



BISHOP FENWICK HIGH SCHOOL

99 Margin Street, Peabody, MA 01960-1894

Office of the Principal

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Received & Inspected

MAY 16 2011

FCC Mail Room

May 10, 2011
Request for Waiver
CC Docket No. 02-6

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street SW
Washington, DC 20554

To Whom It May Concern:

Bishop Fenwick High School, Inc. would like to appeal the decision of the USAC as stated in the Notification of Improperly Disbursed Funds Recovery Letter dated December 14, 2010.

Billed Entity: Bishop Fenwick High School, Inc.
Billed Entity Number: 1370
Form 471 Application Number: 494624
FCC Registration Number: 0020570792
Funding Request Number: 1363079

The person who can most readily discuss this appeal is:

Linda Kuzara
Director of Technology
99 Margin Street,
Peabody, MA 01960
978-587-8339
Fax: 978-587-8309
lmk@fenwick.org

Please see the attached explanation and exhibits written by Mrs. Linda Kuzara. It is our position that we had a plan and an approval letter but simply cannot locate the approval letter. We therefore would like to request a waiver of the rule that requires an approval letter for a technology plan in this instance. We have been in compliance before this time and since this time and we ask that you reverse your decision to recover the funds of \$12,936.00.

We also ask that you reverse your decision in light of the fact that this was for Internet access and the Sixth Report and Order Adopted by the Commission on September 23, 2010 states in part that the program has been amended "to eliminate the E-rate technology plan requirements for all priority one applications."

Sincerely,


Sister Catherine Fleming, SND
Principal

No. of Copies rec'd _____
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USAC's Disbursed Funds Recovery Explanation:

After a thorough investigation, it has been determined that funds were improperly disbursed on this funding request. During the course of review it was determined that the technology plan for this entity, covering the relevant funding year, was not approved at the time of submission of the Form 486. Program rules require applicants to obtain approval of technology plans by parties qualified to approve technology plans, prior to submitting the Form 486, for services other than basic telecommunications service. Since this is not a request for basic telecommunications service, the technology plan for the relevant funding year needed to be approved prior to submitting the Form 486 or the start of services, whichever was earlier. Since this requirement was not met USAC will seek recovery of any improperly disbursed funds from the applicant.

Bishop Fenwick's Explanation:

Prepared by: Linda Kuzara, Director of Technology

I have been the Director of Technology at Bishop Fenwick High School since 1994. As such I have written a technology plan for each year since then. This includes the period before the e-rate grant existed (exhibit #1). In an effort to include thorough documentation, I have included our plans from 1994 to 2013. I have all of the approval letters except the one for the period in question. As you can see, I have the letter and plan covering the preceding period (exhibit #2), the plan for the period in question (exhibit #3), the letter and plan for the following period (exhibit #4) and our current letter and plan (exhibit # 5).

We have applied and received e-rate grants since its inception. During this time, Bishop Fenwick has had three different principals. During the tenure of the first and third principals, I was responsible for the complete process of tech planning and implementation, including keeping all of the records concerning the e-rate applications. They certified the forms but I kept all the paper work. However, the second principal, coordinated the process, but, I remained the contact person. Although I developed the Technology Plan with our Technology Committee, he maintained documentation. I filed the forms and then he logged in to certify and authorize them so I am sure that he wouldn't do that unless he had the appropriate letter.

We, the current principal, her staff and I have thoroughly searched the files and have been unable to locate the Tech Plan Approval Letter for this time frame. We contacted the Catholic Schools Office of the Archdiocese of Boston hoping that they might have a record. They have been most cooperative and have also looked through their files but to no avail. However, they also had a change in management which occurred about the same time that we changed principals so they also had no one that was there at the time in question.

It is our position that we had a plan and an approval letter but simply cannot locate the approval letter. We have been in compliance before this time and since this time and we ask that you waive the rule requiring an approval letter in this case and reverse the decision to recover the funds of \$12,936.00.

We would note that changes have now been made to the program that no longer requires the need for an approved technology plan for priority one services. Since the funds in question were for Internet access, a priority one service, we think the decision to recover the funds should be reversed.

Bishop Fenwick Technology Plan for Educational Excellence (1994 - 1999)

Contact: Linda M. Kuzara

Table of Contents

- Introduction
- Planning Process
- Current Technology Resources and Uses
- Program Goals
- Implementation Plan by Year
- Evaluation & Reassessment

Introduction:

While technology has long been an important component of the curriculum at Bishop Fenwick High School, it was often viewed simply as a specialized area of interest to those who planned a career in the computer industry. As the technology changed and became more powerful, cheaper, and easier to use, it became embedded in every aspect of society. As a result society now views the computer as a tool to be used in all aspects of our professional and private lives.

In response to these societal changes, educational goals and practices have been reevaluated and new standards for both teaching methods and students' skills have been established. Our teachers have been working hard at updating their skills and conforming to these new standards. However, we are at the point where this can no longer be accomplished by individuals with limited department budgets. As a community we recognize the need to formalize a school wide plan to upgrade the facilities, curriculum, and faculty training in order to prepare students for a technological society in the twenty-first century.

Planning Process (1994 - 1995)

Because our needs and concerns can be separated into two general areas of concern, we decided to form a planning committee which had two subcommittees. The first subcommittee would concern itself with all of the administrative needs of the school while the second subcommittee would concern itself with the curriculum areas. Members of the committee were volunteers from the respective areas of the school community. In addition each curriculum department was represented.

Each subcommittee was to determine its own goals for a technology rich environment. No monetary or equipment restrictions were imposed upon the committee. Each set individual agendas although both decided to visit schools which were known for technological innovation. In addition they attended conferences and workshops in their subject areas that dealt with using technology, and thus compiled a list of goals. At the end of this process the technology specialist and the assistant principal interviewed vendors to determine the equipment that would be necessary to accomplish these goals.

Simultaneously, the Development Office was working a new major funding initiative which would be used to fund the computerization of the school as well as the development of new athletic fields.

We then prioritized the goals guided by several educational and financial principles.

- Maximize the number of students using the system in the least amount of time.
- Minimize the training time and trauma for faculty and staff.
- If possible, do labor intensive jobs first since labor costs are likely to increase over time while hardware and software costs are likely to decline.

We decided that since modifications and revisions to the original plan would probably be needed as time went by, the natural time to do this would be in the spring when departments normally propose changes to the curriculum and make out their budgets.

Current Technology Resources and Uses (1994-95)

Administration:

- Several Administrative functions are partially computerized. Family information, schedules, and grades, are maintained in a data base on a program called MMS. Daily attendance and report cards are printed via the computer.
- Student courses are scheduled on the computer using special software.
- Personnel in the main office, guidance, treasurer's office, and development, have individual PC "s (286's) and are using MS-Works and/or Word Perfect.

Instructional:

- The library has 6 PC's (286, 386, & 486) for Librarian & student use which are networked. The card catalog is computerized and a 6 bay CD ROM tower is also on the network. This allows students to access several research tools such as Groliets Encyclopedia and the Science Encyclopedia.
- The math and science departments each have a computer on a movable cart for classroom use. The math department has a 486 and a LCD panel. They use Geometric Supposer for geometry investigations and Green Globes for graphing equations.
- The science department has an Apple IIe. They also have a few probes which are used to capture data during labs and enter it directly into the computer.
- There are two computer labs which are used for computer classes which have 20 PC's (286's) in each room. These are used to teach three courses which are electives open to juniors and seniors. The Computer Applications course is a semester course which covers word processing, spreadsheets and data bases using MS-Works. BASIC is a semester course to introduce students to computer programming. Pascal is a year long course for the more advanced programming student.
- In one computer room, there is a phone line and one computer with a modem and communications software so students are introduced to telecommunications. We have several teacher and student accounts with UMassK12.
- We also require all sophomores to take a semester of typing during their sophomore year. The typing room is equipped with 30 electric typewriters.

Program Goals for 1994-1999:

Administration:

- Student data such as schedules will be accessible to various administrative offices which are located throughout the building.
- Software will be upgraded so that grades can be calculated and submitted to the main office via the computer.
- Scheduling software will be upgraded to provide added flexibility.
- Information especially documents will be transferable from one administrative office to another.
- Students will not have access to administrative files.
- Certain files will be accessible to a limited group of users, i.e. guidance, development, etc.

Instructional:

- The Typing course will be replaced by a Keyboarding and Word Processing course.
- The Computer Applications course will be revised to reflect the changes made in the Word Processing course and software will be upgraded to the latest versions.
- A resource lab will be created so that non-computer classes have the opportunity to utilize and integrate technology into their curriculum areas.
- Multimedia systems are needed to take advantage of the interactive software now being generated on CD's.
- Movable systems with overhead projection systems should be available to use in classrooms for demonstrations.
- Each classroom should be equipped with at least one computer.
- Internet access should be provided for instruction into the telecommunications process as well as for use as a research tool.
- Electronic keyboards and appropriate software should be provided for the music composition classes.
- Appropriate software and a color printer should be provided for the Composition and photography classes.
- Publishing software should be provided for classes as well as for the newspaper and yearbook.
- Science software that would simulate experiments that could not safely be done in labs will be provided as well as the upgrading of other software and probes.

Implementation Plan by Year:

1995-1996 Phase I: (Completed)

NETWORK:

- In this initial phase install a fiber optic backbone that extends the length of the school from the gym to the end of the Julie Billiard Wing.

ADMINISTRATION:

- Purchase new Pentiums for each administrative office and network them through a Novell network. This would include the following number of units and offices: 3 units for the Principal and main office, 1 unit for the scheduling office, 2 units for the Vice Principal's office, 1 unit for Campus Ministry, 6 units for Guidance, 1 unit for the treasurer, 3 units for Development Office, and 1 unit for the Athletic Office
- Setup groups to facilitate the sharing of information. Some information could be shared by all administration personal such as student schedules. Other information should be restricted to specialized groups such as guidance & development.

INSTRUCTIONAL:

- Replace the typewriters with the existing 286's that are in the two computer rooms and replace the Typing course with a mandatory Keyboarding and Word Processing course.
- Purchase 19 Pentiums for each of the two computer rooms.
- Change the software to Microsoft Office in order to be consistent with software used at most colleges and businesses.
- Network the two computer rooms so the students will get an introduction to working on a network but do not tie them into the main network. This will give the administration a year to get acquainted with working on a network and work out any security problems before students are on the system.

TRAINING

- Assistant principal and computer coordinator take Novell course on how to maintain the network.
- Administrative and office staff should receive training on the new system at the school over the summer if possible.
- Set up procedure to allow teachers to sign out and take a computer home over the summer.

1996- 1997 Phase II: (Completed - with Modifications. See Evaluation and Reassessment: Modifications to the Implementation of Phase II - 1996 - 1997)

NETWORK:

- Expand the Novell network to include the administration as well as all three computer rooms, and the library. This means that all of the resources of the school including the library's computerized resources will be available on all systems on the school wide network. The only computers that can not be networked are the computers in the Word Processing Room.

INSTRUCTIONAL:

- Create a new resource room in what is currently Julie Hall. This room should be reserved specifically for non-computer classes. Teachers should be able to sign out this room for a class period and it should be available for students to use during their study periods and free time.
- This room should have 25 to 30 systems to accommodate even the largest classes. Some of these units should be multi-media. This room should also have a laser printer, a color printer, a CD ROM tower, an overhead projection system and a white board.
- This room should also have additional work space for students to use when not sitting at a keyboard. It should also contain storage space for each department.
- Upgrade the 6 units in the library including printers and purchase another CD-ROM tower.
- Install phone lines in each of the computer rooms and the library for Internet access.
- Each student and faculty member should have an account on the system with reserved space on the server where they could save their work.
- A curriculum unit on Computer Ethics should be developed over the summer of 1996 and ready for use in Sept. '96. This should probably be done by the computer coordinator and someone in the religion department.
- An Acceptable Use Policy should be developed and ready to use in Sept. '96. This should be a policy that students as well as parents must sign before students are issued log on names and passwords. This policy should be reviewed each year and revisions made as necessary.

TRAINING:

Faculty & Staff:

- All faculty and staff will be given initial training on the faculty days preceding the opening of school in September.
- Subsequent general training will be held after school one day a week.
- Training for specific curriculum applications will be held at department meetings and on in-service days.

Students:

- The instructional unit on technology and ethics which will be taught to all students as part of their religion course. In subsequent years this unit will be included in the freshman religion curriculum. At the end of this unit students and parents will be asked to sign the Acceptable Use Policy. In subsequent years this unit will be included in the freshman religion curriculum. All students must sign a new policy each year.
- Once the acceptable Use policies are received each class will be taken to the resource room and given instruction on how to log in and out of the system, save file to the network drive, and print.
- Knowledgeable faculty members will be assigned a duty period in the resource room to help both faculty and students use the facilities. This room should be staffed throughout the day and after school.

Evaluation and Reassessment:

Modifications to the Implementation of Phase II (1996-1997) (Completed)

By the Spring of 1996 it was evident that there were several technological advances that we would like to take advantage of that were not in our original plan. The primary one is the unforeseen growth and accessibility of the Internet. We therefore made the following revisions and additions to the Phase II plan.

NETWORK:

- Install a 128K ISDN line to provide Internet access to the whole school. This will make phone lines in each computer room and library unnecessary. It would also mean that all machines would have Internet access not just one in each room.
- Purchase necessary software so that every student and faculty member will have an Internet e-mail account.
- Purchase an additional server to handle all Internet and e-mail traffic.
- Purchase any additional software necessary for the Internet server including filtering software to prevent access to undesirable sites.
- Purchase virus protection software for the whole network.
- Contract with an Internet Provider for Internet access.

INSTRUCTIONAL:

- Established an initial team of students to develop a web page for the school.
- Established a library web page that is more accessible to teachers to post and change classroom projects.

TRAINING

- Internet training would take place before school ended in June '96 so that teachers could use the summer to familiarize themselves with the resource and integrate it into their classrooms. This training could take several days. Teacher attendance for at least some of this training should be mandatory.
- Additional training would also be provided during an in service day just prior to the opening of school and again during the school year.

1997-1998 Phase III: (This is our current phase. Completed - with Modifications. See Evaluation and Reassessment: Modifications to the Implementation of Phase II - 1996 - 1997)

NETWORK:

- Extend the school wide network by installing at least one network drop in every classroom.

INSTRUCTIONAL:

- Install one computer in each classroom. Since we have over 60 classrooms, this might take a few years to accomplish.
- One system with an overhead projection system on a movable cart on each floor. These may be rolled into any classroom when needed and plugged into the network.

ADMINISTRATION:

- Upgrade the administration software to the latest version in order to add additional applications such as computerized student grading.

TRAINING:

- Initial teacher training for using the new grading software should be soon after the beginning of school. Additional sessions should probably take place at the end of first quarter and at the end of the year.

Evaluation and Reassessment:

Modifications to the Implementation of Phase III (1997-1998) (Completed)

By the Spring of 1997 every teacher has at least tried to use technology in their classroom. The skills of both teachers and students have greatly improved. However the levels of use also vary greatly. Those who are computer literate and feel comfortable with technology use it consistently and in meaningful ways. Some teachers are working hard at developing their skills and are now starting to try new things with their classes. There are however a significant number of teachers who show little or no interest in learning or using the technology in their classes.

Therefore before continuing with Phase III which calls for equipping classrooms with computers, several issues must be addressed. We must encourage those teachers who are developing meaningful use of technology in their classrooms and find ways to upgrade the skills and progress of the reluctant learners. We also agree that we will not put equipment in classrooms and simply hope that it will be used.

We therefore decided to issue a call for proposals from teachers that want a computer for their classrooms. If they can justify continuous use, then a unit will be placed in their room. If they can only justify occasional use then the movable system stationed on each floor will suffice. This procedure proved very successful and we'll continue to use it to determine the purchase of new classroom equipment in subsequent years.

The call for proposals resulted in the following modifications to the Phase III plan.

NETWORK:

- Extend the school wide network by installing two network drops in every classroom only one of which will be activated at this time.
- Purchase security software in order to prevent users from changing settings on individual units.

INSTRUCTIONAL:

- In addition to the movable systems, purchase four computers for individual classrooms.
- For the Foreign Language department, purchase microphones for the multimedia units in the resource room along with interactive software for both French and Spanish.
- For the Fine Arts department purchase an electronic keyboard and music composition software.
- For the Science department purchase three pieces of software for the network from LOGAL. These are simulations of the cardiovascular system for biology, gravity for physics, and the periodic table for chemistry.

TRAINING:

- Teachers who have developed units using technology should hold workshops for other teachers during in-service days during the year.
- Three people from Science department will attend a summer workshop on the LOGAL Software before we purchase it.

1998-1999 Phase IV (We are currently planning for this phase)

The monetary reserves that will remain at this time is hard to determine. We however will formulate a plan as if there will be money available. Alternate situations will be addressed, if necessary, in the Spring of 1998 when we reassess this plan.

NETWORK:

- Wire Word Processing Room with network drops for at least 30 units.

INSTRUCTIONAL:

- Continue installing computers in each classroom.
- Upgrade WP Room with Pentiums from Computer Rms. 1&2. Revise the Word Processing Course to use Windows and MS-WORD.
- New Computers for Computer Rooms 1 & 2. Revise the Computer Applications course reflect the changes in the Word Processing Course. The course should now emphasis Spreadsheets, Visual Presentations; and Databases.
- Integrate technology into the art classes by purchasing several digital cameras, a scanner and graphic manipulation software.
- Upgrade software as needed for each department.

TRAINING:

- By now teachers should be comfortably literate in the basic operation of the network and most application software. However, this type of training should remain available on a needs basis for new teachers and those who haven't mastered necessary skills.
- Continue to conduct training sessions as new pieces of equipment and software is purchased. This could be done by department as in the case of the art department purchases mentioned above.
- For most teachers, training now must move away from training them how to use a piece of equipment or software to developing meaningful student centered units for using technology in the classrooms. We understand that this systemic change cannot be accomplished overnight or without causing distress to those who dislike change. It will require time when teachers can work with colleagues and may require help from staff to research any projects that are already done and posted on the Internet. Short intervals on early release days will not be an acceptable time frame from which changes like this can be made.

ARCHDIOCESE OF BOSTON

Department of Education

Catholic School Office

2200 Dorchester Avenue

Dorchester, MA 02124

Telephone: (617) 298-6555 Fax: (617) 298-6622

E-Mail - ARBOSSUPT@Impresso.com

Office of the Superintendent

May, 1998

Mr. Robert McNamara
Bishop Fenwick High
99 Margin Street
Peabody, MA 01960

Dear Mr. McNamara:

I am pleased to inform you that your school's technology plan has been reviewed. The plan addresses each of the five criteria established by the Schools and Libraries Corporation for participation in the Universal Service Program.

The plan for Bishop Fenwick High is approved.

Please note that you must indicate on FCC Form 486 that your plan has been approved by the *Catholic School Office, Archdiocese of Boston.*

A copy of this letter along with your technology plan should be kept in your E-rate file.

Sincerely,

Sister Mary Jude Waters
Sister Mary Jude Waters, OP
Director, School Planning

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Bishop Fenwick High School
Technology Plan for Educational Excellence
1999 - 2002
Contact: Linda Kuzara

Table Of Contents

- Introduction
- Current Technology Assessment
- Program Goals
- Implementation Strategy and Time Line
- Evaluation and Revision

Introduction

We at Bishop Fenwick have long recognized the importance of technology to the curriculum both as a specialized area of interest and as a tool for learning in all curriculum areas. As a result we have spent the last six years computerizing the physical facility as well as changing the curriculum to incorporate technology.

Teachers have worked very hard to develop meaningful curriculum that incorporates technology in a variety of ways which simultaneously develops students analytical skills as well as their computer skills. This however, is a long and ongoing process and must be expanded and modified while we continue to extend the system capabilities and upgrade the equipment.

Current Technology Assessment

Current Hardware Resources:

Network:

The entire building is wired with a fiber optic backbone. All offices and classrooms connect into this network. Classrooms presently have one live connection although they are wired for four connections. Internet connections are provided to the entire network through a T1 line. We have two servers. The file server is a Pentium 100 with a 8 gig hard drive, and tape backup system. The Internet Gateway and mail server is a Pentium II 266 MHz with a 4 gig hard drive.

Instructional Resources:

- There are four computer labs in the building. The Word Processing Room has thirty Pentium 60's and one laser printer. Computer Labs 1 & 2 each have 19 Pentium II's 266 and a laser printer. The Zampell Resource Room has 28 Pentiums 100's and a laser printer and a four bay CD Rom tower.
- The O'Rourke Library has 10 computers of various ages. Three are reserved for the librarians use, while one is reserved for teachers use and the remaining six are for student use. The library also has a laser printer, a color printer, a seven bay CD Rom tower, and a scanner.
- The Fine arts department has two special systems. In the music room is a Pentium 233 computer with a synthesizer. In the Art Room is a Pentium 233 computer, a color poster size printer, a scanner and a film reader.
- The science department has two Pentium 100's and a dot matrix printer. They also have a set of temperature, motion, Ph and sound probes to facilitate the collection of data.
- In addition, there are four Pentium computers of various ages in individual classrooms, three of which are on movable carts with projection systems.

Administration Resources:

- We also have 25 Pentium 90's in various administration offices. Most administrative functions are computerized.
- The finance office is connected to the archdiocese office and uses software specified by the archdiocese to facilitate tuition collection and other functions of that office.
- Administrative functions such as grades, attendance, and report cards are accomplished through a software package called MMS which was updated last year to the newest version.
- Guidance uses MS Access to track applicants through the admission process.
- Development uses a program called Paradigm to maintain a data base of all prospective donors and donations.

Current Software Resources:

Network and System Software:

- We now are using Novell Netware 4.11 and Client 32 to manage the network.
- Individual clients have Windows '95.
- Most instructional units use Microsoft Office Professional '95. Units that are in the Word Processing Room and administrative offices use Microsoft Office Professional 4.3.
- All units access the Internet through a proxy server and sites are filtered by Cyber Patrol.
- In addition all units use virus detection software.
- Most instructional units use a desktop locking software called Fortres 101.
- E-mail is managed by MS- Exchange on all units.

Instructional Software & Services:

- All library resources are available throughout the system. This includes the card catalog, the online research service of SIRS, Topic Search, Searchbank, and Carl as well as the CD ROMs in the tower, Groliers, UXL Multicultural, Welcome to the Catholic Church and the Scribners Writers Series.
- All instructional units have Adobe Reader to facilitate reading PDF files.
- The newspaper and yearbook use Adobe Pagemaker and the yearbook use software from Jostens to help with the layouts and design.
- Some departments also used specialized software as listed below.
- Foreign Language - uses C'est a Toi and Pasos which are interactive and are meant to develop listening and speaking skills. Atajo is a Spanish word processor that is used by all Spanish students.
- Math - uses Green Globes and Graphing equations is used by algebra students to develop a visual relationship between equations and their graphs. Geometer's Sketchpad is also available for Algebra and Geometry students.
- Music students use Encore to compose and play back their work.
- Programming students use Qbasic which is part of the Win '95 package.

Program Goals

Instructional Development:

- The main focus of the next several years will be to train the teachers to use the technology at hand to facilitate learning and teaching. This includes but is not limited to changing curriculum and delivery systems to make good use of the new hour long schedule. Teachers and students must learn to use the new online research services that have become available because of the fast T1 connection to the Internet. Teachers who have developed projects, strategies, and techniques for incorporating technology must be utilized to teach their colleagues and act as mentors.
- We must also focus on communication including electronic communication. Our goal is to provide opportunities for students to use presentation software to make oral presentations in the classroom and to publish their portfolios electronically on the school's web page.
- We hope to be able to better serve the individual interests of our students by utilizing the Internet access to offer courses to students which we would normally be unable to offer them. This could be in the form of a single organization such as Virtual-High School or by seeking individual offerings at the college level.
- Opening the system so that students could access the library facilities, their e-mail and files from home is also one of our goals. This would help students with time management issues and allow the student who is unable to attend school to keep up with their work.

Implementation Strategy and Time Line

In order to accomplish the instructional development goals as stated above several improvements must be made to the system. Some of these are isolated occurrences and can be designated to a specific year but many recur on a yearly basis and are therefore listed first.

Recurring Updates:

Professional Development:

- Training will continue to occur at specific times throughout the year as deemed appropriate by the administration and faculty. Specific professional development days have been designated at the beginning and end of the school year as well as faculty days during the year. There is a Professional Development Committee made up of faculty and administration members that arranges agendas for the professional development days.
- Teachers are also encouraged to attend conferences and workshops outside the facility during the year.
- Teachers may also apply to the principal for a stipend to develop curriculum over the summer.
- Likewise faculty may also apply for tuition help to attend workshops or take courses.

Equipment and Network Requirements:

- As teachers develop curriculum that require computers in their classrooms, we will need to purchase new computers, printers, and if necessary projection systems and furniture.
- Present computers and peripheral equipment will be upgraded and/or replaced as needed.

Software Requirements:

- Departments will need to add and/or upgrade subject specific software in order to accomplish the instructional goals.
- As a component of offering a VHS course we are responsible for providing any necessary software to schools for each student enrolled in our course. The immediate impact is that we must provide up to 20 schools the software called Encore for the Music Composition course that is being taught by one of our teachers next year. This could obviously grow if more teachers decide to take the challenge and develop VHS courses.
- Some software needs to be updated on a yearly basis. This includes but is not limited to virus detection software, desktop locking software, and Internet filtering software.

1999-2000

Equipment and Network Requirements:

- In anticipation of teachers using technology in their classes, we'll need to activate two computer drops in each classroom.
- Peripheral equipment that will enhance the present technology will also be needed over the next few years. CD-RWs will be needed to generate electronic portfolios for students.
- The Art department will need additional computers in the art rooms that are capable of handling their needs.
- As a result of participating in the Virtual High School, we will have students in the same classroom taking a variety of courses so we will need to provide head sets to keep the noise at a level conducive to learning.

Software Requirements:

- It's critical that the network software that we currently use Novell Netware 4.11 be updated to version 5.0. This will ensure that the system is Y2K compliant.
- In addition, several teachers have developed projects such as electronic portfolios that require their students set up web pages on a place such as geocities. This could cause some complications since we actually don't own the pages that are stored on these sites. We would therefore like to buy the necessary software to allow students to set up these electronic portfolios without having to know HTML and attach them to our own web page.
- The web page needs to be redesigned and updated to facilitate the addition of student electronic portfolios and the posting of projects by teachers.
- Software and at least five licenses for Adobe art software.

2000-2001

Software Requirements:

- The Windows operating system and the Office Suite will have to be updated to keep our student's skills current.
- Upgrade MS Exchange for e-mail and Ms NT on the Internet Server.

2001-2002

Equipment and Network Requirements:

- The photography course which is currently running using traditional equipment and techniques would be revised to use digital equipment.

Software Requirements:

- Software to compliment the digital manipulation of graphics.

2002-2003

Equipment and Network Requirements:

- Upgrade or replace the File Server.
- Upgrade the Internet Gateway to allow for external access.

Software Requirements:

- When the system is made accessible from outside the school, new firewalls will need to be installed in order to protect the system from unwanted intrusion.

Evaluation and Revision

Technology changes daily and although it is not our desire to have the latest technology for it's own sake, it is our duty to at least provide our students with skills to keep them competitive in the marketplace. Realizing that the educational schedule doesn't allow for more frequent evaluations, we are therefore content to do a re-evaluation once a year usually around March. Teachers have the opportunity to make suggestions and fill out wish list through their department which are then discussed at the monthly curriculum meetings. Teachers may also make direct proposals to the Director of Academic Technology and/or the Principal.

**Bishop Fenwick High School
Technology Plan for Educational Excellence**

Implementation & Evaluation

1999-2000

This was the year that we made few changes to the individual machines but major upgrades to the network. We decided to change these aspects of our system at different times to insure that if there were any conversion problems they would be remedied more efficiently and effectively and with the least disruption to the school population.

Routine Maintenance:

Over the summer all equipment is washed and cleaned by two students. Afterwards the hard drives were cleaned of unnecessary files and images of the most common machines were created on the server. Similar machines were then imaged so that all machines had identical software and settings.

Equipment and Network Upgrades

- Although every classroom was wired for 4 possible computer drops only one was active. Six 16 Port hubs were purchased in order to expand the network and give each classroom two active drops. Teachers now have the flexibility of using the drop at the front or the back of the room or both.
- The network management software was upgraded to Netware 5 and all client operating systems were upgraded with the Windows 95 Y2K patch to be sure the systems were Y2K compliant.

Administration:

In order to facilitate the sharing of data between various administrative functions, and decrease duplication of efforts by the various offices, equipment and software in those offices were updated to insure compatibility. Importing routines were added to the administrative software so that data that was entered into a data base when students applied to take the entrance test, could be added to the student enrollment data base without re-entry. The financial database could be appended in the same way.

Instructional Development:

- The curriculum in several of the art courses was expanded to incorporate components of multi media and computer graphics. In order to accomplish this, 5 additional licenses for Adobe Photo Shop were purchased and installed on computers in the resource room. An additional computer system was put in the art department along with a color printer. A CD ROM burner was purchased so that students in both the music and art classes could create electronic portfolios to send off to colleges.

- Front Page 2000 was purchased through an Archdiocese of Boston technology grant. Keith Phalen, an art teacher, is in the process of redesigning the Fenwick Web Page.
- Headsets were purchased and will be used by the Foreign Language department and the Virtual High School students.
- Two departments developed long-term Internet research projects that were incorporated into the school curriculum.
 - ✓ All freshmen will be required to complete at least one biology research project on either cloning and/or infectious diseases. These projects were designed to familiarize the incoming freshman with the Fenwick computer network. They must learn many things including but not limited to, logging onto the network, navigating the various drives and learning which are private and which are shared, accessing the online library catalog and other library research resources, creating, saving, and printing documents. Students also learn how to use the Fenwick e-mail system and are encouraged to send project files between home and school through it.
 - ✓ All sophomores will be required to do two Exegesis projects for their religion classes. These projects are designed to promote their research skills using both traditional and electronic sources. There is also a component where they must find an expert and conduct an interview via their e-mail, incorporate the material into their paper and cite it correctly.

Bishop Fenwick High School
Technology Plan for Educational Excellence

Implementation & Evaluation
2000-2001

This was a year of major upgrades to the client operating system, application software and the equipment. We upgraded from Windows '95 to Windows 2000, which needed to be a clean installation rather than an upgrade. As a result, it took a considerable amount of time. We also installed the complete Office 2000 suite to most of the clients. A few of the clients were not upgraded because several Virtual High School courses were using software that was not, **Windows 2000 compatible.**

Routine Maintenance:

- The Pentiums in the Word Processing Room were too small and slow to remain productive but they were still useful machines to anyone not using them on a network. As a result we decided to clean them up and offer them to any elementary schools or Fenwick students who wanted them. We took out the network cards and deleted all network software and cleaned the hard drives of any application software and files. Unfortunately this took a week extra in our routine cleanup time. As usual all machines were washed and cleaned.

Equipment and Operating System Upgrades:

- The Pentium 100's that were in the Zampell Room were moved to the Word Processing Room to replace the Pentium 66's that we gave away. Each of these was upgraded to 4 gig hard drives so that they could handle Windows 2000. They also needed to be upgraded to 64 mg of Ram but the budget didn't permit & this was put off till next year.
- The Pentium II 266's in the PC Rms. 1&2 were upgraded to 64 mg of RAM so that they could handle Windows 2000 with a respectable processing time.
- A new client server was purchased as well as 28 new machines for the Zampell Resource Room and 5 for various administration offices.
- Most clients were upgraded to Windows 2000 and MS Office 2000 Professional. Fortress was no longer needed to lock the desktop of student machines because Windows 2000 had it's own security system. As usual there was an extended curve for learning how to manage the new operating system effectively. Building the images and rolling them out to the similar clients took longer than expected. But we started the school year with the four computer labs ready, while the offices, library and individual classrooms were not ready until after the start of school. Unfortunately several of the classroom machines were too old (slow with limited hard drives) to handle Windows 2000 yet it was not cost effective to upgrade them. These will be replaced as teachers find they are no longer useful.

- Four new computers, 3 scanners, 1 slide scanner and 1 printer were purchased for the art rooms. Two of the art rooms now had a computer, printer, and scanner while the third art room had a mini lab of 4 computers, 3 scanners, a slide scanner and a poster size printer.
- We would like to upgrade the network infrastructure and change from hubs to switches but unfortunately the SLD did not fund the internal component of our grant request so we put this off for another year.

Curriculum:

- The photography course was changed to incorporate a digital component in anticipation of the eventual changeover to a completely digital course. Several of the art courses also included digital projects such as the creation of a book and/or Power Point projects.
- Long-term computer projects were added to several courses. The freshman art course has a research project on Touring Art Museums. The geometry courses now incorporate a project on architecture. The Physical Education classes had to do a PowerPoint presentation on Sportmanship.

**Bishop Fenwick High School
Technology Plan for Educational Excellence**

Implementation & Evaluation

2001-2002

Thankfully this was a year that we made relatively little changes to the network and operating systems. New equipment was purchased and programs were expanded to incorporate the expanded use of technology in the classrooms.

Routine Maintenance:

- Two students were hired to perform the routine cleaning of all the computers. Computers that were being replaced were not in good enough condition to give away. They were stripped of any useful components and disposed of properly.

Hardware:

- We replaced approximately 25 computers in the individual classrooms as well as some administrative offices. We did not purchase any new monitors since 10 new ones were donated to the school.
- A new printer was purchased in Development that can handle printing of envelopes for large mailings.
- In continued preparation for the conversion of the photography course to digital photography, three more computers were purchased for the art department. Three more scanners, a printer, a portable zip drive and a hard drive RAID system were purchased toward the same goal.
- The printer in the teachers' room was failing so it was moved to a classroom where it is used less and a new more substantial printer was purchased for the teachers.
- We also upgraded the RAM in the units in the word processing room to 64 MB in order to speed up the processing time.

Network:

- Additional wiring was needed and installed in order to insure the proper installation and operation of new network drops in the art room, library, and Vice Principal's office.
- We upgraded the software on the Internet server from Windows NT to Windows 2000 Server. We also upgraded the e-mail software to Exchange 2000.
- We purchased a new tape backup and an ups system for the Novell server and moved the original tape backup and ups to the Internet server.
- Mother nature intervened by destroying many of our network hubs in a series of severe thunderstorms. As a result, we had no choice but to replace them. The downturn of the economy offered us the opportunity of purchasing at auction several computer switches rather than outdated hubs. Budget restraints prevented us from completing the upgrade but hopefully we'll be able to complete it next year. This should increase the speed of the network appreciably.

Software:

- New music software was purchased because the previous software was not compatible with Windows 2000. New software was purchased to facilitate the record keeping in the nurses' office.
- Several Departments changed their texts this year. Many of these new books came with computerized test banks. These were loaded on appropriate computers throughout the school.
- Cyber Patrol was upgraded this year. It now keeps track of all visited sites along with data concerning access.

Curriculum:

- The Computer Applications Course was redesigned to be project-based so that students would get a more realistic experience of using technology and Microsoft Office as a tool.
- The prerequisites for the BASIC programming course were increased to insure that students who are placed in this course can handle its abstract concepts.
- A new course called Web Page Design was added to the curriculum. This course was designed as a lower-level programming course for those students who do not meet the prerequisites of the BASIC programming course. Students will be creating web pages on our server and their final projects will be linked to our home page. In addition to signing the usual acceptable use policy, students in this course and their parents will be asked to sign an Acceptable Posting Policy. (See attached.)
- The Acceptable Use Policy was modified to prohibit students from attaching any portable device to the network.
- We decided not to partake of a proposed on line testing service. When we looked closely at the service, there were many security issues that were not handled satisfactorily. It was decided that we could revisit this again in a few years to determine its usefulness to Fenwick.
- In order to maximize the use of Virtual High School, we decided to join with the other archdiocesan schools. As a fully participating school we would be able to contribute any unused openings to another school. If needed we would also be able to use any unused openings from other archdiocesan schools.

**Bishop Fenwick High School
Technology Plan for Educational Excellence**

**Implementation and Evaluation
June 2002**

We are looking forward to developing our next 3-5 year technology plan. The process won't actually start until the fall of 2002. We've been making staff aware of the upcoming process so they can begin to consider future educational and technology based options. However, in order to maintain the current educational systems, we will make the following upgrades.

Routine Maintenance:

- One student was hired to perform the routine cleaning of all the computers. Computers that were being replaced were stripped of any useful components and disposed of properly.

Administration:

- The administration decided to purchase the attendance module and bar code reader to facilitate the attendance process in the office each day.

Network:

- Due to the refurbishing of the science wing we moved up plans to install a wireless network in that area.
- A new server with battery and tape backup will be installed over the summer to control the wireless network.
- An additional hub was added to the art wing to allow for an additional 4 computers.

Hardware:

- Replace battery backups on 3 machines running critical administration applications.
- Add RAM and replace hard drives in PC Rooms 1&2
- Add 4 units to the Art Wing
- Replace 3 units in guidance, 3 units in PC 2, in the treasurer's office and in a classroom
- New printers for Athletic office, development and the library
- New server for the wireless network
- New mobile cart with 16 laptops for the science wing
- New 29-in tv/monitors for each of the science labs

Software:

- Install new Novell Client on all units
- Ten additional licenses for Adobe Photoshop for use in the Art classes & Web Development
- Ten new licenses for Quark for the student newspaper
- In the fall we will be installing software to block undesired e-mail.

26

Curriculum:

- We are considering subscribing to service where students would submit their essays and research papers on line. The service would then compare these works to a national database and issue reports to the teachers about the degree of plagiarism.
- Since students in the Web Page Development class were creating web pages that were viewable on the web, we developed an Acceptable Posting Policy that both students and parents sign.
- In the fall we anticipate running training sessions on the wireless network and laptops.