

JULY 26, 2012

PROPOSAL FOR
**Educational Consultant for Visioning Process to
Develop State College Area High School's
21st Century Educational Specifications Document**



FANNING HOWEY

July 26, 2012

Michael Hardy, Assistant Superintendent
State College Area School District
131 West Nittany Avenue
State College, PA 16801

RE: 21st Century Educational Specifications

Dear Mr. Hardy:

Just as every building needs a good foundation, every school needs comprehensive and thorough educational specifications that will serve as the building blocks for a quality educational environment.

For the past 50 years, Fanning Howey has worked with educational communities throughout the nation to provide these building blocks for success. We have helped clients address educational guidelines at the campus, district, and state levels, tailoring our services to their individual needs.

We will involve all staff for input and evaluation, while leading the engagement process focusing the output. We are firm believers that the best solutions are born out of collaboration, and we bring this collaboration to each project we plan. Through information gathering and idea sharing efforts, your students, staff, and community will be key members of the project team.

None of the educational or facility advantages can be realized without the approval of the community at large. We offer the unique advantage of decades of success in consensus building and collaborative planning, ensuring you support for your funding initiative.

On the following pages, we have identified relevant projects to help address our experience with each aspect contained in the Scope of Work. We hope these success stories will help you envision what we can do for you! We look forward to the opportunity to present these ideas in an interview, toward the goal of providing SCASD with an effective road map toward 21st Century Schools!

Sincerely,
FANNING HOWEY



Edwin R. Schmidt, AIA
Executive Director

Community-Based Input

HOW THIS PROCESS WILL INCLUDE INFORMATION AND FEEDBACK GARNERED FROM A WIDE VARIETY OF COMMUNITY-BASED INPUT OPPORTUNITIES.

Today's active communities demand an open school planning and design process. Citizens want to be involved; they want to be heard; they want to make a difference. An effective engagement strategy is crucial to creating a strong connection to the community - and schools that make everyone proud. Fanning Howey can offer your district a proven approach to community engagement that weaves stakeholder input into each phase of visioning and educational specifications development.

Our collaborative process engages all stakeholders in an exploration of current and future trends. The goal is to gain a clear understanding of the your educational philosophy and curriculum delivery methods, so that the building can support teaching and learning in the most effective way. This includes in-depth discussions regarding the use of educational technology – one of the most rapidly-changing elements of the modern school environment. With your primary goal of developing a truly visionary school program, we must secure community support in order to pass the referendum. Seeking community input is of the utmost importance, including input from local businesses.

COMMUNITY ENGAGEMENT TOOLS

AUDIENCE POLLING SYSTEMS

One of the most exciting ways to engage the community is the use of hand-held devices that allow a large group of stakeholders to cast their "votes" during a collaborative polling session. A PowerPoint presentation with pre-approved questions is projected onto a large screen. Each participant enters their vote and the results are instantly displayed on the screen. Districts love this quick, easy approach to community engagement because it gives everyone an equal voice.

VISIONING SESSIONS

Collaborative visioning charrettes can be held in a media center, town hall, or even in a storefront in the middle of town. Participants get to interact with the planning team and offer their opinions. These sessions help to establish the future direction of educational programs.

PROJECT WEB SITES

For stakeholders who can't or won't attend set meetings, a project Web site can provide a convenient way to share feedback. Web sites are also a great way to keep the community updated on project developments.

PROJECT CONCEPTUALIZATION

Sometimes the best way to gain input is to view existing buildings and get feedback on features that stakeholders like and dislike. One easy way to gain feedback is to post a variety of images on several walls and allow participants to write comments next to their favorite images.

TRANSPARENT COMMUNICATIONS

Targeted public relations campaigns, project newsletters, and presentations on local public access stations can help ensure your stakeholders remain involved and informed throughout the process. The good work completed during early portions of the project can be lost if the public doesn't stay informed, involved, and engaged throughout every phase.

Case Study: V. Sue Cleveland High School

COMMUNITY-BASED PLANNING PROCESS

Rio Rancho Public Schools in New Mexico, under the visionary leadership of Superintendent Dr. Sue Cleveland, undertook the task of developing a new District Master Plan with an emphasis on school and community integration and educating the student for a lifetime. The planning effort for the new school was highly interactive and systematic, drawing on the diverse expertise of faculty, administrators, community members, industry representatives, educational consultants, planners, parents, and students.

After countless hours of work, this committed group of volunteers developed a broad range of recommendations for the learning environment that became the core guidelines for the educational specification document. These recommendations recognized the student as an individual, each with his or her own talents, interests, and abilities. The recommendations recognized the importance of each student's quest to find their place in the world and a way to contribute to the world. This broad understanding of each individual within the greater community resulted in a District goal of student and community interaction and the need for a high school that offered equal opportunities to excel, whether in the manual arts, performing arts, technology, academia, sports, or community service.

Over the course of a two-day visioning and creative charrette, the planning committee developed the learning plan, which included in-depth discussions regarding small learning communities, facility organization, strong community and school connections, flexibility, educationally-focused technology, innovation, collaborative learning, environmentally sustainable design strategies, student centered sustainable design, and project site issues.

To further the District's commitment to planning and building a school that would inspire and educate today's students while planning for relevance in the future, the team visited numerous schools across the country. The team focused on observing trends in learning environments, best practices in facility planning, and technology and career-oriented schools.



21st Century Learning

TEACHING AND LEARNING PRACTICES, STRUCTURES, AND PROGRAMS (INCLUDING CAREER & TECHNOLOGY CENTERS, STEM, ACADEMIES, SMALL LEARNING COMMUNITIES, PROJECT-BASED LEARNING, ADVANCED PLACEMENT OFFERINGS, DUAL ENROLLMENT AND DUAL CREDIT OPTIONS, VIRTUAL LEARNING OPPORTUNITIES, PERSONALIZED LEARNING PLANS, INFUSION OF TECHNOLOGY, SERVICE LEARNING, INTERNSHIPS, ETC.).

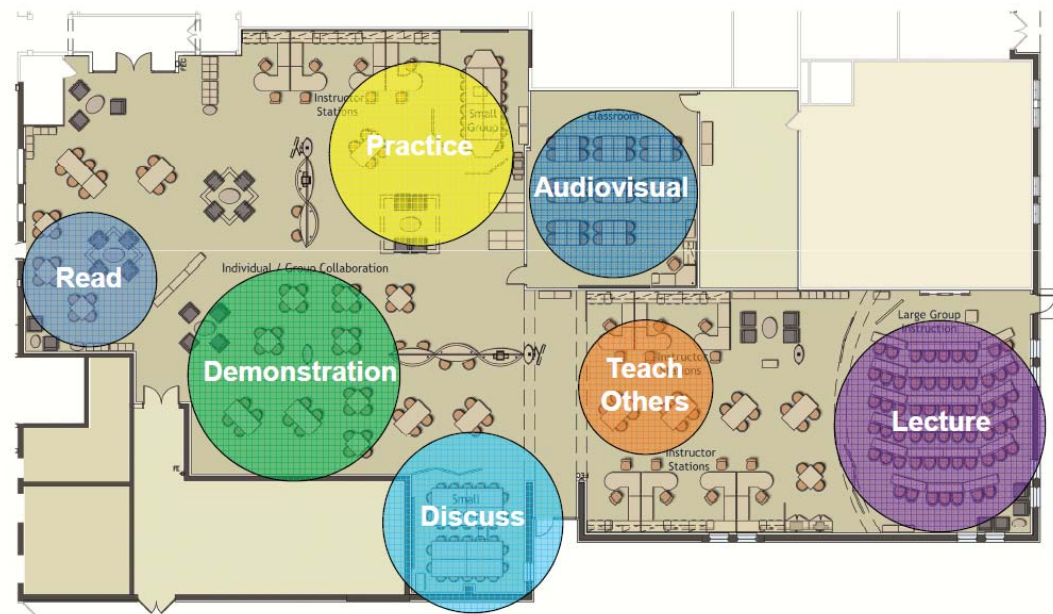
Change is the one constant in today's schools. These buildings are being asked to support an ever-expanding array of curriculum offerings and instructional methods. They are increasingly providing a "24/7" approach to community use. And they are doing so while minimizing operating costs and the impact to the surrounding environment.

With this in mind, Fanning Howey helps clients plan for 21st century schools that are flexible, adaptable, and highly-customized. We strive to create learning environments – both traditional and non-traditional – that support current curriculum needs and have the ability to change over time.

The best schools provide flexible environments that can change along with the needs of teachers and students. Operable walls, raised access floors, and adaptable classroom configurations help to ensure that the building will be as relevant 50 years from now as it is on the first day of school.

Our current thoughts on educational facilities planning include consideration of replacing the traditional "learning pyramid" with a "horizontal plane of learning." Really, there is no such thing as the classroom of the future - there are only ideal classrooms depending upon context.

We should plan for clusters of activities, each of which have equal value. This means not discounting lecture as a form of instruction - 21st century instruction does not mean project-based learning at the expense of other learning styles. Instead, we might think of a "plane of learning" where one axis might be "from one to many" and the other is "active to passive," with clusters forming within this matrix. These clusters should inform the planning process and later design for educational facilities.



Case Studies: Phelps High School and Colonel Smith Middle School

PHELPS ARCHITECTURE, CONSTRUCTION AND ENGINEERING HIGH SCHOOL

To ensure that Phelps would meet the needs of today's design and construction industry, organizations such as the American Institute of Architects, the Washington Architectural Foundation, Associated General Contractors, and the Mid-Atlantic Regional Council of Carpenters (MARCC) participated in the initial planning phases and assisted with fundraising. In addition, organizations such as MARCC pursued opportunities to enable the renovation process itself to serve as a learning opportunity, providing on-site pre-apprenticeship training for DC students, as well as employment for adults from the community.

As part of the Design/Build process for the historically renovated school, Fanning Howey helped to flesh out the educational specifications. Highlights of the final ed specs include: The development of educational programs to integrate a state-of-the-art, career-technical education system; A focus on a real-world, project-based curriculum supported by core academic courses; Courses taught using multiple intelligences, integrated core coursework, vocational and social preparation, cooperative learning, and team teaching to create a multi-dimensional academic environment; Concentrated skills and pre-apprentice training in a variety of construction-related areas; An overall program structure that conforms to national standards created by national construction and contractor organizations; Development of an advisory board directed by construction industry leaders; and Development of work-based learning (job shadowing, mentoring, internships, apprenticeships).



COLONEL SMITH MIDDLE SCHOOL

Located on the Fort Huachuca Military Post in Arizona, Colonel Smith Middle School is a revolutionary project, focusing on a Science, Technology, Engineering, and Math (STEM) curriculum with technology in the hands of all students using hand-held electronic devices with access under a cloud computing system accessible throughout the entire site. Both the middle school and the future high school will employ an advanced STEM curriculum. The flexible nature of the educational environment will support the project-based learning components inherent to STEM.

All indoor and outdoor spaces are for learning. Entry to the school, site and all areas of the building are designed to create interest, curiosity and learning opportunities for students. Operations of the school are designed to reflect environmental awareness and learning. Exterior learning spaces are located on the east and west and include areas for the study of Environmental & Biological Science, Gardening Insights, Optical Astronomy, Pollinators, and Astronomy & Winter/Summer Solstice. In total, the new CSMS is a secure, student-centered school that champions student achievement.



Student Development

STUDENT DEVELOPMENT (POTENTIALLY INCLUDING BUT NOT LIMITED TO CRITICAL THINKING, PROBLEM SOLVING, WRITTEN AND ORAL COMMUNICATION, ARGUMENTATION, INQUIRY, SOCIAL AND COLLABORATION SKILLS, TEAMWORK, AND CONDUCTING RESEARCH).

A variety of spaces must be included within today's schools to provide students with opportunities for development and exploration. These spaces support critical thinking, problem solving, communication, and other such skills necessary for successful higher education and professional careers.

LEARNING METHODOLOGIES SUPPORTED BY 21 CENTURY LEARNING ENVIRONMENTS

INDEPENDENT STUDY

Breakout space with soft seating provide students with quiet areas where they can conduct research, read a good book, or just let their imagination run wild.

ONE-ON-ONE INSTRUCTION

Flexible furniture and small breakout spaces allow students to engage in one-on-one mentoring sessions, either with teachers or with peers.

DIRECT INSTRUCTION/LECTURE

The bread and butter of the 20th century educational model, direct instruction still has its place in 21st century schools. The key is to provide acoustical separation from breakout and small group spaces, so multiple learning activities can occur simultaneously.

SMALL GROUP LEARNING

In a 21st century environment, group learning spaces should be available throughout the building, not just in formal classroom space. At the secondary school level, it is important to provide plentiful access to laptops, video and sound editing spaces, and presentation hubs, which support project-based activities.

PROJECT-BASED LEARNING

Schools should provides areas where students can come together and learn in a hands-on, interdisciplinary manner. Design, build, and create are three verbs most commonly associated with project-based learning activities.

ONLINE LEARNING

Technology is quickly becoming the defining characteristic of today's classrooms. Many schools are providing access to hand-held devices, as well as fixed computer stations and laptops. Virtual simulators in Career-Technical spaces are a good way to give students hands-on experience without going out into the field.

Case Studies: Multi-Disciplinary Instructional Center and Pike Preparatory Academy

MULTI-DISCIPLINARY INSTRUCTIONAL CENTER

Inspire, encourage, create, dream, and invent are written in white block letters along one wall of the new Zionsville Multi-Disciplinary Instructional Center (MIC). The words are a testament to a new way of learning at a high school dedicated to giving students an outlet to explore new ideas and learn in an open environment.

An extensive renovations program turned a former warehouse into a home for project-based collaboration between students and faculty. The new MIC consists of work and meeting spaces, as well as areas for research and presentations. A variety of different areas and configurations support independent study, small group work, and large group instruction. Operable walls, interactive whiteboards, and wireless connectivity allow the Multi-Disciplinary Center to adapt to the daily needs of students and teachers.

Upon the opening of the new facility for the 2008-2009 school year, enrollment in the program nearly doubled. Only juniors and seniors may apply for the program, and acceptance is based on maturity level rather than grades, ensuring participation by students who can excel in a non-traditional learning environment without constant supervision.



PIKE PREPARATORY ACADEMY

The MSD of Pike Township wanted to consolidate its middle school and high school alternative education programs into a single facility. Moreover, Superintendent Nathaniel Jones expressed the desire for a new kind of alternative learning environment. His goal was to establish a "college-going mindset" among the students of Pike Preparatory Academy and Pacers Academy High School.

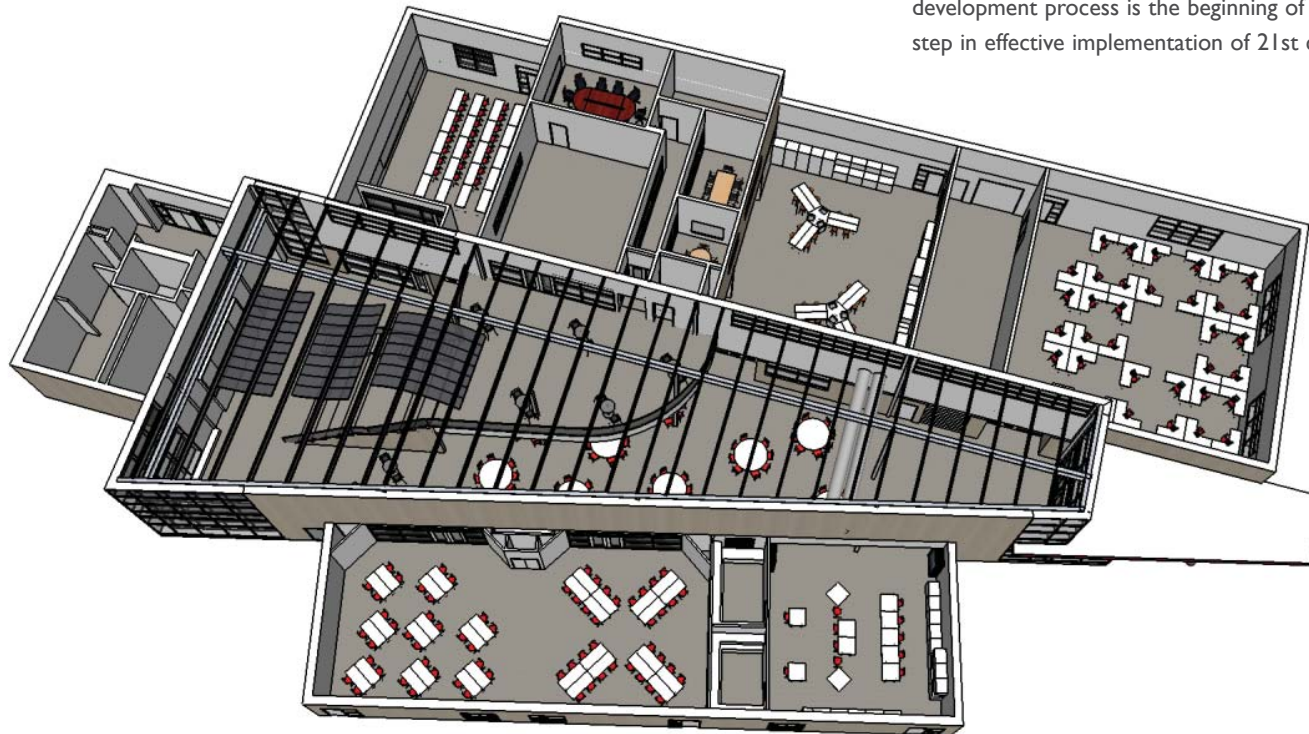
By renovating an existing office building, the planning and design team provided the district with a cost-effective, fast-track solution. Rows of cubicles and offices are now a dynamic mix of flexible classrooms, an open Student Lounge, and functional administrative space. With a curriculum focused on math, language arts, reading, science, social studies, character education, mentoring, and technology, students appreciate a supportive learning environment and ongoing student recognition. Innovative teaching strategies focus on the whole student, a collaborative approach to teaching and learning, and a partnership with parents and the community. The school's graduation rate is 100%, with 75-80% of students moving on to post-secondary education.



Professional Development

The development of an educational specifications document is certainly one important step in the evolution of a 21st century learning community. However, a change in facility layout and capabilities is useless without a change in the mind set and skill set of the school's faculty and staff. The visioning and educational specifications development process represents the perfect opportunity to engage teachers, to give them a voice in the process, and to begin to set expectations for the type of teaching and learning that will occur at State College Area high schools in the future.

The key to effective professional development among staff is to keep them involved throughout the process. As the visioning process moves into the development of the full-scale educational specifications document, the district will need to take steps to provide training in STEM, project-based learning, or others selected forms of instruction. Many educators—especially those who have been teaching for many years—are used to the “sage on the stage” approach to instruction, in which knowledge is imparted primarily via lecture. To more effectively engage students, and to “flip” the classroom to a “guide by the side” mode of instruction, teachers need training in new skills and techniques. Often, this includes how to best use their new environment - through the years, we have seen operable walls go unused, and high-tech tools stay in the boxes, simply due to a lack of training among the staff. The visioning/educational specifications development process is the beginning of this journey. Gaining buy-in now is a crucial step in effective implementation of 21st century instruction down the road.



Case Study: Center for Innovative Studies



Milan Area Schools in Milan, Michigan, is just one month away from opening its new Center for Innovative Studies. The 23,000-square-foot addition to the existing high school will support the district's new Senior Transition program, and will incorporate project-based learning, cross-disciplinary, and multi-dimensional learning opportunities.

The district's staff and faculty were heavily involved in visioning for CIS, beginning with a multi-day charrette that kicked off a year-long planning process. Staff interviews greatly aided in the development of the final vision, as did investigations into the strategies employed at New Tech High, Microsoft's School of the Future, and other innovative educational facilities.



As design for the new addition progressed, the district engaged Dr. Thom Markham, a former member of the Buck Institute for Education and co-author of the Project Based Learning Handbook, to assist with teacher and staff training, assessment design, and creating a project based learning portfolio for graduating seniors. As a result, the CIS staff will be able to effectively use their new environment from day one.

Integration of Instructional Technology

School districts across the nation are using technology to deliver innovative educational programs, lower operating costs, and create a secure learning environment. With more than 20 years of educational technology planning and design experience, Fanning Howey provides comprehensive solutions that help clients achieve these critical goals.

Fanning Howey's experience includes technology planning and design for hundreds of new and renovated schools. We have worked with clients like you to support 21st century educational programs. Our projects incorporate many different solutions, ranging from traditional computer labs to interactive display devices or hand-held devices, and this experience will help us develop forward-thinking technology educational specifications.

Our experience also includes all facets of a district's operations, including voice, video, and data. Recently, several of our clients have lowered operating costs through the use of cloud computing and virtualized file server solutions.

In addition, our firm has extensive experience with the design of security solutions ranging from surveillance systems to card access systems.

Whatever your goals, our team of technology specialists will take an integrated approach to planning and design. At the beginning of the project, we don't start with discussions of network switches or phone systems. Instead, we explore your educational programs, your operational needs, and your vision for the future. We then act as translators, using our wealth of experience to design appropriate technology solutions that meet your current and future needs.

In the last 10 years, technology has changed the face of education. Blackboards have been replaced with interactive display devices. The backpack has given way to the Netbook and tablet computer. And Fanning Howey has been there every step of the way, helping clients implement the latest in cutting-edge educational and operational technology solutions.

HAND-HELD DEVICES

The use of hand-held devices in the classroom—whether they are tablets or even smart phones—is one of the fastest-growing trends in education.

At Port Huron Area Schools in Port Huron, Michigan, Fanning Howey designed a wireless solution that allowed the district to implement a Bring Your Own Device (BYOD) policy within its 23 schools. The technology design allows for the authentication and registration of hand-held devices for use on the district's wireless network. As of April 2012, more than 3,500 wireless users were accessing the network daily. That number is expected to nearly double by the time the project is completed.

At Hammond High School, in Hammond, Indiana, our technology designers helped the district implement an online curriculum loft program, in partnership with T-Mobile. Each high school student receives an Android tablet, which allows them to access and complete assignments online.

CLOUD COMPUTING

As part of a district-wide building program, Fanning Howey is working with Huber Heights City Schools in Huber Heights, Ohio, to integrate a district-wide cloud computing solution. Student assignments will be stored on the Google cloud, allowing the district to reduce the investment in physical server space.

SERVER VIRTUALIZATION

Huber Heights is also using virtualized servers to reduce the number of physical servers needed, thereby lowering operating costs. Fanning Howey is working with the district to consolidate all functions in two main servers, which will be located in a new Network Operating Center. Virtualized servers will be provided through VMWare (virtualization software) and will support all 8 district buildings. Backup servers will be located in the district's new high school.

Fanning Howey is familiar with multiple virtualization providers, including VMWare and Citrix. We can also coordinate desktop virtualization solutions, which allow any user to log into a computer and have a Mac or PC look and feel to the system.

Case Studies:

Detroit Public Schools and Columbus Metropolitan Library

DETROIT PUBLIC SCHOOLS

In 2008 the residents of Detroit approved an historic \$500.5 million bond program which revitalized the City's educational facilities. Fanning Howey was part of the Program Management team in charge of overseeing the planning, design, and construction of eight new schools and ten renovated schools over the course of three years.

Fanning Howey focused on providing planning services including the development of facility planning guidelines, educational specifications, and design standards. Our firm oversaw the design of all projects, which were delivered using a design-build approach.

As a part of this effort, we converted Detroit's high schools into wireless/paperless educational facilities, integrating netbooks, interactive white boards, and teacher tablets - all within the district's historic buildings, proving you can never judge a book by its cover...or lack of one.



TECHNOLOGY BRANCH, COLUMBUS LIBRARY

The Library strives to inspire reading, share resources, and connect people, and has been named the #1 library in the country three times, having never dropped below the top five.

The Near North is considered the most ethnically diverse of the library's district, and urban poverty is prevalent, with the largest numbers of immigrants and at-risk youth. In these neighborhoods, adults grapple with issues magnified by a lack of access to technology. While more than 60% of US households report using the Internet at home, many lack high-speed Internet access. For those with limited access, the library is the important bridge to this increasingly essential tool.

Fanning Howey is assisting Columbus Metropolitan Library with their goal of seeking to pilot a non-traditional library - a Technology Branch - that will serve the Near North, offering a facility with a full menu of technology access including computers, Internet, the latest software, plus a lab for computer training and job help, and space to introduce and test new technology products and services. This will be the first branded library location containing no books.



Funding Initiative

DEMONSTRATION OF HOW THE OUTCOME OF THIS PROCESS WILL SUPPORT THE PASSAGE OF A MAJOR FUNDING INITIATIVE FOR FACILITY ENHANCEMENT.

At first the impact educational specifications can have on gaining support to pass a referendum might not be apparent. After all, the educational specifications represent a definition of the type, number, and special characteristics of the spaces necessary to support the delivery of the desired educational curriculum. However, there are additional sound learning and political practicalities embodied in good educational specifications.

The educational specifications represent the physical spatial needs that support the educational plan. The educational plan itself defines the curriculum to be delivered both currently and in the future. The realities of today's society require that students be lifelong learners. The era of formal education essentially ceasing upon a person receiving a secondary education diploma has passed. With people making six to eight career changes in a lifetime, with people continuing to immigrate to this country and needing additional skills to become part of our culture, a sound educational plan needs to look beyond high school graduation and consider the adult educational needs of the community. As a result, the educational specifications need to reflect the expanded scope of the educational plan.

That is the sound learning practicality embodied in good educational specifications. That learning practicality also has a political practicality. Based on the 2010 Census, 6,161 households of all types have children under the age of 18 living with them in the State College Area School District. That equates to 19.6% of all households. Not too many years ago, for most districts, that percentage was closer to fifty percent. The point is that the socio characteristics of the population are such that far fewer households have a direct link to the schools through their children.

As a result, educational specifications that reflect an educational plan that reaches beyond school-age children and addresses broader needs of the general population builds expanded community support. Wider support translates into more support at the polls, thus helping ensure success of a referendum

Case Study: Port Clinton City Schools

In November 2009, Port Clinton City Schools faced any number of challenges to the success of its proposed \$42 million bond issue. The economic outlook was poor—in March 2009, unemployment in Ottawa County, Ohio, was at 17 percent, among the highest in the state. Once blessed with a thriving industrial base, the Port Clinton economy was based largely on tourism. In addition, unlike many Ohio school districts, Port Clinton was not eligible for matching state funds to support their school construction program. Add in a 10-year history of defeat at the polls, and many outsiders gave the bond issue little chance of success.

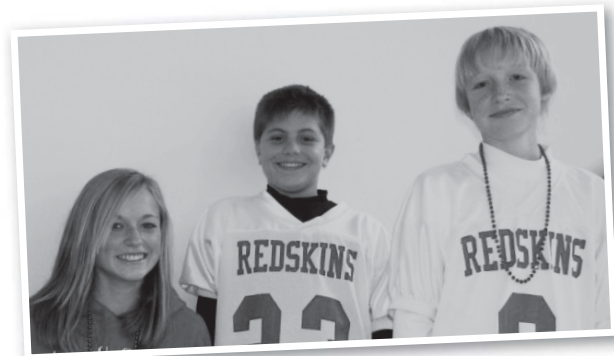
However, on the night of November 3, 2009, district officials celebrated a successful bond issue, backed by 55 percent of the community. Their success was the result of a highly strategic and collaborative community engagement process that utilized a grassroots effort to build support for the proposed facilities program.

Prior to this successful passage, the district had experienced two failed bond issues in 2001, a third in 2005, and a fourth in 2006. By taking a new approach to developing consensus among all stakeholders, Port Clinton was able to pass a \$42 million bond issue in November 2009—arguably one of the most challenging times in recent memory to gain public support for school funding.

The community engagement and bond issue campaign process for Port Clinton City Schools shows that school districts have the ability to access school funding even during the most difficult of economic times. The key to success is to engage a broad range of stakeholders in developing facility options, effectively communicate the benefits of the bond issue to the community, and energize potential "Yes" voters and encourage them to participate on Election Day.

Port Clinton City Schools Board Members were involved throughout the community engagement and bond issue process. In addition to supporting the efforts of the community-led Facilities Planning Committee, Board Members provided input into the Committee's findings and were responsible for approving the final master plan and bond issue. Board Members were also heavily involved in community engagement and bond issue campaign activities, providing support and leadership during each step of the process.

Vote 
for Issue 17



Change 
OUR Future
ISSUE 17 MAKES \$ENSE

www.supportpcschools.com

Paid for by Support Your Schools, Walter Wehenkel, Treasurer 608 East 11th Street, Port Clinton, OH 43452

Timeline

DRAFT TIMELINE WITH SPECIFIC DATES AND TARGET ACTIVITIES.

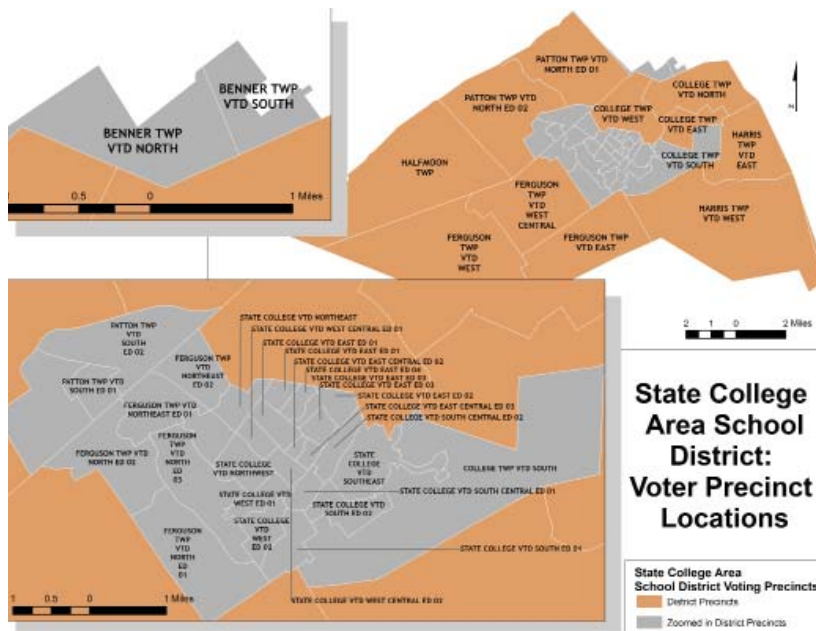
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Kick Off																														
Project NTP																														
Planning Sessions																														
Visioning																														
Back to School Nights																														
Student Visioning Sessions																														
School Admin Visioning Sessions																														
District Admin Visioning Sessions																														
School Board Visioning Sessions																														
Draft Documentation																														
Admin Work Sessions																														
Curriculum Work Sessions																														
School Work Sessions																														
Draft Report Board Briefing																														
Draft Report Release																														
Stakeholder Feedback																														
Back to School Nights																														
Student Feedback Sessions																														
School Admin Feedback Sessions																														
District Admin Feedback Sessions																														
School Board Feedback Session																														
Final Documentation																														
Administration Presentation																														
Board Presentation																														
(Referendum Planning)																														



Demographics

UPDATE DEMOGRAPHIC DATA.

Fanning Howey can provide demographic and geographic information systems (GIS) services for school districts, municipalities, and private sector clients to the full range of professional architectural, engineering, and consulting services we offer. Used individually or in combination with each other, demographic and GIS services greatly expand the data and information analysis available to a client.



DEMOGRAPHIC AND GIS SERVICES

A partial list of the demographic and GIS services Fanning Howey can provide includes the following:

- **Demographic Data** - Demographic statistics and analysis from the 2000 Census and other sources regarding all socio-economic characteristics of the population in a region.
- **Population/Enrollment Projections** - A projection of future enrollment provided by grades for the district as a whole and/or for individual school attendance areas.
- **Advance Population/Enrollment Projections and Analysis** - A projection of future enrollment and an analysis of where students are coming from, what factors are influencing growth and development in a district, and what the potential is for future changes that will affect school enrollment.
- **Attendance Area Boundary Studies** - A study that provides detailed demographic information about the population whose children attend a particular school. This is extremely useful in redefining attendance areas within a school district.
- **Identification of Future School Sites** - This service enables a school district to easily identify those sites that meet its needs in size, location relative to where students live, accessibility, soils, topography, and many other factors.
- **Build-Out Scenarios** - A study that projects what a school district will look like in terms of housing, land use patterns and overall development. This is most useful for districts that have undeveloped areas and are planning for future growth.
- **Bond Issue Assistance/Database Management** - Demographic and GIS software can be used to identify specific groups of voters during a bond campaign.
- **Development and Management of GIS Databases** - Fanning Howey can develop and maintain GIS databases for school districts and municipalities.

Case Studies: District of Columbia Public Schools and Providence Public Schools

To the casual observer demographics, as related to educational facility planning means enrollment projections. While projections of future enrollment are a key component demographics play a vital role in other aspects of planning and specifically in the development of educational specifications.

The socio-economic factors behind not only the number of students but the general population as a whole play a pivotal role in shaping the future educational plan of a school district. The curriculum to be provided is the core of the educational plan. To deliver that curriculum requires the provision of spaces within an academic facility. The educational specifications define the number, type and physical features of those spaces. A curriculum that addresses explicit socio-economic needs of the students and the community represents a holistic approach to education.

The following two examples serve to illustrate the interrelationship between demographics and educational specifications.

DISTRICT OF COLUMBIA PUBLIC SCHOOLS

Our nation's capitol has, in recent years, experienced a renaissance in housing opportunities. For years, resident migration had been away from the central city to the surrounding suburbs. A concentrated effort on the part of the city leadership to rebuild neighborhoods and work with the private sector to provide a wide variety of housing opportunities has reversed that trend.

Increased housing opportunities have resulted in a burgeoning need for skilled tradesmen and professionals within the District of Columbia. A demographic analysis of the educational attainment of the labor force and the number of housing opportunities demonstrated a widening gap between supply and demand for these tradesmen and professionals.

The District of Columbia Public Schools revised its curriculum to place additional emphasis on architecture, construction and engineering (ACE). The District worked with Fanning Howey to develop new educational specifications that reflected, among other changes, this emphasis on ACE. With the educational specifications in place, the renovation and reconstruction of Phelps High School as an ACE school became a priority. The goal as the to provide the education which allows DC students to take advantage of these employment opportunities. Today, Phelps High School, a project with which Fanning Howey is proud to have been the lead architect, is educating students for careers in architecture, construction and engineering.

PROVIDENCE PUBLIC SCHOOLS

When updating the educational specifications and facility master plan for the Providence schools, the District turned to a demographic analysis of the community for guidance to address critical needs. In addition to providing expanded curriculum offerings for school-age children the demographic analysis indicated a growing need for adult education. With an expanding immigrant population comes the need for expanded adult education including English-as-a-second language classes.

The District sought to accommodate this need by adopting a curriculum that also emphasized adult education. In recognition of that, the District and Fanning Howey worked to develop educational specifications that incorporated increased flexible spaces that could fulfill the needs of school-age students during the day and adult students during off-hours. The results were educational specifications and a facility master plan that spoke to the educational needs of the children and the greater Providence community.

References

MULTIPLE EXAMPLES OF THE CONSULTANT'S PREVIOUS WORK AND REFERENCES.

CAMPUS-LEVEL EDUCATIONAL PLANNING AND/OR SPECIFICATIONS

PATTERSON MILL MIDDLE-HIGH SCHOOL

Mr. Cornell S. Brown Jr., Assistant Superintendent, Office of Operations
Harford County Public Schools
102 S. Hickory Avenue, Bel Air, MD 21014 (410) 588-5256

PAGE COUNTY AND LURAY HIGH SCHOOLS

Dr. Randall W. Thomas, Superintendent
Page County Public Schools
735 W Main Street, Luray, VA 22835 (540) 743-6278

MIDDLE SCHOOL EDUCATIONAL SPECIFICATIONS UPDATE

Mr. Nathaniel (Lee) Snodgrass, Director of Facilities, Planning and Management
Downingtown Area School District
126 Wallace Avenue, Downingtown, PA 19335 (610) 269-8460

MIDDLE SCHOOL EDUCATIONAL SPECIFICATIONS

Mr. Stan Rounds, Superintendent
Las Cruces School District No. 2
505 S. Main Street, Las Cruces, NM 88001 (505) 527-5845

KENSTON HIGH SCHOOL EDUCATIONAL SPECIFICATIONS

Dr. Robert A. Lee, Superintendent
Kenston Local Schools
17419 Snyder Road, Chagrin Falls, OH 44023 (440) 543-9677

STATE AND DISTRICT-LEVEL DESIGN GUIDELINES

OHIO SCHOOL DESIGN MANUAL FOR THE STATE OF OHIO

Mr. Franklin J. Brown, AIA, LEED AP, REFP, Planning Director, Ohio School Facilities
Commission, 10 W. Broad Street, Suite 1400, Columbus, OH 43215 (614) 466-4168

SCHOOL DESIGN MANUAL FOR THE STATE OF ARKANSAS

Dr. Charles Stein, Assistant Director, Division of Public Schools Academic Facilities &
Transportation, 501 Woodlane, Suite 600, Little Rock, AR 72201 (501) 682-4261

DESIGN GUIDELINES FOR THE DISTRICT OF COLUMBIA PUBLIC SCHOOLS

Mr. Cornell S. Brown Jr., Former Director of Facilities Management, District of Columbia
Public Schools, Currently Asst. Supt. for Operations with Harford County Public Schools
102 S. Hickory Avenue, Bel Air, MD 21014 (410) 588-5256

DESIGN MANUAL FOR ORLEANS PARISH

Mr. Walter Aertker, Program Director, Jacobs/CSRS Program Management
909 Poydras Street, Suite 1200, New Orleans, LA 70112 (504) 592-0150

DISTRICT-WIDE HIGH SCHOOL EDUCATIONAL SPECIFICATIONS

Ms. Carri Matsumoto, Executive Director, Facilities Development and Planning
Long Beach Unified School District, 2425 Webster Avenue, Long Beach, CA 90810
(562) 997-7550

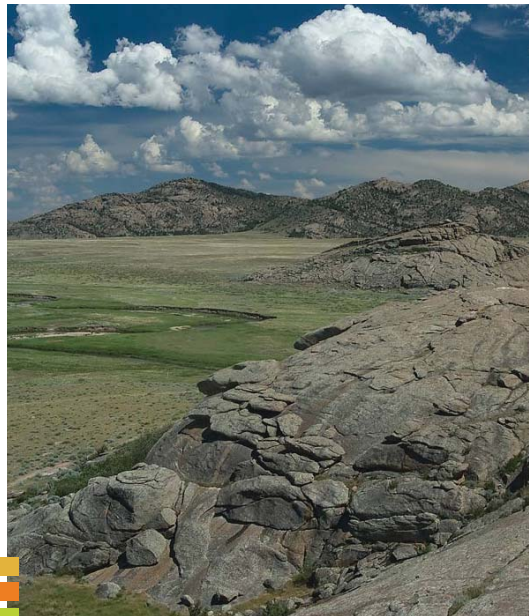
DISTRICT-WIDE SECONDARY SCHOOL EDUCATIONAL SPECIFICATIONS FOR NATRONA COUNTY SCHOOL DISTRICT

Mr. Wally Diller, Program Manager, Wyoming School Facilities Department
123 West 1st Street, Suite 710, Casper, WY 82601 (307) 472-0477

VOLUME 2
Wyoming School Facilities Department and
Natrona County School District

Educational Specifications

November 10, 2011



50th
anniversary
FANNING•HOWEY

NATRONA COUNTY HIGH SCHOOL EDUCATIONAL SPECIFICATIONS

Summary of Spaces

NATRONA COUNTY HIGH SCHOOL Program of Spaces	Suggested						
	TS	# per T.S.	Cap. @ 100%	Quantity	SF	Total	
Core Academics-Total	51		1,231	83		57,570	Enhancement
General Classrooms Grade 9	10	25	250	10	900	9,000	
General Classrooms Grade 10	10	25	250	10	900	9,000	
General Classrooms Grade 11	10	25	250	10	900	9,000	
General Classrooms Grade 12	10	25	250	10	900	9,000	
Teacher Planning/ Office Areas				10	325	3,250	
Individual Restroom				4	80	320	
Small Group Room/Breakout				10	225	2,250	
General Science (Wet)	3	21	63	3	1,300	3,900	
Physics	2	21	42	2	1,300	2,600	
Chemistry	2	21	42	2	1,400	2,800	
Biology	2	21	42	2	1,300	2,600	
General Science (Dry)	2	21	42	2	1,200	2,400	
Science Prep				6	200	1,200	
Project Storage				1	150	150	
Chemical Storage				1	100	100	
Special Needs Services-Total	3		30	6		2,690	
FLS Self-contained Classroom	1	10	10	1	1,100	1,100	
BASS Classroom	1	10	10	1	900	900	
Spec Ed General Classroom	1	10	10	1	450	450	
Special Education Office				3	80	240	
Visual Art-Total	3		63	4		4,150	
2D Art Lab	1	21	21	1	1,200	1,200	
3D Art Lab	1	21	21	1	1,350	1,350	
Photo & Media Production	1	21	21	1	1,200	1,200	
Kiln/Ceramics Storage				1	400	400	
Music-Total	3		75	11		7,910	
Instrumental Room	1	25	25	1	2,250	2,250	
Instrument Storage				2	300	600	
Orchestra/Ensemble	1	25	25	1	1,800	1,800	
Choir Room	1	25	25	1	1,300	1,300	
Uniform/Robe Storage				1	250	250	
Large Practice Room				1	450	450	
Small Practice Room				3	120	360	
Midi Lab (Keyboard / Composition)				1	900	900	
Performance-Total	1		21	9		11,750	
Theatre (Includes Stage)				1	8,000	8,000	
Multipurpose BlackBox/Green Room	1	21	21	1	2,000	2,000	
Scene Shop Storage				1	800	800	
Dressing Rooms				2	250	500	
Prop/Costume Storage				1	175	175	
Sound/Lighting Control				1	100	100	
Ticket Booth				1	50	50	
Control Room				1	125	125	

Educational Consulting



FANNING•HOWEY

Fee

PLEASE INCLUDE ALL FEES THAT WOULD ENCOMPASS SERVICES OUTLINED IN THIS SUBMITTED PROPOSAL. THIS FEE SHOULD BE ALL-INCLUSIVE WITH NO ADDITIONAL REIMBURSABLE EXPENSES.

We propose an all-inclusive fee of \$165,286, which includes \$4,814 in reimbursable expenses.



