

Parkrose School District

Project Title: 1-to-1 iPads at Parkrose High School

EXECUTIVE SUMMARY

Parkrose School District's (PSD) Strategic Plan goals focus on two areas: Successful bond project completion and student success. While the bond project funds the rebuild of several schools and purchase of some technology components, the real heart of PSD's efforts has been and will continue to be around the student achievement goal of increasing equity and access to college and career readiness. To this end, PSD has aligned administrative focus and decision-making regarding how the District spends time, energy, effort and resources.

PSD is on the cusp of implementing a major component of its district-wide Strategic Plan. In Fall 2014, PSD will provide iPad Minis for all 3rd-12th graders, with a 2-to-1 student-to-device ratio in grades K- 2. This effort supports PSD's overall goals, set forth in the District Road Map to Success, adopted by the Parkrose School Board in 2012.

PSD's request for grant funding from the MHCRC will provide two critical supports in the 1-to-1 student device component at Parkrose High School, both in technology infrastructure and teacher professional development. MHCRC grant fund will specifically fund:

- Creating a solid wireless network at Parkrose High School to support the implementation of all students using iPad Minis starting Fall 2014. Our initial roll out of iPads to 11th graders has shown that while the devices are incredibly powerful and transformative in improving teaching and learning, the high school does not have the infrastructure to effectively handle the significant increase in internet usage. Teachers and students need to know they can rely on the network to deliver content seamlessly in order to engage in innovative and effective learning methods.
- Extensive teacher training to support staff in transitioning to and understanding use of online digital content and resources that take advantage of the technology and create effective learning environments for all students. PSD will contract with experts in crafting digital curriculum to help transform teaching from an old, text-based model to a new online curriculum that takes full advantage of the interactivity and media-rich opportunities available. In addition, PSD will work with a trainer to develop and implement new engagement and organizational strategies for both staff and students, many of which will be directly supporting our district-wide AVID (Achievement Via Individual Determination) program.

PSD's goal is that these efforts will increase the District's performance on the All Hands Raised student success indicators of 9th Grade Credit Attainment, English Language Learners Progress and High School Graduation.

TOTAL PROJECT COST:	\$735,874
TOTAL GRANT REQUEST:	\$363,796
TOTAL MATCH RESOURCES:	\$372,078

GRANT PROJECT NARRATIVE

I. Project Purpose

Parkrose School District (PSD) serves about 3,500 students located on the east border of Portland. The District is long and narrow bordered to the north by the Columbia River, the west by Portland Public School District, the south by David Douglas School District and the east by Reynolds School District. PSD has four elementary schools, one middle and one high school. Students demographics included: approximately 70% Free and Reduced Meals; 12.5% Special Education; 15% English Language Learners (as high as 31%, at Shaver Elementary to 6%, at the high school); and 65% identify as a race other than White. There are 42 native languages spoken by PSD students. As such, Parkrose School District is a vibrant, diverse, perfectly-sized community ready to re-shape the teaching and learning environment to improve college and career readiness for all students.

Realignment Actions to Date

PSD has done a tremendous amount of work over the last three years on realignment, including:

- switching to the Common Core Standards across all grade levels;
- building curricular maps and starting alignment of resources to the maps;
- developing common formative assessments at each subject and grade level;
- working in Professional Learning Communities (PLC - small groups of teachers with a common content area) to share the information gleaned from the assessments; and
- incorporating thorough data analysis in PLC professional development.

Advancement Via Individual Determination (AVID) is a nationally recognized program to help students, especially students of poverty and historically underserved minorities, focus on their studies, graduate and attend higher education. PSD has implemented the AVID program at the elementary, middle school and high school levels, and been named as an AVID National Demonstration Site at Parkrose Middle School. PSD has realigned the teacher evaluation system to reflect the new Educator Effectiveness Framework and has begun providing many types of job-embedded trainings and workshops for teachers. PSD has established a district-wide Equity Team focused on ensuring high rates of success for all students and staff. PSD has redefined its commitment to Positive Behavior Intervention System, an Oregon-wide initiative, and focused attention on the disparity in the number of referrals for certain groups of students. And, PSD has done all of these things to move students and staff forward while also remodeling and rebuilding five of six schools.

In addition, over the last few years, the District and Parkrose High School (PHS) have deeply invested in curriculum realignment. PHS restructured departments to create better, more supportive student environments and tightened processes for ensuring students take full academic loads. PSD refigured its credit recovery program to better meet the needs of students. PSD began credit by proficiency courses and standards-based grading, which fosters a culture of data and data-responsiveness.

Technology Infusion in the District

PSD has also made great strides in using technology to support progress on student achievement goals. Through the District Technology Committee (see Project Partners section for more detail), PSD

conducted teacher education of the NETS*T and NETS*S (the National Education Technology Standards*Teachers and *Students) and defined standard technology components for every classroom. We created leveled, standards-based lesson plans and activities for all teachers to share.

PSD developed a technology plan, which identified the need for computing devices available for each student and teacher, and found a way to make that happen. We evaluated possible devices and determined that iPad technology met our needs and could be supported by District resources. We crafted lessons, shared apps, problem-solved unforeseen situations and documented new processes related to the iPads, and we implemented a series of teacher professional development opportunities around technology use in the classroom.

In January 2014, PSD began the first stage of a 1-to-1 roll out of iPad Minis with the 4th/5th blended grade and 6th grade classes, and with 11th graders. We found that the infusion of this technology began to transform the way teachers teach and students learn in Parkrose schools. Part of the roll-out has been every-other-month professional development with the pilot teachers, who reported that they have begun redesigning lessons to take advantage of the wealth of resources available to them and their students through the devices. Students' interactions with curricula and creating products are dramatically deeper and more complex. District administration teams have visited pilot classes and heard from students that their engagement with learning is higher and they find greater relevance in the school work.

This Summer, PSD will start converting to digital curricula with staff who are ready to take that leap. Jen Arns from the Organization for Education Technology Consortium (OETC) will work for two days with the existing, pilot teachers and the new group of teachers to learn Edmodo, our new learning management system. PSD is keenly aware of the numerous educational resources available free over the Internet, a movement called Open Education Resources (OER). In late Summer, Steve Nelson from Apple will work with PSD teachers for an additional two days to understand the resources available on iTunesU, to create their own iTunesU courses, and particularly to harness these free resources and bring them into the teacher's new Edmodo presence. PSD plans for students and teachers to tap into the freely available curriculum and be part of the whole world of teachers and content experts working together to share the best practices and resources. Additionally, in the Fall, PSD will begin work with the new Google Classroom to create curriculum maps, units and lessons.

Need for High School Wireless Network Upgrade

In Fall 2014, PSD plans completion of the 1-to-1 roll out for all 3-12th graders and 2-to-1 for K-3rd grade classrooms. A major impediment to progress at the high school is lack of a robust, reliable wireless network. All four elementary schools received new, robust Cisco wireless networks as part of the bond renovations. However, PSD quickly found that the wireless networks at the middle school and high school were insufficient. When a class of students hit a video or download all at once, the networks maxed out and failed. Teachers expressed frustration at these interruptions in delivering curriculum and students were particularly sensitive to slow connections. This has caused barriers to teachers embracing changes in how they teach. At the middle school, PSD has been able to create a temporary bridge fix by backfilling the 1-to-1 classrooms with old devices collected from the elementary remodels. When the new middle school is completed this Summer, it will have a new, robust Cisco system in parity with the elementary schools. The wireless network at the high school is more than six years old with insufficient bandwidth for growing demand. PSD attempted to patch together a similar temporary fix at the high school, but the age of the equipment and the size of the high school hampered the efforts to satisfactorily provide wireless for so many devices. With 750 more iPads coming to students in the Fall, the problem is severe.

Grant Funds Proposal

The primary purpose of providing devices for students and teachers is to catalyze changes in teaching to address the significant discrepancy in outcomes between the District's minority and non-minority students, as well as special populations and the general student population (see Public Benefit section for more detail). At the high school, the 1-to-1 devices will only be successful with reliable connectivity and tailored teacher professional development.

Parkrose School District will use the MHCRC grant funds to build a robust wireless network at the high school, which utilizes the I-Net for its backbone capacity (see Technical Plan section for more detail). In addition, grant funds will provide initial professional development tailored for the high school teachers on effective teaching strategies and practices that use the iPad technology to increase 9th grade credit attainment and improve the student graduation rate (see Public Benefit section for more detail).

Paired with the 1-to-1 iPad Minis and backed by a solid and reliable wireless network, PSD will implement professional development that is consistent and structured to meet the high school teachers' needs. PSD will involve teachers in the design of the professional development to ensure lessons and interactions are engaging and meaningful. Trainings will focus on differentiating teaching to meet the needs of all students, no matter their academic or language level. Finally, the trainings will be presented in a variety of ways in order to best differentiate for our teachers to meet their learning needs. We will be offering a number of workshops during the summers, larger group trainings specific to iPads every other month, monthly tech Thursdays about a variety of tech-embedded teaching strategies throughout the year, and push-in coaching where District staff come into a classroom and teach a lesson while the classroom teacher observes the pedagogy and strategies used (more detail in the Implementation Plan.)

PSD envisions the tailored professional development and a robust technology environment will enable several improvements in teaching and learning at the high school over the next three years, some of which are described here:

- Teachers will be able to quickly and easily embed formative assessments into daily lessons in order to determine areas where students need supplemental services or enrichment. With the wealth of technological ways to demonstrate attainment of proficiency, students and teachers will maximize the move to proficiency-based learning and continue work toward true proficiency based courses across all levels of the high school.
- PSD is gradually supplementing and then replacing outdated, text based materials with digital content and content management across the District. In the PSD Budget Meeting for 2014-15, all funds were removed from the District textbook account. The high school professional development will train teachers to use digital resources both for lesson planning and for content delivery. The hope is to create complete curated curricula that will be relevant, engaging, differentiated, and economically and ecologically responsible, making best use of existing Open Educational Resources (OERs). To use a concrete example, the high school is possibly adding an AP Statistics class next year and is trying to identify the best way to meet the need for materials for a brand new course. iTunes U has a number of fully developed AP Statistics classes - content and pedagogy - digital and ready to go. Instead of investing \$120 apiece in flat, dead textbooks, high school teachers would rather use curricula that is inviting and flexible, engaging and responsive to student input.
- One priority of the District technology plan is to convert AVID organization strategies to digital formats as quickly as possible. Currently students take Cornell Notes and use Interactive Notebooks and Planners as uniform and universal expectations for note-taking and personal

organization. We are rolling out GoogleDoc versions of the Cornell Notes and electronic Interactive Notebook and Planner formats. Because PSD is a Google district, we expect to use as many interconnections between the iPads and Google Docs as possible. PSD expects high school students to transition to digital organization but without reliable wireless and teacher training this is not a reasonable expectation. For example, the high school teachers want students to turn in work digitally using tools like Turn It In and DropBox. These methods can be seamless and highly efficient for both students and teachers but become management headaches with intermittent infrastructure.

- The high school biology classes have embraced the idea of using digital dissections; it is cheaper, cleaner, causes less ethical turmoil, and gives the students more detailed and deeper understanding of the physiogeny of whatever they are dissecting. Because of the lack of cost, they can dissect multiple “animals” and do comparisons. These are only enabled through availability of the digital tools.

Long-Term Vision

By providing the support -- both solid infrastructure and thoughtful professional development -- PSD can scaffold teachers to change the way they plan and present information and curriculum to students. PSD’s vision in three to five years is that teachers have transformed teaching across all grades and subjects to differentiate learning for all students and, as a result, PSD will see progress on student achievement outcomes, without disparity within subgroup populations. PSD’s longer term vision for the transformed learning environment includes:

- Comprehensive digital curricula in place that provides guidance for teachers who are just starting out and provide a baseline for all teachers to start from and expand upon as needed.
- Fully developed formative assessment system that provides teachers and students with immediate information about areas mastered or needing further instruction, at the individual student, small group, and class level.
- Instructional practices and strategies implemented to effectively address an individual student’s needs.
- More time invested in supporting teachers in how to teach and much less time drilling them on what to teach.
- A simple, complete and effective communication loop among parents, students, and teachers where every participant has easy access to grades, attendance, progress, expectations, assignments, and academic support.
- Based on completed work to help teachers understand how to teach with digital curricula using iPads, teachers have the skills to support any kind of device that comes into the school with a fully applied “Bring Your Own Device” model.
- Students fully engaged, leading to higher attendance rates, lower discipline rates and higher graduation rates.

II. Public Benefit

This project is intended to primarily address 9th Grade Credit Attainment and High School Graduation Rates identified in the county-wide All Hands Raised Partnership as key indicators for student success in college and career readiness. In addition, the grant will also address English Language Learners progress in the high school grade levels. The grant project provides a solid foundation through both reliable, ubiquitous technology and teacher professional development, to assist the District to improve outcomes for high school students, especially for historically underserved populations.

Parkrose School District has a significant discrepancy between minority and non-minority students, as well as special populations and general population students. PSD expects that the benefits from the grant-funded project will have an even greater impact on the students who have been most at risk -- i.e. students who need more individualized support and instruction can more readily access those resources digitally. Teachers can do a better job of tailoring their instruction when they have the world of digital tools to help meet a student's needs. Also, PSD is shifting from text-centric courses where the content and assignments are built into the set package, over to a standards and outcomes based course model, where the focus is on student knowledge and skills acquisition. This credit by proficiency model is fundamentally more conducive to differentiation.

Parkrose High School's 9th grade teachers have engaged in work towards credit by proficiency courses but they have been trying to fit this new approach to assessment into very old materials and pedagogical options. Providing 1-to-1 devices to the 9th grade students opens up many more ways for teachers to focus on student acquisition of knowledge and skills, many more avenues for students to learn and engage than traditional text, and many more ways for students to demonstrate what they know than old-school standardized tests. Most importantly, using a credit by proficiency model allows teachers to recognize and meet the needs of many students who are bright and capable but have been hobbled by traditional methods of teaching and assessment.

Students who finish ninth grade on-track - i.e. earning at least six credits toward graduation - are more than four times more likely to graduate than students who fall behind in their first year of high school. Parkrose High School had a 77% overall Freshman On-Track rate in school year 2012-13, with 74% for Economically Disadvantaged, 47% for Students with Disabilities and 64% for Black students.

Currently, PHS offers three ways for students to recover credits if they have failed a class: They can simply re-take the class within their regular eight period school day; they can take some classes during summer school; or they can take online versions of some classes at their convenience (during the day or evening) through a program called Twilight. While it is important to offer options for students, it is optimal and more efficient to have them engaged, invested and successful in their regular school day classes. PSD believes the iPad initiative will support that engagement.

PSD's goal is to increase the number of students who finish ninth grade on-track by 5% in school year 2014-15 and at least 5% each successive year; and to realize an additional 10% reduction in the disparity for all historically underserved populations in each of the next three school years.

By having robust technology integrated in all grade levels and classes, PSD expects students will view their education as relevant and valuable to their future and therefore, continue progress toward on-time graduation. All students recognize that learning using the internet, researching things they need to know online, writing electronically, and using organization apps are real life skills and make more sense to teenagers than working from dated textbooks and packets. Students need to use tools in school that they will be using after they graduate. Showing teens that Parkrose High School is providing an education they need will keep them in school, progressing appropriately toward graduation.

In 2011-12, Parkrose High School posted an overall graduation rate of 69%, with 65% for Economically Disadvantaged, 35% for Students with Disabilities and 60% for Hispanic students. PSD's goal is to increase the high school graduation rate by 5% in school year 2014-15 and by at least 5% each successive year; and to realize an additional 10% reduction in the disparity for all historically underserved populations in each of the next three school years. PSD aspires to having all students graduate at a 90% rate by 2017.

A group who stands to benefit significantly by the iPad initiative is English Language Learners (ELL). In 2011-12, only 52% of the ELL students graduated. Obviously language can be a barrier to these students gaining and showing knowledge in many of their subject areas. Use of iPads will allow them to delve more deeply into the specific subject areas, in English and their native languages, giving them support in learning English, facilitating content knowledge in non-language-based ways, and connecting them to other students with similar language profiles all over the world. ELL students are just one great example of how radically technology use, specifically access to the internet, can help to level the playing field in education. PSD's goal is to have 90% of ELL students graduating by 2017.

III. Project Partners and Beneficiaries

Parkrose School District strives for a dramatic increase in student achievement and graduation in order to improve the overall quality of life for our students, their families and the community of Parkrose. The District has undergone significant demographic changes in the last 20 years and has labored recently under the pall of reduced budgets, school days, and teaching and support staff. This, in addition to the District's high rate of poverty and recent community economic conditions, have led to a very bare-bones educational environment. Unfortunately, our students have become somewhat used to thinking of their school district as second rate. By being one of the first districts in the state to provide 1-to-1 student devices with seamless wireless and teachers who know how to deeply utilize all of the opportunities available with the devices, PSD can show students that neither they nor the community deserve anything less than other students in the state. The lift in student, staff and community pride has been palpable in the pilot grades and the response from parents and local community businesses and other support agencies has been tremendous. A local church adopted one of the elementary schools to help provide Mini cases for students in need. These kinds of initiatives can lift a whole community.

As PSD worked to develop the bond proposal in 2010, we talked to parents, staff and community members to identify interests and concerns. Technology was consistently indicated as a priority. The infrastructure replacement at the elementary schools has made a significant difference in how students, staff and the community uses those buildings. For example, during parent meetings, all parents are able to wirelessly access PSD's public network and take a sample Smarter Balanced Assessment, review curriculum materials or look at ParentVue, specific to their child's progress, assignments and grades for each class. PSD's SUN School programs, which provide afterschool classes for students and parents, have been able to create and improve offerings with strong wireless connectivity. Parkrose High School has the largest number of parent groups and non-PSD staff meetings and events so having robust and reliable wireless access is important for community use.

Many parent groups have supported the District's iPad efforts. PSD staff has worked with each of the school's parent groups as we planned and implemented iPad roll out. District IT and School Improvement staff attended parent meetings in all buildings, often multiple times, to talk with parents about what to expect and the benefits of providing students with iPads. Parents have been very supportive and encouraging all through the planning and roll out thus far. Parent groups at two of the elementary schools helped purchase cases for students in need and the groups are discussing the possibility of being a resource for cases in the Fall. The Parkrose Education Foundation donated \$2,000 to help support the Spring roll out. Additionally, the Superintendent's Parent Advisory Council has been part of the communication mechanism from the beginning. The Council helped determine the kinds of information parents would need, helped spread the word and build enthusiasm in the community.

As PSD has worked toward this vision of 1-to-1 iPads for grades 3-12 and related teacher professional development for effective instruction, District staff worked with many additional groups to

shape the plan and roll out. The District Technology Committee, comprising stipended representatives from every school and the District Office, has met for the last five years with a vision of deeply embedding technology into teaching and learning. The pilot 1-to-1 teacher group has met three times thus far and at least once this Summer to document and share what has gone well and what needs revising. The training and professional development with the pilot teachers surfaced the many issues arising from lack of good wireless access in their classrooms. The School Improvement Director and Information Technology Director have talked to the Teachers' Union leadership about reasonable expectations for training and support. PSD and the Union hope and expect the use of 1-to-1 iPad Minis will actually help make teachers' jobs easier, by capitalizing on new efficiencies and management strategies and also make teaching more interesting and enjoyable for teachers (as well as students.) One of the pilot teachers is the president of the Teachers' Union and she has embraced using digital resources with her students. She was also one of the first teachers to request push-in coaching from District staff and has done wonderful work embedding the new strategies into her classes. It has been very encouraging for District staff to have the support of the Teachers' Union behind this effort.

Finally, one of the highlights from beginning the roll out of iPads this year has been the input received from student advisory groups at the middle school and high school. The Superintendent and IT Director met twice this year with the groups to discuss technology-specific issues, particularly the iPad roll-out. Both student groups expressed concerns about the inadequacies of the existing wireless networks. The students in grades that were not part of the pilot have been full of ideas about how they can use their iPads next year. The students also provide advice and ideas about how to integrate the iPads into class to make their learning more engaging. The students are great supports for their teachers and each other and have provided excellent guidance in shaping our goals and strategies. The response and input from students has influenced and informed the direction going forward.

IV. Implementation Plan

See attached.

V. Evaluation Plan

Parkrose School District's overarching goal for this project, and indeed almost all of what we do as a District, is to increase the high school graduation rate. Improving the number of 9th graders who are on track to graduate is a step towards that ultimate goal, as are increasing the high school attendance rate and the number of students who meet standards on their statewide assessments, which are required for graduation. All of these are end metrics PSD tracks closely. They are included on PSD's State-required Achievement Compacts and reported on the state Report Cards and Next Generation Accountability Reports.

PSD understands that the MHCRC is developing a logic model for its initiative. We are keenly aware of the fact that we are in front of this process and are honored to be in this position. We commit to working with MHCRC staff and its evaluation consultant, PSU Center for Student Success, to develop an evaluation plan that aligns with and supports data collection for the MHCRC's logic model. We are looking forward to having a funding partner who will assist the District in learning about instructional strategies and practices using the technology that are effective in improving the success of all high school students.

VI. Technical Design

This proposal has two technology components -- the student devices (iPad Minis) and the wireless network.

PSD chose the iPad Minis over other mobile technology because teachers have had iPads for a year or more, so they are most familiar with that platform. Also, the price of the Minis (as opposed to the iPad 2s) allowed the District to meet the 1-to-1 goal, and all classrooms have Apple TVs (which are not useful with Chromebooks or Kindles.) Staff initially expressed a concern about the Minis being too small, but for students, Minis are bigger than their primary devices -- cell phones -- so the Minis are actually a step up. Some teachers have also expressed interest in trading their iPad2 for a Mini, mostly because the Minis are convenient to hold as a teacher moves around a classroom, assessing and recording student information. Apps and the learning management system are also components that support the student devices but these will be determined as the project moves forward. PSD generally is committed to using free, non-proprietary software components and costs will be covered by technology general funds.

The District maintains Cisco wireless networks in its other five buildings so having one network to manage makes the most efficient use of a small IT Staff. The network design for the high school will bring it to parity with the other four schools and provide wireless access both inside and outside the high school building. The design includes one Wireless Access Point (WAP) per classroom/office space and dense coverage in common areas (see attached PSD MHCRC Tech Specs for more detail on network design, related equipment and materials and coverage map). The network will be professionally installed during the Summer of 2014 with PSD maintaining the network after the original installation. PSD owns a Cisco controller.

In terms of device security and replacement plans, all students are assessed a sliding-scale iPad self-insurance fee. These funds are pooled across buildings to provide a pot of money to take care of loss and damages. For a student not on free or reduced lunch, the fee is \$35 and if the iPad is lost or broken, a cost of \$100 is incurred. Thus far the loss/breakage rate is under 5%. Other districts with similarly structured roll outs report rates of 5-8%. The fee structure will allow us to accommodate that level of loss/breakage and subsidizing of fees and cases for students in need.

Our network security is handled by the Multnomah Education Service Districts's CIPA-compliant internet filtering. Both PSD's public and private networks are fully CIPA filtered. An additional layer of security is applied to our public network in that devices on the public network can't access any printers or internal servers in the schools.

VII. Budget

See attached.

VIII. Organizational Capacity

For the past five years, Parkrose School District, its schools and teachers have been gearing up to transform to digital teaching and learning. We began a thoughtful and strategic process pre-bond to redesign how PSD used technology funds aimed at the teacher and student learning experience. We have systematically implemented components of the technology plan:

- Three years ago: Projectors and doc cams in every classroom;
- Two years ago: iPads for all teachers;

- September 2013: New wireless system in all elementary schools;
- January 2014: Apple TVs in every classroom;
- January 2014: Began iPad classroom pilots for 4th-6th grades and 11th graders.

Once the bond passed, PSD realized significant savings which enabled us to invest District-wide in student-level devices. We began to rethink wholistically how PSD delivered teaching and learning in our schools, including curriculum delivery, expectations for teachers' and students' use of technology, funds spent on teaching materials, the focus and use of professional development, and what staff roles were needed in this transformed environment.

The rethinking and implementation has been, and continues to be, completely supported as a partnership effort among the Parkrose School District Board, leadership, principals, human resources and other administrative staff, and teachers. At each meeting - Board, cabinet level, technology committee, school improvement committee, principal leadership meetings, district AVID implementation meetings, district librarian PLC, and administrative PLC meetings - we discuss how to best and most successfully integrate technology enhanced instruction into the classrooms. It is, along with AVID, PSD's strategy for increasing our student achievement across the board.

Principals and district leadership are excited and have embraced the possibilities for what PSD can do with students. Each of the plan's three main components -- individual student devices, robust wireless networks, and effective and on-going professional development -- has a group specific to its deep implementation and success. The school principals and teachers are key to the iPads successful roll out, the District Information Technology Department is ensuring the reliability of the wireless connectivity, and the District School Improvement Office is leading the conversion to digital curricula. These groups crossover and plan components are overseen and supported by the PSD Superintendent and Board.

District leadership has also engaged in its own professional development. The Superintendent, Board Chair, Director of School Improvement, and Assistant Director of Instructional Technology have attended a number of conferences and workshops about infusing technology deep into instruction and the many ways to do that. This focus has spurred discussions about how the District can match curriculum needs to technology capabilities (ie. we intend to no longer buy textbooks and switch over to teacher created/collected content accessible from student devices). Parkrose School District Board recently adopted the 2014-15 budget, which includes resource commitments to digital curricula and to ensuring the conversion is successful. The District is also planning for future budgeting to expand the role of the school librarians to provide technology triage and coaching. Although no school district has identified a silver bullet for how to completely address student achievement, Parkrose School District is committed to changing what teaching and learning looks like in our schools and we know that technology is a key component of that change.

IX. Replicability

Parkrose School District has a complete plan for embedding technology in our teaching and learning that will last far beyond the scope of this grant project. PSD intends that this purchase of iPad Minis is the only wide-scale purchase of student-level devices PSD will make. PSD expects consumer-level devices to be nearly ubiquitous within the next five years and the vast majority of students will come to school with a personal learning device of some type. In fact, this year at Parkrose High School, 5% of the students in the 11th grade chose to use their own devices rather than the district-provided iPad Minis. The students' embrace of "bring your own device" or BYOD will allow PSD to phase out the iPad Minis by the end of the life cycle for these devices. However, PSD expects to continue providing a minimal number for students who do not have their own devices for a variety of reasons.

The extensive professional development is intended to ensure teachers gain skills about teaching using a variety of devices. PSD, with the MHCRC's assistance, is building a solid and stable network, which will accommodate the next phase of wireless demands and PSD will have staff to support it. The next and parallel phase of this digital conversion is the ongoing process of honing and revising materials and content for teachers and students. And, certainly, PSD will continue to work on consistent training and toning of teachers' instructional methodologies. Professional development is built into the District's budget every year and PSD will continue to define the direction of professional development based on teachers' needs and best use of current technology.

In addition, District staff is active in the statewide network of IT staff who are discussing how best to implement 1-to-1 initiatives. PSD is proud to be among the very first districts in the state to be able to provide 1-to-1 devices for students and will continue to support other districts through our learnings. PSD has attended several Apple sponsored events to see 1-to-1 initiatives in action. PSD anticipates hosting such an event in the next couple years. Additionally, there are opportunities at local tech conferences such as Association of Computing Professionals in Education where staff will share learnings with others.

Parġrose School District is committed to participating in any meetings or other venues facilitated or supported by the MHCRC to share experiences and learnings from this grant funded project with other districts across Multnomah County.

iPad Implementation Plan				
Timeline	end	Task	Who	Evidence/Evaluation
4/29/2014		Order remainder of hs iPad Minis	Blouke/Doyle	p.o.
5/20/2014	-6/30/14	Prep 750 hs iPads for roll out	IT Staff	ensure ipads are fully ready -- charged, meraki-ed
6/6/2014		Accounting for collected fees and loss/breakage	blouke	document provided to Business Office, Supt and Tech Comm
6/15/2014	-7/15/14	Clean up and rebuild 250 pilot iPads	IT Staff	ensure ipads are fully ready -- charged, meraki-ed
8/10/2014		Review ipad distrib processes w/ secys and princ	Lopes/Blouke	meeting minutes
8/20/2014		start hs iPad roll out	HS Staff	
8/20/2014		Bldg level trainings for iPad roll-out processes	Bldg tech reps	teachers know what to do to get ipads into the hands of kids
8/22/2014		District Tech Committee kick-off meeting	Blouke	bldg tech plans
9/1/2014	11/1/2014	Visits to parent meetings	lopes/Blouke	minutes
9/15/2014		Staff teach 2 tech use modules -- ipad care, responsible tech use	teachers	principals will track
10/15/2014		first accounting of 2014 fees collected	Blouke	document provided to Business Office, Supt and Tech Comm
10/15/2014		Student advisory meeting	Gray/Blouke	minutes
2/15/2015		Student advisory meeting	Gray/Blouke	minutes
6/1/2015		evaluation of attendance, behavior, testing, and grad data	Lopes/Blouke	report provided to Board and Supt
6/6/2015		Final accounting for collected fees and loss/breakage	blouke	document provided to Business Office, Supt and Tech Comm
9/15/2015		Staff teach 2 tech use modules -- ipad care, responsible tech use	teachers	principals will track
10/15/2015		first accounting of 2015 fees collected	Blouke	document provided to Business Office, Supt and Tech Comm
6/1/2016		evaluation of attendance, behavior, testing, and grad data	Lopes/Blouke	report provided to Board and Supt
6/6/2016		Final accounting for collected fees and loss/breakage	blouke	document provided to Business Office, Supt and Tech Comm
9/15/2016		Staff teach 2 tech use modules -- ipad care, responsible tech use	teachers	principals will track
10/15/2016		first accounting of 2016 fees collected	Blouke	document provided to Business Office, Supt and Tech Comm
6/1/2017		evaluation of attendance, behavior, testing, and grad data	Lopes/Blouke	report provided to Board and Supt
6/6/2017		Final accounting for collected fees and loss/breakage	blouke	document provided to Business Office, Supt and Tech Comm
ongoing		evaluation of and creation of digital curricula	All staff	evaluation documents

Wireless Implementation Plan				
Timeline	End	Task	Who	Evidence/Evaluation
4/25/2014		Create scope of work for wireless installatio	NIS	scope
5/25/2014		Bid wireless project	Doyle/Business Office	bid docs
6/1/2014		Purchase of non-WAP network equip. (swit	Doyle/Business Office	multiple vendor quotes resulting in PO(s)
6/16/2014		HS site survey	Contractor	specific plans showing all install locations
6/23/2014		Purchase of WAPs	Doyle/Business Office	multiple vendor quotes resulting in a PO
6/23/2014	7/3/2014	Installation of new network drops	Contractor	working/tested drops at specified locations
6/23/2014	7/3/2014	Config. and Install non-WAP network equip.	Doyle/PSD IT Staff	working/tested equip. in each network closet
7/7/2014	7/18/2014	Install of WAPs	Contractor	ability to connect to WAPs via controller
7/14/2014	7/22/2014	Configuration of WAPs	PSD IT Staff/Contracto	verify via controller that all WAPs accounted for and operational
7/21/2014	7/25/2014	Punch-list creation for installations	PSD IT Staff	walk-through, visual/physical inspection
7/28/2014	8/1/2014	Addressing of punch-list	Contractor	specific to punch-list items found
7/28/2014	8/1/2014	Test operation and coverage of WAPs	PSD IT Staff/Contracto	walking survey w/ multiple devices across entire site
8/4/2014	8/8/2014	Verification of punch-list corrections	PSD IT Staff	walk-through, visual/physical inspection
8/4/2014	8/8/2014	Test coverage density	PSD IT Staff	simultaneous use of multiple devices in same location - repeated across multiple locations
8/11/2014	8/22/2014	Testing necessitated by punch-list items	PSD IT Staff	incident-specific/TBD
8/11/2014	11/30/2014	Live test (by end users)	PSD IT Staff	controller-supplied data and end-user reports
8/11/2014	11/30/2014	Locate/troubleshoot/address problems	PSD IT Staff	incident-specific/TBD
12/1/2014		Evaluation of HS wireless	PSD IT Staff	review of available data from Live test stage
6/1/2015	7/1/2015	Warranty-item list creation for entire project	PSD IT Staff	visual/physical inspection, data from controller and users, coverage/connection testing
7/1/2014	8/1/2014	Correction of warranty items	Contractor	incident-specific/TBD
Sept 2014	end of life	maintenance of Cisco sytem	PSD IT Staff	stability of system

Professional Development Implementation Plan				
Timeline	end	Task	Who	Evidence/Evaluation
6/15/2014		tech needs survey creation	Lopes/Blouke	survey
6/18/2014		Follow up PD for pilot teachers	Lopes/Blouke/OET	exit slips
6/19/2014		First PD for non-pilot teachers	Lopes/Blouke/OET	exit slips
7/15/2014		iTunes U training	Nelson	exit slips
7/20/2014		Open labs for teacher teams who want to work on e-curric building	Blouke	shared lessons
7/25/2014		Secondary Staff PD on LMS (LessonVue or Edmodo?)	Lopes/Blouke	exit slips
8/10/2014		admin PD of LMS (LessonVue or Edmodo?)	Lopes/Blouke	exit slips
8/15/2014		Launch of PORTAL	Lopes/Smith	Posted
8/22/2014		District Tech Committee kick-off meeting	Blouke	bldg tech plans
9/1/2014	12/1/2014	expectation of 1 tech enhanced lesson per week	principals	principal walk throughs
9/1/2014	6/15/2015	2 per month classroom push ins (teaching tech lessons)	Lopes/Blouke	
9/10/2014		tech needs survey distribution	Blouke	results
9/15/2014		Staff teach 2 tech use modules – ipad care, responsible tech use	teachers	principals will track
9/17/2014	5/21/2015	monthly dist tech committee meetings	Blouke	minutes
9/25/2014	5/28/2015	Monthly highly focused tech pd	Lopes/Blouke	exit slips
10/15/2014	3/15/2015	HS specific Tech integration PDs	Lopes/Blouke/OET	exit slips
11/1/2014	1/30/2015	piloting of digital curric	various staff	student surveys, staff surveys
11/15/2014		iTunes U training	Nelson	exit slips
12/1/2014	6/15/2015	expectation of 2 tech enhanced lesson per week	Principals	principals will track
12/1/2014		solicitation of in-district professionals to lead Tech Thurs	Blouke	
6/1/2015		evaluation of attendance, behavior, testing, and grad data	Lopes/Blouke	report provided to Board and Supt
6/1/2015		evaluation of effective teaching practices/strategies	Blouke/teachers/PSU	
6/15/2015		2 days of secondary tech integration PD	Lopes/Blouke/OET	exit slips
8/15/2015		Bldg professional development in digital curric	Lopes/Blouke	attendance lists
9/1/2015	6/15/2016	2 per month classroom push ins (teaching tech lessons)	Lopes/Blouke	
10/15/2015	3/15/2016	HS specific Tech integration PDs	Lopes/Blouke/OET	exit slips
6/1/2016		evaluation of attendance, behavior, testing, and grad data	Lopes/Blouke	report provided to Board and Supt
6/1/2016		evaluation of effective teaching practices/strategies	Blouke/teachers/PSU	
Summer 2016		PD opportunities around digital curric and managing a BYOD en	Lopes/Blouke/OET	exit slips
8/15/2016		Bldg professional development in digital curric	Lopes/Blouke	attendance lists

Professional Development Implementation Plan				
Timeline	end	Task	Who	Evidence/Evaluation
9/1/2016	6/15/2017	2 per month classroom push ins (teaching tech lessons)	Lopes/Blouke	
10/15/2016	3/15/2017	HS specific Tech integration PDs	Lopes/Blouke/OET	exit slips
6/1/2017		evaluation of attendance, behavior, testing, and grad data	Lopes/Blouke	report provided to Board and Supt
6/1/2017		evaluation of effective teaching practices/strategies	Blouke/teachers/PSU	
summer 2017		pd around byod environment	Lopes/Blouke/OET	exit slips
ongoing		evaluation of and creation of digital curricula	All staff	evaluation documents



April 30, 2014

Northwest Information Services, Inc.

To: Mary Larson
Business Manager, Parkrose School District

From: Glenn Sexton

Subj: Preliminary Estimates for Wireless Coverage for High School Campus

Attached please find a preliminary budget estimate of \$200,200 to provide wireless coverage for the Parkrose High School Campus. Several assumptions and clarifications are provided:

1. Wireless coverage is desired for those all areas of the building and those external areas where the majority of school community activities take place.
2. Wireless will be based on latest IEEE Standard – 802.11ac.
3. Attached sketch shows areas where coverage will occur. Numbered circles represent areas where strong coverage will exist and the red line shows likely extents where wireless coverage may be utilized; however, number of users will affect the coverage extents and overall throughput.
4. There are no active electronics included in the pricing estimates, i.e., assumption is that the District will utilize existing Cisco controller and accommodate the increase of approximately 100 Wireless Access Points (WAPs) and additional Power over Ethernet (PoE) switches.
5. Included in the budget estimates are:
 - a. Cost of a fiber optic link to the grandstands and a telecommunications enclosure to support connectivity.
 - b. Replacement of existing OM1 (62.5/125mm) fiber with OM3 (50/125 μ m) in the main building to support higher bandwidth requirements between the MDF and existing IDF locations.
 - c. Additional IDF (telecommunications enclosure) and fiber connectivity to support the lower area (Pool and Athletic Offices):
 - d. Local power options for WAPs in the Tennis Courts and west parking lot.
 - e. Wireless bridges for Tennis Courts and west parking lot.
6. Attached sketch shows only the external WAP coverage. Internal coverage is included at the rate:
 - a. One WAP per classroom teaching area
 - b. Two WAPs in lab areas
 - c. Four WAPs in library
 - d. Administrative areas are covered at one WAP per three office/conference room/reception area.
7. Budget numbers do not include any design or consulting fees. Estimated fees to have NIS develop final design, create drawings, specifications, bid documents and provide project management is \$35,000.

Parkside Business Center The Courtyard Building
8285 SW Nimbus Ave., Suite 125
Beaverton, OR 97008



Northwest Information Services, Inc.

Location	Number	Area Covered	Mount	Cost	Infrastructure	Power	Build Out	Total
Main Building								
Lower Level	LL-1-LL14	Pool and Gym	Wall, w/Cage	15,400	Copper - 6A	PoE	9,350	24,750
	LL-15, LL-16	Offices	Ceiling	1,800	Copper - 6A	PoE	550	2,350
Main Level								
Main Level	ML1-ML62	Learning spaces, Media Center and Administration Areas	Ceiling	55,800	Copper - 6A	PoE	24,800	80,600
Upper Level								
Upper Level	UL1-UL16	Learning Spaces, Theater and Administration Areas	Ceiling	14,400	Copper - 6A	PoE	6,400	20,800
Fine Arts Building (FAB)								
	FAB-1	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-2	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-3	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-4	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-5	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-6	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-7	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-8	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-9	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
	FAB-10	Classroom and Instruction	Ceiling	900	Copper - 6A	PoE	275	1,175
External WAPS								
	EX-1	Southeast	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-2	East	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-3	Northeast	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-4	North-East	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-5	North-Central	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-6	Central Courtyard	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-7	West Parking -South	Light Pole	1,250	Copper - 6A	Local	750	2,000
	EX-8	West Parking -North	Light Pole	1,250	Copper - 6A	Local	750	2,000
	EX-9	Field, South of FAB	Building Parapet	900	Copper - 6A	PoE	400	1,300
	EX-10	Field, South of Tennis Court	Light Pole	1,250	Copper - 6A	Local	750	2,000
	EX-11	Tennis Court	Light Pole	1,250	Copper - 6A	Local	750	2,000
	EX-12	FAB - West	Building Parapet	900	Copper - 6A	PoE	350	1,250
	EX-13	FAB - North	Building Parapet	900	Copper - 6A	PoE	350	1,250
	EX-14	Football Field - South	Grandstands	900	Copper - 6A	PoE	25,000	25,900
	EX-15	Football Field - Central	Grandstands	900	Copper - 6A	PoE	350	1,250
	EX-16	Football Field - North	Grandstands	900	Copper - 6A	PoE	350	1,250
	EX-17	Field - Northeast of Football Field	Grandstands	900	Copper - 6A	PoE	350	1,250
	EX-18	Field - East of Football Field	Grandstands	900	Copper - 6A	PoE	350	1,250
	EX-19	Main Entry	Building Parapet	900	Copper - 6A	PoE	350	1,250
	EX-20	Between Main and FAB	Building Parapet	900	Copper - 6A	p	350	1,250
Wireless Bridges								
	WB-1	Southwest Wing	Building Parapet	1,800	Copper - 6A	PoE	400	2,200
	WB-2	FAB - Southwest	Building Parapet	1,800	Copper - 6A	PoE	400	2,200
	WB-3	Tennis Court	Light Pole	1,800	Copper - 6A	Local	750	2,550
Buildings								\$ 140,250.00
External								\$ 59,950.00
Estimated Cost								\$ 200,200.00



Northwest Information Services, Inc.



LINE ITEM BUDGET

COST CATEGORY	GRANT FUNDS	MATCH	TOTAL
PERSONNEL	0	\$148,150	\$148,150
EDUCATION AND TRAINING	0	0	0
TRAVEL	0	0	0
CONTRACTUAL	\$56,000	0	\$56,000
EQUIPMENT	0	\$209,000	\$209,000
INFRASTRUCTURE CONSTRUCTION	\$293,200	0	\$293,200
FACILITIES CONSTRUCTION	0	0	0
MISCELLANEOUS	0	0	0
OVERHEAD COSTS	\$14,596	\$14,928	\$29,524
TOTAL	\$363,796	\$372,078	\$735,874

BUDGET NARRATIVE

PERSONNEL

IT Department Director

The IT Department Director will spend approximately 10% of her time overseeing the High School aspect of the digital education conversion project. She will oversee the WAP installation, create and deliver some of the professional development, supervise the creation and delivery of other parts of the professional development, work with teachers individually on enhancing their teaching with technology, evaluate and deploy digital curricular materials, plan, supervise and deploy the HS iPads, oversee the District Technology Committee work, work with other districts who are beginning 1-to-1 deployments, and conduct project evaluation.

10% of her time for 36 months

Grant Funds: \$0

Match: \$32,400

IT Staff

IT Staff to manage the WAP installation, the wireless system, the iPad deployment, and the general iPad management; 10% of time for the iPad staff lead; plus 10% of time for iPad staff assistant; plus 25 hours of staff time to provision and deploy the PoE switches

10% for 36 months + 25 hours

Grant Funds: \$0

Match: \$25,100

High School Staff: Release Time for Training

48 high school staff release time to participate in professional development sessions/trainings per staff over 3 years; PSD curriculum rate for training is \$30/hr.

48 staff x 10 hrs/yr x \$30/hr = \$14,400 x 3 years= \$43,200 (outside of school day)

48 staff x 7 hrs/yr x \$30/hr = \$10,080 x 3 years= \$30,240 (within school day)

Grant Funds: \$0

Match: \$73,400

School Improvement Director

School Improvement Director will spend 5% of his time overseeing the High School implementation of iPads, specifically teaching and designing push-in lessons, exploration and promulgation of digital curricula, arrangement for and supervision of professional development, PD evaluation and realignment, support school administration with management of iPad roll out, and project communication to the School Board.

5% of time for 36 months

Grant Funds: \$0

Match: \$17,250

TOTAL PERSONNEL COST: \$148,150

CONTRACTUAL

Staff Trainer from OETC

Contract with Oregon Education Technology Consortium to develop and provide 3 years of leveled, content specific training around infusing instruction with technology and creating technology enhanced curricula: 3 times each school year and at least once each summer.

\$5k/yr x 3 yrs

Grant Funds: \$15,000

Match: \$0

Controller configuration

Contract for controller configuration to adjust current Cisco controller for additional 100 WAPs

Grant Funds: \$1,000

Match: \$0

Device distribution & support

Contract to conduct device preparation, inventory and distribution to the high school and provide initial device support and triage onsite for teachers and students.

6 mos/part-time person

Grant Funds: \$40,000

Match: \$0

TOTAL CONTRACTUAL COST: \$56,000

EQUIPMENT

High School iPad Minis

750 iPad Minis to be distributed Fall 2014

\$279 x 750 = \$209,250

Grant Funds: \$0

Match: \$209,250

TOTAL EQUIPMENT COST: \$209,250

INFRASTRUCTURE/ FACILITIES CONSTRUCTION

WAPS and Installation

Includes approximately 100 Cisco 802.11ac WAPS, mounting hardware, labor, fiber optics, some power additions and bridges for remote areas. See attached for more detail.

Grant Funds: \$200,200

Match: \$0

Plan design and project management for WAP installation.

Grant Funds: \$35,000

Match: \$0

Supplementary Devices

Per closet: PoE switches and UPS

8 closets x \$3,000 per switch = \$24,000

8 closets x \$1,500 per UPS = \$12,000

Grant Funds: \$36,000

Match: \$0

Controller Licenses

Additional 75 licenses for 100+ WAPs

Grant Funds: \$22,000

Match: \$0

TOTAL INFRASTRUCTURE/FACILITIES CONSTRUCTION COST: \$293,200

PROJECT OVERHEAD

The standard Parkrose School District overhead rate is 4.18%

Grant funded: \$14,596

Match funded = \$14,928

TOTAL PROJECT OVERHEAD COST: \$29,524