

## Part 1: Career Technical Education Plan

**A. CTE Plan:** Santa Rosa High School (SRHS) has a comprehensive Agriculture program which includes Agriscience, Animal Science, Plant and Soil Science, and Ornamental Horticulture pathways. Each pathway meets or exceeds the requirements outlined in CDE's *11 Elements of a High-Quality CTE Program*. The proposed CTEFP project will replace Animal Science and Agriscience facilities destroyed by the Tubbs Fire in 2017 and expand capacity for those two pathways to (1) offer project-based learning activities and certifications that prepare students for the college and career, (2) meet enrollment demand and better serve all SRHS students with an interest in Supervised Agriculture Experience, and (3) allow the SRHS farm to operate year-round. The CTE course sequences for the target pathways are provided in Appendix A.

All Ag CTE courses are taught by one of three SRHS Agriculture teachers who hold Clear Designated CTE Agriculture Specialist Credentials. As part of Perkins and CTEIG reporting, the Santa Rosa City Schools (SRCS) Human Resources department annually verifies that all SRHS CTE teachers hold the appropriate credentials. When hiring any Ag CTE teachers in the future, the Ag program will leverage relationships with the CA Agricultural Teachers' Association, regional FFA programs, and local universities to recruit qualified applicants and SRCS will require any new hire to hold a preliminary or clear designated CTE credential.

There is growing demand in Sonoma County to address the needs for workforce-ready individuals for various specialized occupations within the agricultural industry. According to the California State Employment Development Department (EDD), Agriculture is a "Priority Sector" in Sonoma County, with a total production value of \$1.1 billion in 2018 that directly and indirectly affects 33,184 positions (13.2% of all County jobs). Sonoma County's mild climate, abundant natural resources, and land stewardship have helped to establish the area as a farming, ranching, dairy, and viticulture epicenter known for progressive practices and uniquely creative products. Agricultural production is a source of community pride and regional identity and has made Sonoma County one of California's top food and wine destinations, bolstered by over 425 wineries.

The top four occupational clusters attained by SRHS Ag graduates are farming and ranching, viticulture/winemaking, veterinarian and animal care services, and animal nutrition and feed supply. EDD Occupational Employment Projections (2016–2026) document significant industry need for skilled workers in target careers, including Veterinarians (31.6% growth), Veterinarian Assistants (30% growth), Agricultural Equipment Operators (16.2% growth) and Farmers, Ranchers, and Other Agricultural Managers, which will require 2,040 replacement jobs over the ten-year period. Despite growth in demand for these occupations, there are decreasing opportunities for students to engage in Supervised Agricultural Experience in this historically agricultural community. Meanwhile, a Sonoma County Economic Development Board survey found that 80% of all employers reported difficulties in finding employees, citing an insufficient number of applicants and a lack of relevant work experience among those that do apply as major causes.

As a result of the Tubbs Fire on October 9<sup>th</sup>, 2017, the SRHS Ag program's 60-acre off-campus farm was decimated and the Agriscience and Animal Science pathway

facilities were destroyed. Restoration efforts thus far have largely focused on repairing damage to the six-acre working chardonnay vineyard and one acre of productive fruit trees. The Ag program is still severely limited in its ability to house and care for student animal projects at the farm site and must utilize limited space on SRHS's urban campus and temporary space donated by Kendall-Jackson Wines located six miles from campus. As the SRHS Ag program serves urban youth who do not have the property or means to raise livestock or grow large production agricultural crops at their home, rebuilding the farm facilities is imperative to the long term success of the Ag program. Prior to the fire, enrollment in the Agriscience and Animal Science pathways experienced steady year-to-year growth (see Part 2.A) and the facilities were able to accommodate over 100 student animal projects. Since the fire, both pathways have experience attrition and SRHS has been forced to halt major pathway improvements and expansion efforts. As detailed in Part 5, the proposed CTEFP project will expand animal housing capacity and allow up to 255 students per year to engage in innovative and engaging project-based learning experiences aligned with CTE Pathway Standards and core industry competencies.

**B. Accessibility to the CTE program:** SRCS is committed to ensuring all students have access to CTE programs and receive the support required to complete their chosen pathway and successfully transition into higher education, more advanced pathway-related training, and/or entry-level positions in target fields. SRCS has implemented a district-wide CTE outreach and recruitment plan with strategies designed to reach all student populations, including (1) publication of a College and Career Readiness Guide in both English and Spanish that highlights CTE program offerings; (2) CTE program information published on the District, SRHS, and FFA chapter websites; (3) presentations in each 8<sup>th</sup> grade science class at feeder middle schools about all SRHS CTE programs; and (4) early and ongoing counselor-led sessions to assist feeder middle school students in completing a Naviance inventory assessment, conducting career exploration activities, and exploring SRHS CTE program opportunities. In addition to district-wide CTE recruitment efforts, the SRHS Ag Department facilitates several outreach and recruitment events in which pathway students exhibit their work to feeder school students, their peers, and the greater Santa Rosa community. These events include FFA presentations at Santa Rosa Middle School, biannual open-farm days, and the annual Sonoma County Fair.

SRHS and the Ag Department implement a comprehensive menu of support services to ensure all students have equal opportunity to succeed in Ag pathways. Ag teachers collaborate closely with SRHS teachers and staff assigned to supporting special population students (e.g., ELD specialists, special education teachers, migrant education TOSA) to remove any barriers that may inhibit students with special needs from accessing and successfully completing the program. For example, Ag teachers work closely with counselors and special education teachers to modify assignments and projects based on students' 504 and/or Individualized Education Plans. Such modifications include providing extra time on assignments/assessments, providing printed notes for discussions, and permitting students to exhibit competency in modalities based on student strength. The Ag teachers meet in a professional learning community (PLC) once a week, often in collaboration with counselors, during which they

discuss common students who need extra support and how to provide appropriate learning strategies and accommodations (e.g., differentiated instruction, individualized assistance during use of equipment). Each SRHS student is paired with an academic counselor and meets 2–3 times per year to discuss their academic performance and progression through the CTE program. Counselors and teachers use the Illuminate-Ed platform to monitor student progress through Ag pathways, including early warning indicators that help to identify students struggling with attendance or key pathway competencies and require targeted intervention. Through this coordinated use of data, Ag teachers and counselors are able to create individualized plans to address student needs and ensure adequate supports are provided. Students also meet with a College and Career Counselor to develop an individual academic, college, career, and life plan (which includes a four-year graduation plan). SRHS uses Naviance to track student progress toward college and career goals. Naviance's web-based software provides students with a variety of features, including college research and matching tools, career and strengths assessments, and surveys to help students connect what they are doing in school to what they would like to do once they complete their education.

**C. Professional development, CTE Model Curriculum Standards, and certifications:** To ensure initial and ongoing professional development specifically related to the use and integration of the new facility within the curriculum, Ag teachers will participate in the following professional development activities: (1) the California Agricultural Teachers' Association (CATA) weeklong summer conference and fall Ag Teachers Roadshow, which include workshops led by industry professionals on use of equipment during project-based learning activities aligned with CTE Pathway Standards; (2) CATA North Coast Section meetings held twice a year to align Ag programs with regional industry trends; (3) Sonoma County FFA meetings six times a year to collaborate with other programs on curriculum development; (4) National Association of Agriculture Educators conference, which includes presentations on case studies of innovative and effective agriculture education; (5) workshops delivered in the new SRHS Ag facility led by industry partners, which will engage teachers in activities that demonstrate use of the new facilities and techniques for new livestock breeds that will be introduced as a result of the project; and (6) SRCS district in-service trainings for CTE teachers on effective use of technology and meeting the needs of all students.

All SRHS Ag pathways provide a sequence of CTE courses aligned with CTE Model Curriculum Standards. As part of the proposed project, SRHS Agriculture teachers will update CTE curricula to incorporate new project-based and work-based learning units that integrate use of the new facilities, promote student mastery of Anchor and Pathway Standards, are aligned with NGSS and CCSS, and prepare pathway students to excel in post-secondary studies or entry-level employment. All curriculum enhancements are informed and approved by the Ag Advisory Committee, which includes Santa Rosa Junior College (SRJC) instructors and industry partners as listed in Appendix B. The SRHS Ag program is currently working with the Ag Advisory Committee and SRJC to align curriculum with the post-secondary segment of each pathway and secure dual enrollment and articulation agreements. Students in the Ornamental Horticulture pathway are currently able to earn college credit through a Credit by Exam process and the new facilities will aid in extending this option to the

Animal Science and Agriscience pathways. While the proposed CTEFP project will enhance each pathway's efforts to increase student mastery of a broad range of Career Ready Practice Standards and Anchor Standards, the new facilities will significantly improve the Ag program's ability to address the following Agriscience Pathway Standards: "Examine the interrelationship between agriculture and the environment" (C2.0), "Understand fundamental animal nutrition and feeding" (C8.0), "Evaluate basic animal health" (C9.0), "Understand fundamental pest management" (C12.0), "Design agricultural experiments using the scientific method" (C13.0). With new facilities that accommodate a variety of species, the Animal Science pathway will better address the following Pathway Standards: "Evaluate the necessary elements for proper animal housing and animal-handling equipment" (D1.0), "Apply principles of animal nutrition to ensure the proper growth, development, reproduction, and economic production of animals" (D2.0), "Prescribe and implement a prevention treatment program for animal diseases, parasites, and other disorders" (D6.0), "Assess animal welfare concerns and management practices that support animal welfare" (D9.0), "Demonstrate understanding of the production of large animals (e.g., cattle, swine, sheep) and small animals (e.g., poultry, rabbits)" (D10.0).

The SRHS Ag program recognizes the importance of providing pathway completers with certifications valued by industry. Integrating industry-recognized certifications within both pathways will be among the primary CTEFP project enhancements. The Ag program currently offers Youth Quality Care of Animals (YQCA) Certification for all students in both pathways who participate in showing livestock at the Sonoma County Fair. The new facilities will enable the Animal Science pathway to pilot a new certification that is being developed in coordination with the FFA chapter to address a lack of a comprehensive livestock care certification available to high school students. This certification program will include an online video library of training modules and a certification exam approved by a university partner. Once this certification is piloted, an FFA student-led team will develop a plan to market this certification to other high school programs around the state. Lastly, the Ag program will partner with Social Advocates for Youth to offer work-based learning opportunities and occupational skills training leading to a Career Readiness Certification. The number of students who secure industry-recognized certifications will be a key outcome measure by which the quality of SRHS Ag pathways are assessed (see Part 4.A).

**D. Establishment and history of the CTE program:** SRHS has the third oldest FFA program in California, which began at the high school in 1926. In recent years, the Ag program has made several enhancements to meet industry demands within Sonoma County and revised pathway course sequences to ensure students graduate with the skills necessary for entry-level employment in pathway-related fields and postsecondary studies. These enhancements include (1) aligning course outlines with University of California a-g requirements, NGSS Standards, and CTE Anchor and Pathway Standards; (2) developing new project-based opportunities aligned with emerging regional trends, such as cultivation of hops, farm-to-table operations, and value-added agricultural products; (3) replanting fruit trees and grapes lost in the Tubbs Fire; (4) incorporating Credit by Exam options in collaboration with SRJC; and (5) providing

students with opportunities to participate in regional, state, and national FFA conferences and competitions.

The Ag program has recently received \$15,494 in Ag Incentive Grant funding, along with a \$21,494 match from the District, which was used for instructional materials, FFA Conferences, and student transportation. The program was also awarded an Ag Incentive Specialized Grant for \$11,779, which was used for a groundwater pump and well at the school farm. The Ag program receives Perkins and CTE Incentive Grant funding annually. In 2018-19 the program was allocated \$26,000 in Perkins funding, which funded Ag teacher professional development and student participation in FFA, and \$283,635 in CTE Incentive Grant funding to purchase (1) vans to transport students to FFA competitions and class activities at the school farm, (2) instructional materials and textbooks; (3) equipment for the school farm, and (4) a computerized temperature control system and automatic watering system for a greenhouse. These funds have been used to enhance, not supplant funding for the Ag program. As detailed in Part 1.E, SRCS has a strong history of supporting its CTE programs and is fully committed to sustaining Ag program efforts beyond grant funding periods with LCFF funds. Ag program sustainability will also be guaranteed by generous support from industry partners (see Part 6.B) and revenues from the onsite vineyard, which average \$25,000 per year, and are used for farm maintenance and purchase of animal feed for student livestock projects.

**E. Evidence the CTE program will be supported and sustained through the LCAP:**

The Santa Rosa City Schools 2019–2020 LCAP prioritizes all CTE pathways, as evidenced by Goal 1, Annual Measurable Outcome 18, which is to “annually increase the number of students who complete a CTE pathway by 5%.” The increased capacity and expected growth resulting from the proposed CTEFP project directly relates to this LCAP goal. The LCAP also funds the role of College and Career Counselors (Goal 1, Action 13) to recruit and counsel students in CTE pathways. SRCS has allocated \$845,825.00 to these efforts. Goal 2, Action 1 sets out to “build partnerships with school, community-based organizations and local businesses.” SRCS has allocated \$112,998 for these efforts. As a result of this goal, in 2017 an SRCS Career Technical Education Advisory Committee was formed to provide assistance and recommendations for the continuous improvement of CTE programs. The Advisory Committee consists of industry professionals, CTE teachers, parents, and community partners, and was instrumental in advancing the proposed project, which is designed to foster collaborative relationships with industries toward these ends.

SRCS annually gathers input from student, parent, staff, and community stakeholders and discusses feedback to enhance the learning strategies identified in the LCAP. As described above, SRCS’s current LCAP includes goals and strategies that support the district’s CTE programs, and the proposed CTE project will be integrated into the LCAP communications and stakeholder meetings. In the first year of grant funding, SRCS will include the CTEFP grant award in the “LCAP Highlights” section of the annual update, which will include information about the CTEFP grant amount, budgeted and actual use of grant funds, and the number of students impacted by the grant program. Future annual LCAP updates will include specific actions and planned costs that will support and sustain the proposed CTEFP project.

## Part 2: Projections of Student Enrollment

**A. Projected number of students served:** Table 1 outlines five-year Animal Science and Agriscience pathway enrollment projections beginning the first year grant funds will be allocated. Projections of student enrollment are based on several factors. First, prior to the fire the target pathways experienced steady year-to-year growth in enrollment, from 114 students in 2014-15, to 163 in 2016-16, reaching a maximum of 177

students in 2016-17. Second, the new facilities, combined with the strategic recruitment plan described in Part 2.B, will increase student interest in the Agriculture pathways and ensure the pathways produce a large enough pool of entering SRHS freshmen interested in target Ag pathways to meet enrollment goals. Finally, as the community of Santa Rosa experiences population growth and urban development, farmland is becoming sparser and opportunities for students to engage in Supervised Agricultural Experiences are decreasing. The proposed facilities will ensure SRHS offers the most comprehensive Agricultural program in the region that provides SAEs that students cannot attain elsewhere.

Table 1: Projected 5-Year Agriscience and Animal Science Enrollment			
Year	Agriscience	Animal Science	Total
2020–21	112	56	168
2022–22	132	84	216
2023–24	165	90	255
2024–25	165	90	255
2025–26	165	90	255
Total	739	410	1,149

**B. Enrollment procedures:** The SRHS Ag program employs a strategic marketing, recruitment, and retention plan that has led to consistent enrollment growth in recent years. The plan will ensure that Ag pathways reach their enrollment goals and continue to fill each pathway to maximize the use of the new facilities and reach more students seeking training for high-wage, high-skill agricultural jobs. First, SRCS has developed digital and print materials detailing CTE program requirements, offerings, and potential career pathways and disseminates these materials to feeder middle schools and all Career Centers at high schools within the District. Second, the SRHS Ag program makes presentations to each 8<sup>th</sup>-grade science course in which pathway students and teachers share the various student-led projects, industry connections, and career pathways. Third, early and ongoing counselor-led sessions assist feeder middle school students in completing a Career Interest Profiler, conducting career exploration activities, and exploring CTE program opportunities. Students begin self-selecting agriculture pathways as early as 7<sup>th</sup> grade and chart out their coursework to lead directly to the SRHS Ag program. Fourth, Ag pathway students participate in the Sonoma County Fair, which serves to recruit interested students. Finally, the SRHS Agriculture program opens the farm to the public twice a year to showcase the various student-led projects and share information about enrollment, program expansion, industry partners, and career opportunities.

Santa Rosa City School's nondiscrimination policy covers admission and access to all District CTE programs and activities. Therefore, a student does not need to apply to be a part of the Agriculture program. Additionally, the District's Open Enrollment Policy provides students the option to attend a school other than their neighborhood school. The District is in the process of reviewing the Open Enrollment Policy to include the addition of CTE program selection as a priority factor used to determine placement in impacted high schools.

### **Part 3: Identification of Feeder Schools and Partners**

As detailed in Appendix B and the attached letters, SRSC meaningfully engaged a broad range of stakeholders who participated in the development, articulation, review, and approval of the CTE Plan and CTEFP project. The majority of students entering the Ag program come from Santa Rosa Middle School. However, as detailed above in Part 2.B, the district has an open enrollment policy and students from throughout the district may choose to enroll in the Ag program. Elsie Allen High School is the only other high school in the District that has an Agriculture program (5 miles away). Elsie Allen High School (EAHS) offers Ag pathways in Animal Science, Agricultural Mechanics, and Ornamental Horticulture. SRHS and EAHS serve students on opposite sides of Santa Rosa and both programs are necessary to meet District demands for Supervised Agricultural Experiences. In addition to EAHS, there are eight other Ag programs in Sonoma County that the SRHS Ag program collaborates with through CATA and FFA professional development events (see Part 1.C). These high schools include: Analy (9 miles away), El Molino (13 miles), Healdsburg (17 miles), Petaluma (19 miles), Sonoma Valley (24 miles), and Tomales (24 miles). Prior to the Tubbs fire, the SRHS Ag program regularly hosted Ag teachers and other FFA chapters from throughout the region and California to participate in facilities tours and seminars. The new construction will allow SRHS to resume these activities and to host large groups of Agriculture students from regional programs from collaborative events. As detailed in Part 5, the new show ring will have bleacher seating to accommodate up to 250 students for workshops with industry partners, showmanship clinics, and competitions that mimic the format of the Sonoma County Fair. With the new CTEFP-funded facilities, SRHS will be the only school in the county to have a show ring that is comparable to fairground facilities and animal housing that can accommodate all species of livestock.

### **Part 4: The Accountability Plan**

**A. Accountability plan:** SRHS's Director of Data and Assessment and the Director of CTE/College and Career Readiness will oversee Ag program data collection, management, and reporting utilizing (1) Illuminate-Ed Student Information System (SIS) to track the academic progress of all students (e.g. enrollment, attendance, grades, credits, etc.); (2) Naviance to track the postsecondary enrollments and degree completion (longitudinal data); and (3) electronic surveys and phone calls to track student continuation in agriculture pathways after they graduate. Once a year, the Director of Data and Assessment and Director of CTE will develop an evaluation report, which will be presented to the CTE Advisory Committee and the Board of Education, and will be used to engage the Committee in continuous quality improvement discussions based on outcomes, including outcomes for the following objectives:

Objective 1: The Agriscience and Animal Science pathways will enroll a combined total of 168 students during Year 1, 216 in Year 2, and 255 each year (3-5) thereafter, as determined by Illuminate-Ed SIS student enrollment reports. Objective 2: At least 51 students per year will complete a capstone course in Year 1, and 58 students in Years 2-5, as determined by Illuminate-Ed SIS pathway student completion reports. Objective 3: By Year Five of the CTEFP project, 95% of all pathway completers will complete at least one industry-recognized certification. Since the Youth Quality Care of Animals Certification is a requirement for showing animals at the Sonoma County Fair, at least 95% of all students in the Animal Science pathway and 50% of all students in the Agriscience pathway will obtain that certification. Objective 4: Once enrollment expansion is complete, at least 5% program completers will enter pathway-related employment, apprenticeship programs, or military service within six months of graduation, as determined by student self-report surveys administered six months after graduation. Objective 5: Once enrollment expansion is complete, at least 30 program completers, and 90% of total seniors graduating having taken two or more Agriculture courses per year, will successfully transition into postsecondary institutions within six months of graduation for more advanced study in a pathway-related degree program or another area of study, as determined by Naviance and student self-report surveys administered six months after graduation.

The Ag Department's strategic communication plan is designed to disseminate pathway achievements, including the outcomes listed above, to all stakeholders. SRHS administrators, Ad teachers, students, Advisory Committee members, and industry partners will play a vital role in the communication plan and commit to sharing information to garner support for the program. Core dissemination strategies will include (1) developing and maintaining an Ag Program web page; (2) sharing information via SRSC and Ag Department social media accounts (e.g., Instagram, Twitter, Facebook); (3) formally presenting pathway information and results to the SRCS Board once a year; (4) hosting school and community events for pathway students and their families (e.g., open-farm, FFA events) during which students share their accomplishments in the program and discuss their college and career plans; (5) setting up booths at school and community events (e.g. FFA events, sporting events, farmers markets); and (6) exhibiting projects and sharing information at the Sonoma County Fair each year. In addition to the above strategies, Ag Advisory Committee members commit to actively advocating on behalf of the Ag program and regularly sharing program information within their respective networks. Lastly, the Director of Data and Assessment and the Director of CTE/College and Career Readiness will report outcome data related to all Ag pathway goals, objectives, and outcomes to CDE through CALPADS reporting and submission of the annual evaluation report.

**B. EC Section 51228 obligations:** The agriculture pathways currently fulfill obligations pursuant to EC Section 51228. Pathway students complete a rigorous program of study that (1) provides a scaffolded CTE course sequence progressing from introduction to concentration to capstone courses; (2) fulfills a–g requirements; (3) incorporates industry-aligned work-based learning in each grade, including Supervised Agricultural Experience, career exploration, and paid internships; (4) enables students to obtain industry-recognized certifications; and (5) engages students in hands-on project-based



learning that promotes student mastery of the technical skills required in industry. The proposed CTEFP project will enhance these efforts by providing the facilities and equipment required to formally articulate curricula with the postsecondary segment of the pathway at Santa Rosa Junior College and offer opportunities for students to earn college credit through a Credit by Exam process.

## **Part 5: Educational Specifications and Equipment/Space Requirements**

**A. Project description:** The proposed CTEFP project will replace the SRHS Ag farm building that was destroyed by the Tubbs Fire in October 2017. New construction will enlarge the previous building's footprint to 6,200 SF and feature a barn with industry-standard animal housing, a multipurpose meeting room, and a show ring. The new facilities will allow the SRHS Ag program to (1) multiply and diversify the number of student-led Agriscience and Animal Science projects, (2) provide new project-based learning activities and certifications that prepare students for the college and career, (3) expand Ag enrollment to serve all SRHS students with an interest in agriculture, and (4) allow the SRHS farm to operate year-round. There are no known site constraints associated with this project and the CTEFP request does not include any equipment.

**B. School site plan:** See attached school site plan.

**C. Schematic drawings:** See attached schematic drawings.

**D. Space requirements:** The attached schematic drawings identify the square footage and dimensions of all instructional and support areas. The new facilities will include a building centered around an 899 SF meeting room that will serve as a classroom for direct instruction, a meeting space for student and industry partner presentations, and an event space for FFA activities and student competitions. The meeting room will feature an instructional wall with an LCD TV flanked by shelves that can be concealed by sliding whiteboards. Adjacent to the meeting room are two storage rooms, one for technology and class supplies (51 SF) and one for tools and equipment (233 SF) that features an overhead door for easy access to large items. Support areas include an electrical/IT/mechanical room (117 SF) and two restrooms (116 SF). Attached to the building is an open-air barn (3,935 SF) which includes pens for housing cattle, sheep, swine, chickens, and rabbits. As detailed in Part 5.E and Part 6.C, industry partners provided a number of recommendations on the design and layout of this area to facilitate project-based learning activities; meet industry, ADA, OSHA, and HACCP standards; and guarantees the health and welfare of both students and animals.

**E. Facilities and equipment planning process:** As detailed in Appendix B and the attached letters, the SRHS Ag Department engaged # industry partners and Santa Rosa Junior College in designing and equipping the proposed Agriculture facilities. Facilities planning took place over the 2018-19 school year during Ag Advisory Committee meetings and included site visits to tour local agribusiness facilities and consultation with regional FFA chapters to ensure the educational space aligns with industry standards. While this application does not include an equipment request, industry partners completed an assessment of existing pathway equipment to identify future equipment needs and design features for the new facilities to accommodate key pathway equipment (see Part 6.C). Industry partner recommendations included an

animal wash station, easily accessible and secure storage, effective layout for animal housing areas, and a show ring to allow students to practice showmanship and the pathways to host large groups for competitions and workshops.

The Animal Science and Agriscience pathways are currently limited in their ability to provide students with hands-on Supervised Agricultural Experience and industry-aligned project-based learning. Swine are presently housed on the SRHS campus and other animals are housed at an industry partner facility located six miles from campus. As a result of the school being awarded a CTEFP grant, students in the Animal Science pathway will be able to work with all types of animals in one location, and multiple classes will be able effectively share responsibilities in the care for pathway animals. Students will participate in hands-on lessons supported by industry partners regarding animal physiology, health and growth evaluation, and nutritional practices while completing individual and group projects in raising livestock to show at the Sonoma County Fair. Students in the Agriscience pathway will be able to develop a broad understanding of agriculture through management of farm facilities and the property as a whole. They will engage in relevant work-based experience in agricultural business, technology, natural resources, animal science, and plant/soil science. Examples of Agriscience project-based learning activities include conducting experiments on animal production and their effects on the surrounding wetland ecosystem; monitoring annual changes in soil quality to develop sustainable land management practices; and studying plant germination, propagation, and harvesting techniques to maximize efficient use of nutrients and ecosystem health.

**F. Program and space justification:** The CTEFP project will provide the facilities required for SRHS to grow Agriscience and Animal Science pathway enrollment to serve up to 255 students a year and will be operational every day of the week for an average of six periods per day. Each course in the Agriscience and Animal Science pathways will utilize the entire farm facility for laboratory activities and project-based learning. While the Introduction to Agriculture course primarily meets in a classroom on the SRHS campus for direct instruction, students will use the farm to conduct laboratory experiments and will be introduced to Supervised Agricultural Experience through periodic site visits to collaborate with upperclassmen in learning basic animal and plant management skills. Students in concentrator and capstone courses will spend the majority of class time at the farm facilities spread amongst specialized work areas. Capacity for each work area is as follows: Meeting Room – 30 students; Barn – 60 students with 18 cattle pens, 20 sheep pens, 20 swine pens, 1 chicken pen, and 1 rabbit pen; Show Ring – 250 students in the bleachers and 20 students in the ring. Table 2 outlines the Animal Science and Agriscience course sequence with spaces used in the proposed facility by Year Five of the CTEFP grant.

Table 2: Outline of Ag Course Use of CTEFP-Funded Space					
Course	Courses Per Year	Students Per Course	Total # of Students	Spaces Used	Periods Per Week
Introduction to Ag	4	28-30	115	Ag Class Ag Barn	16 4
<b>Animal Science</b>					

Animal Anatomy & Physiology	1	20	20	Barn/Show Ring Meeting Room	5 2
Veterinary Science	1	25	25	Barn/Show Ring Meeting Room	5 2
<b>Agriscience</b>					
Earth Science in Agriculture	2	25	50	Meeting Room	10
Integrated Agricultural Bio	2	20-25	45	Barn/Show Ring Meeting Room	4 8

## Part 6: Budget Justification/Detail Sheet

**A. Estimated annual capital cost per student and rationale/method used:** As detailed in Part 2.A, the Animal Science and Agriscience pathways will serve 168 students in Year 1 (2020–21), 255 students per year in Years 2-5, totaling 1,149 over five years. The SRHS Ag Department projects that it will maintain an enrollment of 255 students in target pathways beyond Year 5. Therefore, over the 10 years following CTEFP funding allocation, the annual capital cost per student will be \$967.95: \$2,448,908.19 CTEFP budget / 2,530 students. However, as this CTEFP request is primarily a new construction request and the new facilities will serve Ag students long beyond 10 years, the long-term estimated annual capital cost per student will be significantly less.

**B. Business/industry partner financial participation and ongoing support:** As detailed in the attached letters, # industry partners have committed to supporting the Ag program with in-kind contributions related to (1) serving on the Ag Advisory Committee; (2) providing guest speaker presentations and workshops; (3) providing training and professional development for Ag teachers; (4) soliciting assistance from the local agribusiness community in donating equipment and supplies; (5) assisting with the development, evaluation, and continuous quality improvement of the Ag pathways' curricula and work-based learning; and (6) advocating on behalf of the SRHS Ag program. Construction of the new facilities will improve the ability for industry partners to engage students in hands-on training and large group presentations. For example, Associated Feed will be able to conduct feed trials once the animal housing is operational and host workshops on animal nutrition for large groups, including students from other regional Ag pathways as described in Part 3.

**C. Business/industry input and collaboration in determining equipment needs:** The proposed CTEFP project does not include an equipment request. During CTEFP project planning the Ag Advisory Committee completed an assessment of existing pathway equipment and identified future equipment needs. Industry partners recommended several design features for the new facilities to accommodate existing pathway equipment and future purchases, such as providing adequate and secure storage, the inclusion of an animal wash station, and effective layout for animal housing areas. Specifically, Sonoma County Fairgrounds representatives recommended a vendor for animal pen installation and Small Town Genetics provided guidance with proper pen dimensions for each type of animal. Once the facilities are completed, the

Ag program will solicit additional equipment recommendations from industry partners during Ag Advisory Committee meetings which will be used to update a list of equipment to be purchased each year. The Ag program will follow SRCS's "best value" method described in Part 6D for all equipment expenditures.

**D. Best value method:** Multiple factors were considered by SRCS and the Ag program when selecting vendors and contractors for the proposed construction. The District best value process involves scoring each potential vendor or contractor using a weighted average of the following criteria: Cost Effectiveness (25%); Proposed Product or Service (25%); Experience (15%); Expertise (15%); Prior Relationship with the District (10%); Professional References (10%). When selecting any equipment for the new facilities, the Ag Advisory Committee will employ a best value method by reviewing multiple factors related to each proposed make and model, including warranty, safety, maintenance costs, reliability, useful lifespan, and the level of technical assistance provided by equipment vendors and/or manufacturers.

**E. Sustaining maintenance/upkeep:** As detailed in Part 1.D, the SRSC LCAP prioritizes all CTE pathways and this includes a commitment to ensuring ongoing CTE facilities maintenance and upkeep. LCAP Goal 1 states the District will "Maintain 100% of school facilities with exemplary rating." Upon completion of construction, the Ag program will work with the SRCS Maintenance and Operations department to develop a preventive maintenance schedule for the new facilities. SRSC will work with SRHS to ensure that the school site budget appropriately allocates funding to be used for maintenance and upkeep in conjunction with services provided from the District. In addition, the Ag program will receive volunteer support with maintenance from industry partners and the Ag Boosters Club and uses a portion of revenues from the onsite vineyard (\$25,000) for day-to-day farm maintenance.

## Part 7: Unique Conditions

The proposed CTEFP project will rebuild the SRHS farm facilities that were lost in the Tubbs Fire on October 9<sup>th</sup>, 2017. In addition to the loss of all buildings, Ag program vehicles, irrigation infrastructure, and one third of the vineyard were all destroyed. While the Ag program has benefited from tremendous community and industry partner support in rebuilding the farm, SRCS requires additional funding to complete construction of Ag program facilities. The Ag program currently partners with Kendall-Jackson winery to provide students with a temporary facility to house their livestock projects. The Kendall-Jackson facility is located six miles from campus. Due to the distance and smaller footprint of the donated space, the Ag program cannot adequately maintain the number of animal projects required to serve all pathway students, and as a result has experienced attrition in student enrollment. In addition to the Agriscience and Animal Science pathways that this proposal will directly support, the SRHS farm is also home to the Ornamental Horticulture and Plant and Soil Science pathways and they will also benefit from the new facilities. Finally, as the community of Santa Rosa experiences growth in urban development and population, farmland is becoming sparser, thereby raising the demand for the facilities proposed in this CTEFP project. With the new CTEFP-funded facilities, SRHS will be the only school in the county to have a show ring that is comparable to fairground facilities will be host large groups of Agriculture

students and teachers from regional programs from collaborative events.