kitchen and speed lines must be wide enough to accommodate speed line equipment that is 42 inches wide
- A three-compartment sink should be provided for hand washing trays. A "booster" for hot water must be provided, if necessary. Hot water must reach 120 degrees in 15 seconds or less.
- A hand-washing sink must be provided, preferably located on the wall near the rear door, with easy access for the food service workers. Foot-control pedals are preferred. A "booster" for hot water must be provided, if necessary. Hot water must reach 120 degrees in 15 seconds or less.
- A microwave shelf should be provided
- Wall-mounted dispensers must be provided. A minimum wall space between the top of the 3-compartment sink and the overhead cabinets is 20" to provide room for the proper installation of the chemical dispensers. If necessary, dispensers can be installed on the lower shelf overhead cabinets.
- Stainless steel backing on the wall where the two rethermalizer units will be located is preferred
- All lower casework must be at least 6" off the floor
- All drawers and cabinets are for food service use only and must be lockable, and all locks should be keyed to the same number

Technology

- Computer terminal in the kitchen and near the serving area with network access
- At least one (1) network drop must be provided at the cashier's station in the speed line
- An access point for mobile cashier stations
- VoIP at the lead worker's desk and one data line

Storage/Cabinetry

- A dry storage room must be provided and should be at least 8' wide and 10' long

.

- Space to store movable carts out of the traffic patterns when they are not in use
- Undercounter storage to accommodate specific small equipment and supplies

Utilities

- Electrical outlets to accommodate kitchen equipment
- Adequate ventilation in the kitchen (heating and air conditioning), exhaust fans for ovens
- Two (2) electrical outlets for the rethermalizer units (elevation 28" off the ground)
- There should be numerous electrical outlets in the kitchen for existing and future equipment needs
- At least two (2) electrical outlets must be provided at the lead worker's desk area
- One (1) electrical outlet must be provided at the cashier's station in the speed line (drop down or floor outlet)
- At least two (2) electrical outlets must be provided for food cart equipment for speed line

Furniture and Equipment

- Roll-in refrigerator and freezer and 16 crate milk cooler
- Overhead cabinets (built-in)
- Cash safe
- Chemical dispenser two (2), chemical (Ecolab)
- Preparation table (stainless steel 30" wide by 60" long by 36" high, four (4) locking castors, two (2) undercounter drawers with locks)
- Counter space (built-in)
- Microwave
- Office equipment (desk, chair, file cabinet)
- Printer, laser
- Rethermalizer units (one (1) at schools serving less than 288 meals, two (2) at schools serving more than 288 meals)
- Shelving, various units (dry storage; walk-in)
- Storage locker
- Wall clock

Speed line

One (1) hot unit, one (1) cold unit at schools serving greater than 400 meals. Speed line units not needed at schools serving less than 400 meals.

.
.

PHYSICAL EDUCATION

Vision and Program Statement
The physical education (PE) programs are designed for grades K–8. PE is taught daily and is coeducational. The programs teach skills, physical fitness, and provide a foundation for developing lifelong activities. Due to food service needs, the Multipurpose Room use for PE activities is limited and occurs primarily during inclement weather.

Trend
Children are less fit than they have been in the past. This growing trend indicates a strong need for programs that emphasize overall fitness and a need to develop an interest in maintaining lifelong fitness activities.

Curriculum and Anticipated Use
The *Physical Education Model Content Standards for California Public Schools* adopted by the State Board of Education in 2005 establishes learning goals and objectives for physical education including a sequential, developmentally appropriate curriculum designed to help students acquire the knowledge, skills, attitudes, and confidence needed to adopt and maintain a physically active, healthy lifestyle.

The five (5) overarching model content standards for elementary and middle school students are as follows:

Standard 1: Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.

Standard 2: Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performance of physical activities.

Standard 3: Students assess and maintain a level of physical fitness to improve health and performance.

Standard 4: Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance.

Standard 5: Students demonstrate and utilize knowledge of psychological and sociological concepts, principles, and strategies that apply to the learning and performance of physical activity.

In elementary school the content standards emphasize the way in which students move through space and time in their environment, the way in which the student and a partner move in space together, the continuity and change in movement, the

.

manipulation of objects in time and through space, and the manipulation of objects with accuracy and speed.

In middle school, the content standards emphasize working cooperatively to achieve a common goal, meeting challenges, making decisions, and working as a team to solve problems.

Orientation and Relationship
The Multipurpose Room is used for physical education during inclement weather. Blacktop playground areas are between grass fields and school classrooms. Supervision of play fields is not obstructed by buildings or objects that impair observation.

Space Requirements
The combined playground areas are large enough to accommodate no fewer than 200 to 300 K– to 5–grade students engaged in various activities at any one time.

The kindergarten complex has 5,500 square feet of turfed area; 4,000 square feet of paved area and 2,500 square feet for apparatus (approximately ¼ acre).

Assuming a 12-acre site (where possible), the upper grades have eight (8) field areas ranging from 90' x 120' to 180' x 180', 12 hard court areas ranging from 60' x 75' to 80' 100', and apparatus areas covering approximately 0.6 of an acre. The total acreage for physical education is approximately eight (8) acres per CDE "School Site Analysis and Development." If the site size is less than 12 acres, then approximately 60% of the site should be devoted to physical education.

Storage
A PE equipment storage room should be provided (10' x 10') in the Multipurpose Room as close as possible to the playground area. The access door is split horizontally to use as a checkout station. An organized storage system ensures maximum holding capacity.

Utilities
Water fountains and bathrooms near blacktop, field areas, and play areas are within view and supervision of yard supervisors. Covered electrical outlets are available to play areas (e.g. on the outside walls of the nearest classroom). Outdoor water couplers are available in at least one convenient location on each building.

Furniture and Equipment
Playground equipment is of modular variety and meets or exceeds all current CPSC, ASTM guidelines.

Landing material complies with all ADA requirements and is of sufficient depth to absorb falls from the equipment to provide maximum safety.

Blacktop surface may include:
- Basketball courts with some lowered baskets
- Wall ball courts
- Tether ball poles of varying heights
- Volleyball courts
- Four square courts
- Kickball courts with painted bases
- Sufficient space to include other games, including circle games, line games, hopscotch, relay race lines, etc.

Turf fields may include the following. Note that for small urban sites, an area that can provide for physical education activities and meets the California Department of Education's Small Site Policy for delivery of physical education is specified.
- One (1) to two (2) soccer fields with portable goals
- Softball fields with backstops
- ¼ mile track with appropriate surface if appropriate for site
- Several benches or picnic tables shaded by trees

MIDDLE SCHOOL SCIENCE
Science, Technology, Engineering, Art, and Math

Vision And Program Statement
The vision of the Next Generation Science Standard (NGSS) and adopted California Science Frameworks (2016) as well as the San Rafael City Schools is to prepare students to be future citizens and future scientists, which leads to a specific vision about science education:

> *Learning science depends not only on the accumulation of facts and concepts but also on the development of an identity as a competent learner of science and motivation and interest to learn more. [...} Such identity formation is valuable not only for small number of students who, over the course of a lifetime, will come to view themselves as scientists or engineers, but also for the great majority of students who do not follow these professional paths. Science learning in school leads to citizens with the confidence, ability, and inclination to continue learning about issues, scientific and otherwise, that affect their lives and communities.* [xiii]

Trends
The NGSS, California Frameworks and Content Standards are new and identify the framework components as three dimensions: 1) Science and Engineering Practices (SEP), 2) Disciplinary Core Ideas and 3) Crosscutting Concepts. Teaching and learning science then is a three-dimensional process and students develop capacity with all three dimensions of science learning by asking questions and defining problems, developing and using models, understanding motion and stability, and seeing stability and change, amongst many other scientific relationships.

Curriculum and Anticipated Use
Davidson has fully transitioned to the Next Generation Science Standards and utilizes the "integrated model" for grades 6—8. This means that within the science department each grade level teaches across the science disciplines as opposed to only teaching one area such as biology only in one grade level. The teachers have developed meaningful units of instruction that are living documents and are taught and tweaked each year. This approach means that classrooms must be versatile to handle all types of science instruction, labs, and activities.

Educational Process
Instruction in the science classroom will integrate whole-group direct instruction with small group differentiated instruction and collaborative activities such as lab exercises. As a result, the size of the classroom must be large enough to allow for laboratory stations to accommodate a minimum of 32 students, with a demonstration table at the front of the room for the teacher's use.

Teachers will utilize a variety of technologies to deliver instruction. The science classrooms will be equipped per the Instruction Technology specification provided earlier in this document.

Orientation and Relationship
For STEAM program possibilities, the science area will benefit by being close to math and art classrooms. Additionally, the science classrooms have flexibility without a built-in student lab area to accommodate other disciplines, if desired.

Space Requirements

Classroom Area Layout
The middle school science classrooms will accommodate individual and group work, lab investigation, and ensure student safety. Therefore, these classrooms will be larger than average classrooms, with layouts that are flexible, safe, and provide good line-of-site while allowing student movement. There should be plenty of natural light and fresh air. The middle school science classrooms should be a minimum of 1,300 square feet including storage and teacher preparation areas *(CA Title 5).* It will include four (4) lab stations areas centered around four (4) student workstation sinks.

Each science classroom will have four (4) lab stations against the perimeter wall with a sink and 40 feet of base cabinet. Mobile furniture will create the lab stations for students. Each station should have electrical outlets.

Each science classroom will have a learning wall with tall cabinets at each side of bookshelves and whiteboards in the center with a matte finish for short throw projectors and stylus writing. One wall will have all tackable surfaces, base cabinets, sinks, chemically resistant counter space, and overhead cabinets. Other walls should have tackable surface and one electrical charging station zone for devices.

The teacher demonstration area should have space for a demo table with a sink, and ample electrical outlets, and allow for flexibility of setting up a mobile teacher desk on either side. The demo table should include lockable storage and have a chemically resistant counter.

Student storage will be needed for large projects, display boards, and equipment.

Science Classroom Preparation and Equipment Storage Area
 A well-equipped science department with lots of supplies is necessary to provide students with a program that meets State Standards. There should be one (1) prep room for every two (2)-science rooms, and one (1) each for the fifth science room if a two-story building. There should be space for staff desks, filing cabinets, phones, computers, duplicating equipment, and supplies.

.

Safety of student work areas, teacher prep areas, and storage areas should meet State safety codes. Equipment, such as eyewash stations, should be easily accessible. All counters should be covered with a heat and acid-resistant covering. Flooring should be non-slip vinyl or a similar product.

The prep rooms should be accessible from the science classrooms with storage for a variety of equipment both large and small.

Davidson New Building Conceptual, Quattrocchi Kwok Architects

Space Requirements – Science Labs
- 1,300 square feet including prep and storage
- Four (4) lab stations for 32 students around perimeter of room centered on four (4) sinks
- Open areas in the center of the classroom for mobile student furniture
- Student lab stations equipped with:
    - Sink
    - Chemical resistant countertops
    - Electrical outlets
- All safety equipment required by code including eye wash and deluge shower
- Moveable workstations
- Student display areas
- Teaching wall

.

Space Requirements – Central Science Preparation Rooms200 square feet each
- One (1) shared by two (2) science classrooms
- One (1) dishwasher per floor or wing in single prep room
- One (1) refrigerator per floor or wing in single prep room
- Ample counter space
- Plentiful electrical outlets
- Lockable storage cabinets
- Designated areas for use of hazardous materials
- Floor and ceiling ventilation at chemical storage
- Space for copier

Instructional Technology (See Instructional Technology Section and Exhibit B)

MIDDLE SCHOOL FINE ART

Vision and Program Statement
At each school level, art instruction should provide avenues in which each student can work at a personalized pace to learn and develop self-expression and self-confidence. [xiv]

The *Visual and Performing Arts Content Standard for California Public School (2001)* outlines subject area standards that provide the foundation for instruction.

Trends
A significant trend is the inclusion of the multifaceted role of media and electronic technology in the arts. California is an international leader in the technology and entertainment industries; providing our students with an education in the arts supports our state's future and our economy.

Curriculum and Anticipated Use
The curriculum for visual arts education in the middle school program encompasses components of 2D and 3D design. This includes drawing, painting, ceramic, sculpture, and poster art. Technology is used throughout all of these disciplines. It is important to incorporate the ability to display projects to the school community and to have as versatile a space as possible.

Educational Process
Instruction in the arts utilizes numerous strategies including teacher-directed instruction and student-centered learning. Grouping strategies allow students to collaborate and to experience the arts as performers, creators, and patrons.

Orientation and Relationship
For STEAM program possibilities, the art area will benefit by being close to the science area. Additionally, the art classroom should have an orientation to outdoor instruction space and an art courtyard that can be shared with STEAM programs.

Space Requirements

Classroom Area Layout
Instruction in the art classroom will integrate whole-group direct instruction with small-group differentiated instruction and hands-on collaborative activities. As a result, the size of the classroom must be large enough to allow for art space to accommodate a minimum of 36 students.

The art classroom will have a learning wall with tall cabinets at each side of bookshelves and whiteboards in the center with a matte finish for short-throw projectors and stylus writing. One wall will have all tackable surfaces, base cabinets,

.

.

four (4) deep art sinks, counter space, and overhead cabinets. Other walls should have tackable surfaces and at least one electrical charging station for devices.

The art classroom will be equipped with Instruction Technology per the district specification.

Space Requirements – Art Classroom
- 1,500 square feet
- Four (4) accessible, deep art sinks
- Kiln with racks
- 7 feet open shelving
- Garage type door opening to STEAM courtyard
- Utility connections throughout

Space Requirements – Outdoors STEAM Courtyard and Classroom
- Wi-Fi connectivity
- Outdoor activity space for multiple classes
- Science display wall
- Wall for projection screen
- Create focal point at perimeter for presenter

Instructional Technology (See Instructional Technology Section and Exhibit B)

.

MIDDLE SCHOOL MUSIC

Vision and Program Statement
The *Visual and Performing Arts Content Standard for California Public School (2001)*
outlines subject area standards that provide the foundation for instruction.

Trends
Educational technology has had a great impact on arts education. In both
instrumental and vocal music, students compose and arrange music using digital
and electronic technology when appropriate. As stated in the Visual and Performing
Arts Content Standards for California Public Schools, "technology is recognized as an
essential tool that enhances learning and expression in all the arts disciplines and
provides for expanded forms of expression in digital and electronic media."

Another goal for arts education is to promote academic rigor through active practice,
reading, researching, and writing about the arts, and participating in arts criticism.
In addition, guiding students to make connections between all areas of the arts, and
across subject areas, is a key focus of the standards.

Curriculum and Anticipated Use
The Davidson Middle School music program includes band, chorus, orchestra, and
steel pan drums with a performance focus. Performance opportunities are both on
campus and in the community, and include after school opportunities (enriching
Lives Through Music) such as marching band and jazz band.

The curriculum taught in each discipline of arts education, including 6–8 music, is
guided by the state content standards. Standards in each subject area are grouped
into five strands: artistic perception, creative perception, historical and cultural
context, aesthetic valuing, and connections, relationships and applications. Further,
each area of study incorporates the following:
   • Learning through active practices, rehearsal, and creation or performance of
     works in the arts
   • Reading about the arts and artists
   • Researching, writing, and communicating about the arts
   • Reflecting on the arts in thoughtful essay or journal writing on one's
     observations, feelings, and ideas about the arts
   • Participating in arts criticism on the basis of observation, knowledge, and
     criteria

Educational Process
The Visual and Performing Arts Content Standards for California Public Schools
identities three modes of instruction for a comprehensive arts education program:
   • Subject-centered arts instruction in dance, music, theatre, and the visual
     arts
   • Instruction connecting the arts disciplines

.

- Instruction connecting the arts and other core subjects

Instruction in the arts utilizes a number of strategies, which balance teacher-directed instruction with student-centered learning. Grouping strategies allow students to collaborate and to experience the arts as performers, creators, and patrons.

The focus of instruction in all areas of arts education is to develop students' foundation skills in the disciplines(s) studied. Though the content standards identify what students should know and be able to do at each grade level, the Framework makes it clear that decisions about how best to teach the standards should be left to teachers and district staff.

Orientation and Relationship
Orientation of the music rooms to performance space such as the multipurpose room and outdoor performance areas is optimal.

Space Requirements—Orchestra Music Classroom
- 1,500 square feet minimum
- Sound proof, and properly attenuated for music
- Room for 40 students
- Carpeted
- Floor space divided into three (3) tiers (can use portable risers)
    o Tiers should be wide enough for chair and music stand for orchestra set-up
- Three (3) sound proof practice rooms
- Large and small instrument storage
- Room for grand piano
- Tackable walls
- Magnetic whiteboards and music cleft whiteboards
- Built-in sound system that will allow for recording
- Multiple electrical outlets on walls
- Large, operable, tinted, and covered windows
- Storage space for sheet music (cabinets)
- Teacher workstation with one (1) computer, telephone, and cable drop per Instructional Technology Specification and General Classroom Specification

Space Requirements – Steele Pan Drums Room
- 1,500 square feet approximately
- Sound proof and properly attenuated for music
- Room for 30 students
- Carpeted
- Storage for hand drums and other drum associated materials
- Tackable walls

.

- Magnetic whiteboards and music cleft whiteboards
- Built-in sound system that will allow for recording
- Multiple electrical outlets on walls
- Large, operable, tinted, and covered windows
- Storage space for sheet music (cabinets)
- Teacher workstation with one (1) computer, telephone, and cable drop per Instructional Technology Specification and General Classroom Specification

Instructional Technology (See Instructional Technology Section and Exhibit B)

.

.

OPERATIONS—MAINTENANCE AND CUSTODIAL

GENERAL MAINTENANCE
- Doors
  - All interior doors to classrooms are to be wood, solid core, with vision-lite windows.
  - Exterior doors, depending on location, are to be either
    - hollow metal
    - storefront
    - FRP
  - Hardware
    - Locksets – Schlage Primus with card readers for exterior
    - Panic hardware Von Duperin
    - Columbine-style locking
  - Closures are Norton
  - Interior doors have kick plates
- Classroom and office casework are to be laminated particleboard (aka Melamine). No drawers should be wider than 30 inches. All drawers over 24 inches wide to have full extensions and wrap around knuckle hinges.
- No plastic handles or pulls. Metal handles and pulls only, with through-the-face mounting.
- Multi-Purpose (MP) Room storage areas should have a 4-foot high FRP wainscoting.
- Where applicable, all other architectural areas should not be skateboard attractive.
- All speakers on the exterior of site buildings must be installed under an overhang or include a water-resistant cover. All exterior speakers must be manufactured and approved for outdoor use.
- Ceilings are T-Bar, suspended, with 2' x 4' removable panels in classrooms (Check brand and style with M&O department).
- "Hard lids" should be utilized in toilet rooms, storage and utility areas.
- Interior wall surfaces where painted are washable semigloss.
- Exterior drinking fountains are vandal proof and have bottle fillers with hydration stations without water filters.
- Door hardware is Schlage Primas at all campuses with card readers at exterior doors that shall have crash bars and Columbine locks.
- Hallways: protective wainscot FRP or laminate with top trim.

Flooring
- Carpet only in the office, library, and some areas as noted in specification.
- Resilient flooring in all spaces except above.
- Resilient floors to meet Cal Green Standards.

Restrooms
- All restroom walls are covered with tile, which may terminate at 8 feet.
- Each site should have a restroom capable of accommodating full inclusion students, including space for a changing table and a lift station (either portable or with built-in bracing to support the load).
- There should be hose bibs in the restrooms.
- All electrical outlets should be GFIs, regardless of the location within the restroom.
- Student restroom floors should be tile.
- Restrooms are equipped with solid phenolic partitions.
- Falcon waterless urinals (TBD model).
- Globe electric hand dryers without hush kit.
- Haws electric flushometers.
- Two (2) center floor drains with cleanouts.
- Glass with stainless steel frame mirrors.
- Waxie toilet paper dispensers.
- Individual porcelain wall hung sinks.
- Motion activated Haws faucets.
- Waxie Toilet paper dispenser – large double-roll.
- Stainless steel soap dispensers, bulk fill.
- Cold water only is supplied to the student restrooms.

Exterior
- For each building, there must be a cold-water hose bib on the roof to provide for easier maintenance of HVAC units, insulated or otherwise protected for freeze protection.
- Building exteriors are of stucco, hardly plank with tile accents.
- Signage for the buildings is embedded in concrete so the letters cannot be removed, popped out or defaced.
- Building identification signage is required: die cast, aluminum systems.
- Stewart Marques that are digital and wireless.
- Building exterior finish materials adjacent to playgrounds must be of a durable construction to withstand balls.

Locks (See above door specification)
- All classrooms, multi-purpose rooms, and library rooms shall have doors with exit device style hardware with the capability to be locked from the interior. A keyed dogging mechanism should be provided.
- Door locks are high security "KABA" or equivalent.

Roofs
- Roof access should be from the interior of the building (custodial closets).

.

• Flashing should be stainless steel, low maintenance.

Electrical
- 2 foot by 4 foot drop in light fixtures with electronic ballast.
- Multipurpose Room wall-mounted light fixtures should include wire guards or be ball resistant.
- Floor box receptacles are to be discouraged, but when necessary shall be floor mount and not monument style.
- All classrooms should have A/B switching.
- Exterior lighting to include only vandal resistant covers.
- All exterior lighting shall be controlled via photo-cell sensors.

CUSTODIAL

Custodial Supply Storage Room/Office
- Utility and mop sink with hot and cold water supplies is installed and surrounded by tile.
- Heating and ventilation system is part of a centralized system for the site.
- There are no less than 400 linear feet of adjustable shelving for supply storage.
- Center floor drain is installed.
- Adequate electrical outlets and lighting are supplied and wired on a separate circuit.
- Walls are covered with appropriate material to allow for hanging tools and storing supplies.
- Access is by way of a 3 foot walk-through door and an 8 foot steel roll-up door for loading and unloading supplies.
- Location is planned to ensure close accessibility to the site equipment and the supply loading and unloading area.
- Entire area of storage room is included in the planning of fire sprinkler system.
- Site security alarm system encompasses storage room.
- A separate controlled ventilator fan is included in the service area.
- Computer and phone jacks are near a desk area.
- There is a lockable cabinet.
- There is a flame-resistant cabinet.

Custodial Supply Closets
- Floor space of each individual closet is no less than 75 square feet.
- Utility and mop sink with hot and cold water supplies is installed.
- Custodial room wall and mop sinks should be sealed and tiled for a minimum of 24 inch around and above the faucet and tubs.
- There are no less than 20 linear feet of adjustable shelving for supply storage.

.

- Adequate electrical outlets and lighting are supplied.
- Walls are covered with appropriate material to allow for hanging tools and storing supplies.
- There are custodial supply closets in each wing.
- Access is by way of 3 foot walk-through door.
- All custodial closets are to be ventilated with motorized fan.

.

OPERATIONS—GROUNDS, SECURITY AND TRANSPORTATION

GROUNDS

Landscaping
- Fully automatic Furo I Central irrigation system installed to service all turf and planter areas over entire site.
- All planter areas near walkways or in quad are raised. Grade level planters are next to lawn areas.
- All landscape shrubs and trees are selected from common nursery stock that is easily replaceable.
- Type of grass is determined after soil analysis and is drought resistant.
- All trees and shrubs submitted on landscape plans are free of thorns, do not bear any fruit or berries, and do not attract bees or other insects.
- Trees and shrubs do not interfere with
    o any field activities;
    o any vehicular traffic on campus;
    o the visual ingress and egress of students, staff or visitors accessing the school site;
    o line of sight supervision from the site administration.
- Attractive native plants and available drought tolerant plants are used.
- The site is well planned and graded for drainage.
- All backflow regulators are to include a lockable, insulated cover.
- Trees are planted to avoid shutting out light from exterior fixtures.

SECURITY

Alarm Systems
- Master panels are centrally located and easily accessible. One (1) keypad is in the main school office. Multipurpose rooms and gyms should contain separate alarm system and keypad to facilitate evening and weekend events at this location without disarming the entire school campus.
- A perimeter alarm system that does not indicate which door is open is acceptable.
- System permits coded or user card access and provides a record of openings and closings.
- Motion detectors that cover all exterior windows should be included. The zone of coverage should cover possible areas of entry.
- Childcare facilities should be included on the District alarm system.
- Bay Alarm is the preferred security alarm vendor.

Fencing
- Fencing with lockable gates should be provided on the interior perimeter of the campus.

.

- Fencing from the community with controlled and lockable access points should be provided to the fields and hard court areas.
- Panic bars are required on street exit gates.

<u>Windows</u>
- No louvered windows or Plexiglas windows are installed in any building or doorway on campus.

<u>Roofs</u>
- Many creative methods are used to discourage intrusion onto the roofs. For example, covered walkways next to buildings can be cantilevered so supports and downspouts are recessed and not available for shinning.

TRANSPORTATION

<u>Walkers Travel Path</u>
- Walking students have a safe, direct path to travel from their homes to the school.
- Streets leading to the school site from all directions have crosswalks for students' safety.
- Streets have sidewalks leading to the school site.

<u>Bicycle Area</u>
- Bicycle parking area is in a separate area, NOT adjacent to either the auto or bus parking areas.
- Bicycle ingress and egress avoids having the students travel through either the auto or bus parking areas.
- Enough racks appropriate to site size (ask Principal) for bicycles are installed and bolted in place.
- Entire bicycle rack area is surfaced with asphalt.
- Bicycle rack area is encircled with a six (6) foot high anti-climb fence (as appropriate to site size) with a double gate at least eight (8) feet wide when fully opened.

<u>Bus Parking</u>
- Length of the zone is adequate for number of buses that serve site.
- Red curb markings.
- School and principal office should have direct visual access to the bus-loading zone.
- Kindergarten classrooms should have direct visual access to the bus-loading zone.
- School access from the bus zone is a direct path of travel so students can be viewed from the bus to the school and classrooms.
- No crosswalks are allowed within the bus zone to discourage "walking students" from entering the bus zone.

.

- Appropriate street lighting for security and safety purposes.
- Extra wide sidewalks leading up to the bus zone, running the full length of the bus zone to allow adequate space for students to line up during the loading process.

Auto Parking
- Adequate parking appropriate to school and staff size.
- Adequate parking for visitors, five (5) spaces.
- Designated loading and unloading area within the auto parking area for parent traffic. Appropriate curb markings for loading only, discourages actual parking of visitor vehicles and enhances safety for students as they enter the school grounds from their vehicles.
- Auto parking area is located away from bus loading area, preferably not on the same street.
- Clear signs direct visitor-parking area and parent loading area.
- Parking spaces are marked or identified appropriately for "visitor" and "handicap."

CDE Requirements
- Buses do not pass through staff parking areas to enter or exit school site unless a barrier is provided that prevents vehicles from backing directly into the bus loading area.
- Parent drop off area is adjacent to school entrance and separate from bus area and staff parking.
- Vehicle traffic pattern does not interfere with foot traffic patterns. Foot traffic does not have to pass through entrance driveways to enter school. Crosswalks are clearly marked to define desired footpath to school entrance.
- Parking stalls are not located so vehicles must back into bus or loading areas used by parents. Island fencing or curbs are used to separate parking areas from loading and unloading areas.
- To provide equal access to ensure the purposes of the least restrictive environment, bus drop off for handicapped students is in the same location as for regular education students.
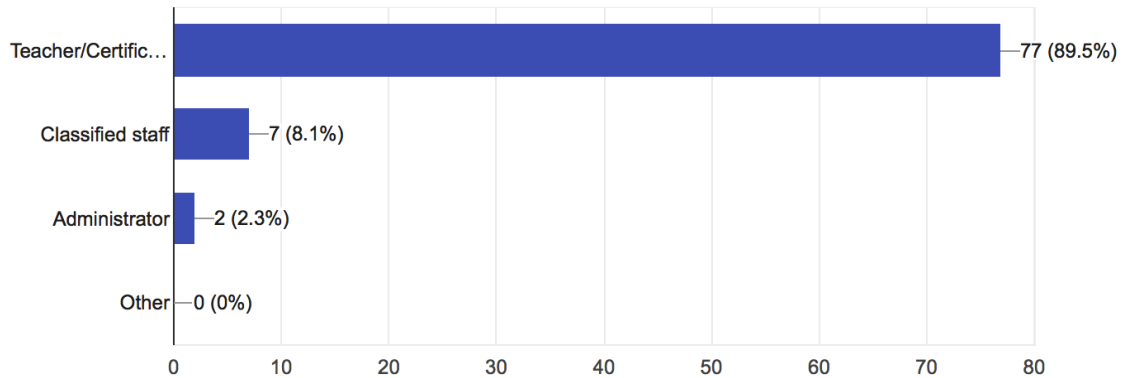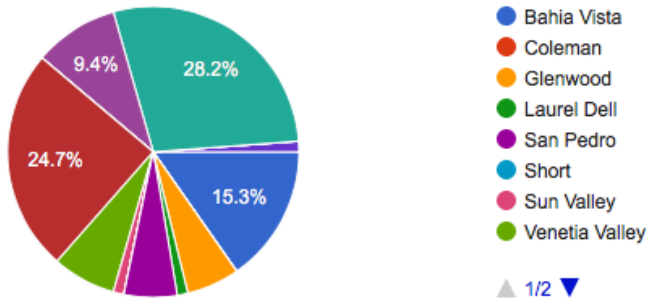
.

.

APPENDICES

Exhibit A
San Rafael City Schools – Educational Specification Survey Results
May 2017

Please indicate your role.

86 responses

Teacher/Certific…	77 (89.5%)
Classified staff	7 (8.1%)
Administrator	2 (2.3%)
Other	0 (0%)

Site:

- Bahia Vista
- Coleman
- Glenwood
- Laurel Dell
- San Pedro
- Short
- Sun Valley
- Venetia Valley

▲ 1/2 ▼

- Davidson MS
- Madrone HS
- San Rafael HS
- Terra Linda HS
- Maintenance and Operations
- Central Services Office
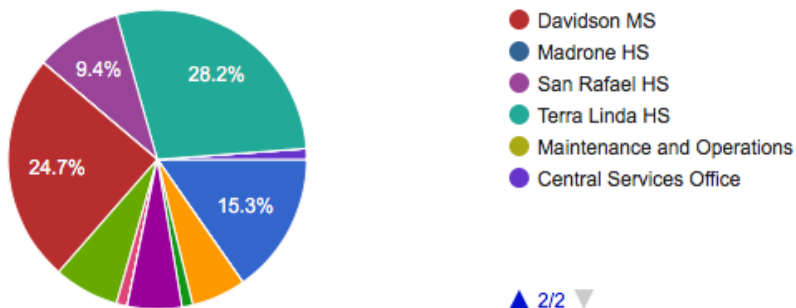
▲ 2/2 ▼

.

.

3. What 2-5 features of the physical learning environment ARE MOST IMPORTANT to student learning?

Teaching walls, spaces to show student work and charts, storage,

Access to materials (math manipulatives, classroom library, etc.) and a variety of learning spaces (tables, floor space, desks, etc.).

room to move around, mounted interactive projectors, the matte whiteboard at the district office made for markers and projection

lots of windows; access to outdoors; deep sinks with hot water; plenty of storage; large classroom.

Comfort, adequate space, acoustics, lighting (no glare)

air conditioning in classrooms, covered play area for kids, updated outdoor patio tables, and hook up projectors to ceilings in 1st floor classrooms.

Community, Comfort, Space (personal)

1. Large area for meetings, circle time, on the carper area. 2. Different areas around the classroom to create different spaces for center time. 3. A lot of electrical outlets for iPad/Chromebook charging stations. 4. Large outside area. 5. Multi-purpose room and/or gym for physical activity, assemblies, rainy day recess inside, etc.

Clean organized learning spaces with lighting, technology, sound proofing. Easy access to library and other educational supports. Design that encourages pride of ownership and upkeep by students and staff.

Air conditioning, Increased locker room capacity, well thought-out and organized technology spaces

comfortable temperature, movable student desks/tables for collaboration, easy viewing of board/projector screen

Brightness, Colors, comfortable

Overhead projectors, enough room that students can maintain at least a small area of personal space, sufficient whiteboard space that is visible from any area of the room

classrooms free of water damage and mold.

Classroom/Quiet breakout rooms (which we don't have right now)/a beautiful yard

Lots of natural light, A/C, lots of whiteboard space that is easily visible for students, overhead projection to present notes/student work, reliable working Wi-Fi/internet.

1. Shape & size of room for maximum visibility at any vantage point 2. Ability to keep a comfortable temperature, either through heating/ AC or building materials 3. Natural light (although if windows are too big, it gets very hot in the classroom).

proper desks/chairs,

temperature, space, safe

Lots of whiteboards, Overhead projectors Places to put student work Lots of Wi-Fi bandwidth comfortable chairs

-air conditioning -student work stations that support the use of one-to-one computer technology

Document Reader White Board

air conditioning and space in classrooms

Air conditioning, a clean room with no mold or mildew issues

temperature of the classroom and number of desks in the room

Adequate Technology Useable outdoor space Nice bathrooms spacious classrooms organic/fresh lunches

Safe open group learning spaces Access to technology 7 am- 9 pm Clean, updated facilities

.

AC, No Bullying, and teacher support

Storage, Small Group Workspace, Natural Lighting, 2 doors, adequate space for student desks

Enough space, cleanliness/modern, updated technology, SPACE!

Music - floor space, storage space and practice rooms in that order.

enough space/big enough room, good lighting, comfortable room temperature, good desks/tables/chairs, clean air (no mold, etc.)

temperature, lighting, space for students and teacher to move around freely

Enough room/space for up to 35 students Air circulation maximizing clean air classroom environment Adequate shelving for teacher/lesson materials Adequate technology/whiteboard space for learning

Comfort. Technology. Aesthetics.

Bright, warm environment, lots of wall space for charts, graphs, closet and drawer space for storage for books, art supplies, files, class materials, etc., heating/cooling systems, both student and teacher access to bathrooms/sinks. Etc., clean white walls, not that yucky off-yellow or green that usually gets painted in classrooms, whiteboards

table space for students to lay out projects and for me to lay out supplies for students, light (quality of light crucial!), wall space for display, ample space for students to move through the studio to different work centers, better/more sinks!

Appropriate bandwidth for WIFI, classroom temperature (enough windows that open or AC/heater that can be controlled by each classroom, covered area on yard to protect from heat/rain

Classrooms and collaborative spaces like the library

enough space, enough light, enough whiteboard space, technology that works & is optimally set up (example: the doc camera is all the way in the back of the room right now), AIR CONDITIONING - thank you for getting this!

ICT/STEM building, student commons, library, technology improvements, collaborative spaces for students to work

Large enough to hold up to 35 students while maintaining safety both in the classroom and the laboratory (I teach science), flexible for individual or group work, temperature and light control for comfort and ease of seeing the projector.

1). Ample space to meet the students personal and educational needs. No one should feel like they are learning on an airplane. 2) Sound isolation is key for many students to develop a focused state of mind. 3) Cleanliness, including mold, bacteria, etc. 4) Heating and air conditioning systems that work and don't force some kids to freeze while others are sweating 5) The space should be adaptable to individual teachers and learning styles

Functional and reliable technology devices, complete Wi-Fi coverage with plenty of bandwidth, comfortable furniture, easily navigated rooms, sinks and water faucets in every room

1. Wall and/or bulletin space to hang anchor charts and display student work. 2. Big windows/natural light with shades to help see the screen. (Dark rooms are depressing. 3. AC and heat. Airy well ventilated room. 4.Removable wall (allows opportunities to team teach) 5. Multimedia equipment (smart board) with classroom chrome books, computers, etc.

Adequate space in classroom for student movement, temperature control, minimal distractions from campus activities (PE classes, lunch, etc.), adequate internet connection speed, desks/tables that "fit" a variety of body types

1. Square room-NOT a rectangle so that all students can access learning resources on the wall 2. Light (nice windows) 3. Tile floor NOT carpet 4. Sink and water fountain in the classroom 5. A LARGE room with lots of space and storage

A well-compensated teacher, a clean classroom, clean campus, and maintained landscapes

We have a science teacher in a classroom without a sink. None of the science classrooms have the basic required safety equipment. The biology prep room has a leaking sink that has not been

.

.

repaired. We need some upgrades to the science space, and we need adequate funding for lab consumables so that we can have a rigorous science program. Science classes are being cut at a time when we need more students entering STEM degrees/careers. The district needs to take a critical look at how they are undermining the science department.

space, natural lighting, carpet, standing desks, advanced technology

flexibility w/ regards to use options, natural lighting, ventilation and climate control, cleanliness/sanitation, enough outlets/portals to facilitate twenty-first century learning

Well ventilated classroom and enough equipment like computers.

cleanliness, appearance, useful space

heat, AC,

heat/AC

Comfortable classroom setting, furnishings.

enough SPACE: school way too crowded! safe routes to walk/bike to school. more bike racks. AC in more spaces.

Room temperature - when classrooms are too hot, students can focus and learn; we need AC! Seating arrangements

Furniture that can be configured multiple ways within a class period. Comfortable air temperature. Lots of board space. A reliable projector system. A reliable sound system.

air conditioning/cross ventilation (outside air) /cool temps in classroom, plenty of plugs for fans, twenty-first century desks and chairs, amazing technology and library spaces, music/science space.

1.Temperature of the room, students and teachers cannot work in a room that is over 80 degrees 2. Ventilation 3. clean bathrooms that the students feel comfortable using

space, circulation/heat/air conditioning, seating, ample whiteboard space, room for technology

Air conditioning!

Comfortable temperature, good natural light

Enough chairs and desks or tables for each student. Projectors and computers that work in each room. Enough materials to do hands-on laboratories.

Students should be physically and emotionally comfortable.

Clean, well maintained, mold free, and healthy environment.

Appropriate temperature inside the classrooms; windows that open enough to provide adequate circulation and cool-down; space for students to safely and comfortably move around in the classroom.

Climate control and cleanliness

Air condition and ceiling mounted projectors and more computers and tablets in the classroom

Physical comfort and safety (free from severe heat and cold and danger), adequate space for students to move around freely and to access materials, easier access to technology (ceiling mounted projector instead of projector cart), and easy access to bathrooms and water

Space to both work in groups as well as space where kids can work independently, easy viewing of projected materials from all locations in the room, access to electrical plugs for tools the kids or teachers may use, different seating options for different styles of learners, access to technology (Chromebooks, iPads, etc.)

Space for small group intervention Temperature Functional Furniture Computers High quality Playground material

table groups large table for guided reading rug area natural light - windows Bulletin Board wall space

Some sort of temperature control - natural or not windows and light

good lighting, comfortable working spaces, clean & uncluttered spaces,

Temperature, Lighting, Personal space availability.

.

AC, comfort, room, clean and safe
Adaptability of the space, ability to reconfigure easily and effectively.
having space for CTE Projects

4. What 2-5 features of the physical learning environment BEST SUPPORT student engagement in the learning process?

same as above
same as above
Furniture that is flexible, accessibility to technology,
Plenty of open wall space for anchor charts and bright windows.
chrome carts in every room, internet that is reliable, desks that are large enough for 8th graders
Good lighting & natural light; enough space for tables and table groups; flexible space for different groupings of tables or easels; instruction areas (whiteboards, projector screen) easily visible from student work areas.
tables (not desks), good work space
Community (conducive learning environment), Comfort, Access to materials
1. Large carpet meeting area 2. Large whiteboards for student access.
All students can easily see and hear instruction. Adequate space for storage of classroom and personal items.
centralized student information center, properly funded athletic program, school facilities to be proud of
this seems repetitive from question 3
whiteboards, paint colors
Flexible seating options (i.e., standing desks)
light, bright, and welcoming classroom environment, windows, air conditioning
Air conditioning, different types of seating
Flexibility to allow easy transitions from lecture style to student presentation to student collaboration project based learning. Windows/natural light and aesthetically pleasing environment - someplace you would want to be.
Anything that allows students to be comfortable and free of distractions. Simple design, good chairs/ desks, students can see, don't hear noise from other classrooms.
access to the internet, Chromebook and projectors
temperature, spacing
whiteboard areas for students to work access to Wi-Fi so students can access technology
I would love to have the physical space and the classroom furniture to support one-to-one technology. I have seen student work stations that have computer connectors build into the furniture and on wheels so that the room can easily change configurations and support the chrome books.
Easy access to laptops/tech, smaller classes, air conditioning
Same as above
desks set up in a communal environment, interactive projectors
spacious classrooms flexible seating/furniture outdoor learning spaces organic/fresh lunches
Teacher support
large mobile whiteboard, computer area designated for technology, enough space to have multiple collaborative groups occurring simultaneously, sound system and appropriate technology for projecting multimedia

.

Enough space, cleanliness/modern, updated technology, SPACE!

Air conditioning. Size of the room.

arrangement of desks/tables, good view of teacher's demonstrations (e.g., mounted projectors with big screens), and the things I listed in the previous answer

desks and chairs that can easily be moved around, assess to technology

tables instead of desks with comfortable seating Screen/whiteboard location for easy viewing

same

Space for students to move around and engage in other areas than just the desk, user friendly technology/infrastructure for both teacher and students, rug or carpeted space for floor activities, student accessible storage for art supplies, etc.

again: light, space to work, space to move around, organized open shelving and storage that is student accessible.

Tables rather than desks and access to technology

See #3. Desks that aren't broken

Cafeteria, library, student commons, STEM/ict building. Student voice and classroom visits and presentations along with my newsletter are my primary places to access student ideas.

See prior answer,

1) Sound isolation 2) Quality lighting with variable settings 3) Technology usage should be considered in the design. Students' physical placement in the classroom should not be dictated by where the projector has to go to meet district emphasis on the use of technology 4) Each classroom should be designed with the active use of computer technology in mind, including ample charging stations and storage for said technology

Functional and reliable technology, facilities maintained to not just function but look cared for, ability to navigate room to interact with students easily, lots of places to display work and announcements, lack of distractions (like tons of low windows).

1. Multimedia equipment 2. Wall and bulletin space 3. computers

Space allows for flexible grouping and alternative class configuration, technology availability - student computers and speedy connection

See above

A well-compensated teacher, open space and clean classrooms, open space campus with shade and protection from the elements.

Collaborative spaces, furniture that can be easily rearranged for different groupings

open space to learn and move, options for desks to meet academic and emotional needs, resources for different learning styles such as computers, iPad, chrome books, etc.

ventilation and climate control, flexible use options, multiple display areas/whiteboards/screens

their ability to access resources, enough space for each resource (counselor, specialists, etc.) inviting spaces

space, light

light and space

Teachers and their essential tools.

safe and flexible spaces. more space!

Room temperature Seating arrangements

See the above

air conditioning/outside air/cool temps in classroom, technology and library spaces, twenty-first century desks and chairs,

1. Comfortable temperature 2. adequate space for materials and furniture 3. Cleanliness to be healthy

seating arrangement, room for activities, ample whiteboard space, room for technology

Air conditioning!

.

Large rooms with breakout space - couches, tables, computers, etc.

Clean, modern, usable rooms. Air conditioning. Modern electronic science equipment that will expand to a university setting.

Working in a classroom with good ventilation.

Classrooms that have doors and windows that function, roofs that don't leak, and heaters that work.

Appropriate temperature inside the classrooms; windows that open enough to provide adequate circulation and cool-down; space for students to safely and comfortably move around in the classroom.

Organization and modernization

Air condition, ceiling mounted projectors and more computers and tablets in the classroom

Adequate storage and wall space that students can interact with, easy access to technology (various spaces for computers throughout the room, rather than just upon one wall)

Access to technology, flexible seating and collaborative grouping, ability to view necessary materials from every seat, extra spaces for maker activities

Space/furniture for small group instruction Temperature Functional furniture

Mounted document camera Areas for students to work in small groups air-conditioning

room design that allows for different desk configurations

Technology, Variety of surfaces and set-ups.

safe and bully free

whiteboard space, collaborative space

hands on learning of CTE Programs

5. What 2-5 features of the physical learning environment are related to STAFF JOB SATISFACTION?

Technology tools that work, work stations, storage

Organizational areas (shelves, cabinets, closets), ease of technology (i.e. teacher computer, document camera, printer, phone in close proximity).

interactive projectors, doc cams

Sinks with hot water, natural light, large room, plenty of storage options, access to outdoors.

Comfort, adequate space, acoustics, lighting (no glare)

same

Community, Support, Appreciation

Large classrooms, lots of storage, clean and organized rooms and layouts. Rooms that allow for different areas of learning and flexible seating (think stations and Starbucks).

Spaces/furniture which are easy to organize, reorganize and clean up. Close access to sinks and water for cleanup.

parking (organized, enforced, plentiful), air conditioning, better use of the staff room (how can we get more teachers to use)

n/a

Fast internet and computer,

Air conditioning, lots of storage, room to display student work, light and bright welcoming environment, enough whiteboard space that is clearly visible to students

Air conditioning and areas set up for technology

collaborative peers/understanding and supportive principal/clean and safe school

.

Environmental controls (A/C, heat, etc...), working technology (Wi-Fi, ceiling mounted overhead projector, etc...), classroom flexibility to accommodate different teaching styles (lecture, student presentation, group work, everyone can easily see the board)

Having rooms that work well (don't have to fight the layout,), comfortable temperature (it is hard to teach when you are overheated), lots of storage and surfaces for materials.

Safety, spacious, storage

bathrooms that are clean, well lit, and have ventilation areas for staff to meet and consult in small groups

Air conditioning. It is difficult for staff and students to focus on the lesson when they are sitting in a classroom that is over 90 degrees.

Lack of Air Conditioning hinders student learning and job satisfaction

air conditioning, smaller classes, and um, air conditioning

Air conditioning, a clean room with no mold or mildew issues, putting the insulation back in the ceiling so that we don't all hear each other's teaching through the wall

digital support for teaching and computer systems that are up to date

Modern classrooms Equitable technology Modern bathrooms

Inviting staff lounge; clean modern toilets

Teachers valued by District

accessible technology (electrical outlets available, efficient Wi-Fi connection, printers), accessible bathroom, natural lighting, storage, appropriate classroom furniture (desks, small group tables, bookshelves, computer tables)

Enough space, cleanliness/modern Enough space, cleanliness/modern, updated technology, SPACE!, updated technology, SPACE!

Sink with drinking faucet. Space for a portable Digital chalkboard

good natural lighting, comfortable room temperature, clean air (no mold, etc.), quiet HVAC system, enough space for storage of materials and equipment

easy access windows, enough space for PD room, community room, conference room, plenty of office space, heat and air conditioning

Ample work/desk space Freedom of movement in classroom to assist with PBL

Comfort. Technology.

Bright comfortable rooms, lots of storage options, heating/cooling systems in place, uncrowded rooms/room to move, wall space to hang charts, graphs, as needed, easy access to technological infrastructure

light, space to display student work, storage space!!! my own computer would be nice...

staff room that can support the bandwidth and space necessities of color copier, multiple printers, workspace counter, sitting area to eat/meet, enough parking for our volunteers/parents/teachers/other staff

Staff lounge and renovated classrooms

enough desk/drawer space, shades & windows that work

HVAC!!!!!!!!!!!! Faculty room for collaboration, technology improvements

Ergonomically designed teacher workspace. Technology in the right place to be controlled while in front of the class without obstructing the student's views. Good, controllable temperature and lighting, and the correct safety equipment installed in the right places.

1) Ample storage for several years of projects, lesson plans, and supplies. 2) Enough space so that we do not literally have to step over students to move about the room 3) Natural lighting whenever possible 4) Climate control and air quality 5) I never want to feel like I have reached the limit of what I can accomplish do to the room(s) I work in.

.

Functional and reliable technology, facilities maintained to not just function but look cared for, ability to navigate room to interact with students easily, decent storage, ability to easily interact with colleagues

1. AC and heat 2. Cleanliness 3. Well ventilated rooms 4. Shades for windows 5. Cabinets for storage

Ease of technology use, adequate storage space for materials, close proximity to photocopiers & teaching supplies

See above

A well-compensated teacher, an entrance to the front of the school as it was originally designed to set the tone for the day.

We were given safety training, but then not supplied with any of the safety equipment necessary to meet basic requirements of a lab. The science department is frustrated that we are responsible for student safety, yet we are not provided with the basic facilities/equipment.

natural lighting, safe campus, state of the art equipment

ventilation and climate control, adequate storage for mixed items (drawers, shelves, cupboards), natural lighting, multiple display areas/whiteboards/screens to facilitate versatile teaching

We should have a reliable internet and phone connection.

cleanliness, sufficient work space, sufficient space/privacy for counselors/other specialists: speech/RSP/etc.

Lots of natural light in the classroom

access to students

Access to students

Team work and appreciation.

more and better staff bathrooms! bigger faculty room and outdoor eating area that's actually inviting. more tables outside with shade!

Room temperature Classroom furniture (desks, chairs)

Heating and cooling system Hot water in the bathroom

cool temps in classrooms and staff areas, enough plugs for fans, fast internet available at all times, twenty-first century desks, chairs and technology, enough staff bathrooms

1. comfortable temperature, cool enough to not be sweating in the classroom on warm days and warm enough in the winter 2. Clean classrooms, bathrooms and break rooms

space, room for activities, circulation/heat/air conditioning, seating, ample whiteboard space, room for technology, space for desk/work area

Air conditioning!

Proximity to and shared space with colleagues (e.g. department lounge),

Electronics that work consistently and can be repaired. Science supplies that are accessible.

Having good ventilation and a comfortable temperature in the classroom.

Classrooms and buildings that do not smell of mold, that have been maintained and do not have liquid running down the walls from leaking ceilings.

Cannot be satisfied with my job when I know my students are suffering because of excess heat and poorly placed technology.

Climate control and appropriate technology

Air condition and ceiling mounted projectors and ability to access the internet anywhere on campus

Physical comfort and safety (free from severe heat and cold and danger), adequate storage for materials, easy access to technology (ceiling mounted projector), wall space

A large enough room to arrange desks/tables in different formations, mounted projectors that are connected to doc cameras at teacher's workstations, walls into which you can staple work or posters, access to electrical outlets in multiple places in the room. Wall mounted Chromebook

.

.

storage would also be nice. The carts are HUGE! Also, the campus should have extra small group meeting/work rooms that can be supervised from outside by a teacher in an adjoining room. (Like Coleman's anterooms.)

All the above

better internet access

physical closeness to colleagues that we work with common areas pleasant outside areas to sit closeness to copiers, mail, etc.

well-designed space (form following function), use of natural materials, tech support, storage, space (as in enough)

all of the above, Organized Storage Space, A variety of Display Space

small class sizes

Functioning presentation technology, ability to post physical items to walls, natural light

being able to have the space to do all CTE Projects

6. What 2-5 features of the physical learning environment IMPROVE STAFF'S overall senses of physical comfort?

Technology, work stations

Enough faculty restrooms to share during limited breaks, a comfortable staff room to eat lunch.

space, no cords to trip over, sink, STORAGE STORAGE STORAGE, printers, laptops,

non-student spaces with sinks with hot water; natural area in classroom for teacher personal space (for desk, etc.); natural light; windows that open.

Comfort, adequate space, acoustics, lighting (no glare)

air conditioning is a must in our school

Positive mood & support

Lots of storage and large classrooms.

Water stations, access to work space (copier, staplers, etc.)

same as above

n/a

windows, air conditioning, clean classroom

I already took this survey, I forgot to add air conditioning.

Air conditioning, water fountains/sinks in the classroom, phones by the desks (not across the room), multiple doors from both inside the building and outside

Air conditioning and spacious classroom

being able to set the temp to what is comfortable for my students and myself/ desks, seats, and tables that are comfy for kids

Environmental controls (A/C, heat, etc...), working technology (Wi-Fi, ceiling mounted overhead projector, etc...)

Air conditioning, natural light, space for personal belongings, maybe some kind of fence around campus (so we don't have to worry about campus intruders).

Learning spaces within and outdoor experience

technology that enables staff to write on whiteboard electronically desks that are not metal, ugly, and don't have sharp jagged corners

A working heating system and air conditioning. The windows in my class room are not double paned and are very drafty in the winter. In the summer, my room cooks at over 90 degrees making it difficult for me and students to concentrate.

air conditioning

Air conditioning, a clean room with no mold or mildew issues, spraying for bugs so we don't have cockroaches running across my desk or the floor during class lessons

cooling and heat that work. no overcrowding of desks

Modern classrooms Modern Bathrooms

Dependable access to technology; teaching space for all; clean non-descript space that can be used by any teacher

AC and equal pay

Smartboard or large interactive projector, quick staff room, copy room and bathroom access from classroom, comfortable chairs for small group instruction, natural lighting, storage and organizational systems in place (shelving units, behind the whiteboard storage, cabinets)

Enough space, cleanliness/modern, updated technology, SPACE!, AC

air conditioning and heat.

good natural lighting, comfortable room temperature, clean air (no mold, etc.), quiet HVAC system

same as above

Air conditioning Quiet Heater/Ventilation

Air Conditioning. Technology

All of the above!

a welcoming staff-only lounge, not always filled with students using it as extra classroom! more, nicer bathrooms.

A/C, enclosed campus, covered walkways from one end of the campus to the other (currently we cannot go to the MU and be protected from the elements), appropriate bandwidth to support twenty-first century teaching

AC and the ability to create flexible learning spaces

Air conditioning! Again, thank you. Things that work; things that aren't broken. Enough work & shelf space.

HVAC - all I hear about Faculty room Collaboration space Tutorial space

See #5

1) Rooms and spaces equipped with professional office supplies, not just the cheapest things we could find at IKEA 2) Clean, cold water should be available everywhere on campus (i.e., filtered water bottle filling stations) 3) A campus designed to accommodate rainy days in the winter. Currently, rain means that I will be wet most of the day due to the current layout 4) Quality restrooms with warm water in the faucets

Access to staff restrooms, navigable rooms, A/C in classrooms, comfortable furniture, natural light

1. Air Conditioning and heat (but not over-heated....) Control thermostat 2. Cleanliness and well ventilated 3. Natural light and shades

neutral teaching area - can adequately teach left or right handed, close proximity to restrooms, area for small coffee pot/refrigerator, pleasant environment- clean, natural light, etc., efficient heating/cooling system

See above

A well-compensated teacher, clean campus including the surrounding neighborhood, quality food on the campus.

A nice faculty lounge. Good ventilation.

comfort, lighting, safe campus

ventilation and climate control, natural lighting (fluorescents are damaging to eyes), adequate restrooms to meet needs of large staff with same exact use times (between classes)

We are in need of furniture like tables, computers. safe, file cabinets and chairs.

clear access, defined/designated spaces, free space

Plentiful restrooms, Window blinds that close correctly and completely in case of lockdown

besides heat and AC, ergonomic desk/computer set ups.

ergonomic computer set up,

Classroom not too hot, not too cold. Knowing someone is there to help.

better/more bathrooms!

Room temperature

See the above

cool temps in classroom, enough staff bathrooms

1. Temperature 2. Ventilation 3. Cleanliness

space, circulation/heat/air conditioning, seating, ample whiteboard space, room for technology, space for desk/work area

Air conditioning!

Proper ventilation.

Well maintained buildings.

Appropriate room temperature; enough physical space to move around inside the classrooms without tripping over electrical cords from the projectors on the tables; enough whiteboard and wall space for instruction and displaying student work; printers and copiers that work on a consistent basis; immediate access to internet at all times.

Climate control and available technology

Air condition!!!!

Adequate heating and air-conditioning during severe weather, security cameras on campus operating during non-student hours

1) SPACE in the classroom! My classroom in Sun Valley's two-story is so cramped that it makes it hard for small groups to work. 2) Mounted projectors connected to doc cameras. As it is now, I have to constantly raise and lower my projector on a table. 3) Natural light. 4) Insulation under the carpet - we stand all day.

All of the above

air conditioning mounted document camera

natural light, adequate lighting, sound proofing, air flow, design

Temperature, Lighting, Flexibility of a space

AC and heat

Natural light, dedicated teacher space, air conditioning

Temperature, Lighting, Flexibility of a space

AC and heat

Natural light, dedicated teacher space, air conditioning

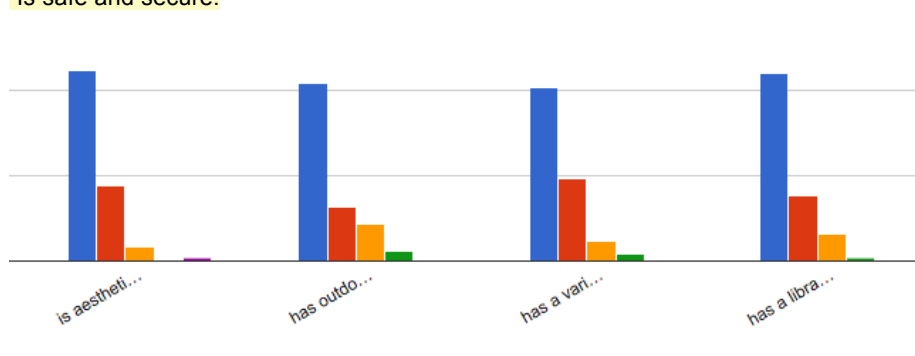being able have storage accommodate all tools need to teach CTE

.

7. What type of school facilities should SRCS consider as it plans and implements the bond program initiatives? A facility that:
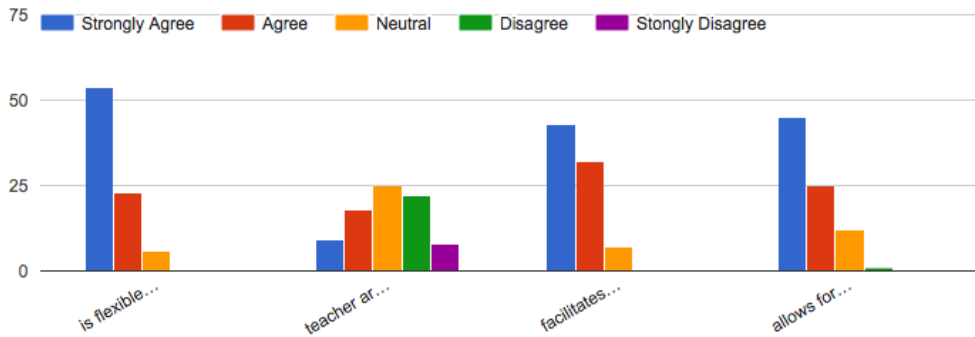
-is flexible and can adapt to changing educational practices.
-teacher areas are open and transparent (i.e. glass walls)
-facilitates maximum student-teacher interaction.
-allows for collaboration, interdisciplinary and team teaching (such as STEAM, Science/Tech/Engineering/Art/Math).
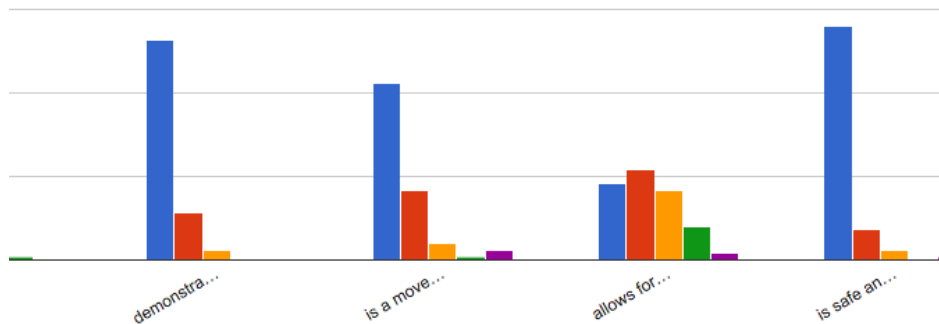
-demonstrates effective implementation of instructional technology.
-is a movement-rich environment, including flexible and varying types of furniture.
-allows for and encourages community use.
-Is safe and secure.

-is aesthetically pleasing and stimulating
-has outdoor learning spaces both formal and informal.
-has a variety of teaching spaces for varying group sizes.
-has a library/media center for gathering, reading, discussing, and research.

.

8. General comments related to Question 7. What type of school facilities should SRCS consider as it plans and implements the bond program initiatives?

I heard math got removed from the STEAM building. That is strange.

Designing spaces that incorporate technology in a flexible way would be great. Good Wi-Fi, smart boards as well as whiteboards in all spaces so that groups could utilize various spaces interchangeably. Maximum interaction between faculty/staff and students, but with places faculty/staff can get away.

Flexibility is key. Hard to know what the future brings, but having the flexibility and openness to change is important.

A library and media center and meeting spaces should be separate and distinct.

The wireless internet accessibility could be improved in gym facility. There are pockets of space in the building where wireless doesn't work...

It would be nice to see outdoor learning space be incorporated. Obviously, being safe and secure is the top priority. Having time to plan is always important.

Having the students and myself feeling safe and secure is the most important. This year, we have not felt that way with the air quality issues in the 10's wing, moldy ceiling tiles, mildewed insulation, etc.

STEAM

An outdoor/indoor stage and auditorium where students can sit outside when weather permits for assemblies would be a wonderful way to take advantage of the beautiful weather as a community.

Music rooms need specific features

None of the choices in question 7 mentions the things I wrote about in earlier questions: clean air, comfortable temperatures, good (natural) lighting. Perhaps the committee is thinking that they are "givens" or "prerequisites" but they most certainly are not at DMS. We have moldy classrooms and buildings. We have classrooms that can hit 100 degrees in hot weather. We need more than "aesthetically pleasing" work spaces.

The fundamentals must be put first and foremost. Wi-Fi that is strong and that can handle many users at once.

Skip the "glass walls!" re: #2

more display space that is well designed and can be used and seen by all

We currently use the benches outside the 100 wing as an outdoor classroom. I would love to see a space for an outdoor classroom with seating to take its place in the rebuild.

I do not personally prioritize or even endorse STEAM, but I do believe in collaborate learning environments and interdisciplinary teaching. Also, I don't think that glass walls will help students focus, but I feel it is EXTREMELY important that a teacher be able to monitor their entire classroom from their personal work space. I also think that classrooms should be open to observation without creating a distraction for students.

We need state of the art multimedia equipment to prepare our students for twenty-first century.

Well-made, comfortable furniture in a large, naturally lighted room are the basics a teacher needs. She/he can organize and design the space from that basic foundation. A teacher likes the opportunity to be creative with their arrangement of the space. Teacher autonomy within the space is very important to utilize the teacher's knowledge and creativity to serve her/his kids.

At this time the campus is not maintained and the entrance to the school is uninspiring.

technology, hands on learning, and gardening should be considered for our children's overall academic and social emotional needs

.

Overall, it seems that this school is suffering from the "broken window effect." If students felt they were entering a modern, clean, colorful facility each day, they would likely feel more motivated, especially those who are coming from rougher neighborhoods. There are classrooms with paint peeling chipped and broken windows, rotten wood around door frames, stained carpet and ceiling tiles... all of this makes it a pretty gloomy place to learn. A facelift is definitely needed.

both flexibility of spaces and aesthetically pleasing spaces are important to me

Classrooms are extremely hot and stuffy. Fans in the classroom do not work, neither does leaving windows open. We need air conditioning in order to have a classroom environment conducive to learning.

Technology doesn't work miracles.

Large library, science, music, technology, tutoring spaces, outdoor shaded space for gatherings

1. up to date and well functioning cooling and heating systems

In order to have effective teaching/learning you must have a building that allows one to have air conditioning as needed. It is IMPOSSIBLE to teach or even be in a room that is 90degrees and students are vomiting and have nosebleeds! This is truly inhumane!

What does open and transparent teaching areas mean? I want to be able to hide sometimes!

Before investing money into new buildings fix/ repair the existing buildings. There are many classrooms and hallways with leaking ceilings, mold dripping down the walls, dry rot, doors that need to be repaired or replaced, counter tops that are ripped and broken, sinks that do not work, ceiling tiles that have been missing for months, windows that do not open and some rooms even have black, pink and brown tiles from growing mold. Having a maintained and healthy environment is a must on all levels.

1: Bahia Vista was not built to support changing educational practices: many of us have our overhead projectors on standing tables (not on the ceiling) which means a dedicated spot in the center of the room that is dangerous for students and leads to students tripping on cords and knocking equipment on the floor. 2: We understand that our budget could not support air conditioning when the school was built-in 2006. Upstairs classrooms get as high as the upper 90's when the outside temperature goes above 80. The push-out windows don't allow for proper air circulation and fans do nothing. Children get nose bleeds, headaches, vomit, and can't think! Beautiful school; awful design!

Regarding technology, having a ceiling mounted projector would make a huge difference in the effectiveness of utilizing technology when teaching.

Variety of learning spaces

up grading all CTE program is a must

.

9. Imagine you are designing the ultimate school. Which of these tools would have the GREATEST positive impact on student learning? Select up to five.
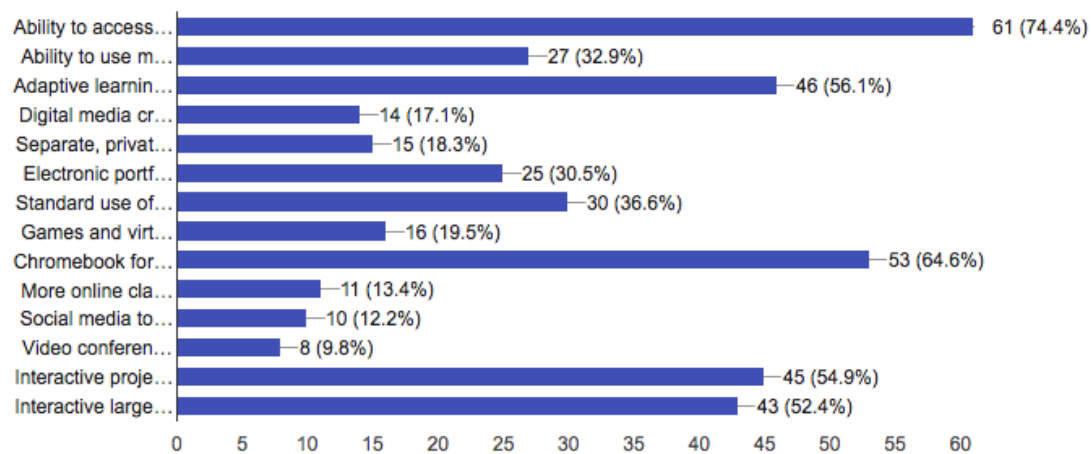
-Ability to access the internet anywhere on campus
-Ability to use my own device
-Adaptive learning software geared to adjust levels of difficulty or content based on student needs
-Digital media creation tools (video/audio) to make movies
-Separate, private-like, space for digital media creative
-Electronic portfolios for students
-Standard use of learning management or digital exchange system for teacher/student interaction
-Games and virtual simulation systems to enhance instruction
-Chromebook for every student, grades 3-12
-More online classes, with tutor support
-Social media tools for collaboration and communications
-Interactive projectors
-Interactive large screen monitors

10. Is there anything else you wish to share with the Educational Specification Committee about twenty-first century learning environments?

internet concurrently.

Adobe Creative Suite available in some classrooms and all computer areas. Tablets (like Wacom Tablets) available to be checked out or used by various classes. More than one extra computer in each classroom. Fast, reliable Wi-Fi and hardwired networks!

Computers/tablets (not Chromebooks) for every student, funding to internet access for students with home access, better broadband and Wi-Fi access, interdisciplinary courses, elimination of periods (longer full block schedules), restructure school day (only 6 periods with daily advisories), more teacher collaborative time for PLC, ability to project individual screens to group or class screens,

Ipad for every student Grades K-3

Thank you for your work!

Chromebooks for all students and flexible seating options

Math instruction requires students to be able to write down and show their work. There is software that allows students to write on tablets with a stylus. this form of technology is better suited for math instruction compared to every student having a Chromebook.

the more interactive the better, don't commit to any one technology that boxes you into a single vendor

.

94

.

We need a better lunch program. Not prepackaged food. Organic, local food

Tried to get Prism Walls

I think the most effective learning environments are the ones where students are proud to be. Simple things such as natural lighting, high ceilings and adequate storage can contribute to aesthetically appealing environments that students and teachers enjoy. More sophisticated environments include furniture specific to student needs (ex: standing computer workstations, small group areas, and interactive projectors or smart-boards) I think the most successful use of the bond would be to implement as many supports as possible from both of these areas.

I like flat floor spaces for music rooms, not tiered seating.

You must have a robust internet and Wi-Fi system in place along with stronger cell service.

I know most of this won't happen, but please remember to gear your thinking to who will be using the space, not just what the latest technology is or trend is spouting. Kids need a bright, cheery, comfortable, space, with room to move around. Not gaudy or fancy! Teachers need wall and whiteboard space and storage! Old or young, we all want to feel safe and secure at school!

support staff and students in green/recycling efforts

Before we consider any of the above, we need Wi-Fi that can support it. Currently, having the wireless printers using bandwidth is an issue. Once that is resolved, I would love to see any/all of the above.

Sorry - I could just pick 5 on that last question. You all rock! Thanks for all your support! Go SRCS. I'm ready to start phone calling for our next bond

If we want to strongly implement technology practices in our schools, then we need to design facilities prepared to adapt to new waves of technology that will inevitably be coming in the next few years. I strongly recommend that the technology adaptations that will be applied to our campus designs be designed in a way that we have ample space to expand those technologies, and not to over-invest on the technologies we are currently working with. Chromebooks will get us through testing now, but we will need a whole new system in a matter of years. It is crucial that our campuses are designed to adapt, and are not static to the current trend of educational technologies.

Teachers and students need to be in environments that they feel proud of (clean), inspire them to learn and physically comfortable (not too hot or too cold and well ventilated).

The design of the school needs to inspire teachers and students as they walk onto, drive into, and cycle onto the campus. Opening up the front of the school as the entrance would be a great step in that direction.

We must adapt and change with our students. We do not want to be left behind and find our students choosing other schools over ours. Change is progress.

twenty-first century learning environments will only extend as far as the school campus, unless there is also a community effort to improve remote accessibility so that students can use their chromebooks for homework and access learning tools.

Thanks for your communication!

While "high tech" is great I hope the "human touch" will not be forgotten

Our classrooms at Bahia Vista are very hot during heat waves- no drinking fountains in classrooms, no cross ventilation (windows open only inches and single doors open to a closed in hallway) no shade structures currently outside, no shade trees, limited drinking fountains outside. Hot temperatures are not conducive to student learning, student health (bloody noses, vomit, headaches), healthy of elderly volunteers, and staff morale. If the classroom is hot, nothing else matters. Design schools so that they can have cross-ventilation, shady areas, and stay under 80 degrees. That is number 1 priority.

All students and teachers deserve to work and learn under decent, comfortable conditions

Refer back to answer from #8

It's very difficult for students to concentrate and do their best work when the classroom is overly hot.

It would be good to do a survey of each building to really see the condition, healthy environments are of the utmost importance. Teachers and students spend long hours at school, we want to make sure that they are in environments that promote learning and are healthy environments.

None of the above can possibly matter if our learning environment doesn't support the health and safety of our students. Please see comments above. Thank you!

Children cannot learn in hot classrooms, especially on very hot days. Air condition is a must! Also, all projectors should be mounted on the ceiling. It is very dangerous to have the cords on the floor where students and elderly volunteers can trip over. This is a safety issue!

Before our students can become twenty-first century learners, we need to consider their basic needs. During the most recent heat wave we had many students vomiting due to heat exhaustion, and having persistent nose bleeds. It is extremely difficult to teach students who are suffering in a classroom that is 90 degrees. I believe that in order to best assist our students as growing twenty-first century learners, we must first determine if we are meeting their very basic needs of comfort and safety.

All proposals should be run by teachers currently in the classroom.

Thank you for seeking feedback

Since my projector for my document camera is on my desk, rather than being mounted to the ceiling, I am afraid that the loose cords will cause my second grade students or my elderly volunteers to trip. Also, because the projector is angled to the side, the image always projects unevenly, which is distracting to students. Because Bahia Vista is a two-story building, we need air-conditioning. Many students feel nauseous or have nose bleeds on hot days. There should be equity across the schools.

My classroom is 84 degrees on hot days. Students can not focus or give their best. We are all uncomfortable and sweating. Some are getting sick with headaches, including myself. An air conditioned environment is imperative to a productive and healthy learning environment.

I tried to get TL prism walls, but the company did not comply.

.

Exhibit B

SAN RAFAEL CITY SCHOOLS
TECHNOLOGY STANDARDS and ROADMAP 2016-19

This roadmap is a compilation of State of California and regional research focused on integrating technology into everyday instructional delivery at San Rafael City Schools (SRCS). Additionally, this district technology standards and roadmap create benchmarks for technology use by all teachers and staff. Sources that contributed to this analysis include
- The State Blueprint for California Education Technology
- State Frameworks
- The Consortium of School Networking (CoSN)
- The District's Local Control and Accountability Plan (LCAP), and
- The District's 2015 Facilities Master Plan.

It is noted that the collective opinion is that students will control more of their learning through personalized learning. The tools of technology will aid in this type of learning as teachers and students monitor and design the learning specific to the student's needs. The 2015 Facilities Master Plan set the groundwork by listing the technology tools needed in a standard classroom.

STATE PLAN
The State of California has offered some guidance for the use of technology in schools. Empowering Learning: A Blueprint for California Education Technology indicates, *"Education technology will be as effective and productive a tool in the school environment as it is in the world beyond schools."* SRCS can use the Call to Action as part of its own model for creating a Technology Roadmap.

> ***STATE PLAN - Call to Action:*** *Facilitate the infusion of 1:1 computing in school, after school and in the home; provide devices, Internet access, new digital curriculum materials, capacity for ongoing diagnostic assessment, professional development and network support, and institute an open standard for the exchange of educational information (p.13, A Blueprint for Great Schools).*

EDUCATION FRAMEWORK WITH TECHNOLOGY
"Technology pervades modern society. It impacts most aspects of the personal and academic/professional lives of youth and adults. Furthermore, it has the potential to substantially support the achievement of many of the twenty first century skills discussed previously in this chapter: Its wise use demands critical thinking, it expands and enriches opportunities for communication and collaboration, it is a powerful tool for creativity and innovation, and it can contribute to global awareness and competence. Furthermore, technology as a tool for learning and expression can contribute to progress in each of the themes of the CA CCSS for ELA/ELD and the CA ELD Standards: Meaning Making, Language Development, Effective Expression, Content Knowledge, and Foundational Skills." (Excerpt from the State Education Frameworks)

FUTURE TRENDS
The Consortium of School Networking (CoSN) publishes an annual report geared toward technology trends spanning five years. This report, called the NMC/CoSN Horizon Report, offers a guide into the future as trends become reality. The 2016 K-12 Education report charts long-term and short-term trends, including:

> ...redesigning learning spaces to accommodate more immersive, hands-on activities, and rethinking how schools work in order to keep pace with the demands of the 21st workforce and equip students with future-focused skills.
> ...In the short-term, the rise of coding and programming skills as a literacy emerged. These skills will bolster problem-solving, creativity, and critical thinking skills. (NMC/CoSN Horizon Report: 2016 K-12 Education, Page 1)

.

.

DISTRICT LCAP- TECHNOLOGY

The following items specify the funding allocations to support Instructional Technology

Elementary
Goal 2
- Action 4 d) Continue training and support for implementation of educational technology tools (Tech Jedis.)
- Action 5 e) 1:1 Chromebook: Enrich the Chromebook ratio as we move toward 1:1 with a focus on middle school to support implementation of ELA/ELD digital curriculum.

Goal 3
- Action 6 b) Purchase computers and/or tablets to maintain or improve student device ratio for targeted population.
- Action 7 c) Purchase computers and/or tablets and/or video projectors to replace outdated hardware devices for staff.

High School
Goal 2
- Action 2 b) Continue to implement CCSS-aligned units of instruction and assessments which will be uploaded to an online repository for teachers to access district-wied-- purchase Canvas as LMS. Provide support for the creation of student ePortfolio beginning 2017-18, 9th grade class.

Goal 3
- Action 4 b) Continue to purchase computers and/or tablets all high schools to maintain or improve student device ratio.
- Action 5.c) Continue to purchase computers and/or tablets to replace outdated hardware devices for staff as needed. Purchase video projectors (and additional replacement bulbs) for staff as needed.

2015 SRCS MASTER FACILITIES PLAN
While some of the District's infrastructure is in good shape, a greater amount needs substantial upgrade and expansion. It is the goal of the District to provide an educational environment that supports a 1:1 student to device ratio. Additionally, it is the intent that all telephone and clock/bell systems be migrated to a Voice over Internet Protocol (VoIP) system for better controllability. Also, data infrastructure both in terms of cabling and appropriate MDF/IDF closets with appropriate cooling and power is imperative for a robust infrastructure that will continue to meet the requirements of technology-heavy instruction.

As new buildings are created, the following requirements should be taken into consideration:
1. Audio/visual systems should be integrated into the classroom.
2. Short throw projectors to be used with whiteboard designed for display. Projectors should be wireless capable.
3. Voice amplification should be used for teachers to improve the instructional environment.
4. Teachers to have both tablets and laptops with docking stations.
5. All spaces (indoor and outdoor) should have robust wireless access so that all spaces can be part of the learning environment.

DISTRICT TECHNOLOGY STANDARDS AND ROAPMAP

CLASSROOM TOOLS
Technology enhances strong student learning by providing students with greater access and rich opportunities, through powerful instructional models supporting:

.

- Differentiation of instruction
- Self-directed and teacher-directed learning
- Student Centered Learning- developing student ownership of their learning
- Versatility of use of program/tools
- Blending of curriculum and technology
- Highly complex instruction and learning
- Flexible and responsive instructional practices
- Increased teacher productivity, collaboration, efficiency and efficacy

To implement these models, our technology roadmap needs to dramatically increase student access to instructionally appropriate mobile devices. New instructional models will incorporate digital materials and some content will be available completely online. "Cloud-based" tools, such as Google Suite and the Canvas learning management system, will allow students, teachers, and parents access to class resources from anywhere and at anytime. Base standards will guide our growth and success as we increase our integration of technology into our everyday learning.

DISTRICT TECHNOLOGY STANDARDS

CLASSROOM (regular)
- Standard Classroom Model will have PC-based desktop, document camera, projector display (interactive ultra short-throw), enhanced audio system (voice amplification)
- Matte-finish magnetic whiteboards
- Classrooms equipped counter-level access of (3) duplex outlets for charging 6 Chromebooks
- Mobile device for all classroom teachers
- Cloud-based applications (move from on-site server applications)
- Google Suite services
- Learning Management System (such as, Canvas or Google Classroom)
- VoIP basic handset

OTHER STAFF OR OFFICE SET -UP
- PC desktop (optional laptop for administrators)
- VoIP super handset
- Printers as determined at each site

SYSTEM STANDARDS

DATA CENTER & NETWORK STANDARDS   *BICSI 002 and TIA 942 compliant*

Data Center Requirements
POWER: Dedicated electrical power panel for all equipment racks and AC units with automated power transfer switch. TrippLite 8k units with additional batteries, run time of 4 hour minimum. Two additional units with power distributed between the units. Units configured to do weekly self-test.
TEMPERATURE: Dedicated AC unit targeted at 60 degrees, not to exceed 80 degrees, scaled to appropriate size allowing for further server room expansion.
LAYOUT: Rack system must be Cisco/Meraki compliant. Egress for all rack system must have no less than 36" clearance from walls or structures.
EQUIPMENT: Switches-- Current Meraki. Firewall-- Meraki MX600 with Advance Security Features. Fiber Aggregation-- Meraki MS425 series. Cable standard-- Cat 6e plenum rated
Main Distribution Frame (MDF)
Secure room (where exceptions approved enclosure.) Power with TrippLite with additional battery packs, minimum of 60 minutes run time with weekly self test. Meet Data Center Temperature requirements. Mounted below the switch w/ SNMP card. Cisco ISR4451-AX w/6K Akamai & WAAS. Firewall & Fiber standards.. Switches-- Current Meraki. Cable standard-- Cat 6e plenum rated.

Intermediate Distribution Frame (IDF)
Secure room (where exceptions approved enclosure XXX.) Power with TrippLite APC 1500, minimum of 30 minutes run time with weekly self test. Meet Data Center Temperature requirements, wherever possible, ensure vented doors. If used mounted below the switch w/ SNMP card. Fiber terminated at top of rack or enclosure. Cable standard Cat 6e plenum rated.
High port density, shall be above 96 and low port density 96 ports or less, all Meraki brands

Classrooms
(9) (3 locations x 3 drops) Cat 6a plenum rated- Network Data Drops
(1) IP-Based Speaker/Clock Combo
(1) VoIP basic handset
(1) Wireless access point- minimum Meraki MR42
(1) Audio/visual connection plates, including audio adjustment- off-set front of the room and includes: USB, HDMI, Mini (3.5) data connections
(1) Voice enhancement system with priority page system adjustment

LEARNING ENVIRONMENTS
Classrooms will be modernized with new displays/projectors and the capability for teachers and students to easily and seamlessly show their work on the classroom screen. Spaces must be retooled to create collaborative and flexible working environments. The demand on more digitally-produced work invokes the need for mini video production environment so student can demonstrate their work. Also, other common spaces should be reevaluated to allow for small and large group configuration. An example of this is noted in the Schools Planning & Management: Reiminge Your Media Center, https://webspm.com/articles/2016/12/01/media-center.aspx?m=1

Identifying your media center's role in the overall learning ecosystem is a crucial first step.
The media center's primary function is not to simply archive research materials. Information, through mobile devices, is literally everywhere.
If your community wants to create workspace for multimedia or STEM projects, or a quiet space for independent study, or a social place for small group activities, or a large instruction area to bring whole classes together, can your media center meet those needs?

COMMON SPACES
• Libraries will function more as media centers. As we move to 1:1 there will be a reduction of mini labs in the library so those spaces can be used for small group areas.
• Mini stations should be designed that allow for quiet zones or video projection zones.
• All common or courtyard spaces must have wireless connectivity to support after-hours access.

PROFESSIONAL DEVELOPMENT
Teachers must be supported through a range of professional learning opportunities in order to increase the adoption of electronic media. This includes the piloting and selection of curriculum and various technologies that can be used not only in the classroom, but as an extension to the students' learning day. As a model toward digital delivery of curriculum, teachers must be invited to learn at the level that best suits their knowledge and experience using technology. We will create opportunities to learn and engage that include, recorded or virtual learning courses that allows for repeat viewing of a topic. And designing course delivery that include proven outcomes rather than seat time. Staff members will be the owner of their learning.

Teacher and staff technology-delivery professional development includes:

- Video conferencing using Google Hangout or Go-To Meeting format
- Webinars through various learning environments and recorded trainings by SRCS coaches
- Google learning collaboration tool designed to discuss SRCS initiatives
- Using the "Flipped Classroom" model for professional development or staff meetings
- Certifying teachers with Google Classroom

ROADMAP			
2016-17	**2017-18**	**2018-19**	**2019-20**
• Design and implement a robust wireless network • Continue expansion of 1:1 program • Create demo site for 1:1 model • Prepare for increased bandwidth utilization • Create more virtual learning opportunities for staff, ie Go-To Meeting • Maintain four-year refresh cycle for all staff computers	• Continue expansion of 1:1 program • Create an additional demo site for 1:1 model • Create instructional models: makerspace, flipped or blended classrooms • Issue mobile device to all classroom teachers • Move all secondary schools to a learning management system • Create demo sites for interactive technology and enhance audio systems • Maintain four-year refresh cycle for all staff computers • Increase Internet bandwidth • Create a redundant and load-balanced network • Evaluate more technology-delivery professional development for training sessions	• Continue expansion of 1:1 program • Create 1:1 model at Middle Schools • Move all primary classroom to learning management system • Maintain four-year refresh cycle for all staff computers • Create instructional models for Robotics and Virtual Reality labs • Support additional online learning tools • Replace current phone system with Voice over Internet Protocol (VoIP) • Create a financial model to support non-construction classrooms to be updated • Move server base to cloud services	• Create 1:1 model at High Schools • Maintain four-year refresh cycle for all staff computers • Update non-construction classroom to standard class model

.

Endnotes:

[i] (San Rafael City Schools Master Facilities Plan, 2015, page 2.11–12)
[ii] (San Rafael City Schools Master Facilities Plan, 2015, page 2.11–12)
[iii] (San Rafael City Schools Master Facilities Plan, 2015, page 2.11–12)
[iv] (California Department of Education (CEE), Common Core State Standards, page 6
http://www.cde.ca.gov/be/st/ss/documents/finalelaccssstandards.pdf)
[v] (NGSS webpage, http://www.nextgenscience.org).
[vi] (How Cross-Sector Collaborations are Advancing STEM learning, Traphagen and Traill, February 2014, page 9
http://www.noycefdn.org/documents/STEM_ECOSYSTEMS_REPORT_140128.pdf)
[vii] (CDE website, http://www.cde.ca.gov/qs/ab/)
[viii] (Hanover Research, School Structures that Support twenty-first century Learning (Washington, DC, 2011, and Susan Black "Achievement by Design" American School Board Journal, October 2007) 39–41
http://www.asbj.com/mainmenucategory/archive/2007/october/achievementbydesign.aspx)
[ix] (NMC/CoSN Horizon Report: 2016 K–12 Education, Page 1
https://www.nmc.org/publication/nmc-cosn-horizon-report-2016-k-12-edition/)
[x] https://webspm.com/articles/2016/12/01/media-center.aspx?m=1
[xi] (California Department of Education, Model School Library Standards for California Public Schools K–12, September 27, 2011, introductions.
http://www.cde.ca.gov/be/st/ss/documents/librarystandards.pdf)
[xii] (California Department of Education, Model School Library Standards for California Public Schools K–12, September 27, 2011, viii
http://www.cde.ca.gov/be/st/ss/documents/librarystandards.pdf)
[xiii] (National Research Council 2012a, Chapter 11)
[xiv] (*Visual and Performing Arts Framework for California Schools*
http://www.cde.ca.gov/ci/cr/cf/documents/vpaframewrk.pdf)

.